DBS Offshore Wind

RWE Renewables UK Dogger Bank South (West) Limited

RWE Renewables UK Dogger Bank South (East) Limited

Dogger Bank South Offshore Wind Farms

The Applicants' Responses to Deadline 3 Documents and Additional Submissions

Document Date:	April 2025
Document Reference:	14.4
Revision Number:	01
Classification:	Unrestricted

RWE MASDAR

Company:	**RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited**	Asset:	**Development**
Project:	**Dogger Bank South Offshore Wind Farms**	Sub Project/Package	**Consents**
Document Title or Description:	The Applicants' Responses to Deadline 3 Documents and Additional Submissions		
Document Number:	005798524-01	Contractor Reference Number:	PC2340-RHD-ZZ-ZZ-RP-Z-0205

Rev No.	Date	Status/Reason for Issue	Author	Checked by	Approved by
01	April 2025	Submission for Deadline 4	RHDHV	RWE	RWE

Contents

Tables

Glossary

Term	Definition
Array Area	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.
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.
Bathymetry	Topography of the seabed.
Cumulative Effects	The combined effect of the Projects in combination with the effects of a number of different (defined cumulative) schemes, on the same single receptor / resource.
Cumulative Effects Assessment (CEA)	The assessment of the combined effect of the Projects in combination with the effects of a number of different (defined cumulative) schemes, on the same single receptor/resource.
Cumulative impact	The combined impact of the Projects in combination with the effects of a number of different (defined cumulative) schemes, on the same single receptor / resource.
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.

Term	Definition
Expert Topic Group (ETG)	A forum for targeted engagement with regulators and interested stakeholders through the EPP.
Horizontal Directional Drill (HDD)	HDD is a trenchless technique to bring the offshore cables ashore at the landfall and can be used for crossing other obstacles such as roads, railways and watercourses onshore.
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.
High Voltage Direct Current (HVDC)	High voltage direct current is the bulk transmission of electricity by direct current (DC), whereby the flow of electric charge is in one direction.
Impact	Used to describe a change resulting from an activity via the Projects, i.e. increased suspended sediments / increased noise.
In Isolation Scenario	A potential construction scenario for one Project which includes either the DBS East or DBS West array, associated offshore and onshore cabling and only the eastern Onshore Converter Station within the Onshore Substation Zone and only the northern route of the onward cable route to the proposed Birkhill Wood National Grid Substation.
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.
Management Unit	Management units provide an indication of the spatial scales at which impacts of plans and projects alone, cumulatively and in-combination, need to be assessed for the key cetacean species in UK waters, with consistency across the UK.
Marine Guidance Note (MGN)	A system of guidance notes issued by the Maritime and Coastguard Agency which provide significant advice relating to the improvement of the safety of shipping at sea, and to prevent or minimise pollution from shipping.
Mean High Water Springs (MHWS)	MHWS is the average of the heights of two successive high waters during a 24 hour period.
Mitigation Areas	Areas captured within the Development Area specifically for mitigating expected or anticipated impacts.
National Policy Statement (NPS)	A document setting out national policy against which proposals for NSIPs will be assessed and decided upon.

Term	Definition
Nationally Significant Infrastructure Project (NSIP)	Large scale development including power generating stations which requires development consent under the Planning Act 2008. An offshore wind farm project with a capacity of more than 100 MW constitutes an NSIP.
Navigational Risk Assessment (NRA)	A document which assesses the hazards to shipping and navigation of a proposed Offshore Renewable Energy Installation based upon Formal Safety Assessment.
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.
Offshore Export Cables	The cables which would bring electricity from the offshore platforms to the Transition Joint Bays (TJBs).
Onshore Converter Stations	A compound containing electrical equipment required to transform HVDC and stabilise electricity generated by the Projects so that it can be connected to the electricity transmission network as HVAC. There will be one Onshore Converter Station for each Project.
Order Limits	The limits within which the Projects may be carried.
Outline Onshore Written Scheme of Investigation (WSI)	Project specific document forming the agreement between the Applicants, the appointed archaeologists, contractors and the relevant stakeholders landward of MHWS. The document sets out the methods to mitigate the effects on all the known and potential archaeological receptors within the Hornsea Four onshore Order Limits.
Passive Acoustic Monitoring (PAM)	Use of acoustic sensors to monitor the presence of marine mammals in the Monitoring Area.
Project Change Request 1	The changes to the DCO application for the Projects set out in **Project Change Request 1 - Offshore & Intertidal Works** [AS-141] which was accepted into Examination on 21st January 2025.
Projects Design (or Rochdale) Envelope	A concept that ensures the EIA is based on assessing the realistic worst-case scenario where flexibility or a range of options is sought as part of the consent application.

Term	Definition
Radio detection and ranging (Radar)	An object-detection system which uses radio waves to determine the range, altitude, direction or speed of objects.
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.
Sand wave	Bedforms with wavelengths of 10 to 100m, with amplitudes of 1 to 10m.
Scour protection	Protective materials to avoid sediment erosion from the base of the wind turbine foundations and offshore substation platform foundations due to water flow.
Sediment	Particulate matter derived from rock, minerals or bioclastic matter.
Sediment transport	The movement of a mass of sediment by the forces of currents and waves.
Special Area of Conservation (SAC)	Strictly protected sites designated pursuant to Article 3 of the Habitats Directive (via the Habitats Regulations) for habitats listed on Annex I and species listed on Annex II of the Directive
Special Protection Area (SPA)	Strictly protected sites designated pursuant to Article 4 of the Birds Directive (via the Habitats Regulations) for species listed on Annex I of the Directive and for regularly occurring migratory species
Statutory Nature Conservation Bodies (SNCBs)	Comprised of JNCC, Natural Resources Wales, Department of Agriculture, Environment and Rural Affairs/Northern Ireland Environment Agency, Natural England and Scottish Natural Heritage, these agencies provide advice in relation to nature conservation to government
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).
Tidal current	The alternating horizontal movement of water associated with the rise and fall of the tide.
Vessel Monitoring System (VMS)	Satellite tracking system using a device on a vessel which transmits the location, speed and course of the vessel.

Term	Definition
Wave height	The vertical distance between the crest and the trough.
Wind turbine	Power generating device that is driven by the kinetic energy of the wind.

Acronyms

Term	Definition
ADD	Acoustic Deterrent Device
AEoI	Adverse Effect on Integrity
AEZ	Archaeological Exclusion Zones
AoS	Area of Search
BAS	Burial Assessment Study
BNNC	Berwickshire North Northumberland Coast SAC
BMP	Benthic Monitoring Plans
BTO	British Trust for Ornithology
CAT	Commercial Air Transport
CBRA	Cable Burial Risk Assessment
CEA	Cumulative Effects Assessment
Cefas	Centre for Environment Fisheries and Aquaculture Science
CIMP	Compensation Implementation and Monitoring Plan
DAS	Design and Access Statement
DBS	Dogger Bank South
DBSEL	Dogger Bank South (East) Limited
DBSWL	Dogger Bank South (West) Limited
DCMS	Department for Culture, Media and Sport
DCO	Development Consent Order
DDV	Drop down video
Defra	Department for Environment Food and Rural Affairs
DML	Deemed Marine Licence

Term	Definition
ECC	Export Cable Corridor
ECR	Export Cable Route
EDR	Environmental Disturbance Radius
EIA	Environmental Impact Assessment
EMF	Electro-magnetic Field
EPS	European Protected Species
ERYC	East Riding of Yorkshire Council
ES	Environmental Statement
ESP	Electrical Switching Platform
ETG	Expert Topic Group
ExA	Examining Authority
FFC	Flamborough and Filey Coast
GBS	Gravity Based Structure
HAT	Highest Astronomical Tide
HDD	Horizontal Directional Drill
HRA	Habitat Regulations Assessment
HSE	Health and Safety Executive
HVDC	High Voltage Directional Current
ICAO	International Civil Aviation Organisation
ICES	International Council for the Exploration of the Sea
IHLS	International Herring Larvae Survey
INNS	Invasive Non-Native Species
IP	Interested Party

Term	Definition
iPCoD	Interim Population Consequence of Disturbance
IPMP	In-Principle Monitoring Plan
JNCC	Joint Nature Conservation Committee
KCP	Kittiwake Compensation Plan
LIR	Local Impact Report
LPA	Local Planning Authority
LSE	Likely Significant Effect
MA	Mitigation Area
MCA	Maritime and Coastguard Agency
MCAA	Marine and Coastal Access Act
MCZ	Marine Conservation Zone
MDP	Maximum Design Parameters
MDS	Maximum Design Scenario
MGN	Marine Guidance Notice
MHWS	Mean High Water Springs
MMMP	Marine Mammal Mitigation Protocol
MMO	Marine Management Organisation
MOD	Ministry of Defence
MoU	Memorandum of Understanding
MPA	Marine Protected Area
NAS	Noise Abatement System
NHLE	National Heritage List for England
NMC	Non-material changes

Term	Definition
NPS	National Policy Statement
NRA	Navigation Risk Assessment
NSIP	Nationally Significant Infrastructure Project
ODOW	Outer Dowsing Offshore Windfarm
OOOMP	Offshore Operations and Maintenance Plan
OREI	Offshore Renewable Energy Installations
OWF	Offshore Wind Farm
PAM	Passive Acoustic Monitoring
PEIR	Preliminary Environmental Information Report
PEMP	Project Environmental Management Plan
PEXA	Practice and Exercise Area
PSR	Primary Surveillance Radar
PTS	Permanent Threshold Shift
RIAA	Report to Inform Appropriate Assessment
RLoS	Radar Line of Sight
RMS	Radar Mitigation Scheme
ROV	Remotely Operated Vehicle
RRH	Remote Radar Head
RTD	Red Throated Diver
SAC	Special Area of Conservation
SAR	Search and Rescue
SCP	Scour Protection Plan
SELcum	Cumulative Sound Exposure Level

Term	Definition
SIP	Site Integrity Plan
SNCB	Statutory Nature Conservation Body
SNS	Southern North Sea
SoCG	Statement of Common Ground
SoS	Secretary of State
SPA	Special Protection Area
SSC	Suspended Sediment Concentration
SSSI	Site of Special Scientific Interest
TTS	Temporary Threshold Shift
UK	United Kingdom
UKHO	United Kingdom Hydrographic Office
UXO	Unexploded Ordnance
VMS	Vessel Monitoring System
WR	Written Representation
WSI	Written Scheme of Investigation
WTG	Wind Turbine Generator
WWII	World War Two

1 Introduction

1. This document presents the Applicants' responses to Deadline 3 documents received from Interested Parties (IPs) following submissions to the Examining Authority at Deadline 3 of the Dogger Bank South Examination, and to late submissions from the Marine Management Organisation and Ministry of Defence.

2. For ease of referencing and to facilitate future cross-referencing, the Applicants have used the existing Planning Inspectorate reference (e.g. REP3-001) and created a unique identifier for each response by itemising the document into paragraphs or sections (e.g. REP3-001:1.1). The ID numbers can be found in the first column of each table.

2 Responses to Deadline 3 Documents

3. The Applicants' responses to documents received from IPs at Deadline 3 are provided in this section.

2.1 DBA Projco, DBB Projco and DBC Projco

Table 2-1 The Applicants' Response to DBA Projco, DBB Projco and DBC Projco's Deadline 3 Document [REP3-063]

I.D.	The Projcos Response	Applicants' Response
Response to the Applicants Deadline 2 Submission		
REP3-063: 1	Whilst the Applicant's Deadline 2 submission in response to the Projcos (REP2-058) is lengthy, it does not move the matter forward and the Projcos do not feel the need to respond on the majority of points which effectively reiterate the Applicant's hopeful policy interpretation and which have been identified by the Examining Authority in the questions above. However, it is felt important to note the following points.	No response is required.
REP3-063: 2	**Other Projects and Policy Interpretation** The Applicant has, at ISH2 and in REP2-058, made reference to various interpretations of EN-3 being promoted. As far as we are aware, no other objector or project promoter has adopted the position that the Applicant has in respect of either the interpretation of EN-3 or the approach to the EIA Regulations. Again, as far as we are aware, the majority of promoters accept that EN-3 applies but make the point that the policy is not engaged because the wind farm is not close. In this examination, this is clear by the fact that the promoters of the Hornsea and Dogger Bank projects are aligned on their interpretation of EN-3.	The Applicants were asked by the Examining Authority (ExA) at Issue Specific Hearing 3 (ISH3) to provide a summary of the position at other Examinations. This has been included in the Applicants post hearing summary in **The Applicants' Written Summaries of Oral Submissions made at CAH2, ISH3, ISH4 and ISH5** [document reference: 14.2]. The documents for the other Examinations are publicly available and are voluminous. The Applicants do not accept the summary which the Projcos provide here.
REP3-063: 3	**Response to REP1-071:2 - 2011 NPSs and Policy Interpretation** The Applicant makes a number of points about the position under the previous NPSs. Again, these points are presented without evidence to support them. They do not assist the examination, as there were significantly fewer offshore wind farms in operation between 2011 and 2023 (the period during which the previous NPSs were in effect), and the point was not subject to detailed dispute or any decisions by the Secretary of State. Beyond Awel y Mor, the only application that we are aware of which engaged with wake loss under the previous policy was the Hornsea 2 DCO examination where the Hornsea 1 project company made detailed submissions on wake loss. In that case, the owners of Hornsea 1 (represented by the same law firm currently representing the Applicant on the promotion of the DBS Projects) clearly accepted that this was a material consideration in policy and sought to go further than the imposition of a requirement and sought the inclusion of: 1) a buffer zone where no offshore wind turbines could be constructed; and 2) protective provisions in the DCO. This submission is appended and has been submitted to other examinations.	The Applicants are not proposing to repeat their submissions on these points. The Applicants have already explained that the position in relation to Hornsea 1 and Hornsea 2 had very specific facts and was resolved by agreement, such that the ExA and the Secretary of State did not have to take a position on the interpretation of the National Policy Statement (NPS) and the approach to wake effects. In any event, the Hornsea 1 submissions referred to were on the basis that the relevant EN3 policies did not apply to other offshore wind farms, which the Projcos fail to mention.
REP3-063:4	**Next Steps** The Projcos reiterate their request that the Applicant engage with the Projcos and provides the necessary information to allow the Projcos to understand the implications of the DBS Projects on DBA, DBB and DBC in respect of wake loss.	The Applicants have submitted wake effect modelling results on a without prejudice basis in their response to AP22 from ISH3 in **Wake Effects – Response to ISH3 Action Points** [document reference: 14.14]. The Applicants do not consider that individual agreements to regulate wake loss are required.

I.D.	The Projcos Response	Applicants' Response
	The Projcos continue to expect individual agreements to be put in place between the Applicant and DBA Projco, DBB Projco and DBC Projco to regulate the interaction between the DBS Projects and the respective Projcos' project in respect of wake loss.	

2.2 Marine Management Organisation (MMO)

Table 2-2 The Applicants' Response to MMO's Deadline 3 Document [REP3-045]

I.D.	MMO Response	Applicants' Response
REP3-045:0	**Planning Act 2008, RWE Renewables UK Dogger Bank South (West) Ltd and RWE Renewables UK Dogger Bank South (East) Ltd Proposed Dogger Bank South Offshore Wind Farms Order** **Deadline 3 Submission** On 10 July 2024, the Marine Management Organisation (the MMO) received notice under section 56 of the Planning Act 2008 (the PA 2008) that the Planning Inspectorate (PINS) had accepted an application made by RWE Renewables UK Dogger Bank South (West) Ltd and RWE Renewables UK Dogger Bank South (East) Ltd (the Applicant) for determination of a development consent order for the construction, maintenance and operation of the proposed Dogger Bank South Offshore Wind Farms (the DCO Application) (MMO ref: DCO/2022/00007; PINS ref: EN010125). The DCO Application seeks authorisation for the construction, operation and maintenance of Dogger Bank South (DBS) Offshore Wind Farm (OWF), comprising of up to 100 wind turbine generators in DBS East and up to 100 wind turbine generators in DBS West together with associated onshore and offshore infrastructure and all associated development (the Project). The DCO Application includes a draft development consent order (the DCO) and an Environmental Statement (the ES). The draft DCO includes, Marine Licence 1 (Schedule 10), Marine Licence 2 (Schedule 11), Marine Licence 3 (Schedule 12), Marine Licence 4 (Schedule 13) and Marine Licence 5 (Schedule 14) which are draft Deemed Consent (DML) under Part 4 (Marine Licensing) of Marine and Coastal Access Act 2009 (MCAA 2009). This document comprises of the MMO's Deadline 3 submission. This written representation is submitted without prejudice to any future representation the MMO may make about the DCO Application throughout the examination process. This representation is also submitted without prejudice to any decision the MMO may make on any associated application for consent, permission, approval or any other type of authorisation submitted to the MMO either for the works in the marine area or for any other authorisation relevant to the proposed development.	No response is required.
REP3-045:1.1	**1. Comments on REP1-004/005 Applicant's Draft DCO (Clean/Tracked)** **1.1 More detail on major concerns** 1.1.1 The MMO welcomes updates to the condition wording from "Marine Licence" to "deemed marine licence". 1.1.2 The MMO welcomes the updates to ensure all references link to the correct sections across the DMLs'. 1.1.3 The MMO notes that changes have been made within each DML however the following still has not been included, the MMO requests this to be updated: • The maximum number of piles, per day and per project and for both projects combined and separately (this should not exceed the overall total for the entire project assessed within the Environmental Statement (ES)).	1.1.1 The Applicants welcome the MMO's comments. 1.1.2 The Applicants welcome the MMO's comments. 1.1.3 The Applicants would highlight the following: 1. Condition 15(6) and (7) of DMLs 1 and 2 and condition 13(7) and (8) of DMLs 3 and 4 include restrictions on the number of piled foundations installed within a 24 hour period when combined with the number of piled foundations installed pursuant to the other DMLs. 2. It is not possible for the Applicants to specify a maximum dredge depth as this will depend on the ground conditions which will not be fully understood until further surveys are conducted at the post-consent stage. However, worst case sandwave levelling scenarios have been assessed, as set out in Table 5-16 of **Chapter 5 Project Description** [REP1-009] and volumes of material for dredging have been assumed based on different nominal depths for different purposes. The Applicants note that a condition relating to dredge depths does not appear to have been included

I.D.	MMO Response	Applicants' Response
	• The maximum dredge depth. • The maximum dredge volume per DML (this should not exceed the overall total for the entire project assessed within the ES); and The maximum disposal volume per DML (this should not exceed the overall total for the entire project assessed within the ES).	in previous offshore wind Deemed Marine Licences and would query what perceived impacts the introduction of such a condition would be seeking to control. 3. The assessed worst case dredge volumes for sandwave levelling are included in Table 5-16 of Chapter 5 Project Description [REP1-009]. 4. The maximum disposal volumes per DML (combined with the other relevant DMLs) are included in paragraph 2 (details of licensed marine activities) of Part 1 of each of the DMLs.
REP3-045:1.2	**1.2 Decommissioning** 1.2.1 The MMO notes that a draft decommissioning programme would be submitted prior to the construction of the projects as set out in Schedule 2, Part 1, Requirement (7). 1.2.2 The MMO requests an outline decommissioning plan to be part of the consenting process. The recently published guidelines by Offshore Energies UK (OEUK, 2024) for 'Designing for Decommissioning of Offshore Wind' states that: *"Assets should be designed to be decommissioned with a technology available at the time of commissioning"* 1.2.3 The MMO notes Examining Authority for Five Estuaries Offshore Wind Farm Limited (project EN010115) has requested from the Applicant that: *"Decommissioning is required to be assessed in order that the Examining Authority (ExA) and Secretary of State can have regard to the likely significant effects of the whole project over its lifecycle in making a recommendation and determination."* 1.2.4 This can be achieved by following the OEUK 'Designing for Decommissioning of Offshore Wind' guidelines and assessing decommissioning based on available technologies now and not in the future.	The Applicants acknowledge this comment and note that decommissioning has been assessed in line with best practice for offshore wind farm environmental impact assessments within all appropriate chapters in the Environmental Statement submitted in support of the Dogger Bank South consent application. In terms of decommissioning, a programme will be provided for Secretary of State approval under S105 of the Energy Act 2004 prior to construction. This commitment is secured in Requirement 7 of the **Draft DCO (Revision 7)** [document reference 3.1] which states that the Projects: 'must not be commenced until a written decommissioning programme in compliance with any notice served upon the undertaker by the Secretary of State pursuant to section 105(2)(a) (requirement to prepare decommissioning programmes) of the 2004 Act has been submitted to the Secretary of State for approval'. The Applicants note the MMO's request for an outline decommissioning plan to be part of the consenting process and the reference to Offshore Energies UK (OEUK, 2024) for 'Designing for Decommissioning of Offshore Wind' guidelines. These 'guidelines' were produced by Offshore Energies UK (formally Oil and Gas UK), and are only available behind a paywall. The Applicants are not aware that these guidelines have been endorsed by government and as it is a non-publicly available document produced by a private organisation it is not a reasonable basis on which to inform the process for considering offshore decommissioning in the statutory context. The government has its own guidelines which the Applicant will follow in producing a decommissioning plan in line with the stipulations of the Energy Act 2004. Notwithstanding the above, the Applicants acknowledge that assets should be designed to be decommissioned with technology available at the time of commissioning, but would highlight that design work is yet to be undertaken and will not be completed until the post-consent stage. Thus, the Applicants maintain that the most appropriate time to consider decommissioning details is when detailed design is being undertaken and decommissioning proposals are developed in alignment with those designs. Any decommissioning programmes for the Projects will be produced in line with the most up to date relevant guidance available at the time of writing to the satisfaction of the Secretary of State. The Applicants highlight that post-consent controls are in place which will afford design-makers and advisers the opportunity to scrutinise project proposals at the appropriate juncture. The Applicants note that it is the explicit position of Government in the Guidance that the Energy Act process should form a "one-stop shop" for decommissioning of offshore windfarms. The decommissioning programme which will be required under that Act includes the timing of the decommissioning to be undertaken, securing a limit on the operational life of the windfarm from before construction. The Applicants accordingly maintain that the DCO does not need to duplicate this regime and should not seek to do so given the clear position of Government that the Energy Act is the appropriate mechanism for securing and controlling decommissioning.
REP3-045:1.3	**1.3 Disposal**	The Applicants provided the MMO with shapefiles of the proposed disposal sites including coordinates and the **Disposal Site Plan** [REP3-033] via email on the 20th March 2025.

I.D.	MMO Response	Applicants' Response
	1.3.1 The MMO requests a shape file of each disposal site in order to start the process of designating the disposal sites so the references can be included within the DMLs.	
REP3-045:1.4	**1.4 Chemicals** 1.4.1 The MMO requests that Condition 13(1) is removed and the following updates are made to Condition 15(1)(d) to include the following: *"(ii) a chemical risk register, including information regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance and standards;* *(X) a site specific chemical risk assessment for all chemicals that have a pathway to the marine environment used for the marine licensed activities, outside the course of normal navigation, to include;* *(aa) the function of the chemical,* *(bb) the quantities being used and the frequency of use,* *(cc) the physical, chemical, and ecotoxicological properties of the chemical. Chemicals present on the OSPAR List of Substances Used and Discharged Offshore which Are Considered to Pose Little or No Risk to the Environment (PLONOR) are exempt from this requirement;* *Submissions for approval must take place no later than ten weeks prior to use;"* 1.4.2 This would also include adding the following definitions to the 'interpretation' section of the DML: *"pathway to the marine environment" open systems or closed systems that require top up.* *"chemicals" comprise both substances and preparations.* *"preparation" means a mixture or solution composed of two or more substances.* *"substance" means a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.* 1.4.3 Based on the best available evidence to date, the MMO aims to create a revised consistent and thorough approach to chemical consenting for OWF. This should proactively avoid last minute delays and provide robust evidence regarding environmental impacts. 1.4.4 The current approach for consented OWF projects requires chemical information to be submitted in an inconsistent manner across different projects. This results in many chargeable hours from both the MMO and Centre for Environment Fisheries and Aquaculture Science (Cefas) for reviewing, assessing and requesting information from applicants. 1.4.5 Past DML's (including the current Condition 19(1)) have referenced the Offshore Chemical Notification Scheme (OCNS) definitive ranked list of registered products (or otherwise incorrectly termed "approved list of chemicals") for offshore petroleum 1.4.6 activities, stating that chemicals for use should be chosen from this list or consent sought where unable. However, the use of this list for offshore petroleum activities does not remove the need for	The Applicants are considering the wording suggested by the MMO and plan to discuss it with the MMO at an upcoming meeting that has been arranged for 13th May 2025, as the Applicants have a query on the proposed wording for the MMO to clarify. The Applicants will provide a further update after the meeting has taken place.

I.D.	MMO Response	Applicants' Response
	approval and reporting, as such, the use of this list for OWF should also not remove the need for approval and reporting. 1.4.7 Noting that the list contains chemicals considered to be a threat to the marine environment (Chemicals of Priority Action) (as reported by OSPAR), the list should not be relied upon for assumption of safe use. The MMO has reviewed this past way of working, alongside new available evidence and is proposing an improved process. The approach being sought through this new condition is explained below. 1.4.8 For all chemicals, written approval from the MMO must be obtained before their use, regardless of the risk of entering the marine environment. This is already standard practice and is conditioned by the requirement for a chemical risk assessment (or risk register) to be submitted to and approved by the MMO before the licensed activities or any phase of those activities may commence (usually held within the pre-construction plans and documentation of the DML conditions, e.g. the Project Environmental Management Plan). 1.4.9 The condition generally reads as follows "chemical risk assessment/register including information regarding how and when all chemicals are to be used, stored and transported in accordance with recognised best practice guidance and standards". For completeness, the MMO outlines that this should include information on chemical use, including function (meaning what the chemical will be used for, e.g., use within engines, paint, degreaser), methodology, quantity, and frequency of use. 1.4.10 The MMO is proposing a change for chemicals with a pathway to the marine environment, where more information beyond the standard chemical risk assessment(above) is required. 1.4.11 A more detailed chemical risk assessment (CRA) should be provided for any chemical with a "pathway to the marine environment", this includes chemicals used in both open systems, and closed systems where "top-up" is required (i.e., repeated use or maintenance). The CRA should include information on the physical, chemical, and ecotoxicological (bioaccumulation, biodegradability and aquatic toxicity) properties, and function of the chemical, alongside the quantities and frequency of use. This should be submitted to the MMO no later than 10 weeks prior to use. The review of this information and/or in consultation with Cefas, will allow the MMO to make a determination on an approval for chemicals use by a project. 1.4.12 The MMO is aware that concerns may be raised around the 10-week submission timescale proposed within the condition and provide the following justification. Based on the information intended to be assessed by Cefas obtained through this condition, the MMO has accounted for an 8-week period for their review. The MMO further anticipates a 2-week period within which to review the submission, regard Cefas advice, and make a determination. This is deemed to be acceptable considering the current timeframes for which projects currently receive post-consent chemical discharges. 1.4.13 The definitions to be included within the consents pertaining to the new condition wording, come from the definition for 'chemicals', 'preparation' and 'substance' given within OSPAR Decision 2002/2 on a Harmonised Mandatory Control System for the Use and Reduction of the Discharge of Offshore Chemicals. 1.4.14 The MMO further includes clarity on where other regulations/ agreements exempt chemicals from this process.	

I.D.	MMO Response	Applicants' Response
	1.4.15 This approach should exempt fluids used within gears and machinery (closed systems) from requiring a more detailed CRA, and disregards chemicals used on vessels and accommodation type chemicals (bleaches/toilet cleaners/grey water etc.), which are covered by alternative regulations. 1.4.16 As the OSPAR Commission considers that the substances on the "OSPAR List of Substances Used and Discharged Offshore which Are Considered to Pose Little or o Risk to the Environment (PLONOR)" pose little or no risk to the environment and that they do not normally need to be strongly regulated they have been exempted from the need for approval. 1.4.17 The MMO notes that the same CRA can be used for submission across both conditions, as long as they contain the necessary information and presented in a format allowing for clear distinction between the two requirements. 1.4.18 The MMO is committed to supporting all of the UK Government's environmental goals, this includes both net zero targets and nature and biodiversity targets, by promoting sustainable practices to protect and enhance the marine environment. This new condition enables both, by ensuring the proactive collection, assessment and management of evidence regarding chemical use post-consent.	
REP3-045:1.5	**1.5 Coastal Processes** 1.5.1 The MMO notes that Applicant disagrees with the need to monitor beach recovery due to the removal of the short trenchless crossing at landfall from the ES. The trenchless bore exit pits will not be located on the beach and therefore won't need monitoring. The MMO are currently reviewing this and will provide a response in Deadline 4 1.5.2 The MMO welcome changes to the modelling report and will provide comments at Deadline 4.	The Applicants acknowledge this response and await the MMO's updated position on this matter at Deadline 4.
REP3-045:1.6	**1.6 Repowering** 1.6.1 The MMO acknowledges the Applicant's comments stating, 'given the uncertainty regarding the technical specifications around any potential repowering and potential levels of impacts, repowering was not assessed in the ES, nor are powers for repowering being applied of as part of the Development Consent Order sought by the Applicants.' 1.6.2 The MMO is currently content that repowering will have to be reassessed should this be required closer to the end of life.	The Applicants welcome the MMO's agreement on this matter.
REP3-045:1.7	**1.7 Underwater Noise** 1.7.1 The MMO welcomes the updates to the Marine Mammal Mitigation Protocol (MMMP) and will provide comments at Deadline 4. The MMO welcomes updates to the unexploded ordnance (UXO) clearance information and assessment and will review once this becomes available.	The Applicants note the MMO's comment. **Appendix 11-6 Unexploded Ordnance Clearance Information and Assessment (Revision 3)** [REP3-012] was updated and submitted at Deadline 3.
REP3-045:1.8	**1.8 Fisheries and Shellfisheries** 1.8.1 The MMO welcomes the planned updates to the Appendix 11-6 Unexploded Ordnance Clearance Information and Assessment (Revision 2) and will review once submitted.	The Applicants direct the MMO to the updated **Appendix 11-6 Unexploded Ordnance Clearance Information and Assessment (Revision 2)** [REP3-012] submitted at Deadline 3. At this stage no further updates are planned on this document, therefore the Applicants await any comments the MMO may have on this document

I.D.	MMO Response	Applicants' Response
REP3-045:1.9	**1.9 Dogger Bank South Compensation Plans** 1.9.1 The MMO acknowledges the Applicant's comments stating that changes cannot be made to the Round 4 Dogger Bank Strategic Compensation Plan [APP-060] as it was produced on behalf of the Crown Estate.	No response is required.
REP3-045:1.10	**1.10 Dropped Objects** 1.10.1 The MMO notes that dropped objects are mentioned within article 13 (10) in DML 1 and 2 and 11 (10) in DML 3 and 4 and 9 (10) in DML 5 however the MMO requests the updates to this condition to provide more detail on the back of discussions with MCA. The MMO has provided the following wording which has been agreed by the MCA: *"(13) (10) (a) Debris or dropped objects which are considered a danger or hazard to navigation must be reported as soon as reasonably practicable but no later than six hours from the undertaker becoming aware of an incident, to the relevant HM Coastguard Maritime Rescue Co-ordination Centre by telephone (add number), and the UK Hydrographic Office email: navwarnings@btconnect.com.* *(b) All dropped objects including those in (a), must be reported to the MMO using the Dropped Object Procedure Form (including any updated form as provided by the MMO) as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident, unless otherwise agreed in writing with the MMO.* *(c) On receipt of notification or the Dropped Object Procedure Form the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the marine environment at the undertaker's expense if reasonable to do so."* 1.10.2 The MMO is currently reviewing the Dropped Object Procedure and there is a potential of a change of wording to align with Marine Directorate [redacted]) This change shouldn't alter the requirement by the Applicant or any changes to the DML as (b) identifies what should be submitted it would just be a change in wording. 1.10.3 The aim of this update is to ensure that reports must be made no later than 6 hours after the incident has been discovered for more major 'deposits' i.e. those that may be hazardous to shipping and within 24 hours of the incident being discovered in all other cases. A defined list of major deposits cannot be provided due to the nature of the activity. If the Project is in doubt whether an object is a danger/hazard to navigation, then we would encourage them to assume it is and report it within 6 hours as per the condition.	1.10.1 The Applicants have made the suggested amendment in the **Draft DCO (Revision 7)** [document reference 3.1]. 1.10.2 and 1.10.3 The Applicants acknowledge these comments.
REP3-045:2.1	**2. Comments on Applicant's amended application Documents** **2.1 General Comments** 2.1.1 The following documents are currently being reviewed and some initial comments have been provided below however further comments may be provided at Deadline 4: • REP2-018 - 7.8.8.3 Environmental Statement Appendix 8-3 – Marine Physical Processes Modelling Technical Report (Revision 3) (Tracked)	The Applicants acknowledge this response and await the MMO's updated position on these documents at Deadline 4.

I.D.	MMO Response	Applicants' Response
	• REP2-026 - 8.6 Commitments Register (Revision 2) (Tracked) • REP2-036 - 8.18 Disposal Site Characterisation Report (Revision 2) (Tracked) • REP2-040 - 8.20 Cable Statement (Revision 3) (Tracked) • REP2-042 - 8.21 Outline Project Environmental Management Plan (Revision 2) (Tracked) • REP2-044 - 8.23 In Principle Monitoring Plan (Revision 2) (Tracked) • REP2-046 - 8.24 Outline Offshore Operations and Maintenance Plan (Revision 3) (Tracked) • REP2-048 - 8.25 Outline Marine Mammal Mitigation Protocol (Revision 3) (Tracked) • REP2-050 - 8.26 In Principle Site Integrity Plan for the Southern North Sea Special Area of Conservation (Revision 3) (Tracked) • REP2-052 - 8.27 Outline Scour Protection Plan (Revision 3) (Tracked) • REP2-054 - 8.28 Outline Fisheries Liaison and Co-existence Plan (Revision 3) (Tracked)	
REP3-045:2.2	**2.2 REP2-040 - 8.20 Cable Statement (Revision 3) (Tracked)** 2.2.1 The MMO welcomes the updates to this document including how and when the final document will be submitted to the MMO as well as updating section 1.4.5.2 to state that separate marine licence consents are required for UXO surveys and clearance.	The Applicants welcome the MMO's agreement with the updates presented in the **Cable Statement (Revision 3)** [REP2-039]. The Applicants note that the **Cable Statement (Revision 4)** [document reference: 8.20] has been submitted at Deadline 4, which has been updated to include a commitment to deposit like on like sediment within the Dogger Bank SAC (see REP2-065:3.1 of **The Applicants' Responses to Deadline 2 Documents** [REP3-028] and a commitment to undertake pre- and post-construction compass deviation studies, if required by the MCA (see the Applicants' response to SN. 1.7 in **The Applicants' Responses to ExQ1** [REP3-027]).
REP3-045:2.3	**2.3 REP2-042 - 8.21 Outline Project Environmental Management Plan (PEMP) (Revision 2) (Tracked)** 2.3.1 The MMO welcomes the updates to include the check clean dry practice within section 6.3 - Invasive non-native species. 2.3.2 The MMO welcomes the Applicant's updates to include a Legislative and Regulatory Compliance section 2.3.3 The MMO defers to NE in relation to the Red Throated Diver Vessel updates in paragraph 54.	The Applicants acknowledge the MMO's comments.
REP3-045:2.4	**2.4 REP2-044 - 8.23 In Principle Monitoring Plan (Revision 2) (Tracked)** 2.4.1 The MMO welcomes the changes to amend the commitment that no jack-up activities will occur with the Holderness Inshore Marine Conservation Zone (MCZ), to also include anchoring and will confirm if this closes out the comment at Deadline 4. 2.4.2 The MMO's current position is that at least two of the first four piles should be the worst-case piles, this has changed from previous OWF examinations due to the monitoring being provided on projects in the construction stage highlighting concerns in the predictions made, along with issues raised by the Statutory Nature Conservation Body's (SNCBs). The MMO understands that the Applicant's require flexibility as usually the first four piles are softer sediment to ensure the equipment is working as expected. 2.4.3 However, the MMO requires commitment that two of the worst-case piles will be monitored, this may be after the first four piles, but this would allow the predictions to be validated. Or if this is not possible how the ES predictions can be validated fully at the post consent stage. This commitment should be updated within the condition.	The Applicants welcome the MMO's agreement regarding the commitment to jack-up or anchoring activities occurring in the Holderness Inshore MCZ. The Applicants understand that the MMO is currently reviewing the condition that at least two of the first four piles should be the worst-case piles. However, this might not be feasible for the Projects to achieve as it would be dependent on a variety of factors including the availability of location specific monopiles. Furthermore, the piling schedule is constrained by a number of other factors including the site layout and geology, array electrical design, commissioning sequence, pile design clustering, fabrication sequencing and vessel considerations. Additionally, what constitutes the de facto 'worst case' is not necessarily possible to determine ahead of time, given that for noise emissions this could be influenced by potentially unforeseen ground conditions and unanticipated interruptions in piling (for example hammer break down). Additional monitoring after the first four piles would also have additional financial and timing implications for the Projects due to the need to demobilise and remobilise equipment and personnel. The Applicants note that the MMO are reviewing the condition wording with SNCBs and welcome further discussions regarding the DMLs.

I.D.	MMO Response	Applicants' Response
	2.4.4 The MMO is currently reviewing the condition wording with SNCBs including the submission date of the data and may suggest updated wording in due course. The MMO welcomes further discussions with the App on this request and how it can be captured within the DML.	
REP3-045:2.5	**2.5 REP2-046 - 8.24 Outline Offshore Operations and Maintenance Plan (Revision 3) (Tracked)** 2.5.1 The MMO welcomes the update to maintenance within section 1.1. paragraph 5. 2.5.2 The MMO welcomes the update to the wording within Table 2.2 and understands this is a worst-case scenario. 2.5.3 The MMO welcomes the changes made to Table 2.3 with regards to the wording and when a separate marine licence is required.	The Applicants acknowledge the MMO's comments.
REP3-045:2.6	**2.6 REP2-048 - 8.25 Outline Marine Mammal Mitigation Protocol (MMMP) (Revision 3) (Tracked)** 2.6.1 The MMO welcomes the updates in relation to the new noise policies issued in January and is reviewing the commitment to noise reduction methods and will provide updates at Deadline 4. 2.6.2 The MMO welcomes the updates on the breaks in piling (section 3.1.6) procedure.	The Applicants acknowledge the MMO's comments.
REP3-045:2.7	**2.7 REP2-050 - 8.26 In Principle Site Integrity Plan (SIP) for the Southern North Sea (SNS) Special Area of Conservation (SAC) (Revision 3) (Tracked)** 2.7.1 The MMO welcomes the addition of map of the project's location within the SNS SAC. 2.7.2 The MMO welcomes the updates to the SIP: • Introduction • The Southern North Sea SAC • Project Description • Project Commitments • In Principle Management and Mitigation Measures • Measure X: Scheduling of UXO Clearance • Measure X: Clustering of UXO devices • Measures Not Applicable • Other Mitigation Measures outside the scope of the SIP 2.7.3 The MMO welcomes the updates in relation to the new noise policies issued in January and is reviewing the commitment to noise reduction methods and will provide updates at Deadline 4.	The Applicants acknowledge the MMO's comments.
REP3-045:2.8	**2.8 REP2-052 - 8.27 Outline Scour Protection Plan (Revision 3) (Tracked)** 2.8.1 The MMO welcomes the updates to the plan to consider the use of plastics in the marine environment in the final plan.	The Applicants acknowledge the MMO's comments.
REP3-045:2.9	**2.9 REP2-054 - 8.28 Outline Fisheries Liaison and Co-existence Plan (Revision 3) (Tracked)** 2.9.1 The MMO welcomes the updates to this plan and maintains a watching brief in relation to the National Federation of Fishernan's Organisations (NFFO) comments.	The Applicants acknowledge the MMO's comments.

I.D.	MMO Response	Applicants' Response
REP3-045:3.1	**3. Comments on Natural England's (NE) written representations** **3.1 REP2-064 - Appendix B2 - Natural England's comments and updated advice on Marine Physical Environment** 3.1.1 The MMO agrees with NE on their comments regarding the Marine Physical Environment.	The Applicants note the MMO's comment and direct the MMO to their responses to Natural England regarding the Marine Physical Environment in **The Applicants' Responses to Deadline 2 Documents** [REP3-048] and **Table 2-9** of this document.
REP3-045:3.2	**3.2 REP2-065 - Appendix C2.1 - Natural England's comments and updated advice on Benthic and Intertidal Ecology** 3.2.1 The MMO agrees that the sediment deposition from sandwave levelling/seabed clearance should be located within areas of similar sediment type. 3.2.2 The MMO will keep a watching brief on justification from the Applicant as to why sandwave levelling for this project is required when it has not for Dogger Bank A, B C and Sofia. 3.2.3 The MMO will keep a watching brief NE's expectation that the Applicant use a downpipe with a TSHD and how this would work with the harder substrate that may compact within the TSHD. 3.2.4 The MMO notes NE does not agree with the wording "*it is intended that no new marine licences will be sought for any additional or replenishment protection required during the operational phase in areas that were protected as part of construction, unless such protection would exceed the maximum amounts authorised by the DMLs. The Applicants are of the opinion that a distinction should not be drawn in protection maintenance licencing terms between areas within or beyond any Marine Protected Areas as long as any future protection levels fall below the worst-case scenario levels assessed within the Environmental Statement (ES) and the Report to Inform Appropriate Assessment (RIAA). The impacts of this protection will be compensated for as part of the Dogger Bank (DBS) South benthic Special Area of Conservation (SAC) compensation proposals*". 3.2.5 The MMO agrees with NE that the Applicants should consider decommissioning –please see Section 1.3 of this document for more details. 3.2.6 The MMO note that NE maintain their previous advice that the placement of drill arisings adjacent to turbines may result in further habitat loss/change unless the Applicants can commit to placing drill arisings in similar habitat/particle size, as was committed by Dogger Bank A, B C and Sofia. The MMO will keep a watching brief regarding drill arisings.	The Applicants note that no likely significant effects are anticipated in connection with dredge disposals as assessed for the worst case presented in the ES. Hence, no mitigation need necessarily be provided. However, as noted in the response to Natural England's REP2-065:3.1 in **The Applicants' Reponses to Deadline 2** [REP3-028] the Applicants have committed to depositing like sediment on like sediment within the boundary of the Dogger Bank SAC. See the Applicants' response to this representation for further details. However, the Applicants have queries regarding the use of a fall pipe, or 'down pipe'. The Applicants direct MMO to **The Applicants' Reponses to Deadline 2** [REP3-028] and specifically their responses to Natural England's REP2-065:3.2 and REP2-065::3.5 for an overview of their position in relation to matters pertaining to the sand wave levelling requirements of third party projects and down pipes respectively. The Applicants note that the MMO are keeping a watching brief on Natural England discussions regarding sandwave levelling and the use of a downpipe with a Trailing Suction Hopper Dredger (TSHD). Regarding the wording in reference to new marine licences for additional and replenishment protection, the Applicants direct the MMO to the response provided to Natural England in **The Applicants' Responses to Deadline 2 Documents** [REP3-028] (REP2-065:6) and presented below for ease: *'The Applicants' position remains that replenishment of cable and scour protection up to the limits set out within the DMLs could be deposited within the footprints of deposition established at the construction stage. These footprints would be established through the discharge of the Reporting of Scour and Cable Protection conditions in each DML (for example, see Condition 23 in DML 1 (Schedule 10) within the Draft DCO (Revision 6) [document reference 3.1]) with the volumes of deposition also managed through these conditions. The effects of protection introduced through this mechanism will be compensated for as part of the DBS benthic SAC compensation proposals. The effects of such protection will have been comprehensively assessed as a permanent effect compensated for through the DBS DCO consenting process. The Applicants maintain that further assessment and compensation discussions relating to project activities that have been previously assessed, licenced and compensated for would be neither proportionate or necessary.* *The Applicants reiterate that protection required in 'new areas' where no protection had previously been placed, would be licenced in ten year blocks following the completion of construction. This will help to ensure management of impacts whilst preserving the flexibility that the Applicants require in order to adequately maintain and operate a complex asset in a dynamic environment.* *Please see the Applicants' response to RR-039: C13 in* ***Response to Natural England's Relevant Representations*** *[AS-048] for the full proposal.'* The Applicants note the MMO's agreement with Natural England regarding decommissioning. Please see REP3-045:1.2 above. The Applicants also direct MMO to their response to Natural England's REP2-065:7.1 within **The Applicants' Reponses to Deadline 2** [REP3-028] for further details of their position in relation to decommissioning.

I.D.	MMO Response	Applicants' Response
		Regarding drill arisings, the Applicants direct the MMO to responses provided to Natural England in **The Applicants' Responses to Deadline 2 Documents** [REP3-028] (REP2-069:B45).
REP3-045:3.3	**3.3 REP2-066 - Appendix C2.2 - Natural England's advice on cable protection assessment for offshore windfarms and inclusion in marine licenses** 3.3.1 The MMO is currently reviewing the discussion with the Applicant and NE in relation to the suggested wording in relation to the as built scenario. The MMO would highlight that this is standard practice now when using cable protection and this is the most recent condition used within some DCOs: ***Reporting of cable protection*** *XX—(1) Not more than 4 months following completion of the construction phase of the authorised project, the undertaker must provide the MMO and Natural England with a report setting out details of the cable protection used for the authorised project.* *(2) The report is to include the following information—* *(a) location of the cable protection;* *(b) volume of cable protection; and* *(c) any other information relating to the cable protection as agreed between the MMO and the undertaker.* 3.3.2 However, the MMO notes the suggested wording from NE and welcomes the addition of: *(3) For any subsequent deployments of cable protection following the completion of construction, the undertaker will provide an updated report as defined in (1) and (2) not more than 4 months following deployment of the cable protection.*	3.3.1 and 3.3.2 The Applicants note that the DMLs (condition 23 of DMLs 1 and 2, condition 21 of DMLs 3 and 4 and condition 17 of DML5) already include wording which covers all of the items requested by the MMO and the additional point referred to requested by Natural England. The Applicants therefore do not propose to make any additional amendments to the **Draft DCO (Revision 7)** [document reference 3.1].
REP3-045:3.4	**3.4 REP2-067 - Appendix F2 - Natural England's comments and advice on Marine Mammals** 3.4.1 The MMO agrees with NE regarding noise abatement systems and their implementation.	The Applicants note the MMO's comment and direct the MMO to their responses to Natural England regarding Marine Mammals in **The Applicants' Responses to Deadline 2 Documents** [REP3-048] and **Table 2-13** of this document.

Table 2-3 The Applicants' Response to MMO's Additional Submission [AS-169]

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
1	Part 1 – Preliminary Interpretation (2)(1)	"building" includes any structure or erection or any part of a building, structure or erection;	Please can the Applicant confirm that 'building' does not include any offshore structures, and therefore that the protective works to building schedule does not apply to offshore structures.	The definition of "building" could apply to offshore structures. If the MMO have any concerns with this approach, the Applicants request that further details be provided. The definition of "building" and the terms of Article 17 are well precedented and commonly included in DCOs.	The MMO will review the Applicants response and provide comments at Deadline 4.	The Applicants previously responded as follows to this point and would hope that this matter is now resolved (see ID REP2-061:A1 in **The Applicants' Reponses to Deadline 2 Documents (Revision 1)** [REP3-028]): *"The Applicants have reviewed the use of the word "building" in the Draft Development Consent Order (DCO)*

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
						(Revision 6) [document reference 3.1] and can confirm that it is only used in the context of buildings that are located onshore. However, the definition of "building" is well precedented and it is not proposed to amend it."
2		"DBS West Project offshore works" means Work Nos. 1B to 9B and any other authorised development and ancillary works associated with those works. "DBS West Project offshore works" means Work Nos. 1B to 9B and any other authorised development and ancillary works associated with those works.	The MMO notes that works 9A and 9B have been included in the offshore works. The works are to provide means of emergency access along the existing beach between Work No. [….] to allow for access in the event of accidents and / or environmental incidents. Can the Applicant clarify when these activities will be undertaken (when is it an emergency?), if these works include any marine licensable activities or if the works will impact the environment e.g. abrasion/disturbance to a priority habitat.	These works will not include any marine licensable activities. These elements of the works have been included to afford vehicular access to the intertidal area to allow the clean-up of any drilling fluids which could escape from the bores drilled beneath the beach as part of the trenchless crossing works (e.g. Horizontal Directional Drilling works) at landfall.	The MMO is still reviewing the practicalities of the inclusion of this and will provide a response at Deadline 4.	The Applicants await the MMO's further comments.
5		"maintain" includes inspect, upkeep, repair, adjust, alter, and further includes remove, reconstruct and replace (including replenishment of cable protection), but does not include the removal, reconstruction or replacement of foundations associated with the authorised project, to the extent assessed in the environmental statement; and "maintenance" must be construed; accordingly,	The MMO requests the text is updated to: '"maintain" includes inspect, upkeep, repair, adjust, alter, and further includes remove, reconstruct and replace (but only in relation to any of the ancillary works in Part 2 of Schedule 1 (ancillary works) to the Order and any component part of any [wind turbine generator, offshore electrical platform, construction, operations and maintenance platform or meteorological mast] described in Part 1 of Schedule 1 (authorised development to the Order not including the alteration, removal or replacement of foundations), to the extent assessed in the environmental statement; and "maintenance" must be construed accordingly. The MMO notes that within conditions or within attached/ supporting Plans (for	The Applicants do not consider that the wording within the definition of "maintain" in the Draft DCO [APP-027] and in each DML in schedules 10 - 14 of the Draft DCO [APP-027] needs to be updated. The purpose of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 is to identify the likely significant environmental effects that will arise from a project. That facilitates the relevant decision maker making an informed decision on the likely effects of the project before they grant or refuse consent. The detail in an Environmental Statement (ES) is not intended to be wholly prescriptive. That is not how the Environmental Impact Assessment (EIA) regime operates. In undertaking an EIA, a developer has to make certain assumptions about how the project will be undertaken, particularly in respect of the operation and	The MMO is content with the Applicant's explanation and no further updates are required.	The Applicants welcome the MMO's comments.

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
			example "Offshore Operations and Maintenance Plan") where "replacement" is noted, that it references its limitations of the replacement to be in line with "like-for-like" or "as within the project envelope".	maintenance phase. Key parameters that underpin the assessment will then be included in the terms of the consent granted. Where relevant, these key parameters relating to issues including, but not limited to, numbers of maintenance vessel movements, cable repair quantities, remedial cable protection quantities and number of jack-up activities have been included within the worst case scenario tables across ES chapters and within the assessments of operations and maintenance activities.		
6		"MHWS" or "mean high water springs" means the highest level that spring tides reach on average over a period of time;	The MMO request the definition is updated to: 'The height of Mean High-Water Springs (MHWS) is the average throughout the year, of two successive high waters, during a 24-hour period in each month when the range of the tide is at its greatest (Spring tides).	This definition is well precedented, and commonly included in DCOs. No change to the **Draft DCO** [APP-027] is proposed.	The MMO will review the Applicant's response submitted at Deadline 3 and provide a response at Deadline	The Applicants have previously updated this definition to the MMO's preferred wording and so hope that this matter is now resolved.
7		"undertaker" means, subject to article 5 (benefit of Order),— (a) for the purposes of constructing, maintaining and operating the DBS East works and any related ancillary works, DBSEL; (b) for the purposes of constructing, maintaining and operating the DBS West works and any related ancillary works, DBSWL; and (c) in any other case, DBSEL and DBSWL;	The undertaker definition must be updated. This should exclusively be the named companies (RWE Renewables UK Dogger Bank South (East) Limited, company reference number 13656240 and RWE Renewables UK Dogger Bank South (West) Limited, company reference number 13656525,). In addition, the Applicant should remove 'subject to article 5' (benefit of the order). The above updates should also be made to the DBSEL and DBSWL definitions.	The Applicants disagree that transfers of the DMLs should be regulated by the provisions of section 72 of the Marine and Coastal Access Act (MCAA) 2009. Where a transfer of a DML is proposed, the SoS would be looking at that in the context of all the provisions of the DCO. There are some Articles and Requirements relating to offshore matters within the DCO which overlap with the DMLs. In that context, it is entirely appropriate that the SoS has the ability to approve the transfer of a DML. Article 5(14) confirms that section 72(7) and (8) (variation, suspension, revocation and transfer) of the 2009 Act does not apply to a transfer of the DMLs falling within Article 5. Section 72(7) permits the licensing authority to transfer a marine licence to another person. Section 72(8) provides that "a licence may not be transferred except in accordance with subsection 7". Article 5 however provides for a transfer to take place	The MMO acknowledges the Applicants comments however still maintains that reference to the DMLs in Article 5 should be removed. Please see section 1.2 in REP2-061 for more information. The MMO would also advise that the company reference number should be referenced within the interpretation to provide clarity on the undertake during compliance checks. It needs to be clear who the undertaker is at all times.	The Applicants do not propose to comment further on the inclusion of the DMLs in Article 5 as extensive submissions on this matter have already been submitted. However, the Applicants would note that the recently granted Rampion 2 DCO does include transfer of the Deemed Marine Licences with the transfer of benefit provisions and that the Secretary of State provided the following reasoning for this in the Decision Letter (paragraph 6.23): "*The Secretary of State has considered the MMOs position. However, the Secretary of State agrees with the ExA that Article 5 should be retained because it does not just deal with deemed marine licenses, but all other licences required to construct the Proposed Development, and the purpose of the PA2008 is to provide a simple one-stop shop process for obtaining consent for national infrastructure projects and to have*

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
				in a different way to section 72(7). Since Article 5 is different from the precise wording of section 72(7) of the 2009 Act it is necessary to specify that section 72(7) only applies to a transfer not falling within Article 5 in order to enable Article 5 to operate. Without specifying this, Article 5 might be claimed to be inoperative because of adopting a different wording from section 72(7). The Applicants also note that this approach is aligned with "good practice point 11" in the Planning Inspectorate Advice Note 15: drafting Development Consent Orders (2018), which states that "Applicants should give careful consideration to the terms of the transfer Article they include in their draft DCO so as to ensure that it reflects how they envisage the NSIP being operated post-consent and, if possible, avoid potential inconsistencies between how DCO and DML transfer arrangements would operate." The Applicants' approach is intended to ensure that inconsistencies in the transfer arrangements do not arise.		*one legal instrument, the Recommended Order, as its control.*" In relation to the reference to company numbers, the Applicants note that these are already included within the definitions of "DBSEL" and "DBSWL" within the interpretation provisions of each of the DMLs and the definition of "undertaker" refers to either DBSEL or DBSWL as appropriate and so the Applicants consider that this matter can be resolved.
8		(7) In this Order "includes" must be construed without limitation unless the contrary intention appears.	The MMO are discussing this section internally and will provide further comments in due course.	It is noted that the MMO are discussing this subparagraph. The Applicants note that this wording is well precedented, and commonly included in DCOs.	The MMO does not agree that '*well precedented and commonly included in DCOs*' provides enough justification for not updating the definition. The MMO requests the Applicant highlights which DCOs this has been included in and if this relates to the DML or not.	To address the MMO's request, examples of other offshore wind DCOs where this wording has been included include Hornsea Four, East Anglia One North, East Anglia Two, Norfolk Vanguard and Norfolk Boreas. The Applicants confirm that this wording is included in Article 2 of the **Draft DCO (Revision 7)** [document reference 3.1] and not in the individual DMLs.
11	Part 1 – Preliminary Interpretation (3)	Please see section 3.3.1 in this document for further information	Please see section 3.3 in this document for further information.	For the reasons set out below, the Applicants do not agree with the removal of the parts of Article 5 of the Draft DCO [APP-027] requested by the MMO.	The MMO still maintains that reference to the DMLs Article 5 should be removed. Please see Section 1.2 of REP2-061 for more information.	Please see the Applicants' response in row 7 above.

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
				Paragraph (14) of Article 5 disapplies sections 72(7) and (8) of the Marine and Coastal Access Act 2009 in relation to a transfer or grant of the benefit of a Deemed Marine Licence (DML). The drafting is based on the Model Provisions and reflects a long- established precedent regarding the transfer of DCO powers and DMLs that has been endorsed by the Secretary of State (SoS) many times, including most recently in the Sheringham Shoal and Dudgeon Extensions DCO. Where a transfer of the DML is sought under Article 5, the SoS would consider the appropriateness of the party to whom the transfer or grant is proposed and would also take into account any representations made by the MMO before determining whether to grant consent, noting that Article 5 (paragraphs (6) and (9)) includes provisions requiring notification and consultation with the MMO where a transfer or grant of the benefit of a DML is proposed. From a procedural perspective, it is important that the DCO and any DML can be transferred together using the process set out in Article 5. It is considered important that the timing of any transfer or grant of powers/ authorisations under the DCO and a DML be aligned, as there is considerable overlap between the authorisations and the requirements/conditions. This justifies a departure from the procedure under the Marine and Coastal Access Act 2009. Having deemed the marine licence in the DCO, it is also appropriate that any transfer under the Order include the DML as part of the wider transfer- it is one element of the wider order powers and should not be separated out from the authority to construct, operate and maintain the Nationally Significant Infrastructure Project (NSIP) granted by the Order. The PA 2008 is clear that marine licences may be deemed in a DCO in appropriate areas		

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
				(s149A) and that a DCO may include such further provisions ancillary to the operation of that DML (s122(3)), including transfer of the benefit. Section 122(5)(a) and (c) set out that a DCO may "apply, modify or exclude a statutory provision which relates to any matter for which provision may be made in the order" or "include any provision that appears to the Secretary of State to be necessary or expedient for giving full effect to any other provision of the order". The ability to transfer a DML is related to the deeming and it is therefore a sensible, expedient part of the wider power to transfer the benefit of the order. Overall, the drafting of this article reflects the equivalent provision in recent offshore wind DCOs including Hornsea Three, Norfolk Boreas, Norfolk Vanguard, East Anglia One North, East Anglia Two, Awel y Mor, Hornsea Four and Sheringham Shoal and Dudgeon Extensions. As noted above, this article is necessary to provide the Applicants with the appropriate commercial freedom to sell or lease the authorised projects while ensuring that the SoS can control such sale or lease through the need to obtain their consent.		
15	Part 4 – Interpretation	36. —(1) This article applies to— (a) any agreement for leasing to any person the whole or any part of the authorised project or the right to operate the same; and (b) any agreement entered into by the undertaker with any person for the construction, maintenance, use or operation of the	Please confirm this is for onshore works only.	This wording is well precedented, and commonly included in DCOs.	The MMO will review the Applicant's comments submitted at Deadline 3 and provide a response at Deadline 4.	As stated in **The Applicants' Reponses to Deadline 2 Documents (Revision 1)** [REP3-028] (ID REP2-061:A15): *"The Applicants acknowledge the MMO's comments. The intention of Article 36 is that it would apply to the onshore elements of the Projects. It is not thought that it would be necessary for Article 36 to apply to offshore elements i.e. to an agreement for lease or lease from the Crown Estate. However, given that the current wording is based on the model provisions and well precedented in DCOs, the Applicants do not propose to update the drafting."*

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
		authorised project, or any part of it; so far as the agreement relates to the terms on which any land that is the subject of a lease granted by or under that agreement is to be provided for that person's use. (2) No enactment or rule of law regulating the rights and obligations of landlords and tenants prejudices the operation of any agreement to which this article applies. (3) Accordingly, no such enactment or rule of law applies in relation to the rights and obligations of the parties to any lease granted by or under any such agreement so as to— (a) exclude or in any respect modify any of the rights and obligations of those parties under the terms of the lease, whether with respect to the termination of the tenancy or any other matter; (b) confer or impose on any such party any right or obligation arising out of or connected with anything done or omitted on or in relation to land that is				

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
		the subject of the lease, in addition to any such right or obligation provided for by the terms of the lease; or (c) restrict the enforcement (whether by action for damages or otherwise) by any party to the lease of any obligation of any other party under the lease.				
16	Part 7 Miscellaneous and general Abatement of works abandoned or decayed	43.—(1) Where the DBS East Project offshore works or any part of them are abandoned or allowed to fall into decay the Secretary of State may, following consultation with DBSEL, by notice in writing require DBSEL at its own expense either to repair, make safe and restore one or any of those works, or any relevant part of them, or to remove them and, without prejudice to any notice served under section 105(2) of the 2004 Act, restore the site to a safe and proper condition, to such an extent and within such limits as may be specified in the notice. (2) Where the DBS West Project offshore works or any part of them are abandoned or allowed	The MMO advises this condition is updated to say the undertaker must ensure they also obtain the necessary consents.	This wording is well precedented, and commonly included in DCOs. Failure to obtain any necessary consents would be dealt with under the relevant consenting regime, and therefore inclusion of a requirement in this article to obtain necessary consents would be superfluous. No change to the **Draft DCO** [APP-027] is proposed.	The MMO does not agree that '*well precedented and commonly included in DCOs*' provides enough justification for not updating the definition. The MMO notes that previous DCOs may have similar definitions however the MMO believes this should be updated to the following wording (and similar updates to sub-limb (2)): *Where the DBS East Project offshore works or any part of them are abandoned or allowed to fall into decay the Secretary of State may, following consultation with DBSEL, ~~by notice in writing require DBSEL~~ issue a written notice requiring DBSEL at its own expense either to repair, make safe and restore one or any of those works, or any relevant part of them, or to remove them and, without prejudice to any notice served under section 105(2) (requirement to prepare decommissioning programmes) of the 2004 Act, restore the site*	The Applicants do not believe that the amendment suggested by the MMO changes the substance of the drafting such that it is necessary to include it and do not propose to update the **Draft DCO (Revision 7)** [document reference 3.1].

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
		to fall into decay the Secretary of State may, following consultation with DBSWL, by notice in writing require DBSWL at its own expense either to repair, make safe and restore one or any of those works, or any relevant part of them, or to remove them and, without prejudice to any notice served under section 105(2) of the 2004 Act, restore the site to a safe and proper condition, to such an extent and within such limits as may be specified in the notice.			*to a safe and proper condition, to such an extent and within such limits as may be specified in the notice.*	
22	Schedule 1 – Authorised Project Part 2 – Ancillary works	Notification of generation of power 28.—(1) DBSEL must notify the relevant planning authority and the MMO upon first generation of power from each phase of the DBS East Project no later than seven days after the occurrence of this event. (2) DBSWL must notify the relevant planning authority and the MMO upon first generation of power from each phase of the DBS West Project no later than seven days	The MMO would like to understand the inclusion of this notification and will provide further comment once this has been reviewed.	This notification has been included to align with the Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024. As the Draft DCO [APP-027] authorises the construction of two projects, the notification ensures the relevant planning authority and MMO will have clarity as to when first generation is for each project. The Applicants would be content to delete this requirement if the relevant planning authority and MMO do not consider it necessary.	The MMO acknowledges the Applicants response and are content with the inclusion and may provide further comments upon discussions with the LPA.	The Applicants welcome the MMO's comments.

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
		after the occurrence of this event				
24	Schedule 2 Part 1 Requirements	Amendments to approved details 34.—(1) Where any requirement requires the authorised project to be carried out in accordance with the details approved by the relevant planning authority or another person (the "approving authority"), the approved details must be taken to include any amendments that may subsequently be approved by the approving authority (after consulting any person that the approving authority is required to consult under the relevant requirement). (2) The approving authority must not approve an amendment unless it is satisfied that the amendment is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement	For cases that contain definitions or the use of the terms "maintenance"/ "materially", the MMO strongly considers that the activities authorised under the DCO and DML should be limited to those that are assessed within the Environmental Impact Assessment (EIA), and the statement that activities will be limited to those that 'do not give rise to any materially new or materially different environmental effects' should be updated to clarify this. The MMO considers that wording should be updated to 'do not give rise to any new or different environmental effects to those assessed in the Environmental Statement'. This also applies to the definition of "maintain". The MMO does not consider that it is appropriate to use the word 'material' in these circumstances.	This wording is well precedented and commonly included in DCOs. Most recently, it is included in the Sheringham and Dudgeon DCO (2024), which provides in its DMLs in Part 1: "8(2) Any amendments to or variations from the approved details, plans or schemes must be in accordance with the principles and assessments set out in the environmental statement and approval of an amendment or variation may only be given where it has been demonstrated to the satisfaction of the MMO that it is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement." It is necessary for DCOs to allow for a degree of flexibility, in particular to allow for the use of new or improved construction methods or emerging technologies. Allowing actions which can be demonstrated not to have materially new or different environmental effects cannot be contrary to the EIA regime, which is intended to proportionately control likely significant effects. The EIA regime is not intended to control any effect regardless of how insignificant it may be. If an effect is not materially new or different, it cannot give rise to a risk of a significant effect arising which is not assessed in the ES.	The MMO does not agree that '*well precedented and commonly included in DCOs'* is a substantive position. The MMO notes that previous DCOs may have similar definitions however this does not mean that they should be included going forward. However, on this occasion the MMO is content with the wording.	The Applicants welcome the MMO's comments.

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
25	Part 2 Approval of matters specified in requirements Further Information	Further information 3.—(1) In relation to any application referred to in paragraph 2, the discharging authority may request such further information from the undertaker as it considers necessary to enable it to consider the application. (2) If the discharging authority considers that further information is necessary, and the requirement concerned contained in Part 1 of this Schedule does not specify that consultation with a consultee is required, the discharging authority must, within ten days of receipt of the application, notify the undertaker in writing specifying the further information required. (3) If the requirement concerned contained in Part 1 of this Schedule specifies that consultation with a consultee is required, the discharging authority must issue the application to the consultee within five working days of receipt of the application and notify the undertaker in writing specifying any further information	3.11.1 The MMO has provided detailed comments in Table 1 below. Please find a summary of the main concerns below. Determination dates: The MMO strongly considers that it is inappropriate to put timeframes on complex technical decisions of this nature. The time it takes the MMO to make such determinations depends on the quality of the application made, the complexity of the issues and the amount of consultation the MMO is required to undertake with other organisations to seek resolutions. 3.11.3 The MMO's position remains that it is inappropriate to apply a strict timeframe to the approvals the MMO is required to give under the conditions of the DML, given this would create disparity between licences issued under the DCO process and those issued directly by the MMO, as marine licences issued by the MMO is not subject to set determination periods. This applies for the following conditions: • Extension of time Periods (condition 8 on DML 1 and 2, condition 6 on DML 3 and 4 and condition 4 on DML} • Pre-construction plans and documentation (condition 15 on DML 1 and 2, condition 13 on DML 3 and 4 and condition 11 on DML s) • Site integrity plans (condition 16 on DML 1 and 2 and condition 14 on DML 3 and 4) 3.11.4 Whilst the MMO acknowledges that the Applicant may wish to create some certainty around when it can expect the MMO to determine any applications for an approval required under the conditions of a licence, and whilst the MMO acknowledges that delays can be problematic for developers and that they can have financial implications, the	3.11.1 The Applicants have responded to the MMO's detailed comments in Table 1 below and 3.11.3 The Applicants require certainty that the discharge of conditions under the DMLs will not cause undue delay to the delivery of the Projects. The Applicants note that, whilst the MMO is not subject to set determination periods for the discharge of conditions for marine licences issued by the MMO, the MMO does aim to make a decision on most marine licence applications within 13 weeks of an application being validated. It would therefore seem reasonable that the MMO is able to make a decision on the discharge of conditions within a period double that length. The Applicants therefore submit that six months is a reasonable amount of time for the MMO to determine any approvals sought, noting that the provisions of the DMLs (condition 8 on DML 1 and 2, condition 6 on DML 3 and 4 and condition 4 on DML 5) do allow for an alternative timeframe to be agreed between the MMO and the undertaker, which could be utilised in the unlikely event that six months was not sufficient in individual cases. 3.11.4 The Applicants welcome the MMO's confirmation that it does not delay determining whether to grant or refuse such approvals unnecessarily. This supports the Applicants' position that six months should be a sufficient amount of time for such approvals to be considered, noting that an alternative timeframe can be agreed in the unlikely event that six months was not sufficient in individual cases. 3.11.2, 3.11.5 and 3.11.6 The Applicants' position is that the submission of certain plans for approval at least four months prior to commencement of operation of licensed activities is appropriate and precedented (for example Hornsea Four and East Anglia One North OWFs). Notwithstanding that, the	The MMO notes that this is in relation to Part 2 of Schedule 2 where the MMO is not the discharging authority. However, this is relevant in relation to Condition 15(5) and maintains their position that a determination date is should not be included. The MMO welcomes that documents will be submitted six months before the intended commencement of licensed activities.	The Applicants maintain the position previously set out in response to this point (as contained in the column entitled "Applicant Comments" in this row 25), noting also that the **Draft DCO (Revision 7)** [document reference 3.1] has been previously updated so that documents will be submitted 6 months in advance, rather than the original 4 months.

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
		requested by the consultee within five working days of receipt of such a request. (4) If the discharging authority does not give the notification within the period specified in subparagraphs (2) or (3) it (and the consultee, as the case may be) is deemed to have sufficient information to consider the application and is not entitled to request further information without the prior agreement of the undertaker.	MMO stresses that it does not delay determining whether to grant or refuse such approvals unnecessarily. The MMO makes these determinations in as timely a manner as it is able to do so. 3.11.5 The MMO's view is that it is for the developer to ensure that it applies for any such approval (with all information required) in sufficient time as to allow the MMO to properly determine whether to grant or refuse the application. The MMO believes that if time scales are included within the DML for plans, then these should be 6 months and not 4 months. 3.11.6 However, without prejudice to this position, the MMO is open to discussions on which documents should be 6 months and which documents could be 4 months, in order to take into account the concerns that the Applicant may have.	Applicants welcome that the MMO is open to discussion on this point and will therefore seek to agree the relevant timescales with the MMO and update the Examining Authority (ExA) once those discussions have taken place.		
Schedule 10 Schedule 14 – Deemed Marine Licences						
Part 1						
31	Part 1 Licensed marine activities Interpretation DML1 - DML5	"authorised deposits" means the substances and articles specified in paragraph 4 of Part 1 of this marine licence;	The MMO requests this is updated to clarify that the materials need approval by the MMO in order to be deposited.	This wording is well precedented, and commonly included in DCOs. It is considered that the additional detail proposed by the MMO is not appropriate or necessary for the purposes of defining the meaning of "authorised deposits". No change to the **Draft DCO** [APP-027] is proposed.	As above the MMO does not believe that precedent is justification alone. It is for the MMO to designate the disposal sites in conjunction with our scientific advisors Centre for Environment Fisheries and Aquaculture Science (Cefas). The MMO has received shape files from the Applicants and will work on designating these and provide the reference numbers to be included in Paragraph 4 and Condition 13 (5) as soon as possible.	The Applicants acknowledge the MMO's comments. The Applicants will update paragraph 4 of Part 1 of the DMLs with the relevant reference numbers for the disposal sites once these are available.

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
32	Part 1 Licensed marine activities Interpretation DML1 - DML 5	"cable protection" means measures to protect cables forming part of the authorised scheme from physical damage and exposure due to loss of seabed sediment including, but not limited to, rock placement, concrete mattresses with or without frond devices, protective aprons or coverings, bagged solutions filled with sand, rock, grout or other materials and protective shells;	The MMO requests the condition wording is updated to the below to ensure that the reason why cable protection is being used is clear. "cable protection" means measures for offshore cable crossings and where cable burial is not possible due to ground conditions or approaching offshore structures, to protect cables forming part of the authorised scheme from physical damage and exposure due to loss of seabed sediment including, but not limited to, rock placement, concrete mattresses with or without frond devices, protective aprons or coverings, bagged solutions filled with sand, rock, grout or other materials and protective shells;"	This wording is well precedented, and commonly included in DCOs. It is considered that the additional wording proposed by the MMO is not appropriate or necessary for the purposes of defining the meaning of "cable protection". No change to the **Draft DCO** [APP-027] is proposed.	The MMO does not believe that precedent is justification alone. The MMO believes cable crossings should be included within the interpretation.	The definition of "cable crossing" includes "physical protection measures including cable protection" and therefore it would not work to also include "cable crossing" in the definition of "cable protection". No updates to the **Draft DCO (Revision 7)** [document reference 3.1] are therefore proposed.
33	Part 1 Licensed marine activities Interpretation DML1 - DML5	"intrusive activities" means activities including anchoring of vessels, jacking up of vessels, temporary deposits and temporary wet storage areas;	The MMO would like to remind the Applicant that temporary deposits are still licensable. The Applicant should not undertake temporary deposits that are not licensed under a DML. The MMO request the phrase 'temporary deposit' is removed from this definition within the DMLs. Can the Applicant confirm where this has been assessed within the ES?	The Applicants would welcome a discussion with the MMO regarding the scope of "temporary deposits" before committing to making this change.	The MMO will review the Applicant's comments submitted at Deadline 3 and discuss this matter further.	The use of the wording "temporary deposits" has been previously removed from the **Draft DCO (Revision 7)** [document reference 3.1] and so the Applicants consider that this matter is now resolved.
35	Part 1 Licensed marine activities Interpretation DML1 - DML 5	"maintain" includes inspect, upkeep, repair, adjust, alter, remove, reconstruct and replace (including replenishment of cable protection), but does not include the removal, reconstruction or replacement of foundations associated with the authorised scheme, to the extent assessed in the	The MMO advise the text is updated to: "maintain" includes inspect, upkeep, repair, adjust, alter, and further includes remove, reconstruct and replace (but only in relation to any of the ancillary works in Part 2 of Schedule 1 (ancillary works) to the Order and any component part of any wind turbine generator, offshore electrical platform, construction, operations and maintenance platform or meteorological mast described in Part 1 of Schedule 1 (authorised developed) to the Order not including the alteration, removal or replacement of foundations), to	The Applicants do not consider that the wording within the definition of "maintain" in the **Draft DCO** [APP-027] and in each DML in schedules 10 - 14 of the **Draft DCO** [APP-027] needs to be updated. The purpose of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 is to identify the likely significant environmental effects that will arise from a project. That facilitates the relevant decision maker making an informed decision on the likely effects of the project before they grant or refuse consent. The detail in an Environmental Statement (ES) is not intended to be wholly prescriptive. That is not	Please see row 24 for more detail.	Please see the Applicants' response in row 24.

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
		environmental statement; and "maintenance" must be construed accordingly;	the extent assessed in the environmental statement; and "maintenance" must be construed accordingly. The MMO note that within conditions or within attached/ supporting Plans (for example "Offshore Operations and Maintenance Plan") where "replacement" is noted that it references its limitations of the replacement to be in line with "like-for-like" or "as within the project envelope".	how the Environmental Impact Assessment (EIA) regime operates. In undertaking an EIA, a developer has to make certain assumptions about how the project will be undertaken, particularly in respect of the operation and maintenance phase. Key parameters that underpin the assessment will then be included in the terms of the consent granted. Where relevant, these key parameters relating to issues including, but not limited to, numbers of maintenance vessel movements, cable repair quantities, remedial cable protection quantities and number of jack-up activities have been included within the worst case scenario tables across ES chapters and within the assessments of operations and maintenance activities		
36	Part 1 Licensed marine activities Interpretation DML1 - DML 5	"MHWS" or "mean high water springs" means the highest level that spring tides reach on average over a period of time;	The MMO request the definition is updated to: 'The height of Mean High Water Springs (MHWS) is the average throughout the year, of two successive high waters, during a 24-hour period in each month when the range of the tide is at its greatest (Spring tides).	This wording is well precedented, and commonly included in DCOs. No change to the **Draft DCO** [APP-027] is proposed.	Please see row 6 for more information	Please see the Applicants' response in row 6.
39	Part 1 Licensed marine activities Interpretation DML1 - DML 5	"undertaker" means DBSEL and DBSWL;	The MMO request this is updated. Only one company can own the marine licence and be the undertaker. Please also include the company name and registration number.	Company details are provided in the definition of DBSEL and DBSWL. Marine Licence 5 relates to cabling inter-linking the two Projects and would be owned jointly by DBSEL and DBSWL. A separate DML has been included in order to allow for the transfer of these transmission assets to an Offshore Transmission Owner in due course. The Applicants are not aware of any legal restriction preventing a DML being granted to joint undertakers. No change to the **Draft DCO** [APP-027] is proposed.	The MMO will review the Applicants comments submitted at Deadline 3 and provide comments at Deadline 4.	The Applicants await the MMO's comments.

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
43	Part 1 Licensed marine activities Interpretation DML 3 and DML 4	under article 42"outline offshore operations and maintenance plan" means the document certified as the outline offshore operations and maintenance plan by the Secretary of State under article 42 (certification of documents and plans, etc.) of the Order;	Please delete 'under article 42' as this appears to be an error.	The Applicants acknowledge this comment and will make appropriate updates to the **Draft DCO** [APP-027] to address the point raised by the MMO and submit an updated **Draft DCO** [APP-027] for Deadline 1.	The MMO believes this has been updated and has no further comments.	No response is required.
47	Drill arisings	DML 1 – Schedule 10 – Works No. 7a (f) DML 2 - Schedule 11 - Works No. 7b (f) DML 3 – Schedule 12 – Works No 7a (f) DML 4 – Schedule 13 – Works No 7b (f)	Chapter 5 section 5.5.3.2.1 table 5-7 states maximum drill arisings per foundation and maximum volume of arisings differ to what is detailed within each DML: ES: Maximum drill arisings per foundation (m3) – small turbines 2,012. Large turbines 4,712 Maximum volume of arisings (m3) – Small turbines 20,106. Large Turbines 26,625 DML 1: 37,917 DML 2: 35,086 DML 3: 2,815 DML 4: 2,815 Please ensure consistency across all documentation. In addition, it needs to be clear within the DMLs if the maximum parameters are across all DMLs. The maximum parameters should be conditioned to ensure the works are within the parameters assessed in the ES.	The Applicants note that the numbers presented are correct and as intended. The reasoning for the apparent inconsistencies relates to the optionality retained within the Projects relating to different types of foundations that could be used and how arisings are grouped for different purposes within the **Draft DCO** [APP-027] and DMLs. For example, there are figures presented in Tables 5-7 and 5-9 of **Chapter 5 Project Description** [APP-071) which are different because Table 5.7 relates to arisings generated by turbine monopile foundations only, whilst Table 5-9 relates to arisings generated by turbine jacket foundations only. Each type of foundation could create a different volume of arisings as a worst case, hence different numbers are presented. Within the **Draft DCO** [APP-027] the numbers relating to arisings presented in Schedule 1 Part 1 are for each project taken separately and include both the worst case or turbine foundation arisings combined with the worst case foundation arisings, plus the worst case foundation arisings from the platforms associated.	The MMO will review the Applicants comments submitted at Deadline 3 and provide comments at Deadline 4.	The Applicants await the MMO's comments.

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
				The numbers relating to drill arisings presented within each DML relate to the worst case arising calculations associated with the infrastructure included within the given licence. For example, DML 1 covers the worst case values for drill arisings from all turbines, plus the worst case values for drill arisings from the platforms included within that licence.		
Part 2 Conditions						
48	Design Parameters	DML 1: Condition 1 - Condition 5 DML 2: Condition 1 – Condition 5 DML 3: Condition 1 – Condition 3 DML 4: Condition 1 – Condition 3	The MMO requests the wording of these conditions are updated to ensure they are enforceable by changing 'may' to 'will' or by stating 'must not be higher' etc. for all conditions.	The Applicants acknowledge this comment and will make appropriate updates to the **Draft DCO** [APP-027] to address the point raised by the MMO and submit an updated **Draft DCO** [APP-027] for Deadline 1.	The MMO will review the Applicants comments submitted at Deadline 3 and provide comments at Deadline 4.	The Applicants previously made the suggested amendments and hope that this matter is now resolved.
49		DML 1: Condition 3 – Offshore accommodation platform dimensions DML 2: Condition 3 – Offshore accommodation platform dimensions DML 3: Condition 1 – Offshore electrical installation dimensions DML 4: Condition 1 – Offshore electrical installation dimensions	The Applicant has stated: The 'dimensions of any offshore accommodation platform must not exceed'… and 'The dimensions of any offshore electrical installation must not exceed'… However they have excluded helidecks, lighting protection, towers, masts and cranes from the dimensions. Please clarify how the maximum dimensions of these helidecks etc will be secured on the DML.	Exclusion of these elements is well precedented, including with the Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024, and the East Anglia ONE North Offshore Wind Farm Order 2022. It is well precedented for these elements not to be subject to restrictions. No change to the **Draft DCO** [APP-027] is proposed.	As above precedent is not justification for the inclusion. However, on this occasion the MMO has no further comments.	No response is required.
51	Phases of the authorised Scheme	DML 1: Condition 6 DML 2: Condition 6 DML 3: Condition 4 DML 4: Condition 4	The MMO requests the wording is updated to: '(1) The authorised scheme must not commence until a written scheme setting out the phases of construction of the authorised	The principle of a time period for submission of the written scheme is acceptable to the Applicants. However, the Applicants propose a four month time period is included in the new	The MMO will review the Applicants comments submitted at Deadline 3 and provide comments at Deadline 4.	The Applicants have previously updated 4 months to 6 months in the relevant conditions and hope that this matter is now resolved.

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
		DML 5: Condition 2	scheme has been submitted to and approved in writing by the MMO. (2) The authorised scheme must be submitted at least 6 months prior to the proposed commencement of the works. (3) Any subsequent amendments to the written scheme submitted for approval under sub-paragraph (1) must be submitted to the MMO for approval in writing'. (4) The written scheme submitted for approval under sub-paragraph (1) must be implemented as approved. The approved details shall be taken to include any amendment that may subsequently be approved by the MMO in accordance with sub-paragraph (2). In addition, the MMO note that the Offshore Works Phasing Scheme will be submitted under the related return for this condition at the post-consent stage. This document should be clearly named in the condition.	sub-paragraph (2). The Applicants will update the **Draft DCO** [APP-027] on this basis. The Applicants will also update the **Draft DCO** [APP-027] to refer to this scheme as the "Offshore Works Phasing Scheme" and submit an updated **Draft DCO** [APP-027] at Deadline 1.		
53	Extension of Time periods	DML 1: Condition 8 DML 2: Condition 8 DML 3: Condition 6 DML 4: Condition 6 DML 5: Condition 4	The MMO requests this condition is removed from all the DMLs. Please see comments under 3.11.2-3.11.6 determination dates.	Please see response above. This condition is precedented, for example within the Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024, and the Hornsea Four Offshore Wind Farm Order 2023. No change to the **Draft DCO** [APP-027] is proposed.	The MMO will review the Applicants comments submitted at Deadline 3 and provide comments at Deadline 4.	The Applicants note that the MMO previously responded to confirm that it was content on the condition remaining but requested a minor amendment to ensure any agreement is "in writing". The Applicants previously updated this wording in the relevant conditions and hope that this matter is now resolved.
55	Notifications and Inspections	DML 1: Condition 9 (1) (b) DML 2: Condition 9 (1) (b) DML 3: Condition 7 (1) (b) DML 4: Condition 7 (1) (b)	The MMO request this section of the condition is removed. It is the undertaker's responsibility to notify the MMO. This is reflected in the updated Condition (1) (a) wording provided above.	This condition is well precedented, and commonly included in DCOs. No change to the **Draft DCO** [APP-027] is proposed.	The MMO will review the Applicants comments submitted at Deadline 3 and provide comments at Deadline 4.	The Applicants note that amendments have been made to the relevant conditions previously in order to seek to address the MMO's concerns and hope that this matter is now resolved.

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
		DML 5: Condition 5 (1) (b)				
56		DML 1: Condition 9 (6) DML 2: Condition 9 (6) DML 3: Condition 7 (6) DML 4: Condition 7 (6) DML 5: Condition 5 (6)	The MMO should be notified upon commencement and completion of any part of the licensed activities, particularly when works are being undertaken in phases. The MMO requests the condition is updated to: (6) The undertaker must inform the MMO Local Office in writing at least 14 days prior to the commencement of the licensed activities or any part of them including providing a programme of works for future activities and within five days of the completion of the licensed activities or any part of them.	The **Draft DCO** [APP-027] provides for five days prior notice of commencement of licensed activities, rather than the 14 days requested by the MMO. Five days' notice is well precedented, and no change to the **Draft DCO** [APP-027] is proposed.	The MMO will review the Applicants comments submitted at Deadline 3 and provide comments at Deadline 4.	The Applicants await the MMO's comments.
58		DML 1: Condition 9 (8) DML 2: Condition 9 (8) DML 3: Condition 7 (8) DML 4: Condition 7 (8) DML 5: Condition 5 (8)	The MMO notes that the notice to mariners are only for works numbers 1A to 8A and 1B to 8B. Can the Applicant confirm why this is not for the other works undertaken under each DML?	This condition is well precedented, and commonly included in DCOs. The condition requires notification prior to the commencement of the authorised scheme or any part thereof. No change to the **Draft DCO** [APP-027] is proposed.	The MMO will review the Applicants comments submitted at Deadline 3 and provide comments at Deadline 4.	The Applicants note that updates have previously been made to address this concern and hope that this matter is now resolved.
59		DML 1: Condition 9 (9) DML 2: Condition 9 (9) DML 3: Condition 7 (9) DML 4: Condition 7 (9) DML 5: Condition 5 (9)	The MMO requests the words '(unless otherwise agreed)' is removed from this condition.	This condition is precedented within the Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024. The Applicants consider this flexibility is helpful to allow the option for the Applicants and the MMO to agree weekly notifications are not required in certain circumstances, such as during period of the construction period when the on-going construction activities are not changing from week to week. This wording requires agreement with the MMO, and therefore the default position is that the undertaker will be required to provide weekly, unless the MMO is satisfied it is unnecessary. No change to the **Draft DCO** [APP-027] is proposed.	The MMO will review the Applicants comments submitted at Deadline 3 and provide comments at Deadline 4.	The Applicants have previously made the amendments suggested at Deadline 2 by the MMO and hope that this matter is now resolved.

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
60		DML 1: Condition 9 (10) DML 2: Condition 9 (10) DML 3: Condition 7 (10) DML 4: Condition 7 (10) DML 5: Condition 5 (10)	This condition states the undertaker must notify the UK Hydrographic Office (UKHO) of the progress of construction. The Applicant should clarify the reporting timeframe and what progress (stages) will require a notification. If this is agreed in a plan, this plan should be referenced and the condition the plan will be approved under.	This condition is well precedented, and commonly included in DCOs. No change to the **Draft DCO** [APP-027] is proposed.	The MMO is reviewing is content with this remaining as the MMO believes that the progress will include weekly updates. The MMO requests that the condition is updated to change fourteen days to ten days to ensure the information is as up to date as possible. This has been agreed with MCA.	The Applicants have made the requested change from 14 to 10 days in the **Draft DCO (Revision 7)** [document reference 3.1].
62		DML 1: Condition 9 (13) DML 2: Condition 9 (13) DML 3: Condition 7 (13) DML 4: Condition 7 (13) DML 5: Condition 5 (13) 'The undertaker must notify the MMO in writing a minimum of 5 days in advance of the commencement of each discrete incident of cable repair, replacement, or protection replenishment activity.	The MMO requests this is updated to "at least 14 days prior to the commencement'… In addition the condition should clearly define repair, replacement, and protection replacement. This should be defined under maintain and linked to the Outline Offshore Operations and Maintenance Plan (OOOMP) or those assessed in the Environmental Statement. We consider that these works should be restricted to those that have been assessed and consented and the definition should clearly demonstrate this.	The **Draft DCO** [APP-027) provides for five days prior notice of commencement of cable repair, replacement, or protection replenishment activity, rather than the 14 days requested by the MMO. Five days' notice is precedented within the Hornsea Four Offshore Wind Farm Order. No change to the **Draft DCO** [APP-027] is proposed.	The MMO does not agree that precedent is enough justification for five days' notice to remain. The MMO will review the Applicants comments submitted at Deadline 4 and respond at Deadline 3.	The Applicants await the MMO's comments.
63	Colouring of Structures	DML 1: Condition 11 DML 2: Condition 11 DML 3: Condition 9 DML 4: Condition 9	The MMO recommend the wording is updated to: 'The undertaker must paint all structures forming part of the authorised scheme yellow (colour code RAL 1023) from at least HAT to the height agreed in writing with Trinity House. The undertaker must paint the remainder of the structures grey (colour code RAL 7035). Requests to change the colouring of the structure must be submitted to the	The Applicants acknowledge this comment and will make appropriate updates to the draft DCO to address the point raised by the MMO and submit an updated **Draft DCO** [APP-027] for Deadline 1.	The MMO will provide any updates to the Applicant and at Deadline 4.	The Applicants have updated the **Draft DCO (Revision 7)** [document reference 3.1] with the wording that has been agreed between the MMO and Trinity House and so hope that this matter is now resolved.

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
			MMO in writing and must not be undertaken unless approved in writing by the MMO'.			
64	Aviation Safety	DML 1: Condition 12 DML 2: Condition 12 DML 3: Condition 10 DML 4: Condition 10 DML 5: Condition 8	The MMO requests this condition is removed and included in the DCO as the Defence Infrastructure Organisation Safeguarding and Civil Aviation Authority can review this through the DCO requirements.	This condition is well precedented, and commonly included in DCOs. No change to the **Draft DCO** [APP-027] is proposed.	The MMO will review the Applicants comments submitted at Deadline 3 and provide a response at Deadline 4.	The Applicants await the MMO's comments.
65	Chemicals, drilling and debris	DML 1: Condition 13 (1) DML 2: Condition 13 (1) DML 3: Condition 11 (1) DML 4: Condition 11 (1) DML 5: Condition 9 (1) 'Unless otherwise agreed in writing by the MMO, the carriage and use of chemicals in the construction of the authorised scheme must comply with the International Convention for the Prevention of Pollution from Ships 1973 as modified by the Protocol of 1978 relating thereto and by the Protocol of 1997.''	The MMO note the International Convention for the Prevention of Pollution from Ships 1973 does not apply to chemicals used by the offshore wind industry. The MMO are discussing this further internally and will provide further comments in due course.	The Applicants note that the MMO is considering this further.	The MMO provided comments in section 1.4 of REP3-045.	The Applicants are considering the wording suggested by the MMO and plan to discuss it with the MMO at an upcoming meeting that has been arranged for 13th May 2025, as the Applicants have a query on the proposed wording for the MMO to clarify. The Applicants will provide a further update after the meeting has taken place.
66		DML 1: Condition 13 (2) DML 2: Condition 13 (2) DML 3: Condition 11 (2) DML 4: Condition 11 (2) DML 5: Condition 9 (2) 'The undertaker must ensure that any	The final design of the frond mattresses will be detailed in the offshore construction method statement that will be submitted to and approved by the MMO prior to commencement of development. It should also be noted that any paints coatings and chemicals with a pathway to the marine environment should be approved by the MMO prior to use. Part 2 section 7 also allows	The Applicants note that it is stated in the **Outline PEMP** [APP-245] that all chemicals used (including paints) would be certified for use in the marine environment (unless otherwise agreed with the MMO) to ensure that there would be no risk anticipated to arise from normal operations of the Projects. The Applicants submit that the control afforded to the MMO for the use of any chemicals	The MMO provided comments in section 1.4 of REP3-045.	The Applicants are considering the wording suggested by the MMO and plan to discuss it with the MMO at an upcoming meeting that has been arranged for 13th May 2025, as the Applicants have a query on the proposed wording for the MMO to clarify. The Applicants will provide a further update after the meeting has taken place.

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
		coatings and treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by the Health and Safety Executive and the Environment Agency Pollution Prevention Control Guidelines.'	the undertaker at any time to maintain the authorised scheme at (c) allows for "Painting and applying other coatings to wind turbine generators or offshore accommodation platforms", as these may also contain plastics. Coatings and paints under OSPAR guidance should have their properties known and therefore should be notified to the MMO for approval prior to use. Therefore, the condition 13 (2) wording should be amended to reflect OSPAR guidance.	(including paints) not certified for use in the marine environment through the **Outline PEMP** [APP-245] and any final PEMPs is sufficient. As such no change to the **Draft DCO** [APP-027] is proposed. The PEMPs will cover both the construction and operational phases of the Projects		
68		DML 1: Condition 13 (5) DML 2: Condition 13 (5) DML 3: Condition 11 (5) DML 4: Condition 11 (5) DML 5: Condition 9 (5) 'The undertaker must ensure that only inert material of natural origin, produced during the drilling installation of or seabed preparation for foundations, and drilling mud is disposed of within the Order limits seaward of MHWS'.	The Applicant should state the name of the disposal site that the material will be deposited in. The MMO is working to designate the disposal sites and will provide an update in due course. See further comments about disposal sites in section 3.14. In the event that no activity has taken place during the reporting period the undertaker must provide a null (0) return to the MMO.	The Applicants acknowledge this comment and will make appropriate updates to the **Draft DCO** [APP-027] to address the point raised by the MMO and submit an updated **Draft DCO** [APP-027] for Deadline 1.	The MMO has received the shape file of each disposal site and is proceeding to designate disposal sites for these references to be included within the DML.	The Applicants acknowledge the MMO's comments. The Applicants will update paragraph 4 of Part 1 of the DMLs with the relevant reference numbers for the disposal sites once these are available.
69	Force Majeure	DML 1: Condition 14 DML 2: Condition 14 DML 3: Condition 12 DML 4: Condition 12 DML 5: Condition 10	The MMO request that "Force Majeure" conditions are removed from the DML. The MMO does not consider provisions on Force Majeure to be necessary as Section 86 MCAA 2009 provides a defence for action taken in an emergency in breach of any licence conditions. The defence under Section 86 of MCAA has two limbs, and in the event that the undertaker fails to notify the appropriate licensing authority, in this case the MMO, within a reasonable time of their actions	This condition is well precedented, and commonly included in DCOs. The Applicants do not agree that this wording is not necessary. Section 86 provides a defence for actions taken in an emergency, whereas this condition is about notifying the MMO of a deposit made in those circumstances. It does not overlap with Section 86, which will still apply.	The MMO will review the Applicants comments submitted at Deadline 3 and provide any further comments at Deadline 4, however the MMO notes this is likely to be not agreed by the end of Examination.	The Applicants await the MMO's comments but note that very similar wording has just been accepted by the Secretary of State for the Rampion 2 DCO.

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
			(Section 86(2) "matters") the defence cannot be relied upon in the event of any enforcement action.	No change to the **Draft DCO** [APP-027] is proposed.		
77	Pre-construction plans and documentation	DML 1: Condition 15 (3) DML 2: Condition 15 (3) DML 3: Condition 13 (3) DML 4: Condition 13 (3) DML 5: Condition 11 (3) 'Any sediment removed from within the Dogger Bank Special Area of Conservation during construction of the authorised scheme must be disposed of within that part of the Dogger Bank Special Area of Conservation which falls within the Order limits'.	The MMO is concerned that the Applicant could dispose of material on non-sand bank habitats within the SAC. The MMO requests the condition is updated to state that dredged material is disposed on the same material type. This is to prevent dredged material being deposited on sensitive habitats. 'Any sediment removed from within the Dogger Bank Special Area of Conservation during construction of the authorised scheme must be disposed of within that part of the Dogger Bank Special Area of Conservation which falls within the Order limits. Material to be disposed must be placed on the same material type'. This is so that all requirements regarding the location of the material to be disposed is clearly written within the same condition. The disposal site must also be named within the condition. The MMO recommend a disposal site is designated for the disposal within the SAC to clearly signpost the area. The MMO is working to designate the disposal sites and will provide an update in due course	As a variety of sediment types are present on the Dagger Bank, the Applicants believe that stipulating material to be disposed must be placed on the same material type cannot be guaranteed and would be difficult and onerous to apply in reality. Dredging, particularly for the linear aspects of the Projects such as the subsea cable installations, may occur over a variety of sediment types to allow installation to occur. The resultant mixed cargo could not be disposed of on any single, specific material type. Hence, compliance with such a condition would require the dredge, transit and deposition of very high numbers of potentially very limited cargoes of specific sediment types for specific disposal on patches of that same sediment type. The dredge, transit and disposal and the 'stop-start' nature of dredging mean that this would be highly time consuming and inefficient. Given the practical difficulties associated with this request, the Applicants do not agree that this should be added as conditions of the DMLs.	Please see row 68 above for more information regarding dredging and disposal. The MMO is reviewing this condition and is working on designating the disposal sites and will provide more information as soon as possible.	Please see the Applicants' response at row 68. The Applicants also highlight that the DMLs already include a condition (condition 15(3) of DMLs 1 and 2) requiring any sediment removed from within the Dogger Bank SAC to be disposed of within the SAC. The Applicants have further committed, through the **Cable Statement (Revision 4)** [document reference 8.20] to disposal of like on like dredged material.
79		DML 1: Condition 15 (5) DML 2: Condition 15 (5) DML 3: Condition 13 (5) DML 4: Condition 13 (5) DML 5: Condition 11 (5) The MMO must determine an application for approval	The MMO requests this is removed. It is not appropriate for the determination times to be conditioned. The MMO set their own timescales, and this is dependent upon the quality of the submission and the availability of primary advisors, see comments 3.11.2-3.11.6 for determination dates. In addition, the Applicant has referenced the wrong condition within the text.	3.11.1 The Applicants have responded to the MMO's detailed comments in Table 1 below and 3.11.3 The Applicants require certainty that the discharge of conditions under the DMLs will not cause undue delay to the delivery of the Projects. The Applicants note that, whilst the MMO is not subject to set determination periods for the discharge of conditions for marine licences issued by the MMO, the MMO does aim to make a decision on most marine licence applications within 13 weeks of an	Please see comments in row 25 above.	Please see the Applicants' response at row 25.

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
		made under condition 11 within a period of six months commencing on the date the application is received by the MMO, unless otherwise agreed in writing with the undertaker.		application being validated. It would therefore seem reasonable that the MMO is able to make a decision on the discharge of conditions within a period double that length. The Applicants therefore submit that six months is a reasonable amount of time for the MMO to determine any approvals sought, noting that the provisions of the DMLs (condition 8 on DML 1 and 2, condition 6 on DML 3 and 4 and condition 4 on DML 5) do allow for an alternative timeframe to be agreed between the MMO and the undertaker, which could be utilised in the unlikely event that six months was not sufficient in individual cases. 3.11.4 The Applicants welcome the MMO's confirmation that it does not delay determining whether to grant or refuse such approvals unnecessarily. This supports the Applicants' position that six months should be a sufficient amount of time for such approvals to be considered, noting that an alternative timeframe can be agreed in the unlikely event that six months was not sufficient in individual cases. 3.11.2, 3.11.5 and 3.11.6 The Applicants' position is that the submission of certain plans for approval at least four months prior to commencement of operation of licensed activities is appropriate and precedented (for example Hornsea Four and East Anglia One North OWFs). Notwithstanding that, the Applicants welcome that the MMO is open to discussion on this point and will therefore seek to agree the relevant timescales with the MMO and update the Examining Authority (ExA) once those discussions have taken place The Applicants will amend cross-references within this sub-paragraph and submit an updated version of the **Draft DCO** [APP-027] at Deadline 1.		

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
82		DML 1: Condition 17 DML 2: Condition 17 DML 3: Condition 15 DML 4: Condition 15	The MMO requests that the condition 16 (DML1) and condition 17 (DML1) are combined, and this update is also reflected within the other DMLs listed. The MMO also request that condition 17 (2) for DML 1 and 2 and 15 (2) for DML 3 and 4 is removed as this is not appropriate to be in a condition. The MMO set their own timescales. See comments 3.11.2-3.11.6 for determination dates.	The Applicants' preference is not to combine these two conditions, as changes to condition numbering would have an impact on cross-references to DML conditions in a number of other application documents. In relation to sub-paragraph (2), please see response to RR- 030=3·11 above. No change to the **Draft DCO** [APP-027] is proposed.	Please see comments in row 25 above.	Please see the Applicants' response at row 25.
88	Construction monitoring and surveys	DML 1: Condition 21 DML 2: Condition 21 DML 3: Condition 19 DML 4: Condition 19 DML 5: Condition 15	Please explicitly state within the conditions where the results will be submitted.	The Applicants consider this detail should be approved as part of the approval of the monitoring plan(s). It is not precedented for this to be specified in DCO DML conditions. No change to the **Draft DCO** [APP-027] is proposed.	The MMO believes this is covered within Condition 21 (3) and has no further comments.	The Applicants welcome the MMO's comments.
89		DML 1: Condition 21 (4) DML 2: Condition 21 (4) DML 3: Condition 19 (4) DML 4: Condition 19 (4)	The MMO will keep a watching brief on this condition as there are ongoing internal discussions.	The Applicants acknowledge the MMO's response.	The MMO discussed this point with the Applicant on 27 March 2025 and will continue discussions in relation to this requirement.	No response is required.
90		New subsection: DML 1: Condition 21 (8) DML 2: Condition 21 (8) DML 3: Condition 19 (8) DML 4: Condition 19 (8) DML 5: Condition 15 (5)	The MMO requests that a provision for adaptive management is included within this condition.	The Applicants would request that the MMO provide further detail on this point, in order to allow consideration of drafting.	The MMO is requesting this to implement a more proactive process to manage issues, in the event that post construction monitoring shows a greater impact than that assessed in the Environmental Statement. The MMO is currently experiencing this on Round 1 and 2 offshore wind farms. The additional conditions ensure that all parties are clear what is required if the monitoring shows higher impacts than predicted during	The need for further monitoring and actions is reflected in section 1.4 of the **In Principle Monitoring Plan (Revision 3)** [document reference 8.23] which states (paragraph 17): *"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*

I.D.	Main DCO		MMO Comments	Applicant Comments	Deadline 3 Comments	Applicants' Response
					the assessment stage. It also allows the Applicant themselves to provide potential solutions when reviewing the results of monitoring, to then be discussed with the MMO and SNCBs. The aim of the condition is to provide a clear process to the Applicant, the MMO and any consultees if, in preparing the monitoring reports, the Applicant identifies greater impact that the Environmental Statement (ES) predicted rather than a report being submitted and then a discussion having to take place upon review/consultation of the reports. The MMO notes that if impacts are higher than predicted, the MMO can utilise Section 72 of 2009 Act and vary the marine licence to request Adaptive Management but believes the addition of this condition gives a clear process to all and allows for proactive management by the Applicant, rather than reactive management by the MMO.	*effects arise, which may in turn give rise to the need for adaptive management measures to be considered. Where it has been agreed that there are no significant effects, monitoring need not be conditioned through the DMLs."* The Applicants maintain that there is no need for any further provision in the **Draft DCO (Revision 7)** [document reference 3.1] in this regard.
94		New subsection DML 1: Condition 22 (6) DML 2: Condition 22 (6) DML 3: Condition 20 (6) DML 4: Condition 20 (6) DML 5: Condition 16 (6)	The MMO requests that a provision for adaptive management is included within this condition	The Applicants would request that the MMO provide further detail on this point, in order to allow consideration of drafting.	Please see comments above in line 90.	Please see the Applicants' response at row 90.

2.3 Ministry of Defence

Table 2-4 The Applicants' Response to the Ministry of Defence's Deadline 3 Document [REP3-047]

I.D.	Ministry of Defence Response	Applicants' Response
REP3-047:1	*Question ref. ARMC.1.2 – Notification periods.* *Are you supportive of the fourteen and five-day notification periods in Condition 12 of DML 1 [REP1-004] and do you have any other comments on the condition as drafted? The ExA notes this condition is repeated in other DMLs and will consider comments received relevant for all instances.* The MOD acknowledge that the condition identified appears in the applicant's draft Development Consent Order (Application Ref: 3.1 Revision: 05 dated January 2025) within the Deemed Marine Licence (DML) relating to Dogger Bank South (DBS) East Project Offshore Generation (Sch. 10, Pt.2, Cond. 12), and is replicated in DMLs relating to DBS West Project Offshore Generation (Sch. 11, Pt.2, Cond 12), DWS East Project Offshore Transmission (Sch. 12, Pt.2, Cond. 10), DWS West Project Offshore Transmission (Sch. 13, Pt.2, Cond. 10), and DBS East Project and DBS West Project Offshore Transmission (Sch. 14, Pt.2, Cond. 8). In each case the MOD consider that the time period for submitting charting data stipulated is acceptable.	The Applicants welcome the Ministry of Defence's (MODs) agreement regarding the time period for submitting charting data as detailed in the **Draft Development Consent Order (Revision 7)** [document reference: 3.1].
REP3-047:2	*Question ref. ARMC.1.5 – Southern Managed Danger Areas.* *In your Relevant Representation [AS-002], you explain the Proposed Development is within Low Flying Area 11. In addition, the Proposed Development is identified within the Southern Managed Danger Areas [APP-125, section 15.5.3] and [APP-126, Figure 15-2]. To aid the ExA in considering compliance with NPS EN-1 paragraph 5.5.59, can you confirm whether the Proposed Development would unacceptably limit military training, in isolation and cumulatively with other projects, including low flying aircraft operations.* The application site falls within an area which may be used for military low flying and is designated Low Flying Area 11 (LFA11). Within these low flying areas, aircraft may operate as low as 250 feet or 76.2 metres above surface level to conduct low level flight training. The introduction of turbines to this area creates a physical obstruction to low flying aircraft operating in the area. This impact would normally be addressed through the use of Requirements/Planning Conditions that require the submission, approval, and implementation of an aviation safety lighting plan and require the submission of sufficient information to ensure the development can be effectively charted. These Requirements are contained within the applicant's draft Development Consent Order (Application Ref: 3.1 Revision: 05 dated January 2025) within DML relating to DBS East Project Offshore Generation (Sch. 10, Pt.2, Cond. 12), DBS West Project Offshore Generation (Sch. 11, Pt.2, Cond 12), DWS East Project Offshore Transmission (Sch. 12, Pt.2, Cond. 10), DWS West Project Offshore Transmission (Sch. 13, Pt.2, Cond. 10), and DBS East Project and DBS West Project Offshore Transmission (Sch. 14, Pt.2, Cond. 8). The generation assets proposed would be located below a Danger Area complex designated EG D323. The EG D323 designation applies between flight level 05 (approximately 5000ft) and flight level 66 (approximately 66000ft). The development proposed would not be considered to have any significant impact on the operation or capability of that designated airspace, as such the MOD has offered no objection on this ground.	The Applicants welcome the MOD's agreement that the Projects would not have any significant impact on the operation or capability of the Southern Managed Danger Areas.
REP3-047:3	*Question ref. IOU.1.16 – Ministry of Defence submarine practice and exercise area (PEXA)*	The Applicants welcome the MOD's agreement that the Projects would not have enduring adverse impacts upon the military training activities that may be undertaken within the Flamborough Head Submarine Exercise Area. The Applicants welcome the MOD's confirmation that no specific mitigation measures are required and that routine notices to mariners will be sufficient.

I.D.	Ministry of Defence Response	Applicants' Response
	Can you provide details of the extent, purpose and current status of the submarine PEXA listed on admiralty charts in the region of the Order Limits into the Examination? Do you consider that the Proposed Development is likely to have any interactions with the PEXA which would lead to a significant effect(s), or would require mitigation? The Flamborough Head Submarine Exercise Area is a rectangular area bounded by: 5415.0N5 - 5437.0N9 0000.00E0 – 00043.0E7 This Exercise Area extends over the area contained within the order limits for this project that define the area within which cables connecting the offshore wind farm to the UK coast may be installed. The Exercise Area does not extend over the development zone defined for the installation of wind turbine generators. The Flamborough Head Submarine Exercise Area remains designated for use by NATO partner nations to conduct submarine training activities. It is not considered that the proposed development is likely to have any enduring adverse impacts upon the military training activities that may be undertaken within this Exercise Area. It is not considered that any specific mitigation measures are required to address any temporal displacement of the military training activities that may be conducted within this Exercise Area. The routine issuance of regular notices to mariners prior to the commencement of any installation or decommissioning works and associated survey works etc. for the proposed development would be sufficient to coordinate when military training activities are undertaken.	
REP3-047:4	Current MOD position. For clarity, the MOD maintain objection to the Dogger Bank South Offshore Wind Farms Project on the basis that the generation assets proposed would, by virtue of their siting and dimensions, have a significant and detrimental impact on the operation and capability of Air Defence Radar systems sited/deployed at RRH Staxton Wold. At this time the applicant has submitted no mitigation proposal designed to address the harm that would be exerted by the proposed development. I trust this adequately explains our position on this matter. Should you require additional information, please do not hesitate to contact me.	The MOD submitted an updated position [AS-175] on 7th April 2025 which supersedes REP3-047:4. Please see the Applicants' response to the MOD's updated position in **Table 2-5**.

Table 2-5 The Applicants' Response to Ministry of Defence's Additional Submission [AS-175]

I.D.	Ministry of Defence Comments	Applicants' Response
AS-175:1	**Application by RWE Renewables UK Dogger Bank South (West) Ltd and RWE Renewables UK Dogger Bank South (East) Ltd for an Order Granting Development Consent for the Dogger Bank South Offshore Wind Farms** I write to provide an update on the MOD position with regard to the above application. Through previous responses to consultation, the MOD has objected to the development on the basis that review of the proposals has identified that a significant and detrimental impact on the effective operation and capability of air defence radar systems sited/deployed at Remote Radar Head (RRH) Staxton Wold. In addition, the MOD has identified that the development, during either or both the implementation and operational phases, has the potential to introduce physical obstacles to low flying aircraft.	No response is required.

I.D.	Ministry of Defence Comments	Applicants' Response
AS-175:2	**Air Defence Radar – Position update.** The MOD has reconsidered its position with regard to the proposed wind farm and is content that the requirement wording set out within Annex A of this letter provides a route through which appropriate mitigation could be secured. It is noted that the applicant has provided a requirement drafted to address 'Ministry of Defence Radar Mitigation' at Schedule 2, Part 1, Requirement 31 of the submitted draft Development Consent Order (Revision 6, dated March 2025). The wording proposed contains that recommended by the MOD however, the first part of the applicant's proposed requirement wording limits the application of the requirement. At this time the MOD require the wording set out at Annex A as it allows for any changes that might occur before implementation of development.	The Applicants acknowledge the Ministry of Defence (MOD) position update with regard to air defence radar. The Applicants have reviewed the requirement wording proposed by the MOD in Annex A and updated Requirement 31 of the **Draft DCO (Revision 7)** [document reference 3.1] at Deadline 4. However, the Applicants do not agree that the first part of the proposed requirement wording should be removed as this leaves the requirement open to including both Projects which is disproportionate to the impact assessed. The Applicants' proposed wording secures the requirement for DBS West only due to its potential unmitigated impacts on the Radar Line of Sight (RLoS) of the Primary Surveillance Radar (PSR) at Remote Radar Head (RRH) Staxton Wold. As confirmed in **Chapter 15 Aviation and Radar** [APP-125] and reiterated in REP1-062:2 of **The Applicants' Responses to Written Representations** [REP2-057] and during the initial meeting held with the MOD on 6th March 2025, no infrastructure within the DBS East Array Area would be within the RLoS of the RRH at PSR Staxton Wold, therefore there would be no expected impact on Staxton Wold PSR. The significance of any effect on the MOD's ability to provide security from airborne threats has been assessed to be No Change for DBS East and does not require additional mitigation. For this reason, the Applicants maintain that the first part of the requirement wording must remain. It is the Applicants' understanding that an enduring radar mitigation solution for PSR Staxton Wold will be delivered via Programme Njord via the MOD with government funding. The Applicants continue to seek further engagement with the MOD following an initial discussion which took place on 6th March 2025. Detailed discussions with the MOD are required to understand the timelines of delivery of the enduring radar mitigation solution and whether this will be delivered prior to first generation at DBS West. This will conclude whether the MOD will require the Applicants to support the delivery of an interim mitigation solution for DBS West prior to delivery of the enduring solution to allow first generation to commence. The Applicants continue to request further engagement with the MOD to discuss the proposed requirement wording and potential interim mitigation requirements to seek agreement prior to the end of Examination.
AS-175:3	**Military Low Flying – Lighting and Charting.** With regard to the potential introduction of physical obstructions in the low flying system, the MOD would normally stipulate that requirements/conditions are added to any consent that might be issued that require the submission, approval and implementation of an aviation lighting scheme, and that sufficient data is submitted to ensure that structures can be accurately charted to allow deconfliction. • The applicant has recognised the need for these conditions, and has set out provisions within the submitted draft Development Consent Order (Revision 6, dated March 2025) at: • Schedule 10, Deemed Marine Licence 1: DBS East Project Offshore Generation – Work Nos. 1A, 4A and 7A, Part 2, Condition 12; • Schedule 11, Deemed Marine Licence 2: DBS West Project Offshore Generation – Work No. 1B, 4B and 7B, Part 2, Condition 12; • Schedule 12, Deemed Marine Licence 3: DBS East Project Offshore Transmission – Work Nos. 2A, 3A, 7A and 8A, Part 2, Condition 10; • Schedule 13, Deemed Marine Licence 4: DBS West Project Offshore Transmission – Work Nos. 2B, 3B, 7B and 8B, Part 2, Condition 10; and	The Applicants welcome the MOD's agreement that the potential to degrade aviation safety for aircraft operating at low level within the locality of the Projects would be mitigated through the application of the proposed conditions included in the **Draft DCO (Revision 7)** [document reference: 3.1].

I.D.	Ministry of Defence Comments	Applicants' Response
	• Schedule 14, Deemed Marine Licence 5: DBS East Project and DBS West Project Offshore Transmission – Work Nos. 5A, 5B, 7A and 7B, Part 2, Condition 8. Subject to these conditions being applied through any Development Consent Order that might be made, the MOD is content that the potential for the development to degrade aviation safety for aircraft operating at low level within the locality of the proposed Dogger Bank South Offshore Wind Farms would be mitigated.	
AS-175:4	**Conclusion.** In summary, subject to the Requirement wording set out at Annex A of this letter being added to any Development Consent Order that might be made, and the retention of the following conditions already set out in the applicant's draft Development Consent Order: • Schedule 10, Deemed Marine Licence 1: DBS East Project Offshore Generation – Work Nos. 1A, 4A and 7A, Part 2, Condition 12; • Schedule 11, Deemed Marine Licence 2: DBS West Project Offshore Generation – Work No. 1B, 4B and 7B, Part 2, Condition 12; • Schedule 12, Deemed Marine Licence 3: DBS East Project Offshore Transmission – Work Nos. 2A, 3A, 7A and 8A, Part 2, Condition 10; • Schedule 13, Deemed Marine Licence 4: DBS West Project Offshore Transmission – Work Nos. 2B, 3B, 7B and 8B, Part 2, Condition 10; and • Schedule 14, Deemed Marine Licence 5: DBS East Project and DBS West Project Offshore Transmission – Work Nos. 5A, 5B, 7A and 7B, Part 2, Condition 8. the MOD is content to withdraw its objection to this development. I acknowledge that the MOD has been invited to attend an Issue Specific Hearing on 8 April 2025 however, given the above updated position i.e. withdrawal of objection subject to a suitably worded requirement (Annex A), the MOD does not intend to attend. Should the Examining Authority have any specific questions, the MOD would be happy to provide a written response.	No response is required.
AS-175:5	**Annex A** **Ministry of Defence Surveillance Operations.** 1. No wind turbine generator forming part of the authorised development is permitted to rotate its rotor blades on its horizontal axis until the Secretary of State, having consulted with the Ministry of Defence, confirms satisfaction in writing that appropriate mitigation will be implemented and maintained for the life of the authorised development and that arrangements have been put in place with the Ministry of Defence to ensure that the approved mitigation is implemented. 2. For the purposes of this requirement— a. "appropriate mitigation" means measures to prevent or remove any adverse effects which the authorised development will have on the air defence radar(s) at Remote Radar Head (RRH) Staxton Wold, and the Ministry of Defence's air surveillance and control operations; b. "approved mitigation" means the detailed Radar Mitigation Scheme (RMS) that will set out the appropriate measures and timescales for implementation as agreed with the Ministry of Defence at the time the Secretary of State confirms satisfaction in writing in accordance with paragraph (1); and	Please see the Applicants' response to AS-175:2.

I.D.	Ministry of Defence Comments	Applicants' Response
	c. "Ministry of Defence" means the Ministry of Defence as represented by Defence Infrastructure Organisation – Safeguarding, St George's House, DIO Head Office, DMS Whittington, Lichfield, Staffordshire, WS14 9PY or any successor body. 3. The undertaker must thereafter comply with all other obligations contained within the approved mitigation for the life of the authorised development.	

2.4 Natural England – Cover Letter

Table 2-6 The Applicants' Response to Natural England's Deadline 3 Cover Letter [REP3-059]

I.D.	Natural England Response	Applicants' Response
REP3-059:1	**Application by RWE Renewables UK Dogger Bank South (West) Ltd and RWE Renewables UK Dogger Bank South (East) Ltd for an Order granting Development Consent for the Dogger Bank South Offshore Wind Farms** The following constitutes Natural England's formal statutory response for Examination Deadline 3. **1. Natural England's Deadline 3 Submissions** Natural England has reviewed the documents submitted by the Applicant at Deadline 2. An update of Natural England's position regarding documents relevant to our remit is provided in Annex 1, including anticipated timing of responses. Natural England is also submitting the following detailed responses, signposted from Annex 1: • EN010125 489456 DBS – Natural England's Risk and Issues Log Deadline 3 • EN010125 489456 DBS Appendix B3 - Natural England's Advice on Marine Physical Environment Deadline 3 • EN010125 489456 DBS Appendix C3 – Natural England's Advice on Benthic and Intertidal Ecology Deadline 3 • EN010125 489456 DBS Appendix E3 – Natural England's Advice on Fish and Shellfish Deadline 3 • EN010125 489456 DBS Appendix F3 – Natural England's Advice on Marine Mammals Deadline 3 • EN010125 489456 DBS Appendix H3 – Natural England's Advice on Offshore Ornithology Compensation Deadline 3 • EN010125 489456 DBS Appendix J – Natural England's Advice on In Principle Monitoring Plan Deadline 3 • EN010125 489456 DBS Appendix K – Natural England's response to The Examining Authority's Written Questions (ExQ1) Deadline 3 and [PD-016] • EN010125 489456 DBS Appendix L – Natural England's Advice on Change Request 1 Deadline 3	No response is required.
REP3-059:2	**2. The Examining Authority's (ExA's) Written Questions (ExQ1)** As requested in The Examining Authority's Written Questions (ExQ1) [PD-014] and Request for Further Information [PD-016], Natural England has compiled our responses to relevant questions in the Appendix K of our Deadline 3 submission.	No response is required.
REP3-059:3	**3. The Natural Features Potentially Affected by this Application** Following on from our Relevant Representations [RR-039] and as requested in the Examiner's Question [PD-014] HRA.1.7, Annex 2 provides updated Tables of designated sites and interest features which may be significantly affected by the proposed project, based on the information provided to date. It should be noted that this list may change if new evidence emerges during the Examination. GOV.UK links have been provided to Natural England's Designated Site View system where the citation, conservation objectives and supplementary advice for designated nature conservation sites can be located. We have provided links, as these are large and live documents which are updated on a regular basis to incorporate the most up to date evidence. To avoid potentially out of date or inaccurate documents being referred to during the Examination we recommend that the links are utilised. We will provide these tables again at Deadline 5 and with our final position as requested, or when updates of relevance can be made.	Please see the Applicants response to Natural England's position regarding the remaining sites in **Table 2-7** and **Table 2-8** below.

I.D.	Natural England Response	Applicants' Response
REP3-059:4	**4. Draft Development Consent Order (DCO)/deemed Marine Licence (dML)** Natural England advises that a standard condition should be applied to all cable-related dMLs with wording similar to that outlined below, which will require return of information in relation to the as-built scenario, including the location, volume, area, and coordinates of the scour and cable protection laid within benthic MPAs. This is to ensure that a record is provided of all areas of scour protection and cable protection, which will be beneficial at time of decommissioning. *(1) Not more than 4 months following completion of the construction phase of the authorised scheme, the undertaker must provide the MMO and the relevant statutory nature conservation bodies with a report setting out details of the scour protection and cable protection used for the authorised scheme.* *(2) The report must include the following information.* *(a) location of the scour protection and cable protection.* *(b) volume and area of scour protection and cable protection; and* *(c) any other information relating to the scour protection and cable protection as agreed between the MMO and the undertaker.* *(3) For any subsequent deployments of scour protection and cable protection following the completion of construction, the undertaker will provide an updated report as defined in (1) and (2) not more than 4 months following deployment of the scour protection or cable protection.*	The Applicants note that the DMLs (condition 23 of DMLs 1 and 2, condition 21 of DMLs 3 and 4 and condition 17 of DML5) already include wording which covers all of the items requested by Natural England. The Applicants therefore do not propose to make any additional amendments to the **Draft DCO (Revision 7)** [document reference 3.1].

2.4.1 The Applicants Responses to Annex 2: Features for which outstanding concerns remain: Designated Nature Conservation Sites

Table 2-7 Annex 2: Features for which outstanding concerns remain: Designated Nature Conservation Sites

Site Name	Features for which Outstanding Concerns Remain	Reason why feature still remains a concern.	Features no longer a concern and why.	Applicants' Response
Holderness Inshore MCZ	High energy circalittoral rock Intertidal sand and muddy sand Moderate energy circalittoral rock Spurn Head (subtidal) and "the Binks" Subtidal coarse sediment Subtidal mixed sediments Subtidal mud Subtidal sand	Natural England requires further information on how the Change Request and updated CBRA affects the need for cable protection within the 10m depth contour. Please see ExA Q MCZ.1.2 in Appendix K and Appendix B3 for further detail.		The Applicants direct Natural England to the response detailed in ExA Q MCZ.1.2 in **The Applicants' Comments on the Responses to ExQ1** [document reference: 14.3].
Holderness Offshore MCZ	Subtidal coarse sediment Subtidal sand Subtidal mixed sediments	Please refer to our Deadline 3 Risk and Issues Log regarding outstanding issues		The Applicants issued responses regarding the outstanding queries on the Holderness Offshore MCZ in **The Applicants' Comments on the Responses to ExQ1**

Site Name	Features for which Outstanding Concerns Remain	Reason why feature still remains a concern.	Features no longer a concern and why.	Applicants' Response
	Ocean quahog (*Arctica islandica*) North Sea glacial tunnel valleys			[document reference: 14.3] at Deadline 3 and await Natural England's response on this matter.
Dogger Bank SAC	Sandbanks slightly covered by seawater all the time	It has already been concluded in the Plan Level HRA that an AEoI cannot be ruled out for this feature, discussions are now focussed on the quantification of impact. As such this feature will remain in this table.		No response is required.
Flamborough Head SAC	Reefs Submerged or partially submerged sea caves Vegetated sea cliffs of the Atlantic and Baltic coasts	Please refer to BE.1.16 in our Deadline 3 Appendix K.		The Applicants direct Natural England to the response detailed in ExA Q BE 1.16 in **The Applicants' Comments on the Responses to ExQ1** [document reference: 14.3].
Humber Estuary SAC	Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) Estuaries Grey seal (*Halichoerus grypus*) Mudflats and sandflats not covered by seawater at low tide Salicornia and other annuals colonising mud and sand Sandbanks which are slightly covered by sea water all the time	Outstanding concerns remain with respect to nearshore cable protection and interruption to sediment transport for the habitat features (see Holderness Inshore MCZ). Further information is needed to support the grey seal assessment. See Appendix L for further detail.	As set out in our Deadline 1 Risk and Issues Log [REP1-067], Natural England maintain that Sea lamprey (*Petromyzon marinus*) and River lamprey (*Lampetra fluviatilis*) should be screened into the assessment, however we acknowledge that the uncertainties and data poor environment would prevent a reliable assessment being made.	To further demonstrate the limited effects that cable protection in the nearshore environment would have, the Applicants are undertaking modelling of an indicative case of this feature and the effect it would have on the wave regime in the area – given that wave generated currents are the principal driver of sediment movement in the vicinity of the Projects' landfall location. A technical note detailing this modelling will be provided at Deadline 5. The Applicants direct Natural England to the response detailed in REP3-058: A.22 in **Table 2-18**.
Southern North Sea (SNS) SAC	Harbour porpoise (*Phocoena phocoena*)	The Applicant's current commitment to securing NAS pre-consent is insufficient to remove this as a concern. Whilst other marine mammals (EPS) are not SNS SAC features, these concerns also could create a risk for them due to the full injury zone not being mitigated.		The Applicants direct Natural England to the response detailed in REP3-054:1.1 in **Table 2-13**.
Berwickshire North Northumberland Coast (BNNC) SAC	Grey seal (Halichoerus grypus)	Further information is needed to support the grey seal assessment in the Berwickshire North Northumberland Coast (BNNC) SAC. See Appendix L for further detail.		The Applicants direct Natural England to the response detailed in REP3-058: A.22 in **Table 2-18**.

Site Name	Features for which Outstanding Concerns Remain	Reason why feature still remains a concern.	Features no longer a concern and why.	Applicants' Response
Farne Islands SPA	Guillemot (*Uria aalge*), Breeding Seabird assemblage, Breeding	Please refer to Natural England's Deadline 2, Appendix G2 for outstanding issues around in-combination assessment methodology.		The Applicants direct Natural England to the responses on this topic detailed in **Table 2-14**.
Flamborough and Filey Coast SPA	Gannet (*Morus bassanus*), Breeding Guillemot (*Uria aalge*), Breeding Kittiwake (*Rissa tridactyla*), Breeding Razorbill (*Alca torda*), Breeding Seabird assemblage, Breeding	Natural England highlight that we have previously advised Regulators that an AEoI cannot be ruled out for kittiwake, guillemot or razorbill in-combination. Please refer to Natural England's Deadline 2, Appendix G2 for further detail.		The Applicants direct Natural England to the responses on this topic detailed in **Table 2-14**.
Greater Wash SPA	Red-throated diver (*Gavia stellata*), Non-breeding	Natural England have requested further information be provided in relation to red-throated diver and the revised project parameters in the Change Request. Please refer to Deadline 3 Appendix L for further detail.	Whilst an LSE cannot be ruled out for Common scoter (*Melanitta nigra*) Non-breeding, the risk of adverse effects is low, and is likely to be addressed by mitigation measures for RTD relating to construction, operations and maintenance vessel movements. Natural England can confirm that Little gull (*Hydrocoloeus minutus*) Non-breeding, and Little tern (*Sternula albifrons*) Breeding were included in this table in error.	The Applicants welcome Natural England's confirmation that the common scoter, little gull and little tern features of the Greater Wash SPA are not of concern. Please see the Applicants response to REP3-058: A.23 in **Table 2-18** for detail regarding the query on red-throated diver.
Humber Estuary SPA	Avocet (*Recurvirostra avosetta*) Bar-tailed godwit (*Limosa lapponica*) Bittern (*Botaurus stellaris*) Black-tailed godwit (*Limosa limosa islandica*) Dunlin (*Calidris alpina alpina*) Golden plover (*Pluvialis apricaria*) Hen harrier (*Circus cyaneus*) Knot (*Calidris canutus*) Little tern (*Sternula albifrons*) Marsh harrier (*Circus aeruginosus*) Redshank (*Tringa totanus*) Ruff (*Calidris pugnax*) Shelduck (*Tadorna tadorna*)	Natural England do not consider these features to be of immediate concern, however they could become a concern if impacts to the Humber Estuary SAC and Spurn Point cannot be ruled out.		To further demonstrate the limited effects that cable protection in the nearshore environment would have, the Applicants are undertaking modelling of an indicative case of this feature and the effect it would have on the wave regime in the area – given that wave generated currents are the principal driver of sediment movement in the vicinity of the Projects' landfall location. A technical note detailing this modelling will be provided at Deadline 5.

Site Name	Features for which Outstanding Concerns Remain	Reason why feature still remains a concern.	Features no longer a concern and why.	Applicants' Response
	Waterbird assemblage			
Humber Estuary Ramsar	Bar-tailed godwit (*Limosa lapponica*) Black-tailed godwit (*Limosa limosa*) Dunlin (*Calidris alpina*) Golden plover (*Pluvialis apricaria*) Grey seal (*Halichoerus grypus*) Knot (*Calidris canutus*) Natterjack toad (*Epidalea calamita*) Redshank (*Tringa tetanus*) Shelduck (*Tadorna tadorna*), Wintering	As for Humber Estuary SPA.	Please see above point regarding River lamprey (*Lampetra fluviatilis*), Passage and Sea lamprey (*Petromyzon marinus*), Passage.	To further demonstrate the limited effects that cable protection in the nearshore environment would have, the Applicants are undertaking modelling of an indicative case of this feature and the effect it would have on the wave regime in the area – given that wave generated currents are the principal driver of sediment movement in the vicinity of the Projects' landfall location. A technical note detailing this modelling will be provided at Deadline 5.

Table 2-8 Annex 2: Features for which outstanding concerns remain: National Sites

Site Name	Features for which Outstanding Concerns Remain	Reason why feature still remains a concern.	Features no longer a concern and why.	Applicants' Response
Dimlington Cliff SSSI	EC Geological Conservation Review blocks - Quaternary of East England (Quaternary stratigraphy).		Dimlington Cliff SSSI was included in this table in error and should have been Withow Gap SSSI.	The Applicants welcome Natural England's confirmation that Dimlington Cliff SSSI was previously included in error. See response below on Withow Gap SSSI.
Withow Gap SSSI	EC - Quaternary of North-East England.		Please refer to Appendix L for further details on clarification needed to rule this site out.	The Applicants direct Natural England to the response detailed in REP3-058: A3 in **Table 2-18.**
Flamborough Head SSSI	Reefs Submerged or partially submerged sea caves Vegetated sea cliffs of the Atlantic and Baltic coasts Aggregations of breeding birds including	As for Flamborough Head SAC.		The Applicants direct Natural England to the response detailed in ExA Q BE 1.16 in **The Applicants' Comments on the Responses to ExQ1** [document reference: 14.3].
Humber Estuary SSSI	As per Humber Estuary SPA Above. Non-breeding birds: Brent goose (dark-bellied) (*Branta bernicla bernicla*) Curlew (*Numenius arquata*)	As per Humber Estuary SPA and SAC Above.		To further demonstrate the limited effects that cable protection in the nearshore environment would have, the Applicants are undertaking modelling of an indicative case of this feature and the effect it would have on the wave regime in the area – given that wave generated currents are the principal

Site Name	Features for which Outstanding Concerns Remain	Reason why feature still remains a concern.	Features no longer a concern and why.	Applicants' Response
	Golden plover (*Pluvialis apricaria*) Lapwing (*Vanellus vanellus*) Marine Mammals: Grey seal, (*Halichoerus grypus*) Features: Assemblages of breeding birds - Lowland open waters and their margins			driver of sediment movement in the vicinity of the Projects' landfall location. A technical note detailing this modelling will be provided at Deadline 5.

2.5 Natural England – Appendix B3 Marine Physical Environment

Table 2-9 The Applicants' Response to Natural England's Advice On: [REP2-036] 8.18 Disposal Site Characterisation Report (Revision 2) (Tracked) – Appendix B3 Marine Physical Environment [REP3-051]

I.D.	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
REP3-051:1	General Natural England notes that there is no differentiation between sandwave levelling and sediment disposal inside and outside of designated sites.	Natural England's Deadline 2 Appendix C2.1 advice remains unchanged	The Applicants note that they have previously made a commitment, secured via conditions within each DML (condition 15 (3) of DMLs 1 and 2, condition 13(4) of DMLs 3 and 4 and condition 11(3) of DML5), to disposing of all sediment dredged within the Dogger Bank SAC within the boundaries of the SAC. Further, at Deadline 3, the Applicants have made the further commitment to disposing of like sediments on like sediments within the boundaries of the Dogger Bank SAC, as presented in the revision of the Cable Statement submitted at Deadline 4. Further details relating to these commitments, and the differentiation that the Applicants have made between sandwave levelling and sediment disposal inside and outside of designated sites can be found in **The Applicants' Reponses to Deadline 2 Documents** [REP3-028].
REP3-051:2	Section 8.1.3.3 It is stated that within the arrays, seabed level could be increased by up to 0.5m where multiple cable corridors merge, but in practice the cable layout will be designed to avoid this.	Natural England require clarity on where this has been secured. [R&I, B46.1]	The figure of a 0.5m increase in seabed level is in reference to the worst-case increase in sediment accumulation calculated in the marine physical processes modelling undertaken for the Projects. The modelling has shown that up to 0.5m of sediment could be deposited in and around the Offshore Platform (see Figure D-42 of **Appendix 8-3 Marine Physical Processes Modelling Technical Report (Revision 3)** [REP2-0018]) where multiple inter-array cables come together. This is because there is a greater density of cables in this area and the modelling assumes that sediment deposition is cumulative e.g. the sediment deposited during trenching of one array cable is overlain by sediment deposited during the installation of the adjacent array cable. This will not be the case as two cables will not be installed adjacent to one another during the same time period (two cable vessels cannot operate adjacent to one another) and natural sediment transport processes will redistribute the sediment deposited during the installation of the first cable, before deposition of material disturbed by trenching of the adjacent cable. The higher density of array cables in the vicinity of the Offshore Platform cannot be avoided by design as they need to connect to a single platform. The overarching project design is secured in in Schedule 2 Part 1 of the **Draft Development Consent Order (Revision 7)** [document reference 3.1]). In any case, it would not be possible to secure a change in seabed level of up to 0.5m as sediment transport is not static and is constantly changing.
REP3-051:3	Section 8.1.4 Natural England welcomes the proposal of a subtidal exit pit. Whilst we agree with the Applicant that this has the potential to reduce the risk of sediment transport being disrupted, further evidence is required to demonstrate whether project mitigation is sufficient.	Natural England advises that further evidence is presented on the reduction in sediment transport disruption.	To further demonstrate the limited effects that cable protection in the nearshore environment would have the Applicants are undertaking modelling of an indicative case of this feature and the effect it would have on the wave regime in the area. The modelling is focused on wave generated currents given they are the principal driver of sediment movement in the vicinity of the Projects' landfall location. A technical note detailing this modelling will be provided at Deadline 5. In addition, the Applicants provided Figure C-1 in Appendix C of **The Applicants' Responses to Deadline 2 Documents** [REP3-028] which illustrates the potential worst case extent of protection in the worst case location in the nearshore area at a regional scale.

Table 2-10 The Applicants' Response to Natural England's Advice On: [REP2-040] 8.20 Cable Statement (Revision 3) (Tracked) – Appendix B3 Marine Physical Environment [REP3-051]

I.D.	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
REP3-051:4	Appendix B - Section 5.2.3.1, Para 1 It is stated that "*Mobile bedforms are present in the ECC corridors, although rates of mobility are not yet confirmed.*" It is also stated that sediment mobility studies are ongoing. The recommendation of the Export Cable Route (ECR) Preliminary CBRA (Appendix B to [REP2-040]) is that the results of these sediment mobility studies should be considered alongside the present CBRA and further repeat bathymetry surveys "*to calculate the total installation depth of lowering required to adequately protect the cable for its full design life.*" Natural England agrees with this recommendation, but highlights the current level of uncertainty regarding seabed mobility and bedform migration rates and directions across the export cable corridor route options.	To address this evidence gap, Natural England advises that a seabed mobility study and more detailed and accurate assessment of bedform migration rates and directions should be carried out. This will increase confidence when defining the optimal depth of lowering/cable burial depth and help reduce the risk of cable exposures over the lifetime of the installed assets. [R&I, B29]	The Applicants re-iterate their response provided in **The Applicants' Reponses to Deadline 2 Documents** [REP2-028]: *The Applicants would like to reiterate that the final version of the CBRA will not be completed within the time frame of examination. There will also be no updates to the existing CBRA within the time frame of examination. This is because there is no new information or data available to the Applicants that can provide any further understanding than has already been documented. The Applicants are in the process of planning additional surveys for summer 2025. When the results become available, they will feed into the CBRAs as they are further updated post consent. The final CBRAs will be appended to any final Cable Statements submitted by the Applicants in fulfilment of the relevant DML Conditions relating to this matter, such as condition (such as condition 15 (1) (g) in Schedule 10). Hence, Natural England will have sight of, and opportunity to comment on, these documents and any related engineering proposals as part of the DML condition discharge process.* *The current understanding of seabed mobility is outlined in section 8.5.8. of **Chapter 9 Marine Physical Environment** [APP-080]. This baseline understanding is based on a Projects-specific seabed mobility study undertaken by the Applicants to inform the assessment (MarineSpace, 2023). The study assesses multiple bathymetric surveys to quantify bed level change and shows that levels of change are of the order of 0.2m over an 11 year period in the Array Area. This study has been provided for consideration during the examination period, see the **Bed Mobility & Thermal Environment** [document reference: 13.7] submitted at Deadline 3. As noted above, it is expected this document will be superseded as further site investigation and design work is completed prior to construction. The Applicants re-iterate that, as noted above, there are protections written into the Draft DCO that will ensure that Natural England have the opportunity to review the information requested once it is available as part of the process of discharging DML conditions.*
REP3-051:5	Appendix B - Section 5.2.3.1 It is recommended that if active mobile features are found to be present after repeat bathymetry surveys, that a stable seabed level assessment should be undertaken. Natural England agrees with this recommendation.	We advise that this stable seabed level, or vertical reference level and depth of lowering, should be identified pre-construction. Unless accurate and sufficient data already exist, we advise that pre-construction surveys should be carried out in areas with mobile bedforms, across a corridor wide enough to identify areas with deeper troughs that have the potential to affect the asset over its lifetime is surveyed. This is important for increasing understanding of the seabed mobility in the targeted area, cable protection requirements and options. [R&I, B29].	The Applicants welcome Natural England's agreement with the recommendations of the ECR CBRA. The Applicants can confirm that their intention to undertake pre-construction surveys and to produce final cable statements in line with the conditions of the Deemed Marine Licences.
REP3-051:6	Appendix B - Table 27 Table 27 states that the estimated maximum dredge volumes for ECR options B and C, based on the 2022 bathymetry, are 227,886m3 and 297,391m3 respectively. However, it is unclear how	We would welcome the Applicant's clarification on the MDS dredge volume values for the ECR. [R&I, B50].	The maximum dredge volumes for the Offshore Export Cable Corridor detailed in Table 27 of Appendix B of the **Cable Statement (Revision 4**) [document reference: 8.20] are based on indicative locations within the Offshore Export Cable Corridor that may require dredging to enable installation of the Offshore Export Cable(s). These

I.D.	Key Concern and/or Update	Natural England's Advice to Resolve Issue	Applicants' Response
	these values relate to the Maximum Design scenario (MDS) parameters presented in either ES Chapter 8 [APP-080] or the Project Change Request 1 [AS-141].		locations and figures are indicative at this stage however, and do not represent the final parameters for installation of the Offshore Export Cable Corridor. As such, to ensure the worst-case scenario was assessed the Maximum Design scenario detailed in the **Chapter 8 Marine Physical Environment** [APP-080] and **Project Change Request 1 – Offshore and Intertidal Works** [AS-141] was based on the worst-case assumption that dredging would occur across the entire length of the Offshore Export Cable Corridor. It should be considered that anticipated dredge volumes are likely to change as site information increases, designs progress and the final cable statements and CBRAs are prepared and submitted for approval in line with the conditions of the Deemed Marine Licences.
REP3-051:7	Appendix B - Section 6.6 It is stated that "*The burial classes from the BAS have changed following re-calculation of the CBRA results accounting for the additional geotechnical data and resultant updated ground model from Fugro…this change mainly consists of a shift into a greater percentage of both routes (by cable distance) being allocated as class B or C.*" This shift, according to our understanding, is that there is now a higher percentage of export cable route length where reduced and variable or poor burial conditions are expected, than previously assessed. This is because more geohazards have since been identified. Clarification is needed on whether this increases the potential requirement for external cable protection along the ECR or changes the MDS presented in Table 4-2 of Project Change Request 1 [AS-141].	Clarification is needed on whether the results of the ECR Preliminary CBRA alter the MDS for ECR cable protection. We advise that further discussion is also needed on the implications for cable protection within the 10m depth contour. [R&I, B49].	The Applicants can confirm that the worst case scenario proposed for external cable protection on application remains valid. As such, no changes to the worst case scenario proposed for external cable protection are proposed either within or without the 10 m depth contour.
REP3-051:8	Appendix B - Section 7 Several key cable burial risks have been identified across the site (ECR) including areas of sub-cropping or outcropping bedrock in the nearshore, high-strength clays, shallow waters over Dogger Bank, and large mobile features. However, it is not clear where these key risk areas occur along the cable route options.	We advise that it would be useful if the Applicant could provide a map identifying the cable sections where these key risks exist, along with an overlay of sensitive receptors and designated areas of seabed. [R&I, B49]	The Applicants understand that rather than understanding areas of potential risk, Natural England are more likely to be interested in presently anticipated locations proposed for external cable protection. Rather than providing a map of risks, the Applicants note that the 'Remedial Protection' columns in Appendix F of the Export Cable Route CBRA appendix within the **Cable Statement (Revision 4)** [document reference: 8.20] presents the kilometre points from shore (KP0) within which the deposit of external protection is presently anticipated to be required. The Applicants note that Natural England should be able to use this preliminary information to understand the presently anticipated locations proposed for cable protection along the DBS Export Cable Corridor. The Applicants note that the CBRAs remain preliminary and are subject to future updates as discussions with Contractors take place to understand their burial tool capability. Final Cable Statements including final CBRAs will be submitted for approval prior to the commencement of construction.

2.6 Natural England – Appendix C3 Benthic and Intertidal Ecology

Table 2-11 The Applicants' Response to Natural England's Deadline 3 Document - Appendix C3 Benthic and Intertidal Ecology [REP3-052]

I.D.	Natural England Response	Applicants' Response
REP3-052:0	Overview In formulating these comments, the following documents submitted by the Applicant have been considered in relation to the impacts of Dogger Bank South (East and West) Offshore Wind Farm (DBS OWF) on Benthic and Intertidal Ecology: • [REP2-036] 8.18 Disposal Site Characterisation Report (Revision 2) (Tracked) • [REP2-040] 8.20 Cable Statement (Revision 3) (Tracked) • [REP2-052] 8.27 Outline Scour Protection Plan (Revision 3) (Tracked) • [REP2-013] 6.2.3 Appendix 3 – Project Level Dogger Bank Compensation Plan (Revision 2) (Tracked) • [REP2-026] 8.6 Commitments Register (Revision 2) (Tracked)	No response is required.
REP3-052:1	**1. Change Request 1** Natural England welcomes that the values for the worst-case scenarios and/or Maximum Design Parameters (MDP) have been updated in the above documents in line with Change Request 1. These changes are welcome and reduce the worst-case parameters / impacts originally assessed in Chapter 9 Benthic Ecology [APP-085]. However, the reductions do not result in any changes to the outcomes of the original assessments. Please see Appendix B3 of our Deadline 3 submission for further comments on 8.20 Cable Statement [REP2-040] and 8.18 Disposal Site Characterisation Report [REP2-036]. Please note that in all documents there should be differentiation between infrastructure, activities and impacts inside and outside of benthic designated sites.	The Applicants acknowledge that the reductions in **Project Change Request 1 – Offshore and Intertidal Works** [AS-141] did not change the outcome of the original assessment. However, the impacts assessed in **Chapter 9 Benthic and Intertidal Ecology** [APP-085] result in a residual effect of no greater than minor adverse, which is not significant in EIA terms. Outside of **Project Change Request 1– Offshore and Intertidal Works** [AS-141], the Applicants have committed to the bundling of Offshore Export Cables. The updated indicative parameters for Offshore Export Cable installation are provided in the updated **Report to Inform Appropriate Assessment (RIAA) Habitat Regulations Assessment (HRA) Part 2 of 4 - Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [document reference 6.1] submitted at Deadline 4. The updated parameters are also secured within the **Draft Development Consent Order (Revision 7)** [document reference 3.1]. The Applicants note Natural England's comments on the **Cable Statement (Revision 3)** [REP2-040] and the **Disposal Site Characterisation Report (Revision 2)** [REP2-036], please see section 2.5, **Table 2-9** and **Table 2-10** for responses.
REP3-052:2	**2. 8.20 Outline Scour Protection Plan [REP2-052]** Natural England notes that text has been added to Section 1.2 indicating that if plastic-based materials are used as part of scour protection (e.g. frond lines or mats), the impacts on the marine environment will be considered in the final Scour Protection Plan (SCP). We highlight that as the final SCP will be provided post-consent, if the impacts of plastic-based scour protection have not been included and/or fully assessed as part of the Application Environmental Statement/RIAA, a further assessment will be required at that time. And depending on the outcome may require an additional HRA assessment to inform Condition Discharge.	The Applicants acknowledge this comment.
REP3-052:3.1	**3. 6.2.3 Project Level Dogger Bank Compensation Plan [REP2-103]** 3.1 Written Ministerial Statement (DESNZ, 2025) Natural England agrees with the revisions made by the Applicant with respect to the interim guidance in the Written Ministerial Statement published by DESNZ in January 2025. As noted in our Deadline 2 response [REP2-071], Defra are now leading on the designation and/or extension of an MPA for the delivery of strategic benthic compensation.	The Applicants welcome Natural England's agreement on this matter.

I.D.	Natural England Response	Applicants' Response
REP3-052:3.2	3.2 Quantification of impacts Whilst the impact values in [REP2-103] have been revised in line with the Change Request reductions, we note that outstanding concerns remain regarding the quantification of benthic impacts. We welcome that the Compensation Plan provides values calculated for habitat loss and physical damage, however these do not consider aspects such as ecological halo effects. Natural England advises that if agreement cannot be reached on the impacts that should be included in habitat loss estimates (e.g. abrasion/ disturbance and ecological halo effect), then as with ornithology compensation, impact values should be provided in line with both the Applicant's and SNCB's advised approach to the assessment. This will provide the Examiner's and Secretary of State with a fuller understanding of the potential scale of compensation that will be required to be delivered.	The Applicants highlight that should agreement not be reached, the worst case for disturbance effects has been provided in **Project Change Request 1 – Offshore and Intertidal Works** [AS-141] and will be included in the updated revision of the **RIAA HRA Part 2 of 4 - Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [document reference 6.1] submitted at Deadline 4. This is reflected in the updated **Appendix 3 Project Level Dogger Bank Compensation Plan (Revision 3)** [document reference 6.2.3] submitted at Deadline 4 which includes the disturbance footprint on a without-prejudice basis. This information will allow the Secretary of State to determine the footprint contributing to Adverse Effect on Integrity should they concur with Natural England's advice.
REP3-052:3.3	3.3 Removal of project level compensation Natural England welcomes the Applicant's proposed progression of strategic benthic compensation in the form of Marine Protected Area designation and/or extension and therefore has no nature conservation concerns with the removal of project level compensation i.e., fisheries management measures and seagrass restoration.	The Applicants welcome Natural England's agreement on this matter.
REP3-052:4	**4. 8.6 Commitments Register [REP2-026]** Natural England notes that commitment ref. CO96 of [REP2-026] has been updated with *"habitat with suitability for sandeel, and / or surficial deposits of glacial till"* to be included when determining presence of potential Annex I / UK BAP Priority Habitats during preconstruction surveys and for consideration to avoid though micro-siting should this habitat be identified. Whilst we welcome this, the figures presented by the Applicant in [APP-050] (6.1.2 RIAA HRA - Appendix B – Sandeel Habitat Potential in the Dogger Bank SAC and Southern North Sea SAC - Volume 6) indicate that the Project Development area is considered to have a medium to high habitat potential for sandeel. It is therefore unclear how much mitigation this will deliver. We continue to advise that efforts to avoid the use of external cable protection to reduce impacts to sensitive benthic features would be most effective.	The Applicants confirm that ref. Co91 has been updated in the **Commitments Register (Revision 2)** [REP2-026] as described and note their alignment with Natural England's goal of minimising the use of cable and scour protection as part of the Projects. Regarding cable protection the Applicants direct Natural England to ref. Co92 on minimising the use of scour and external cable protection: *Following industry best-practice the Applicants will seek to minimise the use of scour protection and external cable protection for any stretches of unburied cables and cable crossings. This is presented in two Cable Burial Risk Assessments and secured in Cable Protection Plans, produced in line with the detail outlined in Volume 8,* ***Cable Statement*** *(application ref: 8.20) that has been submitted with the DCO application, and which will be updated in accordance with Conditions attached to the Deemed Marine Licences (DMLs) in Volume 3,* ***Draft DCO*** *(application ref:3.1).* *In addition, the Applicants will seek to minimise the use of foundation scour protection. This is presented in Volume 8,* ***Outline Scour Protection Plan*** *(application ref: 8.27) that has been submitted with the DCO application, and which will be updated in accordance with Conditions attached to the DMLs in Volume 3,* ***Draft DCO*** *(application ref: 3.1).*

2.7 Natural England – Appendix E3 Fish and Shellfish

Table 2-12 The Applicants' Response to Natural England's Deadline 3 Document – Appendix E3 Fish and Shellfish [REP3-053]

I.D.	Natural England Response	Applicants' Response
REP3-053:0	In formulating these comments, the following documents submitted by the Applicant have been considered in relation to Fish and Shellfish: • [AS-105] 10.41 Heat Mapping Report Atlantic Herring and Sandeel • [REP2-061] Marine Management Organisation Deadline 2 Submission • [AS-142] 10.5 Appendix A – Fish and Shellfish Environmental Statement Update • [PD-015] EN010125-001289-ExQ1 - Dogger Bank South 28 February 2025 • [REP1-051] EN010125-001166-11.6 The Applicants' Responses to January 2025 Action Points	No response is required.
REP3-053:1.1	**1.1.10.41 Heat Mapping Report** Natural England welcomes the review and update of the heat maps for Atlantic herring and sandeel provided in [AS-105]. We note only one year of Vessel Monitoring System (VMS) data (2020) has been incorporated, and request justification for this is provided as it will only provide a snapshot of fishing activity. We defer to Cefas regarding the detailed assessment of the methodology used by the Applicant. Reducing Herring spawning seasonal restriction Regarding the Applicant's use of Eastern Greenlink 2 (EGL2) as justification to reduce the herring spawning seasonal restriction for cable installation, Natural England support concerns raised by the MMO at Deadline 2 [REP2-061] that cumulative impacts for numerous upcoming developments should be taken into consideration along the ECC route. Further, the EGL2 proposal concerned only cable installation works and therefore cannot automatically be applied to the impacts of DBS, which also includes underwater noise impacts, as well as seabed preparation works and cable installation activities. Natural England defer to Cefas for further comment on the appropriate period of a seasonal restriction to be applied for herring. However, we maintain that a number of environmental factors could cause herring to spawn at different times within the season and that Atlantic Herring populations could experience significant impacts from underwater noise from piling activities and UXO clearance during the spawning period.	The VMS data presented within the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105] (referenced as MMO, 2023) represents fishing data from the years 2016-2020, incorporating data from multiple years. It is labelled 2020 VMS data in the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105] due to the most recent revision date being 1st January 2020, but referenced as MMO (2023) in compliance with the data copyright (for further details see the attribution statement section within MMO (2023), and the response given within the response to REP2-061:16 within **The Applicants' Responses to Deadline 2 Documents** [REP3-028]). Reducing Herring spawning seasonal restriction Noise impacts and disturbance impacts are separate issued devolved by different aspects of the Projects which will be managed and delivered separate. The proposed installation of export cables remains the sole activity with the potential to result in physical disturbance to spawning habitat for Atlantic herring. Please refer to the response in REP3-053:1.2 below detailing the Applicants' position with regards to underwater noise. As stated in **The Applicants' Responses to Deadline 2 Documents** [REP3-028], potential cumulative effects with projects such as EGL2 are expected to be short term due to the lack of overlap in construction activities and the expected recovery of the seabed post-installation. Information relating to the refinement of the Atlantic herring spawning seasonal restriction has been presented in the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105]. This information includes consideration of variation in environmental factors that may alter the exact timing of spawning.
REP3-053:1.2	**1.2 Worst-case location for the assessment of underwater noise impacts on herring** Natural England agree that underwater noise has been assessed across a larger geographical spread given the Applicant's assessment of the bathymetry and likely includes a greater area of medium spawning potential habitat for herring. We note that the Applicant has responded to the January 2025 Action Points [REP1-051] with reference to the updated heat maps and to the Temporary Threshold Shift (186 dB re 1 µPa2s SELcum) underwater noise threshold (Popper *et al.*, 2014). However, we are still unclear on if using the Southwest corner with the 135 dB re 1 µPa2s SELss threshold (Hawkins *et al.*, 2014) will overlap more with the very high potential spawning areas, particularly around Kilometre Point 30 (Figure 2-1 [AS-105]). Concerns could only be addressed by reassessment of underwater noise models. In both scenarios, Natural England maintain that underwater noise impacts	It is acknowledged that whilst full documentation of the analysis, methodologies, and modelling as submitted within the Application were not available at the Expert Topic Group stage, Natural England were presented with a proposed approach to the assessment of underwater noise impacts. However, no feedback, or alternative approach as to the locations of underwater noise modelling was given when presented with the best available evidence at the time. In the absence of feedback, comment, or advice, assessment was undertaken as indicated to stakeholders and regulators at this stage based on best available information. Had the fundamentals of the modelling parameters proposed been opposed by Natural England then it would have been reasonable to expect this to have been raised at this juncture. As originally described within the memo submitted to the MMO dated 2nd November 2023, the Applicants strongly oppose the use of the 135dB behavioural threshold (which was determined for sprat *Sprattus sprattus*)

I.D.	Natural England Response	Applicants' Response
	from piling will have population level effects due to possible disturbance to spawning herring if noise exceeds the behavioural threshold (135 dB re 1 µPa2s SELss) across their spawning potential habitats. We therefore maintain the position that a seasonal restriction is needed in order to reduce population level impacts on the Banks Herring population (see 1.1).	for the assessment of potential impacts to Atlantic herring *Clupea harengus*. Whilst sprat and Atlantic herring are both species within the family Clupeidae, this is not a suitable justification for implementation of this threshold given the evidence presented by Hawkins *et al*. (2014). The scientific publications upon which this threshold is based (Hawkins and Popper, 2014; Hawkins *et al*., 2014) **explicitly state that: "these data cannot yet be used to define the sound exposure criteria"; and "We would stress, however, that it would be premature to use these data to define sound exposure criteria for sprat and mackerel"** respectively. Therefore, on the evidence of the authors' own position, the use of 135dB as a behavioural threshold should not be incorporated into MMO advice for the purposes of EIA. Guidance for impact thresholds is provided within Popper *et al.* (2014), (published the same year, and noting the common authors between these publications), the underwater noise impact thresholds presented have been considered best practice guidance since its publication and are the ones used in the Applicants' assessment (**Chapter 10 Fish and Shellfish Ecology** [APP-091]). Should modelling have been undertaken at alternative locations, no change in the assessment is predicted, as discussed in detail with Underwater Noise Action Point 34, Table 4-1 within **The Applicants' Responses to January 2025 Action Points (Revision 2)** [AS-155] and presented within the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105]. In summary: • The underwater noise modelling locations were chosen to give the greatest geographical spread across the DBS site, in the deepest water (acoustically the 'worst case'). • The 'mapping' of receptors in the marine environment, especially mobile ones should be treated as indicative of their location, location of spawning potential or nursery grounds etc, rather than precise locations or areas. This is due to the uncertainties with all marine data sets and the need therefore to combine a range of data sources to inform understanding. • Small changes in noise are not in general distinguishable, and at the ranges of potential disturbance of many kilometres, this should lead to very small changes in the level of noise if it were from the south-west location that would not materially change the risk of disturbance on fish. Given therefore that the 'mapping' of both noise and receptor presence is not precise (but based nonetheless on best available evidence), the Applicants consider that the assessment is robust and reassessment is not necessary Notwithstanding the above, the Applicants were asked by the Examining Authority in Issue Specific Hearing 5 (Action No. 24, Action Points from Issue Specific Hearing 5 (ISH5) held on 10th April 2025 [EV10-002]) to undertaken noise modelling taking into account piling at the southwestern corner of DBS West. This work is being undertaken and the results will be presented at Deadline 5.

2.8 Natural England – Appendix F3 Marine Mammals

Table 2-13 The Applicants' Response to Natural England's Deadline 3 Document - Appendix F3 Marine Mammals [REP3-054]

I.D.	Natural England Response	Applicants' Response
REP3-054:0	In formulating these comments, the following documents submitted by the Applicant have been considered in relation to the impacts of Dogger Bank South (East and West) Offshore Wind Farm (DBS) on Marine Mammals. • [AS-048] 10.30 - Response to Natural England's Relevant Representations (Revision 01) • [REP2-050] 8.26 Draft In Principle Site Integrity Plan (Revision 3) (Tracked) • [REP2-048] 8.25 Outline Marine Mammal Mitigation Protocol (Revision 3) (Tracked)	No response is required.
REP3-054:1.1	**1.1 Outline Marine Mammal Mitigation Protocol** Piling at night / reduced visibility Natural England's Risk & Issues Log Deadline 3, point F10 Natural England can only agree to piling during reduced visibility / darkness if the Applicant can demonstrate that the Passive Acoustic Monitoring (PAM) equipment can cover the whole Mitigation Area (MA). We highlight that the most frequently used PAM technologies for marine mammal mitigation struggle to detect harbour porpoise beyond a distance of 300 m. The Applicant will need to show evidence that their proposed PAM equipment will cover the whole MA for all marine mammals and that they have considered animals that vocalise infrequently such as baleen whales and seals. Noise Abatement Systems Natural England advise that the Applicant should fully commit to using noise reducing technology, such as Noise Abatement Systems, at this stage in the application. Natural England does not consider that a commitment to employ best endeavours constitutes a commitment to use NAS and that it does not go far enough to provide confidence and certainty that a project will implement either primary or secondary NAS for their projects and therefore noise reduction at source may not be achieved. Consequently, Natural England strongly advises that all Applicants should commit to the use of NAS as mitigation to ensure the satisfactory alternatives test for EPS licensing can be passed and significant noise reductions can be achieved to help avoid adverse effects on integrity of designated sites, particularly from cumulative and in-combination impacts with other plans and projects. If a commitment to the use of NAS can be made pre-consent, Natural England would welcome the use of Best Endeavours by Applicants to secure the most appropriate noise abatement system or noise mitigation technology they can between consent and construction. Natural England would welcome the opportunity to engage with the Applicant in this regard post-consent.	Piling at night / reduced visibility A final description of the PAM method including information on the equipment and sensitivity of the hydrophones will be presented in the final Marine Mammal Mitigation Protocol (MMMP), in line with the Joint Nature Conservation Committee (JNCC) PAM guidance (2023[1]). The Applicants will ensure that the PAM equipment will be sufficient at monitoring the full MA and has the capability of detecting all vocalising marine mammals. This will be consulted on post-consent with the statutory Nature Conservation Bodies (SNCBs) as part of the approval process by the MMO. Noise Abatement Systems The Applicants have committed to utilising best endeavours to deliver noise reduction (primary and /or secondary methods) in line with the Department for Environmental Food and Rural Affairs (Defra) Policy Paper on Reducing Marine Noise as part of Defra's Marine Noise Package (2025[2]). The additional mitigation measures are presented in section 3.1.9 of the **Outline MMMP (Revision 3)** [REP2-047] and consider the use of Noise Abatement Systems (NAS) as mitigation for underwater noise. Any additional mitigation will be dependent on the final project design and determined at the post-consent stage. The Applicants have submitted a technical note at Deadline 4 (**Underwater Noise Reduction Technical Note** [document reference 14.9]) presenting predicted impact ranges from **Appendix 11-3 Underwater Noise Modelling Report (Revision 2)** [AS-137] using a 10dB noise reduction. Examples of types of noise reduction methods such as NAS are presented in the technical note, as the Applicants are including NAS within the Projects' procurement strategy to allow it to be called upon should it be required based on the final design parameters. With a 10dB noise reduction, the worst case predicted cumulative Sound Exposure Level SEL_{cum} PTS impact ranges for harbour porpoise would be reduced from 11km to 0.98km for two sequential monopiles. The Applicants welcome engagement with Natural England post-consent to ensure the most appropriate mitigation is implemented.
REP3-054:1.2	**1.2 Draft In Principal Site Integrity Plan** Natural England acknowledges that the Project alone is not breaching the Southern North Sea (SNS) SAC disturbance thresholds; however, there are several projects contributing to the exceedance,	The Applicants acknowledge that the indicative in-combination assessment presented in section 8 of the **In Principle Site Integrity Plan (SIP) for the Southern North Sea (SNS) Special Area of Conservation (SAC) (Revision 3)** [REP2-049] exceeds the disturbance spatial threshold for the SNS SAC. Although, it is very unlikely for all activities listed to occur on the same day due to programme timings, vessel availability and

[1] JNCC (2023). JNCC guidance for the use of Passive Acoustic Monitoring in UK waters for minimising the risk of injury to marine mammals from offshore activities.
[2] The Department for Environmental Food and Rural Affairs (Defra). (2025). Policy Paper on Reducing Marine Noise as part of Defra's Marine Noise Package.

I.D.	Natural England Response	Applicants' Response
	including this Project, which is contributing a significant proportion. To reduce the disturbance in the SNS SAC, there is an expectation that each contributing project will take responsibility for their project's noise reduction, for example by committing to NAS, in line with the mitigation hierarchy.	technical issues. The assessment has included Effective Deterrent Radius based on unmitigated piling at all the other Offshore Wind Farm projects and high order UXO clearance, both of which are very unlikely under the new guidance. Therefore, the assessment is highly precautionary to an unrealistic degree at this time and will be updated for the final SIP based on updated mitigation requirements and timings of activities taking place. The Applicants have included noise reduction measures in section 9.2 of the **In Principle SIP for the SNS SAC (Revision 3)** [REP2-049]. The noise reduction methods are in line with the Defra policy paper on Reducing Marine Noise as part of Defra's Marine Noise Package and NAS is being included within the Projects' procurement strategy as an optional element to allow it to be called upon should it be required based on the final design parameters. Mitigation measures that the Applicants are considering are presented in section 3.1.9 of the **Outline MMMP (Revision 3)** [REP2-047], which includes different foundation types, alternative installation methods and noise reduction. Once the final design envelope is confirmed, the final MMMP and final SIP will be updated to reflect the project design and specific noise mitigation measures that the Projects will utilise. This will be submitted to the MMO and relevant SNCBs for consultation and approval in writing by the MMO as secured in **Draft Development Consent Order (Revision 7)** [document reference 3.1] (condition 15(1)(g) in DMLs 1 and 2 and condition 13(1)(g) in DMLs 3 and 4 for the MMMP and condition 16 in DMLs 1 and 2 and condition 14 in DMLs 3 and 4) for the In Principle SIP for the SNS SAC.

2.9 Natural England – Appendix H3 Offshore Ornithology Compensation

Table 2-14 The Applicants' Response to Natural England's Deadline 3 Document - Appendix H3 Offshore Ornithology Compensation [REP3-055]

I.D.	Natural England Response	Applicants' Response
REP3-055:0	In formulating these comments, the following documents submitted by the Applicant have been considered in relation to offshore ornithology compensation: • [REP2-010] 6.2.1 Appendix 1 – Project Level Kittiwake Compensation Plan (Revision 4) • [PBD-007] 10.19 Project Level Kittiwake Artificial Nesting Structure (ANS) Site Selection Report • [REP2-060] 12.6 Case for Reduction in Kittiwake Breeding Seasons for ANS Installation	No response is required.
REP3-055:1	**1. Compensation Implementation and Monitoring Plan (CIMP)** We welcome the Examiner's agreement in the Rule 17 letter dated 3rd March 2025 [PD-016] that a populated CIMP should be provided into the Examination. We note that the Applicant has stated in the Project Level Kittiwake Compensation Plan (KCP) [REP2-010] that an ANS monitoring programme "*remains under development and is contingent on outcomes of the onshore ANS monitoring programme at Gateshead*". Natural England welcome the monitoring being undertaken by the Applicant at the onshore ANS in Gateshead. However, we do not consider that the development of a monitoring programme for the offshore ANS should be contingent on the results of this onshore monitoring. There is a considerable amount of information already available on kittiwake monitoring approaches at ANS, both from the long-established onshore 'Saltmeadows Tower' in Gateshead that is monitored by the Tyne Kittiwake Partnership, and from several offshore ANS that have already been constructed by other OWF projects. An appropriate monitoring plan is essential for determining the success of the proposed compensation measures, particularly given the uncertainties that exist around the ability of these measures to sufficiently compensate for OWF impacts. As such, we advise that the Applicant include a detailed monitoring proposal as part of a kittiwake CIMP. We also highlight that the Applicant has indicated that adaptive management approaches would be developed post-consent. Appropriate adaptive management measures are essential to ensure that compensation requirements can be delivered should primary measures fail. There remains considerable uncertainty around the ability of these measures to sufficiently compensate for the Projects' impacts, and as such, appropriate monitoring plans and adaptive management measures are necessary to ensure the effectiveness of the measures. As such, we do not consider it appropriate to submit such information post-consent and advise that further detail on adaptive management is provided within the CIMP. This detail could draw on the submitted IMPs from other OWF that have required delivery of an ANS.	The Applicants acknowledge the feedback from Natural England on the inclusion of details regarding monitoring of the offshore Artificial Nesting Structure (ANS) and adaptive management, and will submit an updated **Outline Kittiwake Compensation Implementation and Monitoring Plan (CIMP) (Revision 2)** [application reference 6.2.1.2] at Deadline 4. The Applicants will provide details so much as they are able to ahead of final site selection, detailed design phase for the ANS and input from the Steering Group. The Applicants will continue to apply lessons learned where appropriate from the onshore ANS at Gateshead, but acknowledge that there are differences in the monitoring requirements and capabilities when considering onshore vs offshore ANS. Nonetheless, the Applicants onshore ANS provides additional benefits beyond habitat provision in that it allows for the testing of monitoring equipment and techniques in an accessible and less challenging environment, therefore providing an ideal test bench for future monitoring programmes offshore. The Applicants have also reviewed kittiwake CIMPs and Development Consent Order (DCO) documentation for other Offshore Wind Farm (OWF) projects including Hornsea Project 3 and Norfolk Vanguard in regard to monitoring programmes and adaptive management measures. COWSC's draft kittiwake CIMP has also been appraised in the development of the **Outline Kittiwake CIMP (Revision 2)** [application reference 6.2.1.2]. The Applicants agree that adaptive management measures are essential to consider, further details on these will be provided in the **Outline Kittiwake CIMP (Revision 2)** [application reference 6.2.1.2] at Deadline 4. The Crown Estate Kittiwake Steering Group convened on 4th April 2025 and was attended by the Applicants, and representatives from Natural England, JNCC and The Crown Estate. The Applicants discussed monitoring measures in this meeting, as well as potential adaptive management. Details of this meeting are provided in updates to the **Appendix 1 - Project Level Kittiwake Compensation Plan (Revision 4)** [REP2-010] at Deadline 4.
REP3-055:2	**2. Onshore adaptive management** The Applicant refers to the final capacity available to the Projects at the onshore ANS at Gateshead by stating: *"The apportionment of nests between OWF developers is subject to commercial agreements that are yet to be confirmed. Nonetheless, there would remain sufficient capacity for this onshore ANS to potentially make a notable contribution to the Applicants' overall compensation requirement should it be required".* Natural England have consistently advised since Hornsea Four that we do not consider that further onshore artificial nesting structures are likely to result in sufficient benefits to produce compensation,	The Applicant acknowledges Natural England's position on the onshore ANS. Offshore ANS remains the primary measure for the Projects, but the Applicants maintain that there is value in the ability of the onshore ANS at Gateshead to offset accrual of mortality debt before the offshore ANS is delivered, and as adaptive management if required. The onshore ANS provides confidence and security and was delivered in good faith by the Applicants ahead of publication of the **Round 4 Kittiwake Strategic Compensation Plan** [APP-053].

I.D.	Natural England Response	Applicants' Response
	given the number and location of such structures already proposed by consented OWF projects. It has not been demonstrated that there is a sufficient pool of nest limited kittiwake recruits, suitable locations, and/or prey availability available to meet and sustain the existing demand for this measure. In that light, whilst we are not opposed to some nest spaces on the onshore ANS at Gateshead being retained by the Project for adaptive management should the offshore ANS fail, we consider the extent of benefit it could provide would be limited.	
REP3-055:3	**3. Site Selection** Natural England note that in the KCP [REP2-010], the Applicant has identified three Area of Search (AoS) candidate sites for progression out of the five shortlisted AoS, following detailed desk-based assessments. However, there is a lack of detail provided as to the specific reasons for the elimination of the three originally shortlisted AoS that have now been discounted (Site 5, Site F, and Northwest). Natural England advises more detail is provided on these specific reasons, as has been provided for the earlier stages of down-selection. Site F, in particular, would appear to have potential in terms of ecological suitability. The KCP also shows that Site 6a is in close proximity to the AoS being taken forward by ODOW. We therefore advise that consideration should be given to the added ecological resilience of having two ANS structures in different locations, as highlighted in the Kittiwake Strategic Compensation Plan. We also request that information is provided regarding how the advice submitted in Appendix H2 of our Deadline 2 submission [REF], and originally provided 4 to the Applicant in December 2024, has been and will be considered in the site selection process. Natural England welcomes the Applicant's commitment to identifying a project-led ANS site during the Examination period and the awareness of the evolving compensation proposals of other relevant projects.	Detailed clarification on the down selection of AoS will be provided in updates to **Appendix 1 - Project Level Kittiwake Compensation Plan** [REP2-010] at Deadline 4. In summary, the down selection of Site 5, Site F and Northwest was undertaken on the basis of several site-specific factors including: • unsuitable ground conditions such as bedrock within the foundation depth and/or bed mobility. • engineering constraints relating to water depth resulting in limited opportunities. • Operation and Maintenance logistical challenges & costs. • shipping and navigation conflict concerns. • Health and Safety (HSE) concerns in relation to distance from safe harbour and transit times to medical assistance for visiting personnel and human wellbeing and safety. • environmental concerns relating to increased emissions associated with long transits. Site 6a at its closest point is 12.6km to Outer Dowsing Offshore Windfarm's (ODOWs) proposed ANS location, and 20km away at the furthest point of the candidate site search area. Sites 4b and 4d are approximately 90km away. Sites will be selected on the basis of suitable ground conditions, HSE considerations and logistical viability. These factors are at the forefront of the site selection process as all locations are considered to be ecologically viable following the in-depth site selection process to date.
REP3-055:4	**4 Reduction in Breeding Seasons for the ANS** Please see Annex 1 of this document for our advice relating to the Applicant's Case for Reduction in Kittiwake Breeding Seasons for ANS Installation.	No response is required.
REP3-055: 1.1	**Annex 1: Natural England's comments on 12.6 Reduction in Kittiwake Breeding Seasons Prior to Artificial Nesting Structure Installation [REP2-060]** 1.1 Summary Natural England advise that a reduction in lead in time for Artificial Nesting Structures (ANS) from four full kittiwake breeding seasons to two full kittiwake breeding seasons must be considered specifically against the ecological risks arising from the Dogger Bank South project alone. While Hornsea Three and Hornsea Four have recently received approval from the Secretary of State (SoS) to accept a non-material change to amend the Hornsea Four Order to reduce the length of time the proposed ANS for kittiwake needs to be in place before operation, these changes were acceptable on the basis of the particular compensation measures proposed by those projects, and a robust evidence-based case that the changes would not result in significant additional impacts. Therefore, these decisions do not automatically set a precedent that other projects proposing ANS can follow. Accordingly, the evidence for a two-year lead in time as opposed to the four advised by Natural England must be sufficiently strong to provide continued	The Applicant understands the nuances that must be accounted for when considering the case for reduction in breeding season, and that OWF projects are considered on a case-by-case basis. Several factors have given the Applicants cause to re-examine timelines with regard to the number of breeding seasons between offshore ANS installation and wind farm operation. These are centred around the biological case for kittiwake, precedent for other OWF projects providing kittiwake compensation, and the Projects' programme (primarily related to fabrication and lead in times). There were several drivers behind the reduction in breeding seasons for the Hornsea Projects and ODOW which also apply to the Applicants. The Hornsea Projects required the non-material changes to allow time for the construction of the ANS without impacting the programme for the operation of the development and avoiding unnecessarily delay in provision of renewable energy to the national grid. Delivering an offshore ANS is a highly challenging task, and one that resulted in Hornsea 4 abandoning their offshore ANS scheme in pursuit of an onshore one – it is evident that the delivery of this measure can represent a genuine risk to project delivery. As such, the Applicants assert that it is crucial to ensure that they

I.D.	Natural England Response	Applicants' Response
	certainty for the success of the measure. Natural England do not consider that [REP2-060] currently provides this.	hold all of the necessary data, have taken due care with site selection (and site investigation surveys), proceeded with diligence during the concept and detailed design processes, as well as with the procurement and appointment of fabrication contractors. The fabrication process itself is subject to availability of the most suitable contractors and will take time, as will transport and installation of the ANS once made. Procuring materials (primarily steel) will additionally be contingent on international supply chains which are presently subject to flux due to international market uncertainty. With these factors combined, even under optimistic programming scenarios, it would be highly challenging for the Applicants to deliver an offshore ANS more than two breeding seasons ahead of operation. This is not due to a lack of ambition on the Applicants part, rather, a reflection of the necessary steps required to deliver the offshore ANS successfully. Further details on the ANS delivery programme are provided **in Appendix 1 - Project Level Kittiwake Compensation Plan (Revision 5)** [application reference 6.2.1]. Further updates in relation to productivity rates and calculations used by the Applicants to determine rate of compensation are provided in updates to **Case for Reduction in Kittiwake Breeding Seasons for ANS Installation** [REP2-060] at Deadline 4.
REP3-055: 1.2	1.2 Scale of compensation Natural England have not provided further comment on the impact values presented in this document, as our advice on this has been provided in our comments [AS-160] on the Project Level Kittiwake Compensation Plan [REP2-010].	No response is required.
REP3-055: 1.3	1.3 Hornsea 3 and 4 decisions Natural England acknowledge that both Hornsea Project Three and Four Offshore Wind Farms (OWF) were granted Non-Material Changes to reduce the number of breeding seasons for ANS installation prior to operation from four to two. However, we consider the Applicant's statement in Section 3 that *"The non-material changes were consented for both Hornsea projects on the basis of a provision of evidence on growth rates at the ANS"* over-simplifies the case and does not consider the wider context of the applications. At the point when the NMCs were granted for Hornsea Three and Four, considerable work had been undertaken post-consent with respect to both site securement and ANS design, providing greater certainty and confidence in the measure that would be delivered. It had also been demonstrated that best endeavours had been made to deliver the compensation within the four breeding seasons required, but that this had become unfeasible largely due to reasons outside of the projects' control. Specifically, on Hornsea Three Natural England were reassured as the project were progressing four structures, in at least two English regions, each of which were predicted to address their impacts. The provision of multiple ANS provided some comfort that any build up in mortality debt resulting from the reduction in the number of breeding seasons had the potential to be mitigated against by the high level of nest space provision. Furthermore, the installation of ANS in two regions was likely to provide resilience against any negative environmental influences that could arise in one location, again mitigating against the accumulation of mortality debt. Natural England therefore concluded that the NMC would not significantly impair the effectiveness of the DCO in securing the compensatory measures. It should also be noted that three of Hornsea Three's structures were subsequently installed three breeding seasons prior to operation.	Please refer to response to REP3-055: 1.1.

I.D.	Natural England Response	Applicants' Response
	For Hornsea Four, Natural England had been consulted through the OOEG and the associated Marine License Application on the location and design plans for the ANS, and agreed that should the Applicant's proposals be progressed, they had a good prospect of delivering ecologically suitable nesting habitat for kittiwake. It was noted, however, that provision of a single rather than multiple structures would increase the risk around non-colonisation. We also highlight that the current iteration of the Hornsea Four Kittiwake Compensation Implementation and Monitoring Plan under review by Secretary of State, includes provision of compensation four breeding seasons prior to operation, albeit the proposals now relate to an onshore rather than offshore ANS.	
REP3-055: 1.4	1.4 Modelling methodology Natural England consider that further information on the modelling approach, parameters used, and calculations undertaken to obtain the growth rate results presented should be included within this document, rather than exclusively signposting to the Hornsea 4 documentation. The document does not currently detail the consideration of any crucial assumptions, such as juvenile survival rates for example. We advise that further information on the methodology used, and the consideration of any important assumptions is included. This will allow reviewers to assess the extent to which the predictions are precautionary. For example, it is currently unclear what level of compensation quantum has been used to inform the growth curves in the report. Section 2 provides the predicted annual impact range currently presented in the KCP (104-377); however, Section 4 does not specify which value has then been used to inform growth rate calculations and determine when 'full' compensation would be provided. We advise that growth curves should be provided considering compensation requirements according to both the Applicant and SNCB advised approach. Natural England would also welcome a more detailed description of how the 'mortality debt' has been calculated, and whether the values presented take into account the need for the ANS colony to sustain itself, i.e. whether they reflect the Hornsea 3 part 2 or Hornsea 4 approach.	The Applicants used exactly the same assumptions for growth scenarios as presented by Hornsea 4[3], this was a pragmatic choice given that the method had been recently consented and the Applicants conclusion that methods were ecologically appropriate and that Natural England had provided specialist input on the parameters used. However, the Applicants acknowledge that in the presentation of the results in Figure 4-1, the assumptions used were potentially not clear and the assumption of annual mortality was not presented. For clarity, in the revised version of the **Case for Reduction in Kittiwake Breeding Seasons for ANS Installation** [REP2-060] submitted at Deadline 4, the Applicants have replaced Figure 4-1 with tables. The tables presented cover the mean impact mortality scenario with initial colony sizes of 1 and 20 breeding pairs and the 95% UCI mortality with an initial colony size of 1 and 20 breeding pairs. The tables assume installation of the ANS two years prior to operation. In response to REP3-055-1.5 the Applicants have also included the lower productivity rate of 0.69 for all initial scenarios. In the extreme worst cases (using the 95% UCI and most precautionary growth rates) the mortality is never offset. However, following our meeting with Natural England on 5th April 2025, the Applicants consider that the success criteria should be based on the mean annual mortality therefore the 95% UCI tables are presented for information. The results previously discussed are unchanged – for the mean annual mortality for a starting colony of 20 pairs the payback of mortality occurs in the majority of scenarios, and falls between 13 and 35 years (after installation of the ANS). This is true also with the new lower productivity of 0.69, in which case payback is achieved by Year 37. With the initial colony size of 1 pair, success is largely limited to growth rates of 50% and above, with payback only achieved at a productivity of 1.38 at 20% growth rate However, at colony sizes above 1 pair success would occur under more scenarios and sooner. The Applicants understand that following the British Trust for Ornithology (BTO) review of compensation methodologies, Natural England would no longer recommend updating the Applicants' assumptions using the Hornsea 3 part 2 method. Furthermore, the primary purpose of this document is to demonstrate that the time for payback is a constant for each scenario. Therefore, if the payback period for a given scenario is 15 years then that remains the case irrespective of whether the ANS is installed four years before operation or two years, and the only difference is that payback occurs in year 15 (four year gap) or year 17 (two year gap) of the wind farm operation.

[3] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010098/EN010098-002370-Covering%20Letter%20and%20Application%20Document.pdf

I.D.	Natural England Response	Applicants' Response
REP3-055: 1.5	1.5 Growth curves: Productivity rates The Applicant has used three potential productivity rates for the growth rate calculations, defined as low (0.8), medium (1.025), and high (1.38). We note that 0.8 has been defined as the lowest productivity rate at which a kittiwake colony can be self-sustaining (Coulson, 2017[4]). However, we note that the average productivity rate for kittiwake in the British Isles between 1986 and 2005 was 0.68 (Mavor et al 2008[5]) and that the UK average was defined as 0.69 (Horswill & Robinson, 2015[6]). Furthermore, the average productivity rate for kittiwake at FFC SPA between 2015 and 2021 was 0.57[7][8][9][10][11][12][13]. We therefore advise that a productivity rate of 0.8 should not be considered a worst-case scenario and highlight the need for precaution when interpreting the results of growth rate projections based on productivity rates that may be unachievable for kittiwake colonies in the North Sea. We highlight that the productivity rate used has a significant impact on the growth curves presented in Figure 4-1 [REP2-060], and that in many of these scenarios, compensation is only achieved within the lifetime of the Projects at the higher productivity rates. Only two scenarios (B: initial colony size 20, growth rate 50% and C: initial colony size 20, growth rate 80%) show impacts being compensated within the lifetime of the Projects (30 years) at a productivity rate of 0.8. We also note that climate change is predicted to have a negative impact on future productivity rates for kittiwake populations in the UK (Pearce-Higgins 2021[14]), which further highlights the need for caution when projecting high rates of productivity in future decades.	See response to REP3-055: 1.4 above.
REP3-055: 1.6	1.6 Growth curves: Colonisation rates The growth rate calculations appear to assume that colonisation will take place as soon as ANS installation is complete. Given the variable level of colonisation shown by OWF-related ANS to date (only one of the seven structures having been colonised in the first breeding season, by a single pair, and four structures not having had a nesting pair in the second breeding season), we also advise the report should consider the implications of each scenario having a delayed colonisation period (e.g. 1, 2 and perhaps 5 years), in order to incorporate the current, albeit limited, evidence on ANS colonisation.	A delayed colonisation period simply shifts the point of success further into the future. There is no reliable way to predict how colonisation will proceed, and the Applicants can only, through the site selection and design processes of the ANS, aim to maximise the chances of early colonisation. In addition, once operational, adaptive management of the ANS will enable action to be taken if colonisation does not proceed as predicted. This includes the Applicants' commitment to maintaining the ANS beyond the projects' lifespan should a mortality debt remain. In addition to the Applicants' proposed ANS providing the compensation, there will also be an ANS constructed by ODOW which will also be able to deliver some of the Projects' compensation quantum (see REP3-055: 1.8). Also, the Applicants maintain that there is value in the ability of the onshore ANS at Gateshead to offset accrual of mortality debt before the offshore ANS is delivered, and as adaptive management if

[4] Coulson, J.C. (2017). Productivity of the black-legged kittiwake Rissa tridactyla required to maintain numbers. Bird Study 64: 84-89.
[5] Mavor, R.A., Heubeck, M., Schmitt, S. and M. Parsons (2008) Seabird numbers and breeding success in Britain and Ireland, 2006. Peterborough, Joint Nature Conservation Committee. (UK Nature Conservation, No. 31.).
[6] Horswill, C. and Robinson, R.A. (2015). Review of seabird demographic rates and density dependence. JNCC Report No. 552. JNCC, Peterborough.
[7] Aitken D., Babcock M., Barratt A., Clarkson K & Prettyman S. (2017) Flamborough and Filey Coast pSPA Seabird Monitoring Programme – 2017 Report.
[8] Babcock M., Aitken D., Jackson S. & Clarkson K. (2015) Flamborough and Filey Coast pSPA Seabird Monitoring Programme – 2015 Report.
[9] Babcock M., Aitken D., Kite K. & Clarkson K. (2016) Flamborough and Filey Coast pSPA Seabird Monitoring Programme – 2016 Report.
[10] Babcock M., Aitken D., Lloyd I., Wischnewski S., Baker R., Duffield H. & Barrett A. (2018) Flamborough and Filey Coast SPA Seabird Monitoring Programme – 2018 Report.
[11] Cope, R., Aitken D. & O'Hara D. (2021) Flamborough and Filey Coast SPA Seabird Monitoring Programme – 2021 Report.
[12] Lloyd I., Aitken D., Wildi J.& O'Hara D. (2019) Flamborough and Filey Coast SPA Seabird Monitoring Programme – 2019 Report.
[13] Lloyd I., Aitken D. & O'Hara D. (2020) Flamborough and Filey Coast SPA Seabird Monitoring Programme – 2020 Report.
[14] Pearce-Higgins, J.W. (2021) Climate Change and the UK's Birds. British Trust for Ornithology Report, Thetford, Norfolk.

I.D.	Natural England Response	Applicants' Response
		required. The onshore ANS provides confidence and security and was delivered in good faith by the Applicants ahead of publication of the **Round 4 Kittiwake Strategic Compensation Plan** [APP-053].
REP3-055: 1.7	1.7 Growth curves: Growth rates Natural England acknowledge that projecting growth rates for new colonies on ANS is challenging, but available data shows that, while new colonies may show initially high growth rates, these are likely to decline after the first decade (Coulson (2011)[15], Kildaw et al. (2005)[16], & Orsted (2024)[17]. We note that even the rapid growth of the kittiwake colony at Coquet Island averaged under 30% for the first thirty years (Orsted 2024). Natural England have therefore previously advised that a 10% growth rate was more likely to be appropriate for the lifetime of a wind farm (Natural England, 2021). We acknowledge that Hornsea Three and Four used logistic models (whereby the growth rate decreases as target colony size is approached) with starting growth rates of 20, 50 and 80%, as the Project have done, however Hornsea Three and Four had robust monitoring and adaptive management proposals in place to provide comfort that any underperformance in the long term could be addressed. Natural England advise the growth rates used may need to be revisited following provision of the detailed CIMP.	The Applicants have used the same methodology as the Hornsea Three and Four projects and have robust (and proportionately developed, given the stage of the Projects) proposals for monitoring and adaptive management in place. These include having already constructed an onshore ANS at Gateshead which may be colonised well before operation of the Projects.
REP3-055: 1.8	1.8 Delivery The Applicant has stated that the *"Calculations indicate that offshore ANS would deliver the required compensation quantum within the project lifetime" and that "if ANS installation occurs two full years prior to operation, full compensation would be achieved between 16 and 36 years following first generation"*. However, the Projects' lifetime has been defined as 30 years in ES Chapter 5 - Project Description [APP-071]. The Applicant's statements that the ANS would take up to 36 years to compensate for impacts and that the ANS would deliver full compensation within the project lifetime are therefore contradictory. Natural England is concerned that, according to the Applicant's own calculations, the ANS may not be able to deliver full compensation within the Projects' lifetime. It is also stated that there is a possibility that Outer Dowsing (ODOW) OWF may provide their project led ANS in 2025, and that *"this would mean that 50% of the compensation would be delivering earlier than the DBS alone ANS"*. However, ODOW has also recently submitted a request into Examination to reduce the number of breeding seasons to two. It therefore cannot be guaranteed that ODOW would have a structure in place by 2025.	Under the scenarios presented within Case for **Reduction in Kittiwake Breeding Seasons for ANS Installation (Revision 2)** [application reference 12.6], the Applicants explain that the ANS may take between 13 and 37 years to deliver full compensation (assuming the colony initially has 20 pairs), or between 19 and 50 years (assuming the colony initially has a single pair). In the event that the ANS is colonised but there is remaining compensation debt after 30 years of operation (the Projects' lifespan); to reduce the risk of compensation deficit the Applicant retains the option to maintain and monitor the ANS beyond the duration of the Projects. This additional responsibility could be implemented as adaptive management, to be reviewed regularly with oversight from the kittiwake Steering Group which will include Natural England and the RSPB as primary members.. This additional commitment to ensuring the success of the offshore ANS provides confidence that the measure will deliver the compensation requirement for the Projects, even if beyond the Projects' operational lifespan. Further details will be provided via updates to the Applicant's **Outline Kittiwake Compensation Implementation and Monitoring Plan (CIMP)** [APP-054] at Deadline 4. The Applicant has engaged with ODOW on their ANS delivery programme and have agreed and signed a Memorandum of Understanding (MoU) for a collaboration agreement in relation to the development, construction, operation and decommissioning of ANS sites. This document sets out the terms for collaboration, and each Party's commitment to sharing nesting spaces and compensation benefits attached to each occupied space. It is acknowledged that due to revised timescales for the delivery of the ODOW ANS, there is unlikely to be capacity to deliver a portion of compensation early as a result of collaboration. While early kittiwake compensation through collaborative efforts with ODOW is not currently an option, the Applicants onshore ANS at Gateshead is already implemented and is showing encouraging signs of utilisation by kittiwake. The onshore ANS was constructed in February 2023, a full seven breeding seasons ahead of first possible operation for the Projects.

[15] Coulson, J.C. (2011). The Kittiwake. T. & A.D. Poyser, London
[16] Kildaw, S.D., Irons, D.B., Nysewander, D.R. & Buck, C.L. (2005). Formation and growth of new seabird colonies: the significance of habitat quality. Marine Ornithology 33: 49-58.
[17] Orsted (2024) Application to make a non-material change to Hornsea 4 offshore wind farm order 2023 (S.I. 2023/800) as corrected (S.I. 2024/117). 2 May 2024.

I.D.	Natural England Response	Applicants' Response
REP3-055: 1.9	1.9 Mortality debt The Applicant suggests in the KCP [REP2-010] that any '*compensation deficit accrued*' from a delay to the delivery of the offshore ANS would be so small that it would be paid off over the lifespan of the Proposed Development, or that the scale of compensation could be increased, or alternative measures could be relied on to offset any deficit accumulated during the early years of operation. Natural England consider that any of these factors are far from guaranteed. Compensation deficit, or mortality debt, will not just accumulate as a result of the ANS not being in place prior to impact occurring. Each year that the Project is operational, there will be a requirement for the compensation to deliver 'X' adult kittiwake into the breeding population, which will be measured through the number of chicks fledged from the ANS. As evidenced by the growth curves, it will take years for the compensation to deliver in full. The scale of chick provision required each year will therefore be revised iteratively, based on how many chicks have fledged in the previous year(s). Mortality debt can therefore not only accrue from a failure to have compensation measures in place sufficiently before the projects are operational, but also from if the ANS underperforms for several years over the lifetime of the project or takes a significant period of time to become colonised.	As discussed in REP3-055: 1.6 the Applicants have no control over how the ANS is colonised and can only use best available evidence to maximise the chances of colonisation through site selection and design. In addition, the Applicants will: • Review data collected on an annual basis & use adaptive management accordingly to take action if the ANS is not functioning as expected; and • Incorporate redundancy through the provision of the onshore ANS already in place and the collaboration with ODOW.
REP3-055: 1.10	1.10 Conclusion Natural England acknowledge that in all scenarios a significant amount of time is required to achieve the required level of compensation, and a delay in installation is likely to lead to an equivalent delay in full compensation delivery. However, we disagree that there is therefore *"little biological relevance to the four-year figure"* or that *"a reduction in breeding seasons from four to two ahead of operation does not materially affect the delivery of the compensation requirement"*. As noted by the Applicant, the four years was originally secured by the SoS to allow sufficient time for the recruitment of juveniles to the adult population, given that kittiwake are known to start breeding on average at four years old. It was also to allow benefits from higher predicted colony growth rates in the early years following colonisation. As detailed in Section 1.6, our understanding of colonisation rates has changed since the initial development of ANS as a compensation measure for Hornsea 3, which if anything, has increased the importance of ANS installation being undertaken as soon as possible in advance of impacts occurring. We further note that the Applicants have not substantiated their statement that a reduction in breeding seasons *"is necessary to ensure the security of the Projects"*, as no information regarding specific logistical constraints have been presented. Natural England consider that a reduction in lead-in time for ANS installation should be considered a last resort and should only be agreed where robust evidence is provided to support confidence in the success of the measure. We do not consider that the information provided by the DBS Projects meets these criteria. Natural England therefore advise that the Applicant provide more robust evidence that every effort has been made to ensure that four breeding seasons are met, and to demonstrate, with confidence, that compensation requirements can be delivered by the measures proposed.	The Applicants acknowledge that there are valid ecological origins behind the four-breeding season period. However, as evidenced in **Case for Reduction in Kittiwake Breeding Seasons for ANS Installation (Revision 2)** [application reference 12.6] the four breeding seasons compared to two over the course the Projects lifespan (and beyond) is insignificant and does not materially impact the ability of the ANS to deliver the Projects compensation requirement. Rather, it delays delivery of compensation by two years. To deliver the offshore ANS four years in advance of first possible operation (planned for 2029), the Applicants would have been required to install the structure in Q1 2025, prior to consent being granted. This was not considered feasible, or reasonable in regard to financial or logistical risks. Updated details on the Projects programme are provided in **Appendix 1 - Project Level Kittiwake Compensation Plan (Revision 5)** [application reference 6.2.1]. In summary, delivering an offshore ANS is a challenging task, and one that resulted in Hornsea 4 abandoning their offshore ANS scheme in pursuit of an onshore one – it is evident that the delivery of this measure can be a genuine risk to overall project delivery. As such, the Applicants assert that it is crucial to ensure that they hold all of the necessary ground condition data from site investigation surveys, have adopted thorough processes with site selection, and are proceeding with diligence during the concept and detailed design processes, contractor procurement and fabrication phases for the ANS.

2.10 Natural England – Appendix J In-Principle Monitoring Plan

Table 2-15 The Applicants' Response to Natural England's Deadline 3 Document - Appendix J In-Principle Monitoring Plan [REP3-056]

I.D.	Natural England Response	Applicants' Response
REP3-056:0	In formulating these comments, the following documents have been considered: • [APP-247] 8.23 In-Principle Monitoring Plan • [REP2-044] 8.23 In Principle Monitoring Plan (Revision 2) (Tracked)	No response is required.
REP3-056:1	**1. Introduction** 1. Natural England welcomes the submission of the Dogger Bank South (DBS) In-Principle Monitoring Plan (IPMP) and relevant updates [APP-247, REP2-044] as part of the application. Further, we welcome the Applicant's inclusion of the general guiding principles for proposed monitoring (Section 1.4). We also refer the Applicant to Natural England's Best Practice Advice document which sets out our expectations in terms of monitoring. This document is available at: Environmental considerations for offshore wind and cable projects - Phase IV Best Practice Advice for Post-Consent Monitoring, Version 1.0, July 2022.pdf. Relevant sections are also included in Annex A of this document for reference. 2. This document outlines Natural England's overarching concerns with the IPMP [APP-247, REP2-044], particularly in relation to the overall aim of ensuring adaptive monitoring and remediation is secured within the DCO. In addition, this document provides further advice on each of the offshore nature conservation receptors: physical processes, benthic subtidal ecology, fish and shellfish ecology, offshore ornithology, and marine mammals.	4. The Applicants welcomes agreement from Natural England on the inclusion of the guiding principles in the **IPMP (Revision 2)** [REP2-044]. The Applicants are aware of the Natural England guidance on post-consent monitoring and have incorporated best practice where it has been possible to do so at the in-principle stage of the plan. A reference to the guidance has been added to **IPMP (Revision 3)** [document reference 8.23] and submitted at Deadline 4. 5. The Applicants note Natural England's second point and have responded further to the substantive points below.
REP3-056:2	**2. Overarching Concerns with the IPMP** 3. Natural England advises that this is a live document which is updated throughout Examination and post consent to reflect the outcome of discussions and/or monitoring. 4. In recognition of the emphasis being placed by projects currently in the post consent phase on the IPMP when setting the monitoring requirements and parameters; Natural England highlights the importance of this document. Natural England emphasises the requirement to agree the scope of the IPMP and hypotheses which will be tested by the monitoring as part of the consenting phase 5. Overall, Natural England feels that much more detail is required than is provided in the IPMP in its current form. For example; • What are the hypotheses the monitoring will be testing and how do they relate to the assessments undertaken in the ES? • How will the monitoring be designed to ensure that the desired outcomes can be achieved i.e. is the monitoring fit for purpose? • What are the indicative timings of the surveys? • Can lessons be learnt from previous thematic surveys and how will modifications to surveys design be incorporated between survey campaigns? • What does 'success' look like to demonstrate that no further monitoring is required? • What happens if the results do not support the null hypothesis? Is further	3. The Applicants note Natural England's comment and confirm the IPMP will be kept under review during Examination and updated where required. Following consent, the IPMP will be developed into final monitoring plans in accordance with the DML conditions, in consultation with statutory consultees including Natural England and the MMO, when the detailed design of the Projects is further progressed and specific locations of offshore infrastructure and detailed construction schedules are available. 4. The Applicants agree that the IPMP is an important document and this is reflected in the **Draft Development Consent Order (DCO) (Revision 7)** [document reference 3.1] within which the deemed marine licences (conditions 15/13/11) secure that the offshore monitoring plan must be developed in accordance with the IPMP and in consultation with the relevant Statutory Nature Conservation Body (SNCB). The **IPMP (Revision 3)** [document reference 8.23] states the likely significant effects and receptors to be monitored, along with the reason for monitoring. This will inform the development of hypotheses in the final post consent offshore monitoring plan. The Applicants therefore consider that the **IPMP (Revision 3)** [document reference 8.23] is appropriate and notes that it is consistent with that of other consented offshore wind farms. 5. The detailed information requested by Natural England will be provided in the post consent monitoring plan and developed in consultation with Natural England as the relevant SNCB. The framework approach secured by the IPMP enables the post-consent offshore monitoring plan to be informed by the latest available information, such as detailed design of the Projects and emerging monitoring results from other relevant projects, where possible.

I.D.	Natural England Response	Applicants' Response
	monitoring required (with/without modifications)? If impacts are greater than predicted, do actions need to be undertaken to address these impacts? How will further monitoring and actions be secured, is a change to the wording of the dML required? And if so, how will success of any action/s be monitored and what will be the success criteria before monitoring can cease? To answer the above, Natural England considers the IPMP should focus on what the uncertainties and evidence gaps of the Environmental Impact Assessment (EIA) and/or Habitat Regulations Assessment (HRA) are, rather than solely the outcomes of the EIA and HRA. We consider that establishing and agreeing the uncertainties and evidence gaps of the EIA and/or the HRA is necessary to inform what monitoring should be undertaken. 6.Natural England advises an approach mechanism in which the Applicant presents a clearly defined hypothesis or null hypothesis of no impact would be beneficial. Monitoring thereafter would aim to test this. We advise a review period during which Statutory Nature Conservation Bodies (SNCBs) and regulatory bodies such as the Marine Management Organisation (MMO) are consulted by the Applicant to assess the results of the first period of monitoring. For example, one mechanism that could be introduced for particular receptors would be a live document which is reflective of what the monitoring is observing, including consideration of species/habitat recovery. 7. We advise that monitoring should be effective in providing sufficient evidence pre-construction to inform the deployment of mitigation measures, and similarly demonstrate the efficacy of mitigation measures during construction and post-construction. This is important to demonstrate compliance with the measures identified in assessments to mitigate significant impacts. It is also important to provide evidence to assess the significance of adverse effects, evaluate the success of mitigation measures and to help inform whether further remedial measures are required. 8. In relation to remedial measures, Natural England wishes to highlight the importance of ensuring that all relevant monitoring proposals for DBS (and/or associated DCO/dML conditions) consider the aim of securing a mechanism for **adaptive monitoring** when unforeseen impacts are detected. Thus, ensuring remedial measures (i.e., **adaptive management**) are triggered should the results of monitoring demonstrate impacts that are significantly greater than predicted and/or incorrect assumptions were made following review of the conclusions of the environmental statement and supporting documents. We advise that the potential for certain monitoring to trigger the development of countermeasures (with associated monitoring of those measures) should be clearly stated in relevant tables of the IPMP and incorporated into the DCO conditions where relevant. 9. It is important to note that monitoring proposed within this IPMP is to determine and validate the impacts of two offshore windfarm (OWF) array areas and cable routes, which could come under separate ownership in the future (as was the case for Dogger Bank C and Sofia OWF, formerly Dogger Bank Teesside A&B). We therefore advise that monitoring plans should consider the impacts and predictions of each array area and cable route alone, and proposals should be sufficiently robust to address uncertainties and validate impacts for each separately. Where monitoring for one array or cable route is to be reliant on the other, it must be demonstrated that the sites/receptors are comparable. In addition, if the OWFs are built out separately, the implications of the different build out scenarios on the validity of the monitoring outcomes will also need to be considered as part of the IPMP.	The need for further monitoring and actions is reflected in section 1.4 of the IPMP (Revision 3) [document reference 8.23] which states '*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. Where it has been agreed that there are no significant effects, monitoring need not be conditioned through the DMLs.*' There is no need for any further provision in the Draft DCO in this regard. The tables throughout sections 1.6.3 to 1.6.10 of the **IPMP (Revision 3)** [document reference 8.23] list the effects to be monitored, receptors and reasons for monitoring. This reflects the uncertainties / evidence gaps for which monitoring is deemed necessary. 6. Detailed hypotheses will be provided in the final Offshore Monitoring Plan. These will target the likely significant effects and reasons for monitoring set out in the **IPMP (Revision 3)** [document reference 8.23]. The Applicants therefore consider that the IPMP is appropriate in this regard and notes that the format and level of detail provided is consistent with that provided by other consented offshore wind farms at the equivalent stage. 7. The IPMP (Revision 3) [document reference 8.23] outlines the monitoring which will inform mitigation requirements. The detailed methodologies for the monitoring will be developed post consent, in consultation with Natural England and agreed with the MMO. 8. See point 5. The Applicants maintain that there is no need for any further provision in the Draft DCO in this regard. 9. The Applicants acknowledge Natural England's comment. As the Development Scenario and construction programme would not be determined until post-consent, consideration has been given in the in-principle monitoring proposals included in the **IPMP (Revision 3)** [document reference 8.23] as to whether the timing of construction activities between Projects is likely to be a relevant concern. As with other offshore windfarms which feature multiple arrays (e.g. Dogger Bank Creyke Beck A & B (now Dogger Bank A and B) and Dogger Bank Teesside A & B (now Dogger Bank C and Sofia)), the details of the monitoring programmes have been agreed at the post-consent stage to take account of the actual construction programmes and details of the works to be undertaken, accounting for the timings for the completion of construction on each project. It is important to recognise that the Draft DCO includes five Deemed Marine Licences which relate to different elements of the proposed schemes. Each Deemed Marine Licence contains conditions relating to monitoring. This structure allows the flexibility for more than one final monitoring plan to be brought forward post-consent, thus providing for a range of different future ownership and construction scenarios.

I.D.	Natural England Response	Applicants' Response
REP3-056:3.1	**3. Nature conservation thematic advice** Please note, Natural England's detailed advice on each thematic area is provided in **Table 2-16** below. **3.1 [Section 1.6.1] Engineering related monitoring** 10. It is unclear to Natural England if this also encompasses monitoring surveys to inform final project design including those required to inform mitigation measures such as avoidance of certain sensitive receptors particularly environmental ones. If so, it would be useful if the Applicant could specify the purpose of each aspect of the engineering and design related monitoring in full. We highlight that geotechnical investigations will be critical to inform the cable burial risk assessment and in relation to reducing the direct or indirect impacts to environmental receptors. We request that further details are provided to answer the questions posed in our overarching comments.	The surveys listed in section 1.61 of the **IPMP (Revision 3)** [document reference 8.23] are for engineering purposes, including to inform detailed design. Some of these will overlap with monitoring for environmental purposes and wherever possible the Applicants will look to combine surveys. With regards to avoidance of certain sensitive receptors, this is listed in the relevant environmental sections e.g. Table 1-3 states in the monitoring proposal '*the geophysical surveys would include high resolution bathymetry and side scan sonar to classify the habitats' in order to inform micro-siting and the benthic sampling design*'. This will be clarified in the updated **IPMP (Revision 3)** [document reference 8.23] submitted at Deadline 4. The need for cable burial risk assessments as part of the post consent development of a cable statement is secured in the DMLs (Condition 15 of DMLs 1 and 2; Condition 13 of DMLs 3 and 4, and Condition 11 of DML5). This plan must be developed in consultation with the relevant SNCBs and approved by the MMO. The final CBRAs will be informed by appropriate geotechnical data. Indeed, this is already demonstrated in the revision to the Export Cable Corridor CBRA provided in the updated Cable Statement submitted at Deadline 3 (see Appendix B of **Cable Statement (Revision 3)** [REP2-039].
REP3-056:3.3	**3.3 [Section 1.6.4] Benthic and Intertidal Ecology** 11. Natural England welcomes that the Applicant intends to base proposals on best practice guidance (e.g. MMO's 2014 review of post-consent monitoring) and lessons learnt from the existing Dogger Bank projects. We highlight that Natural England and JNCC have produced a set of broad benthic monitoring objectives which cover the conservation objectives for the Dogger Bank Special Area of Conservation (SAC) and can be applied to developments across the Dogger Bank Zone. These objectives were used to inform the Benthic Monitoring Plans (BMP) of the existing Dogger Bank A, B, C and Sofia OWFs, as it was considered that an agreed approach to benthic monitoring objectives would improve both consistency and efficiency of advice when the SNCBs are approached for consultation. We have provided the objectives in Annex B of this Appendix, and we advise that it would be beneficial for the Applicant's to include these as a foundation for monitoring requirements when developing their monitoring proposals.	The Applicants consider that the four objectives within Annex B of Appendix J [REP3-056] are covered currently by the IPMP (see Table 1-3 and 1-4 of **IPMP (Revision 2)** [REP2-044] but the Applicants will amend the IPMP to make this explicit. **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** This is currently covered by the proposals for geophysical survey (which would capture large scale topographic changes) and benthic sampling (which would capture sediment characteristics, see Objective 2 & 3) **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** **Objective 3: Determine the impacts of hard substrate infrastructure introduction on sedimentary benthic communities** It is proposed that a focused programme of benthic grab sampling is used, both to ground truth the geophysical data and provide baseline particle size and benthic data for comparison with the post-construction position. Samples would be taken at a subset of works locations, which would be determined once the final design and layouts are known and confirmed. Grab sampling will be designed to capture localised, near-field, far-field and reference sites. In addition, visual monitoring of infrastructure (via drop down video (DDV) or ROV) will be added to the IPMP to capture colonisation of structures. **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** This would be covered by the benthic sampling and DDV / ROV survey (see Objectives 2 & 3) and sandeel monitoring (see Table 1-4 of **IPMP (Revision 2)** [REP2-044]).

I.D.	Natural England Response	Applicants' Response
REP3-056:3.4	**3.4 [Section 1.6.5] Marine Mammals** 12. Natural England notes that the Applicant does not propose project specific monitoring for marine mammals within the Offshore IPMP. Natural England does not agree, that because no significant impacts are predicted, no monitoring is required. Currently the only post-consent monitoring that has been proposed is the industry-standard monitoring of underwater noise from the first four piles, and monitoring at a larger distance range to validate the underwater noise modelling. However, monitoring undertaken as part of the Marine Mammal Mitigation Protocol (MMMP) should not be considered post-consent monitoring as it does not meet the objective of validating impacts. Natural England is concerned that whilst the Applicant has shown interest in participating in collaborative monitoring, there is currently no monitoring outlined that would evidence the impacts to marine mammals e.g. monitoring of animal responses to impacts, including mitigated impacts. We highlight that some of the impact pathway assessments factor in mitigation to conclude no significance, therefore validating the effectiveness of the mitigation is a reasonable aim for monitoring. In addition, there has been no consideration of the areas of the assessment where assumptions have been made and where the project could contribute to filling knowledge gaps that would inform the project's assessment. 13. Therefore, we advise that further detailed discussion is required on the monitoring plans. We understand that this is proposed to occur post-consent. However, at present we have limited understanding, and therefore low confidence, in how the monitoring will evidence the outcomes of the marine mammal assessments. Therefore, we advise that the Applicant should revise the In Principle Monitoring Plan (IPMP). Detailed requirements for In Principal monitoring (IPMP), can be found in: Offshore Wind Marine Environmental Assessments: Best Practice Advice for Evidence and Data Standards Phase IV: Expectations for monitoring and environmental requirements at the post-consent phase. This document outlines Natural England's recommendations for an effective IPMP and should be considered when planning monitoring post-consent.	The Applicants maintain that due to mitigation no significant impacts are predicted in **Chapter 11 Marine Mammals** [APP-095], therefore no additional monitoring is required. Currently the only post-consent monitoring that has been proposed is the industry-standard monitoring of underwater noise from the first four piles, and monitoring at a larger distance range to validate the underwater noise modelling. The **Outline MMMP (Revision 4)** [document reference 8.25] proposes the use of PAM and MMObs and the reporting requirements could include the recording of observed responses of marine mammals to active sources of noise from different construction activities, including piling, ADD activation and the use of any noise abatement or reduction system. The Applicants highlight that some of the impact pathway assessments factor in mitigation to conclude no significance, therefore validating the effectiveness of the mitigation is a reasonable aim for monitoring. This commitment is captured in the **IPMP (Revision 2)** [REP2-043]. The Applicants do not agree that this does not meet the objective of validating impacts as this monitoring will be used to validate impact ranges presented in **Chapter 11 Marine Mammals** [APP-095]. It will also validate that mitigation measures are sufficient to validate the ES conclusion of no significant effects of marine mammals from the Projects alone. The Applicants also highlight that under condition 15(1)(b) of DMLs 1 and 2, condition 13(1)(b) of DMLs 3 and 4, and condition 11(1)(b) of DML5 a final monitoring plan must be submitted to the MMO and approved in writing in consultation with relevant SNCBs prior to the commencement of licensed activities or any phases of them. The Applicants highlight that the IPMP is an evolving document, and the Applicants will consider the advice of SNCBs regarding additional monitoring that may be required for marine mammals. The Applicants will continue to engage with Natural England and MMO to develop the final monitoring plan that will be submitted post-consent to ensure its approval and discharge of the relevant conditions. The Applicants are also aware that the MMO is currently undertaking a project on the standardisation of offshore wind post-consent monitoring data. This project aims to standardise the collecting and reporting of offshore wind environmental monitoring data in English waters, for receptors / monitoring techniques where a widely recognised standard for monitoring already exists, and to implement this approach in post-consent monitoring for wind farms in English waters. The MMO are currently finalising a list of agreed standards across six receptor groups of which marine mammals is one (marine mammals, underwater noise, ornithology, fish and shellfish, benthic and geophysical monitoring). The Applicants understand that the final list of standards are expected to be agreed in 2025. The Applicants will add a general commitment to an update of the **IPMP (Revision 3)** [document reference:8.23] to be submitted at Deadline 4 which notes that any standards or best practice adhered to during monitoring will be clearly outlined within the relevant monitoring reports. A note will be added to state that the recommendations of MMO's Standardisation of Offshore Wind Post-Consent Monitoring (forthcoming) will be considered where applicable when published. As stated by the MMO, the actual standards are not yet public and therefore the Applicants reserve their opinion on the suitability of implementing them for the Projects. In addition, it is not clear if the MMO's intention is to ensure that a) all projects undertake the same monitoring for all of the six receptor groups, irrespective of the potential impacts from a specific project and irrespective of any conclusion on significant effects or b) if this is simply to standardise methods for monitoring in those cases where significant effects are predicted and monitoring required. It would be useful for MMO to clarify this point.

I.D.	Natural England Response	Applicants' Response
REP3-056:3.5	**3.5 Indirect effects** 14. Natural England notes that the Applicant's IPMP doesn't include monitoring 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. This is particularly important in relation to the placement of infrastructure within Dogger Bank SAC and along the ECC where there is a potential impact pathway to Holderness Inshore MCZ. In addition, it is not clear within the IPMP how potential ecosystem impacts will be monitored i.e. changes to benthic habitats and/or marine processes receptors, causing changes to prey availability and therefore Annex I and Annex II mobile species.	With regard to the Dogger Bank SAC, the monitoring listed in the response to REP3-056:3.3 above will cover indirect effects. With regard to the Holderness Inshore MCZ, the Applicants have made the commitment (see Co88 of the **Commitments Register (Revision 2)** [REP2-025]) that jack-up vessels and anchoring will not be used within the MCZ without agreement of MMO in consultation with Natural England. This is secured in condition 13(3) of DMLs 3 and 4 of the **Draft DCO (Revision 7)** [document reference 3.1]. Therefore, the only impact remaining is the potential for increases of suspended sediment concentrations (SSC) during export cable installation. NE's Advice on Operations[18] states that the designated features of the Holderness Inshore MCZ have either Low sensitivity to the pressures associated with 'temporary increases in SSC and subsequent deposition' or are Not Sensitive. Changes to the sedimentation rate will be within the natural range and given the distribution of subtidal rock features in relation to the extent of effects, no impact is anticipated. Given the temporary nature of this impact and the likely magnitude, monitoring is not justified. With regard to ecosystem effects, it is unclear how these could be monitored. The linkages between different receptors are poorly understood and demonstrating cause and effect between impacts in the Offshore Development Area and highly mobile species which exploit a range of different prey species and utilising large areas of the North Sea is not possible.

Table 2-16 Natural England's Detailed Advice and Recommendations

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Risk (RAG)	Applicants' Response
Marine Physical Environment				
REP3-056: A1	Section 1.6.3 Owing to the ecological importance of the Flamborough Front, and emerging evidence that suggests large OWF clusters (i.e. Dogger Bank) may result in substantial impacts on stratification, currents, and sediment resuspension; we advise that the Applicant should commit to monitoring potential changes to stratification, currents, and productivity (pre-construction, postconstruction, lifetime). [R&I, B22].	As secured for Hornsea Project Four, we advise that it is important for a monitoring programme to be established to record changes to stratification and primary productivity, in the form of pre-construction, post-construction, and for the lifetime of the Projects. This should include trigger points' to allow interventions/remediation, if required. The results of monitoring should be combined with those from other nearby OWFs and with up-to-date research. We highlight that there are a number of research and monitoring programmes (e.g. Universities of Bangor and Hull) investigating the impacts of offshore windfarms on stratification and productivity which may also provide useful evidence.		The requirement for a monitoring program will be outlined in a **Review of Flamborough Front Technical Note** [document reference: 14.7] to be submitted at Deadline 4.

[18] Natural England (2023). Advice on Operations. Holderness Inshore MCZ. Available at:

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Risk (RAG)	Applicants' Response
REP3-056: A2	Table 1-2 The sensitivity of Dogger Bank (and Dogger Bank SAC) to changes in seabed level from certain construction activities has been assessed as negligible in the ES. We advise that these construction activities and similar O&M activities are likely to result in changes to the extent and distribution and physical structure of the site's sandbank feature. [R&I, B27]	We advise that pre- and post-construction monitoring should be committed to, to validate predictions of seabed elevation change, extent of deposition, sediment composition, distribution change, and seabed recovery across the Array Areas and InterPlatform Corridor within Dogger Bank SAC. Should impacts be found to be greater than predicted then the necessary recourse should be taken.		Appropriate mitigation in the form of pre- and post construction monitoring has been proposed within the **In Principal Monitoring Plan (IPMP) (Revision 2)** [REP2-043]. Dogger Bank as a geomorphological and geological feature is assessed as having negligible sensitivity to changes in seabed level due to construction activities as Dogger Bank is a complex glacial landform that formed during the last glacial period, overlain by a veneer of marine sand. This is outlined in section 8.5.2. of **Chapter 8 Marine Physical Environment** [APP-080]. It is not a sand bank in terms of its morphology and therefore has not been assessed as one.
REP3-056: A3	Table 1-2 One of the headline reasons for pre- and post-construction monitoring is given as 'sandwave/bank characterisation' and 'sandwave/bank recovery rates…', respectively. However, neither of these have been included in the monitoring proposals for pre- and post-construction stages. [R&I, B17, B27]	We advise that while hypotheses to be tested by the monitoring should be agreed as part of the IPMP, the final monitoring plan will need to demonstrate within the monitoring proposals how they will detect and monitor changes to seabed topography and trigger any necessary countermeasures. It should also state how sandwave/bank recovery will be assessed. This is important for testing the assumptions and predictions made within the ES. The IPMP should also consider the need for adaptive monitoring if unforeseen impacts are detected.		There is not sufficient data and information available to define hypothesis in the IPMP as this would require additional survey data. To define hypotheses to be tested in relation to sandwave clearance and recovery, a detailed sand wave characterisation study would be required which will be undertaken using the pre-construction geophysical survey data. These hypotheses will be defined and agreed with the Marine Management Organisation (MMO) in the final monitoring plans post-consent, based on final designs. Depending on the outcomes of initial surveys and an assessment of sand wave mobility, the proposed monitoring will consider thresholds for change and adaptive monitoring approaches, if appropriate.
REP3-056: A4	Table 1-2 The Outline Scour Protection Plan [REP2-052] considers secondary scour and proposes monitoring of secondary scour, which we welcome. The updated IPMP [REP2- 044] also states that post-construction monitoring will include 'consideration' of secondary scour. Given the high value of Dogger Bank SAC, it is important to ensure that the risk of potential impacts is managed as far as possible and that appropriate monitoring to detect changes and trigger any necessary counter measures is secured. [R&I, B47]	We advise that the Applicant should demonstrate within the IPMP what hypotheses will be tested and where possible, how they intend to achieve this. Furthermore, post construction monitoring should test the assumptions made within the ES regarding secondary scour.		See response to REP3-056: A3.
Benthic and Intertidal Ecology				
REP3-056: A5	Section 1.6.4.3 It is stated that no monitoring is proposed for Holderness Inshore and Offshore MCZs due to their being no direct impacts on the site. However, the potential for indirect impacts remains uncertain, particularly given the updates to the Cable Statement [REP2-040] suggesting greater areas of challenging burial	Natural England advise that monitoring for the MCZs should be revisited as needed following provision of the requested updated information on cable protection along the Export Cable Corridor.		With regards to the MCZs, see response to REP3-056:3.5 in **Table 2-15**. The Applicants have assumed Natural England meant to direct them to Table 2 in Appendix B3 rather than C3 (see responses in **Table 2-10** of this document). It should be noted that the Cable Burial Risk Assessments presented in the **Cable Statement (Revision 3)** [REP2-040] do not suggest any exceedance of

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Risk (RAG)	Applicants' Response
	conditions than previously predicted. See Table 2 in Appendix C3 of our Deadline 3 submission for further detail.			the worst case scenario for external cable protection assessed in the Environmental Statement.
REP3-056: A6	Section 1.6.4.4 As advised in Appendix C2.1 to the Natural England Deadline 2 Submission, benthic monitoring should be secured via the IPMP to determine residual impacts in relation to ecological halo effects [R&I, C8]. Whilst Section 1.6.4.4 includes habitat loss and physical change to another seabed/sediment type, neither 1.6.4.4 or Table 1-3 expands on what this specifically involves.	Natural England advise that the IPMP is updated to include consideration of the impacts on benthic communities within Dogger Bank SAC sandbank feature, and the nature of that impact, as a result of changes to physical and biological processes following the placement of structures and cable/scour protection on the seabed.		The Applicants consider that this is covered currently by the IPMP (see Table 1-3 and 1-4 of **IPMP (Revision 2)** [REP2-044] but the Applicants will amend the IPMP to make this explicit (see response to REP3-056:3.3 above).
REP3-056: A7	Section 1.6.4.4 We highlight that there is no reference to monitoring of Invasive Non-Native Species (INNS) which can include both species that are non-native to UK waters and those that are non-native to the designated soft-substrate habitat (i.e. through colonisation of introduced infrastructure).	Natural England advise that the IPMP is updated to include consideration of INNS.		The Applicants confirm that the **IPMP (Revision 3)** [document reference 8.23] has been updated to include monitoring of INNS.
REP3-056: A8	Table 1-3 We welcome that pre- and post-construction grab sampling is proposed to capture localised, near-field, farfield and reference sites, however no detail has been included on the scale of sampling that will be delivered or how this will be determined. We note that following postconsent discussion on the BMPs for the existing Dogger Bank projects, a precedent was set by MMO that a minimum of 10% of turbines should be sampled per project (noting that DBS East and West comprises two projects), with final numbers dependent on the results of power analysis and requirements for habitat/biotope representivity within the site.	Natural England advise that the IPMP should commit hypothesis/hypotheses to be tested noting that for this monitoring to be scientifically robust, a sufficient number of turbine locations for localised sampling will be required.		The detailed information requested by Natural England will be provided in the post consent monitoring plan and developed in consultation with Natural England as the relevant Statutory Nature Conservation Body (SNCB). The framework approach secured by the IPMP enables the post-consent offshore monitoring plan to be informed by latest available information, such as detailed design of the Projects and emerging monitoring results from other relevant projects, where possible. With regard to specific sampling design, the Applicants consider that setting an arbitrary target of monitoring at 10% of turbines is inappropriate at this time. The sampling design should be informed by the final Project design (i.e. number of turbines and location in relation to habitat types) to ensure that the survey covers any variation (in ecology, depth, sediment conditions) across the Array Areas. Detailed hypotheses will be provided in the final Offshore Monitoring Plan. These will target the likely significant effects and reasons for monitoring set out in the **IPMP (Revision 3)** [document reference 8.23]. The Applicants therefore consider that the IPMP is appropriate in this regard and notes that the format and level of detail provided is consistent with that provided by other consented offshore wind farms at the equivalent stage.
REP3-056: A9	Table 1-3 Natural England notes that previous projects within the Dogger Bank SAC have been conditioned to monitor disposal mounds	Natural England advise that seabed deposits are monitored, in particular drill arisings, to inform seabed recovery.		The Applicants have added monitoring of dissipation of drill disposal mounds to the **IPMP (Revision 3)** [document reference 8.23]. However, it should be noted that in the event of scour protection being used, any arisings would be

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Risk (RAG)	Applicants' Response
	through the lifetime of the project, to validate predictions on dispersal. This is the case where any works could result in glacial clay sediments being deposited on the seabed.			within this footprint (under the scour protection) and monitoring would therefore not be required.
Fish and Shellfish				
REP3-056: A10	Table 1-3 The Applicant has proposed pre- and post- construction habitat sampling to validate statements made regarding habitat suitability and recoverability for sandeel, however, no reference is made to monitoring changes to sandeel abundance and distribution resulting from infrastructure presence. The presence of infrastructure could affect marine processes or the presence of predators which could in turn impact on sandeel populations, as well as impacts from the direct loss of spawning habitat.	Natural England advise that the IPMP should set out specific hypotheses with respect to monitoring impacts to sandeel habitat, abundance and distribution.		The detailed information requested by Natural England will be provided in the post consent monitoring plan and developed in consultation with Natural England as the relevant SNCB. The framework approach secured by the IPMP enables the post-consent offshore monitoring plan to be informed by latest available information, such as detailed design of the Project and emerging monitoring results from other relevant projects, where possible. The sampling design should be informed by the final Project design (i.e. number of turbines and location in relation to habitat types) to ensure that the survey covers any variation (in ecology, depth, sediment conditions) across the Array Areas. Detailed hypotheses will be provided in the final Offshore Monitoring Plan. These will target the likely significant effects and reasons for monitoring set out in the **IPMP (Revision 3)** [document reference 8.23]. The Applicants therefore consider that the IPMP is appropriate in this regard and notes that the format and level of detail provided is consistent with that provided by other consented offshore wind farms at the equivalent stage.
Marine Mammals				
REP3-056: A11	General There has been no consideration in the IPMP of the areas of the assessment where assumptions have been made and where the project could contribute to filling knowledge gaps, for example, with regards to operational wind turbine generator (WTG) noise levels, or the assumed distribution of bottlenose dolphin close to the coast.	Natural England advise that the Applicant should demonstrate within the IPMP what hypotheses will be tested in relation to impacts to marine mammals.		See response to REP3-056:3.4 in **Table 2-15**.
Ornithology				
REP3-056: A12	Section 1.6.7.1-2 Natural England notes that we are unable to comment on the Applicant's conclusions at this time, due to issues with the assessment process.	To note.		No response is required.

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Risk (RAG)	Applicants' Response
REP3-056: A13	Section 1.6.7.3 Natural England welcome the Applicant's stated commitment to ensuring that post-consent monitoring across the Dogger Bank projects is strategic and complementary.	We encourage the Applicant to continue to develop strategic and complementary post-consent monitoring plans in collaboration with the other Dogger Bank projects, and note that Dogger Bank D could also potentially be included.		The Applicants agree that monitoring which fits in with wider strategic aims will deliver greatest benefits and will continue developing monitoring options with this aim.
REP3-056: A14	Section 1.6.7.3 Natural England welcomes the Applicant's stated commitment to ensuring that monitoring of seabird breeding populations at FFC SPA continue, however there is a lack of clarity in the Applicant's statement that "it is not expected that the Projects would be required to undertake additional monitoring". We note that monitoring seabird breeding populations is vital to understand how the impacts of projects may affect such populations.	Natural England advise the Applicant to continue to consult with Natural England on what FFC SPA colony monitoring may be appropriate as part of the Projects' post-consent monitoring programme.		The Applicants will continue to consult with Natural England and other relevant stakeholders in the development of appropriate ornithological monitoring.
REP3-056: A15	Section 1.6.7.3 Natural England notes that the Applicant has not included monitoring to determine connectivity between the Projects and FFC SPA in its outline proposals. We note that connectivity is a key area of uncertainty in affecting how both collision and displacement impacts of the Projects are apportioned to colonies.	Natural England advise that the Projects consider monitoring to test this hypothesis and consideration should be given to incorporating tagging studies of key affected species to deliver this.		The Applicants agree that studies to improve understanding of connectivity between wind farms and seabird colonies are of high importance. However, this should not be confined to colony based work, as this can potentially only provide partial information on connectivity. For example, tracking studies from a colony could identify that all tracked individuals visit a location, but that does not mean all the birds seen at the location are from the colony. In the case of birds recorded at the Array Areas the Applicants consider there are likely to be significant numbers of sub-adult non-breeding birds (i.e. birds not attached to any particular colony) and also breeding birds from non-SPA colonies such as those now known to nest on offshore infrastructure. Therefore, the focus should not be solely on SPA colonies but also on other possible sources of the birds observed in the wind farm.
REP3-056: A16	Section 1.6.7.3 Natural England note that the Applicant has stated: *"A standalone offshore ornithological monitoring plan will be developed in the post-consent phase of the Projects in consultation with relevant stakeholders."*	Natural England encourages the Applicant to begin consultation with Natural England on the offshore ornithological monitoring plan as early as possible, as recommended in our Best Practice (Parker et al 2022d). We advise that the IPMP should be updated with the hypotheses to be tested to inform the development of the final IPMP.		While the Applicants do not disagree with this sentiment, it is considered that it is equally important to retain flexibility in IPMPs to allow for the incorporation of new information as studies of seabird ecology in relation to offshore wind farms is constantly developing.
REP3-056: A17	Section 1.6.7.3 – Table 1.5 Natural England welcomes the inclusion of displacement effects in the Applicant's proposed post-consent monitoring, the inclusion of pre- and post-construction digital aerial surveys	Natural England advise that more detail is included on monitoring aims/hypotheses and potential study designs for these aspects.		The Applicants agree that improving the understanding the potential for seabird displacement is a critical area and this will be a key consideration in the development of monitoring proposals, which are secured under Condition 29 of Deemed Marine Licences (DMLs) 1 and 2 of the **Draft Development Consent Order (DCO)** (Revision 7) [document reference: 3.1]. Further detail on the monitoring aims and hypotheses will be provided in the development of

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Risk (RAG)	Applicants' Response
	(DAS), and the consideration given to methods for investigating spatial distributions. Natural England advise that the Applicant also consider including habituation effects of displacement as a study aim, given that the extent to which habituation may or may not occur with displacement effects is a key source of uncertainty in this area.			these proposals in collaboration with Natural England and other statutory nature conservation bodies in the post-consent stages of the Projects.
REP3-056: A18	Section 1.6.7.3 – Table 1.5 Natural England welcome the inclusion of collision in the Applicant's proposed post-consent monitoring, the inclusion of a collaborative approach, and consideration of remote monitoring approaches. However, we note a lack of detail on the possible approaches to monitoring and recommend that the Applicant consider monitoring aims and potential study designs (including power analyses to inform study design) in more detail.	Natural England advises the Applicant includes more detail on hypotheses and possible approaches to monitoring.		The Applicants agree that improving the understanding of the potential for seabird collisions is a critical area and this will be a key consideration in the development of monitoring proposals, which are secured under Condition 29 of DMLs 1 and 2 of the **Draft DCO (Revision 7)** [document reference: 3.1]. 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.
REP3-056: A19	Section 1.6.7.3 – Table 1.5 Natural England notes that the Applicant has referred to monitoring the success of compensation measures as outlined in 6.2.1 and 6.2.2. We refer the Applicant to our comments on those documents at Relevant Reps and Deadline 2 where we request that more detail be provided during the Examination process.	We encourage the Applicant to ensure that post consent monitoring and compensation monitoring plans are as complementary as possible.		Where there are opportunities to undertake monitoring which delivers information about potential wind farm impacts and the status of compensation the Applicants will seek to ensure the studies complement one another.
REP3-056: A20	Section 1.6.7 Natural England notes that no consideration has been given to reporting of post-consent monitoring. Natural England advises that full analyses of post-consent monitoring data should be conducted after each year of monitoring and presented in an annual report (see Best Practice, Parker et al 2022d). We note that this allows for regular assessment of the robustness of the data and any necessary modifications to survey design or analytical approaches.	Natural England advise the Applicant includes details of proposed reporting methods and schedules in their post-consent monitoring plans.		Once more details of the monitoring plans are agreed the Applicants will include more information on reporting. However, this also needs to take into account the actual monitoring conducted, which may not lend itself to such an approach, in which case revised reporting schedules will be discussed and agreed with relevant stakeholders

2.11 Natural England – Appendix L Change Request 1

Table 2-17 The Applicants' Response to Natural England's Deadline 3 Document - Appendix L Change Request 1 [REP3-058]

I.D.	Natural England Response	Applicants' Response
REP3-058:0	Overview In formulating these comments, the following documents submitted by the Applicant have been considered in relation to the impacts of Dogger Bank South (East and West) Offshore Wind Farm (DBS OWF) on Benthic and Intertidal Ecology, Marine Physical Processes, Marine Mammals and Fish and Shellfish: • [AS-141] 10.49 Project Change Request 1 – Offshore and Intertidal Works • [AS-142] 10.50 Appendix A: Fish and Shellfish Environmental Assessment Update (Revision 1) • [AS-143] 10.51 Appendix B: Marine Mammal Environmental Statement Update (Revision 1) • [AS-144] 10.52 Appendix C: Marine Mammal Report to Inform Appropriate • Assessment (RIAA) Habitats Regulations Assessment (HRA) Update • [AS-131] 3.1 Draft Development Consent Order (Revision 04) (Tracked) • [AS-133] 3.2 Explanatory Memorandum (Revision 4) (Tracked) • [AS-134] 3.4 Schedule of Changes to Draft DCO (Revision 4) • [AS-136] 7.8.8.3 Environmental Statement Appendix 8-3 – Marine Physical • Processes Modelling Technical Report (Revision 2) (Tracked) • [REP2-018] 7.8.8.3 Environmental Statement Appendix 8-3 – Marine Physical Processes Modelling Technical Report (Revision 3) (Tracked) • [AS-138] 7.11.11.3 Environmental Statement Appendix 11-3: Underwater Noise Modelling Report (Revision 2) (Tracked) • [AS-140] 7.11.11.4 Environmental Statement Appendix 11-4: Interim Population Consequence of Disturbance (iPCoD) Modelling (Revision 2) (Tracked)	No response is required.
REP3-058:1	1. Proposed Changes in Projects' Parameters The Applicant has submitted a Change Request to revise the following aspects of the Project envelope: • Change 1: Removal of Gravity Based Structure (GBS) foundations. Change 2: Removal of Electrical Switching Platform (ESP) from the Projects' Design Envelope. • Change 3: Reduction in number of offshore platforms in the Projects' Design Envelope, from eight to three within the Array Areas, including reductions in associated seabed preparation and scour protection. • Change 4: Reduction of cabling within the Array Areas, plus associated seabed preparation and cable protection; and • Change 5: Removal of the short trenchless crossing at landfall Natural England welcome these changes, as they will result in a reduction in impacts across several thematic areas. Our detailed comments on the associated documents submitted by the Applicant are provided in **Table 2-18**.	The Applicants welcome Natural England's acknowledgement of the positive nature of the changes detailed in **Project Change Request 1 – Offshore and Intertidal Works** [AS-141]. Please see the Applicants response to Natural England's detailed comments in **Table 2-18** below.

I.D.	Natural England Response	Applicants' Response
REP3-058:2	2. Updates to application documents Natural England notes the Applicant restates their view that the "original ES chapters and RIAA represent point in time documents of the Projects' design as of June 2024" and that no updates to ES chapters are therefore required. Natural England maintains our advice provided in [REP1-063] that all changes/updates accepted in additional submissions should be reflected in updated ES chapters and assessments to be submitted within Examination timeframes. We acknowledge and welcome that the Applicant has updated outline Plans to reflect the changes detailed in the Change Request (e.g. Scour Protection Plan, MMMP), however we do not consider that other application documents such as the ES Chapters and Project Description should be treated differently and without such updates there is a risk further in-combination assessments will not use the most up to date Maximum Design Scenarios and Worse Case Scenarios.	The Applicants note that in **Rule 17 Letter - Request for further information dated 15th April 2025** [PD-018] the Examining Authority has requested that the Environmental Statement should be reviewed and updated at Deadline 7. The Applicants are processing this request and will provide an update as directed.

2.11.1 Natural England – Appendix L Change Request 1 Detailed Advice

Table 2-18 Natural England's Detailed Advice [REP3-058]

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Applicants' Response
REP3-058: A	General Natural England welcome the changes to the Project's design envelope, as they will result in a reduction in impacts across several thematic areas. However, do not alter our previous advice where concerns have been raised regarding EIA conclusions or sensitivities/magnitudes or assessment methodologies.	To note.	The Applicants acknowledge this response.
Benthic and Intertidal Ecology **Document used: [AS-141] 10.49 Project Change Request 1 – Offshore and Intertidal Works**			
REP3-058: A.1	Table 4-3, Impact 1 (temporary physical disturbance) It is not clear from the information provided whether rock protection will be required at the exit pits and whether this has been accounted for in the Maximum Design Scenario (MDS).	Natural England advises that necessary updates should be made to confirm that cable protection will not be used within nearshore areas including in the vicinity of HDD exit pits. Any additional areas of temporary and/or permanent subtidal habitat loss resulting from the construction and/or operation of the exit pits should be applied to the MDS. [R&I, C2]	The intention is to bury the cables at landfall punchout. If burial is not possible then protection could be used. This protection, along with any other relevant design parameters, is already accounted for within the existing worst case scenario.
REP3-058: A.2	Table 4-3, Impact 5 (permanent habitat loss) Impacts from cable protection have been reduced but not removed.	We welcome the reduction in the MDS for lasting habitat loss within Dogger Bank SAC as a result of reduced requirements for cable protection. However, Natural England's previous advice remains unchanged, and we still do not agree that an AEoI on Annex I sandbanks within the Dogger Bank SAC can be excluded alone or in-combination owing to the lasting direct and indirect impacts as a result of the placement of cable protection.	The Applicants reiterate their response to RR-039: C4 in T**he Applicants' Responses to Relevant Representations** [PDA-013]: *At this stage, it is not possible for the Applicants to determine whether components would be left in situ or removed from the seabed as part of decommissioning. This will be determined as part of the decommissioning plan which will be consulted on and require approval from the regulator towards the end of the Projects' lifetime (secured within Schedule 2, Part 1, Condition 7 of the* ***Draft Development Consent Order*** *(DCO) [APP-027]. It is important to note that Infrastructure left in situ may present a lesser impact in terms of potential changes to marine water and sediment quality.* In terms of the HRA, this permanent habitat loss has been accounted for within the conclusion of Adverse Effect on Integrity of the Dogger Bank SAC with regards to the effect 'Physical change (to another seabed / sediment type)' (see section 6.4.2.6.1 of the **RIAA HRA – Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [document reference: 6.1] for further information). The classification of cable / rock protection introduced by the Projects as permanent habitat loss was undertaken in consultation with stakeholders, as noted in the meeting minutes of the Benthic Ecology and Physical Processes Expert Topic Group (ETG) held on 29th January 2024 (see **Appendix F1 - Minutes of meetings – ETG** [APP-043] for further information). The impacts of the Projects on the Dogger Bank Special Area of Conservation (SAC) will be compensated for, with compensation plans to be agreed with stakeholders including Natural England.

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Applicants' Response
Marine Physical Environment **Document used: [AS-141] 10.49 Project Change Request 1 – Offshore and Intertidal Works** **[AS-136] 7.8.8.3 Environmental Statement Appendix 8-3 – Marine Physical Processes Modelling Technical Report (Revision 2) (Tracked)** **[REP2-018] 7.8.8.3 Environmental Statement Appendix 8-3 – Marine Physical Processes Modelling Technical Report (Revision 3) (Tracked)**			
REP3-058: A.3	AS-141 General The Applicant previously stated that Withow Gap SSSI had been retained in the assessment for consideration of any potential indirect effects. It is not clear whether potential impacts to Withow Gap SSSI have been considered following the changes made to the project design envelope through the Change Request, and if indirect effects are still possible with the removal of the intertidal exit pits. [R&I, B42]	Natural England advises the Applicant to clarify the status of Withow Gap SSSI following the Change Request.	Withow Gap SSSI was considered as a receptor in the assessment of changes to bedload sediment transport due to cable installation at the landfall in section 8.7.3.9 of **Chapter 8 Marine Physical Environment** [APP-080]. **Project Change Request 1 – Offshore and Intertidal Works** [AS-141] resulted in a reduced worse case scenario from that assessed in **Chapter 8 Marine Physical Environment** [APP-080], as the removal of a short trenchless crossing, moved the exit pits to the subtidal area. This results in a change to the receptors assessed, including Withow Gap SSSI. The assessment in relation to landfall works will therefore be updated in a landfall technical note to be submitted at Deadline 5.
REP3-058: A.4	AS-141 Table 4-2 For the Operational impact "Cable Repairs and Reburial", the Applicant has provided the WCS volume of sediment displaced during O&M activities in the Array Areas and Offshore Export Cable Corridor. However, the WCS impact has not been provided with respect to any affected Marine Protected Areas (MPA).	Natural England advise that the WCS impacts are provided for any affected MPAs. [R&I, B5].	The worst-case operational impacts of "Cable Repairs and Reburial" with regards to the relevant protected sites are detailed in Appendix A of this document.
REP3-058: A.5	AS-136/ REP2-018 General Natural England welcomes that revised marine processes modelling has been provided to reflect the project parameters as applied for. We note that the modelling has also been updated to reflect both array layout options (equal distribution of turbines and platforms (Option 1); turbines and platforms condensed into a corner (Option 2)). As per our previous advice, Natural England considers Option 1 to be a more appropriate and realistic worst-case scenario for use in the assessment. [R&I, B11]	To note.	The Applicants acknowledge that Natural England consider Option 1 to be a more realistic worst-case scenario. Two array layouts were modelled. Option 1 represented a scenario where the wind turbines were evenly spaced across the array areas. Option 2 represented a scenario where the wind turbines were installed at the minimum separation distance. The results of a sensitivity test of both layout options presented in **Appendix 8-3 Marine Physical Processes Modelling Technical Report (Revision 3)** [REP2-017] show that Option 2 caused the greatest change to wave and tide regime as a worst-case and was therefore used to inform the assessment in Section 8.7.4.1. and 8.7.4.2. of **Chapter 8 Marine Physical Environment** [APP-080]. Option 2 is considered realistic as it represents the worst-case scenario if micro-siting was required resulting in the emplacement of wind turbines at the minimum separation distance. If the lesser worst-case array layout (Option 1) was used to inform the assessment, this would go against the Rochdale Envelope approach and would mean a scenario where wind turbines are installed at the minimum separation distance was not considered in the consent application.

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Applicants' Response
			The scale of impact is lower for Option 1 when compared to Option 2. However, this does not result in a material change to the magnitude of impact which is low to negligible and as there is no change to the receptor sensitivity, the significance of effect remains negligible.
REP3-058: A.6	AS-136/ REP2-018 Annex B Natural England welcomes the updated modelling carried out by the Applicant. However, the wave roses in Plate 8-3 of [APP-080] show the predominant wave directions are north and northwest with a secondary component from the south and southwest in DBS E, and north and to lesser extent northwest with a secondary component from the south in DBS W. However, the wave model assessment in Annex B has been run for waves approaching from the north and east only and not the south and/or southwest, which would be useful in terms of understanding cumulative effects with other nearby OWFs. Further consideration needs to be given to potential associated changes to morphological processes and the SAC over the lifetime of the Project. This is important because long-term changes to the wave energy could affect not only the finer-scale topography and sediment composition/distribution, but also the characteristic communities, thus hindering the conservation objectives.	As advised previously in our Relevant Representation [RR-039], we wish to see the wave modelling include waves approaching from a south and/or southwest direction. This would inform the project alone and cumulative impact assessment. [R&I, B13, B18]	The wave directions selected for the numerical modelling were discussed through the evidence plan processes in the Benthic Ecology and Physical Processes ETG held on 29th January 2024 (see **Appendix F1 - Minutes of meetings – ETG** [APP-043] for further information). The Applicants proposed modelling two directions; one from the north to represent the dominant wave direction, and one from the east as the most sensitive receptors to changes in wave regime were considered to be located on the coast and would therefore be susceptible to any changes in waves approaching from the east. No comments were raised on the proposed modelling directions chosen either during the meeting or in the subsequent circulation of the meeting minutes for comment. The Applicants acknowledge there is a secondary wave component from the south and southwest. The frequency of these waves is lower when compared to those approaching from the north. However, they are similar in terms of significant wave height (see Plate 8-13 of **Chapter 8 Marine Physical Environment** [APP-080]). The modelling has shown the magnitude of impact for changes to wave regime under the typical regime (50th percentile) is low with the maximum changes of <1% of the baseline occurring within a maximum distance of 30km from the wind turbine structure. The area affected by changes in wave regime is largest for a 1 in 1 year event where changes of <1% of the baseline can occur within 56km of the wind turbine structure. However, these changes would be short-lived and only occur on average during a yearly storm event. If these distances are applied to waves approaching from the south and southwest, there is potential for cumulative effects with the Dogger Bank A and Dogger Bank B offshore wind farms. However, the magnitude of impact remains low (even if overlapping effects occur) as the changes are <1% of the baseline, the significance of effect would remain negligible. As sediment transport within the array areas is dominated by tidal currents, the predicted small changes to wave regime, would not significantly alter the seabed morphology or sediment composition (and associated habitat characteristics). Therefore, the predicted changes in wave regime do not hinder the conservation objectives of the Dogger Bank SAC.
REP3-058: A.7	AS-136/ REP2-018 Annex C The contour plots in Annex C show distinct "shadow areas" of decreased or increased current speeds and bed shear stress that extend from the arrays due to the presence of the DBS E and W arrays. Although it is stated that this could	We continue to advise that the Applicant needs to consider impacts to Dogger Bank sandbank due to changes in the wave, hydrodynamic and sediment transport regimes [R&I, B19].	The Applicants have considered the effects on bedload sediment transport due to changes in tidal regime (and bed shear stress) in section 8.7.4.4. of **Chapter 8 Marine Physical Environment** [APP-080]. The Applicants have provided further consideration of long-term sediment transport pathways in their response to Natural England's Relevant Representations RR-039: B1, detailed in the **Response to Natural England's Relevant Representations (including Appendices A - F, and I)** [AS-048]. In summary, the changes to bed shear stress are <3%

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Applicants' Response
	"manifest as northwest movement of sandbanks and spatially varied seabed mobility within the Array Areas…", there is insufficient consideration of the potential lifetime implications for seabed mobility and morphology.		of the baseline. This magnitude of change will not significantly change the seabed composition or mobility. The sensitivity of Dogger Bank as a geomorphological and geological receptor to changes in sediment transport due to changes in tidal regime is negligible as Dogger Bank is not an active marine bedform (e.g. a sand bank), it is a remnant glacial landscape overlain with a thin veneer of sand. Its designation as an 'Annex I Sand Bank' is related to seabed habitat classification and not to the physical processes responsible for its formation and persistence in a marine environment.
Fish and Shellfish **Document used: [AS-142] 10.5 Appendix A – Fish and Shellfish Environmental Statement Update**			
REP3-058: A.8	Section 1 Point 2 The Project has been updated to remove the electrical switching platform (ESP) in the export cable corridor (ECC).	Natural England welcomes the Applicant's request to remove the ESP, particularly for impacts to herring. And has no further comment at this time.	The Applicants acknowledge this response.
REP3-058: A.9	Section 2 Point 10 The Applicant has updated the ES assessment to include inter-platform cables which were previously omitted in error.	Natural England advises the Applicant to assess the additional cables for possible heat impacts to sandeel, as only EMF impacts have been reassessed.	The impact of '*Potential interactions of heat generated by operational cables'* was scoped out of the PEIR / ES Assessment in agreement with the Planning Inspectorate in the Projects' Scoping Report, as noted in Table 9-1 of **Benthic and Intertidal Ecology Consultation Responses** [APP-087]. In addition, as stated in section 10.6.2.7 of **Chapter 10 Fish and Shellfish Ecology** [APP-091]: *Localised heating of sea water may occur, but this is limited to distances of tens of cm, and is likely to be of small magnitude, therefore no additional impact is predicted from heating effects (Boehlert and Gill, 2010[19]; Moray Offshore Windfarm Ltd, 2018[20]).* As such, the Applicants do not propose to include any further assessment of possible heat impacts from operational cables.
REP3-058: A.10	Section 3.1.4.1 The Applicant continues to assess underwater noise impacts from piling on Atlantic herring and sandeel as 'minor adverse'. Natural England continues to disagree with the statements that underwater noise and vibration impacts would have 'minor adverse effects', particularly for sandeel (fish without swim bladder) and Atlantic herring (fish with swim bladder), which are important prey species for designated predators. In addition, Natural England also disagrees that 'no additional mitigation measures are required'	Natural England advice continues to align with MMO's Deadline 2 response [REP2-061], that a full seasonal restriction for Atlantic herring is required, and that noise abatement systems and vibration reduction should be explored.	Underwater noise impact upon sandeel is considered temporary and restricted in spatial extent due to the low sensitivity as defined by Popper *et al*. (2014). Potential mortality of sandeel may occur in close proximity to monopiling, however population-level effects and subsequent reduction in prey resource for other species is unlikely to occur. This is due to the limited spatial extent of potential mortality effect in relation to the extensive distribution of sandeel habitat within the Central and Southern North Sea. TTS effects are temporary and therefore no long-term effects upon sandeel are predicted. The majority of impact pathways for the Projects relating to Atlantic herring spawning grounds occur within the Offshore Export Cable Corridor, with some degree of overlap with the TTS extent for piling activities occurring in the northeastern extent of the potential spawning habitat. Whilst the extent of TTS is not unusual for piling activities within an offshore wind farm array (~50km), it is noted that there is potential for

[19] Boehlert, G.W., and Gill, A.B. (2010). Environmental and ecological effects of ocean renewable energy development: a current synthesis. Oceanography, 23, pp. 68-81.
[20] Moray Offshore Windfarm (West) Limited (2018). Moray West Offshore Windfarm Offshore EIA Report, Chapter 1 Introduction. Available at: [redacted]

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Applicants' Response
			underwater noise impact to Atlantic herring. Please refer to **Chapter 10 Fish and Shellfish Ecology** [APP-091] for the detailed assessment, noting that the conclusion of the assessment is that these impacts are Not Significant in EIA terms. When using the industry standard for assessing the potential for a significant effect from TTS (Popper *et al.*, 2014), the IHLS data shows that the overlapping potential spawning habitat is not highly productive (consistently 1-50 larvae per m^2 with an isolated sample of 50-200 larvae per m^2 north of KP90 – refer to Figure 2.7 of the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105]). Therefore, the sound produced during piling activities is highly unlikely to result in any significant effect to the North Sea Autumn Spawning Atlantic herring population. In light of this finding, which is supported by extensive assessment work, no mitigation is deemed necessary by the Applicants. However, it should be noted that the acoustic envelope assessed is a worst case which may be reduced and refined as the Projects mature. In addition, mitigation may be adopted for other fauna. One or both of these possibilities may be realised which would provide benefits in terms of the reduction of acoustic impacts of the Projects on taxa such as Atlantic herring. The Applicants have committed to utilising best endeavours to deliver noise reduction (primary and /or secondary methods) in line with the Department for Environmental Food and Rural Affairs (Defra) Policy Paper on Reducing Marine Noise as part of Defra's Marine Noise Package (2025[21]). The additional mitigation measures are presented in section 3.1.9 of the **Outline MMMP (Revision 3)** [REP2-047] and consider the use of Noise Abatement Systems (NAS) as mitigation for underwater noise. Any additional mitigation will be dependent on the final project design and determined at the post-consent stage. The provision of underwater noise impact contours where mitigation is incorporated to reduce underwater noise extent by 10dB is presented within the **Underwater Noise Reduction Technical Note** [document reference 14.9]. Examination of the mitigated modelling indicates that underwater noise impacts within the 186dB SEL_{cum}; 203 dB SEL_{cum}; and 207 dB SEL_{cum} contours limits any overlap of these impacts to regions either unsuitable for herring spawning, or regions with a spawning potential >0.25, and therefore considered of lower suitability based on the Kyle-Henney *et al.* (2024) methodology. Within the 135 dB SEL_{ss} contours, areas of herring spawning potential of a value <0.05-<0.1, and 0.05 (moderate and higher potential) are reduced by 80.91% and 100% respectively following the introduction of mitigation allowing for a 10dB reduction (Table 3-1 **Underwater Noise Reduction Technical Note** [document reference 14.9]). As originally described within the memo submitted to the MMO dated 2nd November 2023 (see Appendix B of **The Applicant's Responses to Deadline 2 Documents** [REP3-028]), the Applicants strongly oppose the use of the 135dB behavioural threshold (which was determined for sprat *Sprattus sprattus*) for the assessment of potential impacts to Atlantic herring *Clupea harengus*. Whilst sprat and Atlantic herring are both species within the family Clupeidae, this is not a suitable justification for implementation of this

[21] The Department for Environmental Food and Rural Affairs (Defra). (2025). Policy Paper on Reducing Marine Noise as part of Defra's Marine Noise Package.

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Applicants' Response
			threshold given the evidence presented by Hawkins *et al.* (2014). The scientific publications upon which this threshold is based (Hawkins and Popper, 2014; Hawkins *et al.*, 2014) **explicitly state that: "*these data cannot yet be used to define the sound exposure criteria*";** and **"*We would stress, however, that it would be premature to use these data to define sound exposure criteria for sprat and mackerel*"** respectively. Therefore, on the evidence of the authors own position, the use of 135dB as a behavioural threshold should not be incorporated into MMO advice for the purposes of EIA. Guidance for impact thresholds is provided within Popper *et al.* (2014), (published the same year, and noting the common authors between these publications), the underwater noise impact thresholds presented are considered best practice guidance since its publication and are the ones used in the Applicants' assessment (**Chapter 10 Fish and Shellfish Ecology** [APP-091]). However, 135dB limits have been included in all underwater noise modelling outputs produced on request of the Examining Authority. The Applicants note that the Rampion 2 development contains and abuts large regions of preferred and marginal Atlantic herring spawning grounds as presented within Figure 8.10 of their EIA[22]. Impacts of underwater noise at the 207dB (mortality and potential mortal injury); 203dB (recoverable injury); and 186dB (temporary threshold shift) levels all overlap significantly with these regions of preferred and marginal potential habitat. Areas of unsuitable habitat are limited across the Fish and Shellfish Study Area as a whole. When compared to herring spawning potential associated with the Projects, (Figure 2-1 of the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105]) overlap with these regions is greatly reduced. Even in the absence of mitigation, the majority of the region covered by each of the previously discussed thresholds is considered as unsuitable for herring spawning. When considering the suitability of the sediment directly (Figure 2-2 of the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105]) findings are similar, with the majority of the region within these noise limits considered to be unsuitable for herring spawning. When considering the significant differences in both the proximity and overlap with potential herring spawning grounds between the two projects, it is not considered appropriate for the licence conditions applied to Rampion 2 to be applied to the Deemed Marine Licence(s) in the draft DCO for the Projects. For the above reasons, the Applicants do not agree that the proposed restriction is proportionate, evidence-based or necessary.
REP3-058: A.11	Section 3.1.4.3 The Applicant has reassessed monopiling impacts for DBS East and West in isolation but only discusses pin piling when reassessing DBS East and DBS West together.	Natural England require further clarification as to why pin piling is referred to throughout this section with no information provided on monopiling, when assessing the impacts of DBS West and East together. We advise that the impacts of both pin-piling and monopiling should be assessed.	Within the original assessment a precautionary approach was taken when assessing the potential impacts of underwater noise in the 'in isolation' scenario in which concurrent monopiling at the extremes of both Dogger Bank South (DBS) East and DBS West was assessed to maximise spatial extent. Pin-piling was determined as the worst case scenario under the 'together' scenario due to the concurrent piling within both Array Areas, and at the Electrical Switching Platform (ESP) location. Following the revision to

[22] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010117/EN010117-000341-6.3.8%20Rampion%202%20ES%20Volume%203%20Chapter%208%20Fish%20and%20Shellfish%20-%20Figures.pdf

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Applicants' Response
			the project design, piling at the ESP was removed, and the pin-piling parameters were changed to allow for only two simultaneous piling events. No changes to the monopiling scenario were made during the change request, and therefore the assessment for this piling scenario remains the same. When considered spatially, monopiling therefore represents the worst case scenario for piling for both the 'in isolation' and 'together' scenarios following the removal of the ESP piling location. This is due to the precautionary approach taken within the original 'in isolation' assessment that assessed concurrent piling at both locations to maximise spatial extent. I As pin piling would result in a greater number of piles that may be installed in one day (8 compared to only 4 monopiles in the 'in isolation' scenario), and the extended piling time associated with this method (2,609.3 hours compared to 544 hours in the 'in isolation' scenario) pin piling was retained as the worst case for the 'in isolation' scenario. This ensured that consideration of the greater temporal extent of this scenario was not lost following the revision to project design. Should monopiling be used during the 'together' scenario, impacts will remain as assessed within the 'in isolation' scenario as this scenario precautionarily assesses piling at both locations together. This worst case scenario is presented within Figure 10-8 of **Appendix 10-1 Fish and Shellfish Ecology Consultation Responses** [APP-093]. This figure includes the 135dB value – please see the response to REP3-058: A10 above for further details on the applicability of this threshold value when considering Atlantic herring.
REP3-058: A.12	Section 3.2.2 The Applicant refers to percentages of habitat loss in reference to the Fish Study area but previously provided percentages of Dogger Bank SAC and Banks herring and sandeel nursery and spawning grounds, which are ecologically more meaningful. To further assess this impact, percentages provided in reference to the Dogger Bank SAC area, Banks herring nursery and spawning grounds and sandeel nursery and spawning grounds would be beneficial.	Natural England requests the Applicant provides percentages for habitat loss in relation to the fish assessment in line with that presented in 6.1.2 Appendix B - Sandeel Habitat Potential in the Dogger Bank SAC and Southern North Sea SAC [APP-050].	It is important to note that the updated Reach *et al.* (2024) methodology differs from the previous Latto *et al.* (2013) methodology in that heat scores are no longer categorised as 'very high', 'high', 'medium', 'low', and 'no potential', but are instead assessed against a continuous scale. However, heat scores of <0.05 are generally considered to be of highest potential for supporting habitat. Heat scores > 0.1 are considered of lower potential. For heat scores <0.05, the total percentage area of the Dogger Bank SAC is ~7.91%, of which the DBS East and DBS West Array Areas (i.e. the boundaries not the footprint within them) represent ~1.59% and ~0.22% respectively. For heat scores between 0.05-<0.1, the total percentage area of the Dogger Bank SAC is ~55.94%, of which the DBS East and DBS West Array Areas represent ~2.70% and ~9.12% respectively. For heat scores between 0.1-<0.25, the total percentage area of the Dogger Bank SAC is ~35.36%, of which the DBS East and DBS West Array Areas represent ~11.81% and ~0.033% respectively. The remaining heat scores >0.25 are considered low-no confidence as potential supporting habitat for sandeel and represent ~0.79% of the Dogger Bank SAC's extent.

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Applicants' Response
			Considering the above, the DBS East and West Array Areas represent a proportion of the distribution of potential supporting habitat within the Dogger Bank SAC, however it is clear that they do not represent a significant majority of each heat score within the wider Dogger Bank SAC. When considering that habitat disturbance footprint will be orders of magnitude smaller in scale than the total Array Area, the conclusions made within **Chapter 10 Fish and Shellfish Ecology** [APP-091] and subsequent supporting documentation (including the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105]) remain valid. For completeness, the same information regarding the overlap of the DBS East and West Arrays with potential supporting habitat for sandeel within the Southern North Sea SAC is presented below: For heat scores <0.05, the total percentage area of the Southern North Sea SAC is ~10.77%, of which the DBS East and DBS West Array Areas represent ~0.53% and ~0.075% respectively. For heat scores between 0.05-<0.1, the total percentage area of the Southern North Sea SAC is ~36.16%, of which the DBS East and DBS West Array Areas represent ~0.90% and ~3.05% respectively. For heat scores between 0.1-<0.25, the total percentage area of the Southern North Sea SAC is ~46.02%, of which the DBS East and DBS West Array Areas represent ~3.94% and ~0.011% respectively. The remaining heat scores >0.25 are considered low-no confidence as potential supporting habitat for sandeel and represent ~7.05% of the Southern North Sea SAC's extent. Considering the above, the DBS East and West Array Areas represent a small proportion of the distribution of potential supporting habitat within the Southern North Sea SAC. It is clear that they do not represent a significant majority of each heat score within the wider Southern North Sea SAC. When considering that habitat disturbance footprint will be orders of magnitude smaller in scale than the total Array Areas, the conclusions made within **Chapter 10 Fish and Shellfish Ecology** [APP-091] and subsequent supporting documentation (including the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105]) remain valid.
REP3-058: A.13	The Applicant continues to assess permanent habitat loss as 'minor adverse' for both sandeel and Atlantic herring, through the ES.	Natural England maintains the position that there is a significant impact particularly to sandeel spawning and nursery habitat from permanent habitat loss. ICES advice for sandeel in divisions 4.b–c, sandeel Area 1r (ICES 2025) states that 'any activity leading to the degradation of sandeel habitat should be avoided.' Whilst this is likely unavoidable in the case of the Projects, sufficient assessment should be provided and mitigation applied to minimise impacts as much as possible. Furthermore, we have highlighted issues in relation to habitat loss and impacts to benthic habitats which reduce/remove their	A determination of minor adverse effect as made within the assessment (**Chapter 10 Fish and Shellfish Ecology** [APP-091]) is based on adherence to EIA methodology, and utilises a wide range of data, include additional data sources as requested through the post-submission process. Mitigation relating to the permanent loss of habitat is limited to the reduction in infrastructure footprint. The embedded mitigation to minimise the footprint of hard substrata (e.g. cable and scour protection) where feasibly possible will act in tandem with the monitoring of substrate type to reduce potential impacts on sandeel. Considerations and mitigation (in the form of reduced seabed footprint, via the

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Applicants' Response
		ability to support benthic communities which are integral to maintaining populations of Annex I and II designated site features [R&I C10].	exclusion of gravity base foundations and suction bucket jacket foundations) has been applied. The potential disturbance to sandeel habitat will be limited in the long term to the footprint of turbine foundations and additional hard substrata placed on the seabed. Disturbance caused by cable laying and associated activities is expected to be short term, and sandeel are expected to fully recover in areas where no additional hard substrata is installed.
REP3-058: A.14	Natural England continues to disagree that habituation is applicable to noise sources impacting fish from the Projects. Seismic air guns, whilst impulsive are a different noise source both in frequency and duration and therefore no direct assumption can be made that fish will be habituated to high ambient noise resulting in a reduced response to piling.	It is not currently clear if the Applicant has removed habituation from the updated assessment. We continue to advise the Applicant to provide more appropriate supporting evidence for habituation, if it is retained.	Whilst a statement is made within the assessment relating to habituation, this has been included only to contextualise the issues taken with the 135dB limit presented within Hawkins *et al.* (2014). The potential for habituation was not used in the determination of potential impact relating to underwater noise and vibration within the assessment within either **Chapter 10 Fish and Shellfish Ecology** [APP-091], or within **Project Change Request 1 – 10.50 Appendix A: Fish and Shellfish Environmental Assessment Update** [AS-142]. Within paragraph 175 of the assessment (**Chapter 10 Fish and Shellfish Ecology** [APP-091]) it is stated that "*…exposure to high ambient noise may have a habituating effect leading to a weaker or lack of response compared to the received levels alone."* It is acknowledged that the references provided do not relate specifically to piling, but present the best available evidence relating to habituation to impulsive noise. These citations have been provided to demonstrate that habituation of fish to both impulsive and non-impulsive noise sources has been documented within literature, noting that whilst the sources of noise may not be directly comparable it does support the potential for habituation to occur. This information is provided only in reference to the 135dB re 1µPa2s behavioural response limits (and not in reference to any other impact thresholds) to highlight the inadvisability of the application of the findings of the Hawkins *et al.* (2014) paper when compared to the baseline environment present within the Offshore Development Area.
Marine Mammals **Document used: [AS-144] 10.52 Appendix C Marine Mammal RIAA Update;** **[AS-140] 7.11.11.4 Appendix 11-4 iPCoD Modelling (Revision 2) (Tracked)**			
REP3-058: A.15	Section 7.11.11.4 In order to fully understand the impacts concluded by the iPCoD modelling, Natural England requests the Applicant provides additional information.	Please see the rows below for further information to be provided as needed.	No response is required.
REP3-058: A.16	Section 7.11.11.4 Provide the mean, median and confidence intervals for the impacted and unimpacted populations for all scenarios.		The Applicants maintain the median is the key metric to determine the significance using the iPCoD model. However, as per Natural England's request, the Applicants will be presenting the mean and confidence intervals for the iPCoD modelling at Deadline 5 in the updated R**eport to Inform Appropriate Assessment (RIAA) Habitats**

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Applicants' Response
			Regulations Assessment (HRA) Part 3 of 4 - Annex II Marine Mammals (Revision 3) [document reference 6.1]. The population modelling presented in **Appendix C Marine Mammal RIAA HRA Update** [AS-144] only presents the median ratio of the impacted: unimpacted population size rather than the mean for various reasons. 1. This is the key metric to determine the significance using the iPCoD model because the median of the ratio impacted: unimpacted population size is considered more statistically robust to the effects of extreme outliers compared to the mean value, particularly with lower sample sizes (Sinclair et al., 2020[23]). The median value is considered least sensitive to misspecification of demographic parameters, therefore allowing a more robust assessment of the effects from offshore renewables (Jital *et al.*, 2017[24]; Sinclair *et al.*, 2020).
REP3-058: A.17	Section 7.11.11.4 Natural England does not support the Applicants method of using a 1% annual decline over 6 years to conclude significance. This method is not conservative as other threats which also impact populations, such as bycatch, prey availability, shipping, are not included in the model, and therefore, the population reduction caused by offshore wind projects needs to account for other threats that could also cause a decline at a population level.	Natural England advises the Applicant uses a model which considers the population reduction caused by other impacts as well as offshore wind.	The Applicants maintain that the 1% annual decline over 6 years is considered an appropriate metric to assess the significance of effect from of long term disturbance from piling. The effects of disturbance are not considered permanent and are recoverable. When considering other threats which also impact populations, the size of the management unit, the stability of the harbour porpoise and grey seal populations and the favourable conservation status of the SACs, the repeated disturbance events from the Projects are not expected to have a sustained effect on the wider reference population. Further consideration of population level stressors will be presented qualitatively by reviewing the available evidence base at Deadline 5 in the updated **RIAA HRA Part 3 of 4 - Annex II Marine Mammals** [document reference 6.1] with the amended assessment from the change request and updated results for the iPCoD modelling.
REP3-058: A.18	Section 7.11.11.4 If iPCoD modelling results show any decline in population size, this could indicate a significant impact and therefore should be assessed in more detail.	Natural England advise that conclusions of significant impacts should be an evaluation of iPCoD along with other tools such as, EDR and dose response.	Assessments using the Environmental Disturbance Radius (EDR) and dose response curve were applied to assess for any potential disturbance to the population in the SAC for the Projects alone and for the in-combination assessment. However,this assessment only provides a snapshot of the potential disturbance from piling, because it only accounts for immediate response and not the possibility of animals returning to the area. The iPCoD was used to assess for any long-term impacts to any of the populations (*i.e. the SNS SAC, Humber Estuary SAC and Berwickshire Northumberland, North Coast SAC*) and any potential change in the Favourable Conservation Status of the population leading to Adverse Effects on Integrity (AEoI) for the relevant SACs. Results from the population modelling showed that no population had any significant decline, with harbour porpoises having a potential mean decline of 0.19% over 25 years as presented in **Appendix C Marine Mammal RIAA HRA Update** [AS-144]

[23] Sinclair, R. R., C. E. Sparling, and J. Harwood. "Review of demographic parameters and sensitivity analysis to inform inputs and outputs of population consequences of disturbance assessments for marine mammals." *Scottish Marine and Freshwater Science* 11, no. 14 (2020).

[24] Jitlal, M., S. Burthe, S. Freeman, and F. Daunt. 2017. Testing and validating metrics of change produced by Population Viability Analysis (PVA). Scottish Marine and Freshwater Science Vol 8 No 23.

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Applicants' Response
			The Applicants maintain that population modelling is the best tool to understand disturbance over the long term even with its limitations. The worst-case numbers from EDRs or dose response curves were incorporated into the iPCoD modelling along with number of animals affected by PTS. If the AEoI is solely based on EDRs or dose response curve, this highlights only the short-term disturbance and therefore does not consider any long-term effects, or animals returning to the area after piling.
REP3-058: A.19	Section 10.52 - 4.3; 7.11.11.4 There is limited understanding of how disturbance leads to health, reproduction and consequential population level impacts in marine mammals. Although iPCoD is the best available tool to predict these impacts, there are still limitations to this model.	As advised in our Relevant Representations, Natural England advise that conclusions should not solely be based on the model results, but instead should be an evaluation of iPCoD along with Environmental Disturbance Radius (EDR) and dose response.	As presented above in REP3-058:A18, EDRs and dose response were used to determine if there potential for Likely Significant Effects and the iPCoD modelling was used to look at if there would be a change in Favourable Conservation Status of the population leading to AEoI for the relevant SACs. Limitations for the iPCoD modelling are acknowledged and presented in **Appendix 11-4 iPCoD Modelling (Revision 2)** [AS-139]. Further information on consequential population level impacts from disturbance will be included in the updated **RIAA HRA Part 3 of 4 - Annex II Marine Mammals** [APP-047] submitted at Deadline 5.
REP3-058: A.20	Section 10.52 – 6.2.2; 7.11.11.4 The results of the in-combination assessment are currently only presented by the Applicant in the format of iPCoD results.	Natural England advise that the results of the in-combination assessment should be presented as the numbers of individuals and the proportion of the SAC impacted, not just the iPCoD results.	**Appendix C Marine Mammal RIAA Update** [AS-144] only presents the updated assessment in regard to the removal of the electrical switching platform in the Offshore Export Cable Corridor. The effects of other potential impacts and potential in-combination effects are considered based on the proportion of the SAC impacted in the **RIAA HRA Part 3 of 4 - Annex II Marine Mammals** [APP-047]. The **RIAA HRA Part 3 of 4 - Annex II Marine Mammals** [APP-047] in-combination assessment presented the numbers of individuals, and the proportion of the SAC impacted from piling. In the iPCoD, the worst-case numbers of disturbance and PTS was used, based on the density and population of the SAC. Updates to the in-combination assessment in the RIAA and incorporation of the change request **Appendix C Marine Mammal RIAA HRA Update** [AS-144] will be submitted in **RIAA HRA Part 3 of 4 - Annex II Marine Mammals** [APP-047] at Deadline 5.
REP3-058: A.21	Section 10.52 – 7 The RIAA does not currently show the assessment for the spatial and temporal area of the SNS SAC disturbed on a daily and seasonal basis to indicate how close the thresholds are to being breached.	Natural England advise that this table of results is clearly presented in the updated RIAA.	The Applicants welcome Natural England's comments. The **Project Change Request 1 – Offshore and Intertidal Works** [AS-141] resulted in no change in the spatial assessment. The Applicants confirm that the **RIAA HRA Part 3 of 4- Annex II Marine Mammals** [APP-047] already presents the assessment for the spatial and temporal area of the SNS SAC disturbed. The Applicants refer Natural England to Table 8-43 in section 8.3.5.5.1.1.1 for the spatial assessment, and Table 8-44 in section 8.3.5.5.1.1.2 for the seasonal assessment in the **RIAA HRA Part 3 of 4- Annex II Marine Mammals** [APP-047].
REP3-058: A.22	Section 10.52 - 4.3 The proportion of grey seals from the Humber estuary SAC disturbed by this project in-combination with other projects remains high (up to 14.4%), as is the proportion of grey seals from the Berwickshire and North Northumberland Coast SAC disturbed by this project alone (up to 6.8%), and	Natural England continue to advise that to reduce the disturbance to these SACs, commitments should be made to noise reducing technology.	For the in-combination assessment of disturbance from piling it is highly unlikely that all ten OWF included in the assessment will be piling at the same time, due to vessel availability, programme changes, and technical reasons which can cause unplanned delays. There is also no mitigation applied to the number of animals disturbed in

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Applicants' Response
	therefore, Natural England cannot rule out AEoI on these SACs at this time.		assessment and the new Defra policy (2025)[25] would require all projects to have appropriate primary and/or secondary noise reduction measures in place. In response to the Defra Policy Paper, the Projects will utilise best endeavours to deliver noise reductions, where applicable, through the use of primary and / or secondary noise reduction based on the final project design. The Applicants have submitted a technical note at Deadline 4 (**Underwater Noise Reduction Technical Note** [document reference 14.9]) presenting predicted impact ranges from **Appendix 11-3 Underwater Noise Modelling Report (Revision 2)** [AS-137] using a 10dB noise reduction. For this reason, noise reduction systems, such as NAS, are being included within the Projects' procurement strategy as an optional element to allow it to be called upon should it be required based on the final design parameters. Therefore, the results from the in-combination assessment for grey seal at the Humber Estuary SAC and the Berwickshire and North Northumberland Coast SAC are highly over precautionary. Results from the iPCoD in section 6.2 of **Appendix C Marine Mammal RIAA HRA Update** [AS-144] show that there is no AEoI on the Berwickshire and North Northumberland Coast SAC. The Applicants maintain that population modelling is the best tool to assess for in-combination effects such as cumulative disturbance over the long term. If the significance of effect is solely based on EDRs or dose response curve, this highlights only the short-term disturbance, therefore not considering any long-term effects, or animals returning to the area after piling. Furthermore, there is no dose response curve for grey seal, the dose response curve for harbour seal (Whyte *et al.* 2020[26]) is applied to grey seal for the Project and various other projects in the in-combination assessment such as Dudgeon extension, Sheringham Shoal Extension and Hornsea Project Three presented in Table 8-89 of **RIAA HRA Part 3 of 4 - Annex II Marine Mammals** [APP-047]. However, this approach has its limitations given the different hearing sensitivities between grey and harbour seal. Ridgeway and Joyce (1975)[27], in response to pulsed sounds such as piling, indicated that grey seal was most sensitive to sounds at 20 to 25kHz in water, compared with 32kHz in water for harbour seal (Mohl, 1968[28]). This shows that the hearing frequency of greatest sensitivity differs between the two seal species. In general, marine mammals are most susceptible to auditory injury at the frequency they hear best in i.e. the greatest sensitivity. Therefore, the harbour seal dose response curve being applied to grey seal could be over precautionary, due to it being based on the hearing sensitivity of harbour seal.
Offshore Ornithology			
REP3-058: A.23	The current Change Request 1 documents do not include an updated Offshore Ornithology assessment, due to the	Natural England requests clarification on how the move from intertidal to subtidal exit pits alters vessel and construction	The Applicants note that both subtidal exit pits and intertidal exits pits were considered within the ES and the RIAA prior to the acceptance of the changes by the Examining

[25] The Department for Environment Food and Rural Affairs (Defra). (2025) Defra Policy Paper on Reducing Marine Noise. Published January 2025. Available online at: https://www.gov.uk/government/publications/reducing-marine-noise/reducing-marine-noise

[26] Whyte, K.F., Russell, D.J.F., Sparling, C.E., Binnerts, B. and Hastie, G.D. (2020). Estimating the effects of pile driving sounds on seals: Pitfalls and possibilities. The Journal of the Acoustical Society of America, 147(6), 3948–3958.

[redacted]

[27] Ridgway SH, Joyce PL (1975) Studies on seal brain by radiotelemetry.

[28] Mohl, B. (1968). Auditory sensitivity of the common seal in air and water. J. Aud. Res., 8:27- 38.

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Applicants' Response
	Applicant stating that there will be no impact from the changes. However, we consider the changes to the location of the planned exit pits could change the likelihood of impacts to Red Throated Diver in the Greater Wash SPA.	activity within/in the vicinity of Greater Wash SPA, and how this will impact Red Throated Diver populations.	Authority in **Project Change Request 1 – Offshore and Intertidal Works** [AS-141]. As a result of the removal of the intertidal exit pits, only subtidal exit pits are now included in the Projects' Design Envelope. Assessment of potential effects on red-throated diver caused by up to 2 cable installation vessels crossing the Greater Wash Special Protection Area (SPA) was presented in the ES and RIAA and predicted to be non-significant (EIA) and not likely to give rise to an adverse effect on integrity (RIAA). That assessment did not explicitly discuss landfall construction activities as these were considered to be an extension of the offshore cable installation. This remains the case with the proposed change, which in fact simply removes the inter-tidal option and moves the exit pits from the inter-tidal to the sub-tidal zone. Works on the exit pits could take place over three separate construction periods, the first for HDD exit pit preparation, a second period for HDD duct installation and a third period for cable pull-in. For information purposes, it is estimated that HDD exit pit preparation and HDD duct installation would at most extend over an indicative 6–8 month period, with cable pull activities taking place over an indicative 4-6 month period. It should be noted that vessels would not be present for the entirety of the two defined time periods, with any final construction timelines being dependent on the finalised construction approach and equipment selected. In addition, cable pull activities would not occur directly following the installation of the subtidal exit pits, with all works taking place within a 3-year period. During installation activities for the subtidal exit pits and cable pull, installation vessels would remain effectively stationary while works were undertaken. Assuming for 100% displacement of birds within 2km of construction activity, this would effectively result in a stationary 12.56km² area of disturbance around each construction site, encompassing approximately 0.35% of the total area of the Greater Wash SPA. The Applicants also highlight that the final Project Environmental Management Plan must include procedures to be adopted in vessel transit corridors to minimise disturbance to red-throated diver during the period from 1st November – 31st March, in accordance with the best practice protocol for minimising disturbance to red-throated diver (as secured in conditions 15/13/11 of DMLs 1 – 5 of the **Draft DCO (Revision 7)** [document reference: 3.1]. As such, any potential disturbance resulting from construction vessels transiting to the site of the subtidal exit pit will be reduced as a result of this measure. Figure B-1 and B-2 (presented in Appendix B of this document) shows the density of red-throated diver recorded in the previous 2016 JNCC survey[29] in relation to the Offshore Export Cable Corridor and the indicative location of where the subtidal exit pits may be constructed. As shown in this figure, the indicative subtidal exit pit construction area is outside the area surveyed for red-throated diver in the previous 2016 JNCC survey area, with this area assumed to reflect the species' distribution within the SPA. Given the negligible area within which any red-throated divers may be displaced as a result of installation activities and the low density of red-throated divers found in the

[29] https://data.jncc.gov.uk/data/c35b649e-f3bd-42d0-b6c4-96ed66cc2fc2/JNCC-Report-574-FINAL-WEB.pdf

I.D.	Natural England Comment	Natural England's Advice to Resolve Issue	Applicants' Response
			area of overlap between the Offshore Export Cable Corridor and the Greater Wash SPA (0.68 and 0.87 birds/km² as detailed in section 9.5.2.1.3.1.1 of the **RIAA HRA Part 4 of 4 – Marine Ornithological Features (Revision 4)** [document reference: 6.1]), it is concluded that any potential effects on red-throated diver due to construction of the subtidal exit pits and subsequent cable pull activities within the Greater Wash SPA for either DBS East or DBS West in isolation or for both together would not adversely affect the integrity of the Greater Wash SPA. The above text regarding red-throated diver and the subtidal exit pits will be incorporated a future revision of **Chapter 12 Offshore Ornithology** [document reference: 7.12] to be submitted at Deadline 7, which will include any additional updates required as a result of **Project Change Request 1 – Offshore and Intertidal Works** [AS-141].

2.12 Natural England – Risks and Issues Log

6. The Applicants note that responses were provided to Natural England's items listed under the topics of Offshore Ornithology and Ornithology Compensation in **The Applicants' Responses to Deadline 2 Documents** [REP3-028] and await Natural England's review and comment on these responses. As such, the topics of Offshore Ornithology and Ornithology Compensation have not been included in the below table.

Table 2-19 The Applicants' Response to Natural England's Deadline 3 Document - Risks and Issues Log [REP3-060]

I.D.	Natural England Response	RAG Status	Applicants' Response
Draft Development Consent Order (Revision 6) [REP3-004]			
REP3-060: A1	Initial Relevant Representation - *The definition of maintain should be amended to show a clear linking to the Outline Offshore Operations and Maintenance Plan (OOOMP) or Environmental Statement. This comment applies to schedules 10-14 where similar provisions are recorded, for brevity have not repeated the comments (Article 1, Pg 8).* Deadline 3 Status - No change. The Applicant does not consider that the definition of 'maintain' requires updating and states that key parameters related to maintenance activities will be included in the final OOOMP. We maintain our previous advice.		The definition of "maintain" is already linked to the Environmental Statement – it includes the words "to the extent assessed in the Environmental Statement". It is also the same as the definition of "maintain" used in the **Outline Offshore Operations and Maintenance Plan (OOOMP) (Revision 3)** [REP2-045] (see paragraph 5 of that document), albeit the definition in the OOOMP uses slightly different language, for example "inspection" rather than "inspect" and "adjustment" rather than "adjust". Therefore, the Applicants remain of the position that no amendments are required to the definition of "maintain" and would hope that this can be agreed with Natural England.
REP3-060: A3	Initial Relevant Representation - *Requirement 10 (2) lists the expected aspects to be detailed in the landscape management plan. We would note that the requirement for monitoring and maintaining of the landscaping works should also be secured here. (Schedule 2, Part 1, Requirement 10).* Deadline 3 Status - Issue resolved. We are satisfied that Requirement 11 of the Draft DCO [AS-121] provides that the landscaping works must then be carried out in accordance with any landscape management plan approved under requirement 10.		The Applicants welcome Natural England's agreement on this matter.
REP3-060: A4	Initial Relevant Representation - *The requirement wording should be updated to state which environmental topics will be included within the Code of Construction Practice (CoCP). Paragraph (4) should be amended to note that the relevant SNCB will be consulted by the relevant planning authority prior to the approval of any pre-commencement screening and fencing works. The production of the final soil management plan is not secured in the DCO wording. We advise this could be included within this requirement (Schedule 2, Part 1, Req. 19).* Deadline 3 Status - Issue progressed. We maintain our advice that environmental topics that are included in the CoCP should be listed. Regarding our advice that paragraph (4) be amended, we believe that this has been added into Draft DCO (Rev 03) [AS-121] under paragraph (5)(Schedule 2, Part 1, Requirement 19) rather than (4) however it may also be covered by paragraph (1). We request the Applicant provide clarification on whether this is correct.		In relation to Natural England's request for environmental topics to be listed in requirement 19, the Applicants maintain their position set out in the previous response to this point given in the Applicants' **Response to Natural England's Relevant Representations (Revision 1)** [AS-048] (RR-039:A7), which stated: *"The Applicants do not agree that there is a need to list the different environmental topics that will be included within any final Code of Construction Practice (CoCP) in requirement 19 of the Draft DCO [APP-027]. The Outline Code of Construction Practice (OCoCP) [APP-234] includes construction mitigation from all onshore ES Chapters 18 to 30 [APP-140 to APP-225]. Section 5 sets out the general site operation measures and section 6 the management of onshore environmental issues for each of the relevant environmental topics. Table 3-1 of the OCoCP [APP-234] also describes the outline documents that form appendices to the OCoCP [APP-234]. Because any final CoCP submitted and approved under requirement 19 must accord with the OCoCP [APP-234], it is implicit that the listed documents in Table 3-1 and environmental topics included in section 6 of the OCoCP [APP-234] will also be included within or, appended to any final CoCP. It is therefore not necessary to update the wording of requirement 19."* The Applicants have updated the **Draft Development Consent Order (DCO) (Revision 7)** [document reference 3.1] to add Natural England as a consultee to requirement 19(4) and note that they had incorrectly been added to 19(5) previously (which has now been corrected).

I.D.	Natural England Response	RAG Status	Applicants' Response
REP3-060: A7	Initial Relevant Representation - *This condition does not include the requirement to submit an updated OOOMP. We also note that condition 10 (1) (c) requires details on cable protection. However, we assume this covers during construction cable protection only. We further note that operations and maintenance is provisioned for at condition 7. However, the wording at condition 7 only allows for the replenishment of cable protection. Natural England interprets this to mean the deemed Marine Licence (dML) only allows for new areas of cable protection to be installed during construction. Confirmation is needed of the intention with regard to the conditioning of cable protection deployment after construction. (Schedule 10, 15(1)).* Deadline 3 Status - Issue progressed. We welcome the inclusion in Schedule 10, part 2, condition 7 (6) of the Draft DCO (Rev 03) [AS-121] that the offshore operations and maintenance plan is to be submitted at least 4 months prior to operation. This part of the issue is resolved. However, see Point A15 with regards to additional or replenishment cable protection.		The Applicants welcome Natural England's confirmation that part of this concern has been resolved. In relation to additional or replenishment cable protection, please see the response to A15 below.
REP3-060: A8	Initial Relevant Representation - *Amend condition to include consideration of the use of Noise Abatement Systems (NAS) within the final Marine Mammal Mitigation Protocol (MMMP). (Schedule 10, 15(1)(g))* Deadline 3 Status - No Change. Natural England's advice remains that The Applicant should be committing to using Noise Abatement Systems at this stage in the application. See Point F6 and Appendix F3 of our Deadline 3 submission for further detail.		The Applicants have responded to this point in **The Applicants' Responses to Deadline 3 Documents** [document reference 14.4] (see point REP3-054:1.1): *"The Applicants have committed to utilising best endeavours to deliver noise reduction (primary and /or secondary methods) in line with the Department for Environmental Food and Rural Affairs (Defra) Policy Paper on Reducing Marine Noise as part of Defra's Marine Noise Package (2025[2]). The additional mitigation measures are presented in section 3.1.9 of the **Outline MMMP (Revision 3)** [REP2-047] and consider the use of Noise Abatement Systems (NAS) as mitigation for underwater noise. Any additional mitigation will be dependent on the final project design and determined at the post-consent stage.* *The Applicants have submitted a technical note at Deadline 4 (**Underwater Noise Reduction Technical Note** [document reference 14.9]) presenting predicted impact ranges from **Appendix 11-3 Underwater Noise Modelling Report (Revision 2)** [AS-137] using a 10dB noise reduction. Examples of types of noise reduction methods such as NAS are presented in the technical note, as the Applicants are including NAS within the Projects' procurement strategy to allow it to be called upon should it be required based on the final design parameters. With a 10dB noise reduction, the worst case predicted cumulative Sound Exposure Level SEL_{cum} PTS impact ranges for harbour porpoise would be reduced from 11km to 0.98km for two sequential monopiles.* *The Applicants welcome engagement with Natural England post-consent to ensure the most appropriate mitigation is implemented."* The Applicants also note that, in the event that driven or part-driven foundations are proposed to be used, the production, submission and approval of the MMMP in advance of construction is secured by conditions 15/13 of DMLs 1, 2, 3 and 4. The MMMP must be in accordance with the outline MMMP (which commits to the use of best endeavours to deliver noise reduction (primary and /or secondary methods) in line with the Defra Policy Paper on Reducing Marine Noise) and must follow best practice, as advised by the relevant statutory nature conservation bodies. Natural England is a consultee in relation to the relevant DML conditions. Sufficient controls therefore already exist to ensure the Applicants provide adequate noise mitigation and no amendments to the condition wording are proposed.

I.D.	Natural England Response	RAG Status	Applicants' Response
REP3-060: A11	Initial Relevant Representation - *This condition provides that most of the plans and documents under Condition 15 must be submitted 4 months prior to the works starting. Due to the size and complexity of this project, this time period is not appropriate. Given the large volume of documentation and the often complex nature, we request this be amended to six months prior to commencement. Alternatively, we are willing to discuss the required timing for each plan with the Applicant and the MMO. (Schedule 10, Part 2, 17(1)).* Deadline 3 Status - Issue resolved. Natural England notes and welcomes the increase in consultation period on pre-construction documentation from four months to six months.		The Applicants welcome Natural England's agreement on this matter.
REP3-060: A12	Initial Relevant Representation - *Update the conditions to include ornithological monitoring. Further amendments may be required on monitoring condition wording in line with MMO advice. (Schedule 10, 20-22)* Deadline 3 Status - No change. Natural England does not consider the Construction Programme and Monitoring Plan to be sufficient to secure the necessary monitoring plans. We advise that each thematic area should be named and secured by condition. For DBS this should include monitoring plans for ornithology, benthic, marine processes, marine mammals, and sandeel. Plans should be provided least 4 months (though preferably 6) prior to the first survey. We highlight that this is a standard position and has been standard wording in DCOs since 2010.		The Applicants have previously added a standalone ornithological monitoring condition to the DMLs (condition 29 of DMLs 1 and 2) and so hope that this matter is now resolved.
REP3-060: A15	Initial Relevant Representation - *The Development Consent Order (DCO) does not contain an end date for deployment of cable protection for within and outside of designated sites. Natural England's standard advice is that cable protection should only be deployed for a maximum period of 10 years from the commencement of operations outside of designated sites. Within any designated sites for benthic features, such as the Dogger Bank SAC, the condition should stipulate that there should be no deployment of cable protection after the completion of construction.* Deadline 3 Status - Issue progressed. -We welcome the update to the OOOMP [AS-028] that a separate Marine Licence will be sought during operation for new cable and scour protection (i.e. in areas where no protection was installed during construction). -We do not agree with the Applicants' position that "no new marine licences will be sought for any additional or replenishment protection required during the operational phase in areas that were protected as part of construction, unless such protection would exceed the maximum amounts authorised by the DMLs". See Appendix C2.2 [REP2-066] of Natural England's Deadline 2 submission for further detail. -The Applicant states that the cable and scour protection reports would delineate the end of construction and that relevant DML conditions would be updated. We will provide further comment when these updates are provided.		As noted in their response to Natural England's REP2-065:6 provided within **The Applicants' Reponses to Deadline 2 Documents (Revision 1)** [REP3-028] the Applicants' position remains that: *"Replenishment of cable and scour protection up to the limits set out within the DMLs could be deposited within the footprints of deposition established at the construction stage. These footprints would be established through the discharge of the Reporting of Scour and Cable Protection conditions in each DML (for example, see Condition 23 in DML 1 (Schedule 10) within the Draft DCO (Revision 6) [document reference 3.1]) with the volumes of deposition also managed through these conditions. The effects of protection introduced through this mechanism will be compensated for as part of the DBS benthic SAC compensation proposals. The effects of such protection will have been comprehensively assessed as a permanent effect compensated for through the DBS DCO consenting process. The Applicants maintain that further assessment and compensation discussions relating to project activities that have been previously assessed, licenced and compensated for would be neither proportionate or necessary.* *The Applicants reiterate that protection required in 'new areas' where no protection had previously been placed, would be licenced in ten-year blocks following the completion of construction. This will help to ensure management of impacts whilst preserving the flexibility that the applicants require in order to adequately maintain and operate a complex asset in a dynamic environment.* *Please see the Applicants' response to RR-039: C13 in Response to Natural England's Relevant Representations [AS-048] for the full proposal."* The Applicants are seeking meetings with Natural England between Deadlines 4 and 5 to discuss a number of technical issues. This matter will be on the agenda with the intention of moving the Applicants' and Natural England's positions into closer alignment.

I.D.	Natural England Response	RAG Status	Applicants' Response
			The Applicants confirm that condition 23 of DMLs 1 and 2, condition 21 of DMLs 3 and 4 and condition 17 of DML5 all contain provisions requiring cable and scour protection reports to be provided within 4 months following completion of construction of the authorised scheme, with updates provided where further deposits are made through the processes outlined within the **Outline Offshore Operations and Maintenance Plan (Revision 3)** [REP2-045] occur during the operational phases of the Projects. The Applicants are unclear as to the nature of any further updates that Natural England are expecting for these conditions and would appreciate clarification in this regard.
Commitments Register (Revision 2) [REP2-025]			
REP3-060: A17	Initial Relevant Representation - *Natural England advise that any named document should be clear on what the Applicant's commitments/requirements are, and include any rationale/justification as to why the commitments are being made, even if how they will be delivered is currently unknown.* Deadline 3 Status - No change. We maintain our advice that commitments/requirements should be clear and should include any rationale/justification as to why the commitments are being made. In particular, we note for commitment C142: "*Any sediment removed from within the Dogger Bank Special Area of Conservation during construction of the authorised scheme must be disposed of within that part of the Dogger Bank Special Area of Conservation which falls within the Order limits*". As detailed in Points B17, B44, B45, C21, C33, C34 and further advised in Appx C2.1 [REP2-065], we continue to advise that disposal should be in areas of similar sediment, upstream of the impacts and through the use of a fall/down pipe. Furthermore this commitment is missing cross reference to relevant ES chapter.		The Applicants note Natural England's concerns and will add an introductory section to this document to contextualise its purpose, utility and relationship to consent submissions. An update to this document will be submitted at Deadline 5. As regards C142, this commitment is not relevant to a particular chapter as the mitigation was included for the purpose of mitigating impacts to the Dogger Bank SAC in the R**eport to Inform Appropriate Assessment Habitats Regulations Assessment - Part 2 of 4 – Annex I Offshore Habitats and Annex II Migratory Fish - Volume 6** [APP-046]. The Applicants refer Natural England to their responses to Natural England's REP2-065::3. and REP2-065::3.5 in T**he Applicants' Reponses to Deadline 2 Documents (Revision 1**) [REP3-028] for information relating to their proposals for disposing of dredged material within the Dogger Bank SAC.
Outline Offshore Operations and Maintenance Plan (Revision 3) [REP2-045]			
REP3-060: A19	Initial Relevant Representation - *The OOOMP will need updating and a final plan submitted and agreed (in consultation with the relevant SNCB) prior to construction. See A7.* Deadline 3 Status - Issue resolved. See Point A7.		The Applicants welcome Natural England's agreement on this matter.
REP3-060: A20	Initial Relevant Representation - *The definition of maintain should be consistent between the DCO and OOOMP. See A1.* Deadline 3 Status - No change. See Point A1.		Please refer to the Applicants' response to A1 above.
REP3-060: A21	Initial Relevant Representation - *Natural England is concerned about what is and is not permitted as part of the DCO/dML through this named plan, in relation to replacement of cable protection over the lifetime of the project and any 'allowances' for new cable protection. We advise that further cable protection and scour prevention within Dogger Bank SAC would require a new marine licence, and that outside of the SAC a register should be kept and summited annually to the MMO on any placement of cable protection. This should include the volume, footprint and locations to ensue commitments have been adhered to and indirect impacts to designated sites avoided. See A15, A22.*		As noted in their response to Natural England's REP2-065:6 provided within **The Applicants' Reponses to Deadline 2 Documents** (Revision 1) [REP3-028] the Applicants' position remains that: *Replenishment of cable and scour protection up to the limits set out within the DMLs could be deposited within the footprints of deposition established at the construction stage. These footprints would be established through the discharge of the Reporting of Scour and Cable Protection conditions in each DML (for example, see Condition 23 in DML 1 (Schedule 10) within the Draft DCO (Revision 6) [document reference 3.1]) with the volumes of deposition also managed through these conditions. The effects of protection introduced through this mechanism will be compensated for as part of the DBS benthic SAC compensation proposals. The effects of such protection will have been comprehensively assessed as a permanent effect*

I.D.	Natural England Response	RAG Status	Applicants' Response
	Deadline 3 Status - No change - please see Point A15 for further information regarding our advice on scour / cable protection replenishment.		*compensated for through the DBS DCO consenting process. The Applicants maintain that further assessment and compensation discussions relating to project activities that have been previously assessed, licenced and compensated for would be neither proportionate nor necessary.* *The Applicants reiterate that protection required in 'new areas' where no protection had previously been placed, would be licenced in ten-year blocks following the completion of construction. This will help to ensure management of impacts whilst preserving the flexibility that the applicants require in order to adequately maintain and operate a complex asset in a dynamic environment.* *Please see the Applicants' response to RR-039: C13 in Response to Natural England's Relevant Representations [AS-048] for the full proposal.* The Applicants are seeking meetings with Natural England between Deadlines 4 and 5 to discuss a number of technical issues. This matter will be on the agenda with the intention of moving the Applicants' and Natural England's positions into closer alignment.
Marine Physical Environment			
REP3-060: B1	Initial Relevant Representation - *For indentations on the seabed due to installation vessels, the Maximum Design Scenario (MDS) for anchoring for either DBS E or W in isolation is 244,640m2, however, the maximum total impacted area by anchoring is stated as 22,061m2. It is unclear which of these values is the MDS for seabed area affected by anchoring. This is also the case for the DBS E and DBS W concurrent/sequential scenario MDS. Clarification on the MDS for all construction scenarios is required. (7.8: Table 8-1)* Deadline 3 status - No Change. Table 4-2 in [AS-141] provides updated MDS for anchoring for the different build scenarios and stages of the development. However, we maintain that relevant application documents should be updated to reflect these changes.		An updated version of **Chapter 8 Marine Physical Environment** [APP-080] will be submitted at Deadline 7 which will address this comment.
REP3-060: B3	Initial Relevant Representation - *The rationale behind remedial cable protection along 10% of the cable route within Dogger Bank SAC should be provided, with evidence provided to justify a realistic Worst Case Scenario (WCS). Specific locations (informed by acoustic data) of areas requiring cable protection should be identified, including identification of affected features/sensitive habitats. (7.8)* Deadline 3 status - No change. No further information or rationale has been provided, and in [AS-141] there is no change to the 10% cable protection requirement for the array and inter-platform cables.		See the Applicants' response to this matter in ISH2.4.4 in **The Applicants' Responses to Issue Specific Hearing 2 (ISH2) Supplementary Agenda Questions** [REP1-050], repeated below for convenience: *The DBS Array Area Cable Burial Risk Assessment (CBRA) remains at a Preliminary stage, from a study completed in 2023. The Applicants are not planning to develop a revised version until the turbines proposed for use by the Projects have been chosen (likely Q3 2025 and, therefore, post-Examination) and the array layout is finalised (similar time frame). The Applicants conducted geotechnical site investigations in the Array Area at DBS West in 2024, and will be commencing geotechnical studies at DBS East in 2025. Using information arising from these surveys updates of the array area ground models will enable a refined CBRA to be developed in late 2025 – again, post-close of the DBS DCO Examination.* *The indications are that the Array Areas (the most significant part of the Projects for construction in the Special Area of Conservation (SAC)) shouldn't present areas of burial challenge. The site boundaries brought forward for Examination were refined from the Agreement for Lease boundaries presented at the PEIR stage in part to exclude high density boulder regions which would have presented significant burial risk. Despite the removal of this area of potentially challenging ground conditions, an upper limit of 10% of remedial protection (excluding cable / pipeline crossings and approaches to wind turbine and platform foundations where cables entering J-tubes need to be protected) has been assessed on the basis of the level of uncertainty*

I.D.	Natural England Response	RAG Status	Applicants' Response
			that currently exists prior to geotechnical survey outputs being available and prior to a specific array cable layout being developed. *The Applicants are not a participant in Dogger Bank A and B and do not have evidence in relation to those projects. We understand that construction is on-going on these projects and final cable protection values would not be available until construction has finished. In any case, the Applicants also do not consider that using the 'actual' (verified after installation is complete) remedial burial protection quantities from another project would be appropriate or applicable for the DBS Projects as there is a need to allow for the inherent uncertainty that exists until site design and investigations are complete, burial depths and methodology are selected, and ultimately until the physical process of laying/burying the cables is complete. If the Applicants were to lay cables on the seabed surface without an agreed option for remedial burial protection, the cables would be subject to high risk of damage during the potentially lengthy period of time it would take to seek approval for secondary cable protection to be installed. Further, there would be additional seabed disturbance then associated with any cable repair works which would be likely to occur with greater frequency over more extensive areas should remedial cable protection usage be sub-optimal from an asset protection perspective.* *The final volumes, areas and locations of remedial cable protection will not exceed the worst case values presented in the* ***Draft DCO (Revision 5)*** *[document reference: 3.1]. The predicted final volumes, areas and locations of anticipated remedial cable protection will be included in the final Cable Statement(s) which will require MMO approval under each dML prior to the commencement of construction. The final Cable Statement(s) will be produced in alignment with* ***Cable Statement (Revision 2)*** *[AS-078]). Conditions within each dML (e.g. Condition 23 in Schedule 10) require the Applicants to report to the MMO and the relevant statutory nature conservation bodies the details of the cable protection and scour protection used within the authorised scheme following the completion of construction. Thus, it is clear that there will be a high level of control of the deployment of remedial cable protection prior to and beyond construction.* *The Applicants wish to clarify that the primary means of cable protection is burial and that every effort will be taken to maximise burial potential reduce the use of costly, time-consuming remedial protection measures through appropriate cable design, routeing and micro-siting and the selection of the most appropriate installation methods. Aside any environmental concerns, the Applicants are deeply incentivised to minimise the use of remedial protection at all project stages.*
REP3-060: B4	Initial Relevant Representation - *The WCS for remedial cable protection assumes 20% of the export cable route will require remedial protection outside of Dogger Bank SAC. A realistic worst-case scenario on the locations for cable protection should be identified (informed by geophysical and geotechnical data). We also advise that the rationale (including supporting evidence) for this requirement should be provided. (7.8)* Deadline 3 status - No change. No further information or rationale has been provided and in [AS-141], there is no change to the 20% of the export cable length requiring surface laid cable protection. We also seek clarification on whether the results of the ECR Preliminary CBRA provided in Appendix B of [REP2-040] alter this requirement (see B49).		The Applicants direct Natural England to the response to REP3-051:4 provided in **Table 2-9** of this document.
REP3-060: B5	Initial Relevant Representation - *For the Operational impact "Cable Repairs and Reburial", the activity has been described, but no associated LSE pathways have been included. The Applicant should specify the LSEs and provide the MDS for each activity during operation (for all build*		The Applicants direct Natural England to Appendix A of this document which presents the worst-case operational impacts of "Cable Repairs and Reburial" on the relevant protected sites.

I.D.	Natural England Response	RAG Status	Applicants' Response
	scenarios). The WCS impact on each MPA and affected features should also be provided for direct and indirect effects. (7.8: Table 8-1) Deadline 3 status - Issue progressed. The Applicant has provided the WCS volume of sediment displaced during O&M activities in the Array Areas and Offshore Export Cable Corridor in [AS-141], however the WCS impact needs to be provided for any affected MPAs.		
REP3-060: B6	Initial Relevant Representation - *Clarification is needed on the WCS volumes for sandwave levelling/seabed for the export cable route. (7.5, 7.8)* Deadline 3 status - Issue progressed. In [AS-141] the maximum seabed area and volume disturbed by sandwave levelling within the Offshore Export Cable Corridor has been clarified. This has also been updated in the Project Description [REP1-010].' However, we advise that all relevant plans should be updated to reflect the revised parameters from the Change Request, including ES chapters.		An updated version of **Chapter 8 Marine Physical Environment** [APP-080] will be submitted at Deadline 7 which will address this comment.
REP3-060: B8	Initial Relevant Representation - *The Preliminary CBRA is based on the Projects' Red Line Boundary (RLB) at PEIR stage, which has been significantly revised. We advise that a more up-to-date and detailed pre-consent cable burial assessment should be provided, based on the most recent RLB and turbine/cable layout. This should use project specific geotechnical data and/or data from constructed offshore windfarms to consider the likelihood of burial success to inform realistic MDS parameters for cable protection requirements. (8.20)* Deadline 3 status - Issue progressed but not resolved. The Applicant has provided an updated Cable Statement which includes an updated Cable Burial Risk Assessment for the Export Cable Route [REP2-040], but not for the Array Areas. If available, this should be provided as well. Please see Deadline 3 Appendix B3		A preliminary Cable Burial Risk Assessment (CBRA) for the Array Areas is included in Appendix A of the **Cable Statement (Revision 4)** [document reference: 8.20]. An updated preliminary CBRA for the Export Cable Corridor was submitted at Deadline 2 – see **Cable Statement (Revision 3)** [REP2-039]. The Applicants would like to reiterate that the final versions of the CBRAs will not be completed within the time frame of examination. There will also be no further updates to any existing CBRAs within the time frame of examination. Further updates to the preliminary CBRAs are dependent on future survey and design work which is not scheduled to be completed within the Examination timetable.
REP3-060: B9	Initial Relevant Representation - *We advise that identification of regional scale sediment transport pathways is an important part of the baseline characterisation. Sediment transport pathways have been identified only for the landfall, adjacent coastline, nearshore and westernmost section of the Offshore Export Cable Corridor (OECC). We advise the Applicant to establish or infer sediment transport pathways for the remainder of the OECC and array areas. (7.8.1)* Deadline 3 status - No change - no new information relevant to this issue has been submitted at this deadline. See our response to Examiner's Question (ExQ) MCP.1.2 for further detail in Appendix K of our Deadline 3 submission for further detail.		The Applicants direct Natural England to the response to REP3-057: MCP.1.2 provided in **The Applicants' Comments on the Responses to ExQ1** [document reference: 14.3], and repeated below for convenience: *The Applicants have submitted further evidence to support the EIA assumptions in relation to sediment transport pathways in **Bed Mobility and Thermal Environment Technical Report** [REP3-032]. Seabed morphology and mobility is characterised in section 4 of REP3-032 for the Export Cable Corridor and Array Areas. Repeat bathymetric surveys were used to quantify seabed mobility and bedform migration speeds by comparing the elevation of bedform crests between surveys. This is the same process as bedform crest mapping as recommended by Natural England, the only difference is the outputs are presented as a grid instead of as lines on a map. A discussion about the relative influence of waves and tides on seabed morphology is also presented within REP3-032.*
REP3-060: B11	Initial Relevant Representation - *We advise that the modelling for changes to the wave and tidal regime should be updated to reflect the Option 1 turbine layout and removal of gravity base foundations for turbines from the project envelope. The outputs of the more realistic layout out scenario (Option 1) should be carried through to the assessment. (7.8, 7.8.8.3)* Issue progressed. The Applicant has updated the Marine Physical Processes Modelling [REP2-018] to reflect the changes in the Project Design Envelope (i.e. removal of GBS foundations and reduction in the number of offshore platforms). The updated wave and hydrodynamic		The updated modelling based on the removal of GBS foundations does not change the results of the assessment outlined in **Chapter 8 Marine Physical Processes** [APP-080] (see section 8.7.4.1. and 8.7.4.2.) as the receptors sensitivity to changes in wave and tidal regime remain the same (negligible) and while the scale of the impact is slightly lower, this does not result in a material change to the assessment of magnitude of impact, and it remains low. Therefore, there is no change to the significance of effect which is negligible.

I.D.	Natural England Response	RAG Status	Applicants' Response
	modelling has also been carried out for baseline, Option 1 and Option 2. We advise that all relevant documents such as relevant ES chapters be updated to reflect this. We also continue to advise that Option 1 is a more realistic layout scenario and should be carried through to such updated assessment.		The Applicants maintain the position that Option 2 is the worst case scenario when considering potential overlapping effects between turbines if they are installed at the minimum separation distance. Option 1 may appear a more realistic layout as it resembles layouts being installed at Dogger Bank A and Dogger Bank B for example. However, the final layout for the DBS Projects will not be determined until later in the development program (post consent). Therefore, following the Rochdale Envelope approach, the worst case scenario is Option 2.
REP3-060: B13	Initial Relevant Representation - *The ES identifies a significant secondary wave shadow component from the south to south-south-west (S-SSW) where the spatial extent, and potential impacts have not been assessed. The Applicant should provide details of the spatial extent of any wave shadow effects extending from DBS into Dogger Bank A. The implications of these wave shadow effects for the marine physical environment over the lifetime of the Projects should also be considered. (7.8)* Deadline 3 status - No change. As noted in Appendix L of Natural England's Deadline 3 submission, it would be useful to include waves approaching from the south/southwest in the wave modelling assessment. This would help inform understanding of potential overlapping effects extending towards nearby OWFs (i.e. Dogger Bank A). Moreover, cumulative and project-specific changes to the wave climate over the lifetime of the Project need to be fully considered.		As per the response given to REP3-058: A6 in **Table 2-15,** the Applicants have considered the effects on bedload sediment transport due to changes in tidal regime (and bed shear stress) in section 8.7.4.4. of **Chapter 8 Marine Physical Environment** [APP-080]. The Applicants have provided further consideration of long-term sediment transport pathways in their response to Natural England's Relevant Representations RR-039:B1, detailed in the **Response to Natural England's Relevant Representations (including Appendices A - F, and I)** [AS-048]. In summary, the changes to bed shear stress are <3% of the baseline. This magnitude of change will not significantly change the seabed composition or mobility. The sensitivity of Dogger Bank as a geomorphological and geological receptor to changes in sediment transport due to changes in tidal regime is negligible as Dogger Bank is not an active marine bedform (e.g. a sand bank), it is a remnant glacial landscape overlain with a thin veneer of sand. Its designation as an 'Annex I Sand Bank' is related to seabed habitat classification and not to the physical processes responsible for its formation and persistence in a marine environment.
REP3-060: B15	Initial Relevant Representation - *Jack up barges, other vessels, equipment, and infrastructure may be used for trenchless landfall exit works during the different development phases. The Applicant should consider and assess all potential impacts to seabed and coastal morphology that may arise due to trenchless landfall works during the lifetime of the Projects. (7.8)* Deadline 3 status - No Change. Whilst we acknowledge that in [AS-141], the short trenchless crossing at landfall has been removed from the proposed works, thus avoiding the need for exit pits in the intertidal area; further assessment of the potential impacts from landfall works is required.		The assessment in **Chapter 8 Marine Physical Environment** [APP-080] considers the effects of landfall construction activities on suspended sediment concentrations and bedload sediment transport (see section 8.7.3.4 and 8.7.3.9). This assessment was based on a trenchless technique for cable installation at the landfall with exit pits in the intertidal zone as the worst case scenario. Changes to the project design outlined in **Project Change Request 1 – Offshore and Intertidal Works** [AS-141] results in a reduced worse case as the exit pits will be located in the subtidal area. This results in a change to the receptors assessed. The assessment in relation to landfall works will therefore be updated in a landfall technical note to be submitted at Deadline 5, and included in the updated ES chapter to be submitted at Deadline 7.
REP3-060: B16	Initial Relevant Representation - *Clarification is needed on what material will be used to backfill trenches for landfall cable installation activities if the excavated material has been redistributed. We advise that sediment should be stored in such a way that it cannot be washed away. (7.8, 8.18)* Deadline 3 status - No Change. Whilst we acknowledge that in [AS-141], the short trenchless crossing at landfall has been removed from the proposed works, thus avoiding the need for exit pits in the intertidal area; further asessment of the potential for sediment to be lost should excavation at the exit pit location be required.		A trenchless technique will be used for cable installation at the landfall with exit pits located in the subtidal zone. Seabed preparation may be required at the exit pits that could include excavation or levelling. The preferred dredging methodology is unknown at this stage as detailed design of the landfall is ongoing. Following changes to the project design and removal of a short trenchless technique at the landfall, the Applicants provided an update to the worst case scenario and effect significance for the marine physical environment (see Table 42 of **Project Change Request 1 – Offshore and Intertidal Works** [AS-141]). It was concluded there was no change, and the significance of effect remained negligible for changes to suspended sediment concentration and transport due to export cable installation and cable installation activities at the landfall. The subtidal excavations pits have not changed in size, nor has the construction timecale changed, which means the magnitude of impact remains the same (negligible). Whilst their location has changed (they are

I.D.	Natural England Response	RAG Status	Applicants' Response
			now subtidal), the Holderness Inshore MCZ and Smithic Bank were already considered as receptors in the initial assessment, so there is no material change in the sensitivity of the receptor.
REP3-060: B18	Initial Relevant Representation - *Model results show 'wave shadows' with potential reductions in significant wave height of up to 0.7m, with the largest effects due to the offshore platforms in the Array Areas. The implications of the predicted changes to wave climate/height over the lifespan of the Projects need to be fully considered in terms of impacts to the seabed sediment composition, sediment mobility, and seabed morphology of the Dogger Bank SAC. (7.8)* Deadline 3 status - Issue progressed. The Applicant has updated the Marine Physical Processes Modelling [AS-136, REP2-018] to reflect the changes in the Project Design Envelope. This partially addresses our initial concern. However, we wish to see consideration and assessment of wave shadow effects due to waves approaching from the south/southwest and cumulative effects with nearby OWFs (e.g. Dogger Bank A). See Appendix L of Natural England's Deadline 3 submission for further detail.		The Applicants direct Natural England to the response to REP3-060: B13 above.
REP3-060: B20	Initial Relevant Representation - *The potential for cumulative effects at landfall due to overlapping construction activities between DBS and Dogger Bank D should be considered and assessed. (8.8.3.2)* Deadline 3 status - No change. This has not been addressed in the Change Request documents.		The Applicants maintain their position regarding this matter as provided in response to RR-039: B58 in the **Response to Natural England's Relevant Representations** [AS-048] and reiterated below: *The Scoping Report for Dogger Bank D[30] publicly released following the submission of the Projects **Draft DCO** [APP-027] Application in June 2024, does not state the potential location or indicative proportions of any cable protection measures to be used within that projects offshore export cable corridor. As such, there is insufficient information available at this time to include Dogger Bank D in the Projects cumulative assessment.* No further publicly available information regarding the project parameters for Dogger Bank D have been released following the submission of the above response. As such the Applicants maintain their position on this matter.
REP3-060: B22	Initial Relevant Representation - *We do not agree with the conclusions of the EIA or cumulative effects assessments for the Flamborough Front during Operation and Maintenance.* *We advise the Applicant should seek to reduce impacts as much as possible through consideration of the placement of foundation structures and reducing the WCS for foundation structures within Array Areas. Owing to the ecological importance of the Flamborough Front, and emerging evidence that suggests large OWF clusters (i.e. Dogger Bank) may result in substantial impacts on stratification, currents, and sediment resuspension; we also advise that the Applicant should commit to monitoring potential changes to stratification, currents, and productivity (pre-construction, post-construction, lifetime). The results of monitoring should be combined with those from other nearby OWFs and with up-to-date research such as from the University of Hull. (7.8, 8.7.3.4)* Deadline 3 status - No change. See Appendix J and our response to ExQ MCP.1.1.0 in Appendix K of Natural England's Deadline 3 submission for further detail.		The Applicants have submitted a **Review of Flamborough Front** [document reference: 14.7] technical note at Deadline 4, which outlines the current research and evidence base to support the assessment of impacts on the Flamborough Front. Given the ephemeral and dynamic nature of the Flamborough Front it is unclear how Natural England perceive there to be an opportunity to reduce impacts through the positioning of structures as a layout which may bring benefits on one day, or in one week, or month or year, may not deliver benefits in the next period. The Worst Case Scenario has been substantially reduced by the Applicants since Project inception in terms of both the numbers and sizes of structures. Key examples of this are through the reduction of Offshore Platform numbers from 8 to 3 following the acceptance of Project Change Request 1 into examination and through the removal of gravity- based foundations from the design envelope.

[30] Dogger Bank D Scoping Report

I.D.	Natural England Response	RAG Status	Applicants' Response
REP3-060: B23	Initial Relevant Representation - *We cannot rule out an adverse effect on integrity for the Humber Estuary SAC due to the current condition allowing 10% of the cumulative export cable length to be protected from 35om seaward of MLWS to the 10m depth contour. We advise that alternative methods of cable burial and/or protection should be explored in line with the mitigation hierarchy, to remove or reduce the need for cable protection between MLWS and the 10m contour. If cable protection is not removed from the project envelope, the commitment and associated DCO condition should be refined to only placing cable protection within -9 and -10m below LAT, as the Applicant has already identified this as being the area potentially requiring cable protection. See also C13. (6.1, 7.5, 7.8)* Deadline 3 status - No change. Please see B49 with respect to further action needed in response to the Applicant's updated Cable Statement [REP2-040] which could progress this issue.		To further demonstrate the limited effects that cable protection in the nearshore environment would have, the Applicants are undertaking modelling of an indicative case of this feature and the effect it would have on the wave regime in the area – given that wave generated currents are the principal driver of sediment movement in the vicinity of the Projects' landfall location. A technical note detailing this modelling will be provided at Deadline 5.
REP3-060: B29	Initial Relevant Representation - *There is insufficient information to support the assessment of changes to bedload sediment transport and seabed morphology due to the presence of cable protection measures on Dogger Bank. We advise that, firstly, the Applicant should attempt cable burial across Dogger Bank to avoid placement of cable protection measures within Dogger Bank SAC. Secondly, a seabed mobility assessment should be carried out to inform the cable burial assessment and, thus, the requirement for cable protection measures. Lastly, if cable protection measures are found to be necessary, potential changes to seabed sediment transport processes and seabed morphology should be fully assessed for the WCS option for cable protection measures on Dogger Bank. (7.8)* Deadline 3 status - No change. In the updated Cable Statement [REP2-040] it is stated that Seabed Mobility studies are ongoing. These studies are needed to inform the cable burial assessment and, thus, the requirement for cable protection measures. Therefore, currently it is not clear where external cable protection measures may be needed or the potential extent of their impact on sediment transport processes and seabed morphology. See Appendix B3 of Natural England's Deadline 3 submission for further detail.		See response to REP3-051:4 in **Table 2-9** of this document.
REP3-060: B32	Initial Relevant Representation - *For Annex 1 features of the Humber Estuary SAC, Section 6.6.1.1 of the RIAA only lists 'Sandbanks which are slightly covered by seawater all the time' and 'Mudflats and sandflats not covered by seawater at low tide' as having been assessed, despite more features being listed as screened in for assessment. We advise that the full list of features identified at Screening should be assessed in the RIAA. (6.1.1, 6.1)* Deadline 3 status - No change. Change Request 1 [AS-141] has concluded that a reduction in the MDS has not changed the Applicant's conclusion of no potential AEoI on the Humber Estuary SAC, however we still require evidence that all features of the SAC have been fully covered in an updated RIAA.		An updated version of **RIAA HRA Part 2 of 4 – Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [document reference: 6.1] has been submitted at Deadline 4, which includes these features not included in the initial revision of the report.
REP3-060: B42	Initial Relevant Representation - *It is stated that there is a potential for impacts to Withow Gap Skipsea SSSI due to cable installation/removal. However, it is our understanding that the landfall option with the potential to interact with this SSSI has been withdrawn. We advise that the impact assessment is updated as needed. (7.8)*		Withow Gap SSSI was considered as a receptor in the assessment of changes to bedload sediment transport due to cable installation at the landfall in section 8.7.3.9 of **Chapter 8 Marine Physical Environment** [APP-080].

I.D.	Natural England Response	RAG Status	Applicants' Response
	No change. The Applicant previously stated that Withow Gap SSSI had been included for consideration of any potential indirect effects. It is not clear where potential impacts to Withow Gap SSSI have been considered following the changes made to the project design envelope through the Change Request. We request the Applicant to signpost where this has been considered.		Changes to the project design outlined in **Project Change Request 1 – Offshore and Intertidal Works** [AS-141] results in a reduced worse case as the exit pits will be located in the subtidal area. This results in a change to the receptors assessed, including Withow Gap SSSI. The assessment in relation to landfall works will therefore be updated in a landfall technical note to be submitted at Deadline 5.
REP3-060: B46	Initial Relevant Representation - *For intertidal exit pits, we advise that alternative storage options for material from the landfall exit pits are explored (see also comments (B15) Appendix B)* Issue resolved. As detailed in [AS-141], the short trenchless crossing and intertidal exit pits have been removed from the project design envelope.		The Applicants welcome Natural England's agreement on this matter.
REP3-060: B46.1	It is stated in [REP2-036] that within the arrays, seabed level could be increased by up to 0.5m where multiple cable corridors merge, but in practice the cable layout will be designed to avoid this - we require clarity on how and where this will be secured.		See response to REP3-051:2 in **Table 2-9** of this document.
Cable Statement (Revision 3) [REP2-039]			
REP3-060: B49	Initial Relevant Representation - *This document will need updating pre-consent based on comments Natural England has provided on the EIA within Appendix B and C, as we currently do not agree with conclusions included within the document. (8.20)* Deadline 3 status - Issue progressed. The Cable Statement [REP2-040] has been updated with an updated CBRA for the Export Cable Route, but not the Array Areas. Further, clarification is needed on whether the results of the ECR Preliminary CBRA alter the MDS for ECR cable protection, particularly within the 10m depth contour. See Appendix B3 of our Deadline 3 submission for further detail.		The Applicants can confirm that the worst case scenario proposed for external cable protection on application remains valid as the CBRAs are preliminary and the details therein are subject to future change as site information improves and designs progress. It is for these reason that the Applicants are seeking to consent a worst case envelope. As such, no changes to the worst case scenario proposed for external cable protection are proposed either within or without the 10 m depth contour. A preliminary Cable Burial Risk Assessment (CBRA) for the Array Areas is included in Appendix A of the **Cable Statement (Revision 4)** [document reference: 8.20]. An updated preliminary CBRA for the Export Cable Corridor was submitted at Deadline 2 – see **Cable Statement (Revision 3)** [REP2-039]. The Applicants would like to reiterate that the final versions of the CBRAs will not be completed within the time frame of examination. There will be no further updates to any existing CBRAs within the time frame of examination. Further updates to the preliminary CBRAs are dependent on future survey and design work which is not scheduled to be completed within the Examination timetable.
REP3-060: B50	The estimated maximum dredge volumes for ECR options B and C, based on the 2022 bathymetry, are 227,886m3 and 297,391m3 respectively. However, it is unclear how these values relate to the Maximum Design scenario (MDS) parameters presented in either ES Chapter 8 [APP-080] or the Project Change Request 1 [AS-141]. We require the Applicant's clarification on the MDS dredge volume values for the ECR .		As per the response to REP3-051:6 in **Table 2-9,** the maximum dredge volumes for the Offshore Export Cable Corridor detailed in Table 27 of Appendix B of the **Cable Statement (Revision 4**) [document reference: 8.20] are based on indicative locations within the Offshore Export Cable Corridor that may require dredging to enable installation of the Offshore Export Cable(s). These locations and figures are indicative at this stage however, and do not represent the final parameters for installation of the Offshore Export Cable Corridor. As such, to ensure the worst-case scenario was assessed the Maximum Design scenario detailed in the **Chapter 8 Marine Physical Environment** [APP-080] and **Project Change Request 1 – Offshore and Intertidal Works** [AS-141] was based on the worst-case assumption that dredging would occur across the entire length of the Offshore Export Cable Corridor. It should be considered that anticipated dredge volumes are likely to change as site information increases, designs progress and the final cable statements and CBRAs are prepared and submitted for approval in

I.D.	Natural England Response	RAG Status	Applicants' Response
			line with the conditions of the Deemed Marine Licences, but will not increase over the worst-case volumes assessed in the ES.
Benthic & Intertidal Ecology			
REP3-060: C3	Initial Relevant Representation - *Justification is required for the WCS quantification of cable protection within and outside of Dogger Bank SAC. This should cover:* *- Previous experience and available information about the ground type within the Array area and along the ECC route.* *-Possible post-construction measures e.g. placement of additional scour replenishment during the operational phase* *- Implications from the removal and replacement of scour protection during cable repairs especially where a new cable loop is included* *- Implications from the changes in scour prevention/cable protection elevation above the seabed to ensure it remains within the parameters assessed. (7.05)* Deadline 3 status - No change. No further information or rationale has been provided, and in [AS-141] there is no change to the 10% cable protection requirement for the array and inter-platform cables.		See response to REP3-060: B3 above.
REP3-060: C9	Initial Relevant Representation - *It is unclear how the 'value' of receptors has been consistently incorporated into the assessment process. The Applicant has considered all biotopes within the red line boundary, with the exception of those characterised by piddocks, to be of low value. This includes biotopes representative of Annex 1 habitat within Dogger Bank SAC, and no consideration has been given to biotopes within Flamborough Head SAC. We advise that the methods and rationale for valuing benthic receptors, and how value has been used within the assessment process, is reviewed and documents updated accordingly. The significance of impacts on all benthic receptors should thereafter be reassessed. (7.09)* Deadline 3 status - No change - no new information relevant to this issue has been submitted at this deadline. We refer you to ExQ HRA 1.3 response in Deadline 3 Appendix K.		The Applicants reiterate their response to RR-039:C7 in **Response to Natural England's Relevant Representation** [PDA-013] that [emphasis added]: *'In the EIA (**Chapter 9 Benthic and Intertidal Ecology** [APP-085]) it is explained in section 9.4.3.1.1 that sensitivity is primarily based upon the ecological sensitivity of the receptor to an effect and this is based on the MarESA biotope sensitivities. Whilst value (in this case being part of a designated feature) **may be used as a modifier** to increase sensitivity **this is not automatically done and is subject to expert judgement**. Given the ubiquity of the biotopes within the Dogger Bank across the Southern North Sea, it was not considered that the value element was required to modify the sensitivity. Whether these biotopes are within or outwith a designated site is not relevant in this case. Note that in the case of the piddock feature, higher sensitivity was assigned not only due to ecological sensitivity but also as this is much rarer.* *The value is considered therefore within the HRA (**RIAA HRA Part 2 of 4** [APP-046]). The status of the biotopes as part of a designated site is the primary consideration and the key driver in the difference in the conclusions on adverse effect on integrity within the Appropriate Assessment from significance in the EIA.* *The Annex I habitat features of the Flamborough Head SAC were assessed in section 6.5.2 of the **RIAA HRA Part 2 of 4** [APP-046]. A separate technical note regarding the indirect effects of sediment deposition on the specific biotopes of the Flamborough Head SAC in relation to the Environmental Statement (ES) has been included alongside this response.'* Note that if the Applicants assigned all habitats within SACs as high value and high sensitivity, the significance of effect for the assessment of all impacts would be minor adverse, which is not significant in EIA terms. This is due to the negligible magnitude of impacts which in summary would be localised and short-term.

I.D.	Natural England Response	RAG Status	Applicants' Response
			The Applicants also direct Natural England to the **Benthic Ecology Technical Note (Revision 2)** [REP3-025] (re-submitted at Deadline 3) which provides further context for the representative biotopes present within the Flamborough Head SAC. The information detailed in this note has been used to inform the update to **RIAA HRA Part 2 of 4 Annex I Offshore Habitats and Annex II Migratory Fish (Revision 4)** [document reference: 6.1] submitted at Deadline 4, with the **Benthic Ecology Technical Note (Revision 2)** [REP3-025] now included as an appendix to the RIAA for convenience.
REP3-060: C10	Initial Relevant Representation - *We disagree with "Habitats or species that provide prey items for other species of conservation value" being considered of low value in the assessment. Of note are spawning/nursery grounds for sandeel and herring, both of which are an important prey resource for Annex I bird species and Annex II marine mammal features of designated sites. Within the wider marine environment impacts to habitats that provide prey availability may be considered as low, however it should be recognised that some areas remain more important than others. The importance of the 'Dogger Bank' area for fish species is well documented. We advise that a generic low value can't be attributed to all areas within the red line boundary. We also advise that impacts to benthic habitats which reduce/remove their ability to support benthic communities which are integral to maintaining populations of Annex I and II designated site features, needs to be fully considered within the ES. (See Sheet E for further comments on indirect effects) (7.09)* Deadline 3 status - No change - no new information relevant to this issue has been submitted at this deadline. We refer you to ExQ HRA 1.3 response in Deadline 3 Appendix K.		The Applicants direct Natural England to their response on this matter in REP3-057: HRA.1.3 of **The Applicants' Comments on the Responses to ExQ1** [document reference: 14.3], and repeated below for convenience: 1) and 2) *The Applicants do not contest that the Dogger Bank is a foraging area for mobile species, but seek to highlight that it is not the only foraging area for these species. This is clearly shown by the mapping within the **Heat Mapping Report: Atlantic Herring and Sandeel** [AS-105]. Note that whilst the Langton et al. (2021) mapping presented by NE in Figure 1 in [REP3-057] is suitable for assessing the likelihood of sandeel presence the heat map method presented in [AS-105] is currently used as best practice guidance by the MMO in all English waters. The Applicants consider that the heat mapping should be the default consideration for the Projects.* *When considering effects on foraging for mobile species the SAC boundary is less relevant and foraging should be seen in the wider regional context of prey available to the wide-ranging predators of interest to Natural England. All of these species have foraging ranges of many, many thousands of km² across areas many times the size of the proposed Offshore Development Area, hence the approach taken by the Applicants. In addition, Figure 2 in Natural England's response [REP3-057] shows the distribution of kittiwake from FFC SPA and 'hotspots' across the Southern North Sea not just at Dogger Bank.* *It remains the case that the footprint of the Projects within the Dogger Bank SAC represents:* • *0.23% of the medium to high potential habitat for sandeel of the SAC with regard to disturbance; and* • *0.018% of the medium to high potential habitat for sandeel of the SAC with regard to permanent habitat loss.* *Even if these areas were assigned higher sensitivity or value (in EIA terms) given the negligible extent of the area affected this results in non-significant effects (if considering solely on the basis of the SAC boundary, and more so if considering the regional resource).*
REP3-060: C13	Initial Relevant Representation - *We advise that the Applicant commits to bundling the export cables for each project as mitigation - this would halve the number of trenches needed (from two to one for each array) and reduce cable protection requirements. (7.05)* Issue progressed. We welcome that this has been secured in C188 of the Commitments Register [REP2-026]. However, we continue to advise that this be secured within the DCO/dML. Please see ExQ BE1.1 response within Deadline 3 Appendix K.		The Applicants direct Natural England to the response on this matter provided at Deadline 2 in **The Applicants' Responses to Deadline 1 Documents** [REP2-058] under ID REP1-067:B49, and repeated below for convenience: *The Applicants acknowledge this comment. The commitment to cable bundling has been made in the **Cable Statement (Revision 2)** [AS-078]. Each Deemed Marine Licence (Schedules 10-14) presented in the **Draft DCO (Revision 5)** [REP1-004] contains a condition (such as condition 15 (1) (g) in Schedule 10) which states that construction activities may not commence until a final cable statement (in accordance with the cable statement) has been submitted to and approved in writing by MMO, in consultation with Trinity House, the MCA, the relevant statutory nature conservation body and UKHO as appropriate. Through this mechanism this commitment is secured by the Draft DCO as it stands and no updates to the Application are necessary.*

I.D.	Natural England Response	RAG Status	Applicants' Response
			This commitment has also been included in the updated **Commitments Register (Revision 2)** [REP2-025] which was also submitted at Deadline 2 (and noted in the Applicants response to item REP1-067:C13 within **The Applicants' Responses to Deadline 1 Documents** [REP2-058]. The reductions in the worst case scenario brought about through cable bundling are included in the updated Report to Inform Appropriate Assessment Habitats Regulations Assessment - Part 2 of 4 – Annex I Offshore Habitats and Annex II Migratory Fish - Volume 6 submitted at Deadline 4 and will be further captured in the updated Environmental Statement material to be submitted at Deadline 7. In addition, the **Draft DCO (Revision 7)** [document reference 3.1] has been updated at requirement 6 of Schedule 2 and condition 3 of DMLs 3 and 4 which secures the reduced figures for cable protection and cable crossings as a result of the commitment to cable bundling. For these reasons the Applicants do not this commitment requires any further security.
REP3-060: C16	Initial Relevant Representation - *We do not agree that an AEoI can be excluded from the disturbance/damage of Annex I sandbanks within the Dogger Bank SAC. Unlike more dynamic sandbanks, the length of time for recovery could be up to 25 years. We highlight that the R4 Plan Level benthic compensation includes the requirement for benthic compensation for disturbance/damage caused to Annex I 'glacial till' Annex I Sandbanks within Dogger Bank SAC. (6.1)* Deadline 3 status - No change - no new information relevant to this issue has been submitted at this deadline. Please see response to ExQ BE 1.7 and 1.8 in Appendix K at Deadline 3.		The Applicants direct Natural England to their response on this matter in REP3-057: BE.1.7 and REP3-057: BE.1.8 of **The Applicants' Comments on the Responses to ExQ1** [document reference: 14.3].
REP3-060: C18	Initial Relevant Representation - *Full consideration of the likely nature, extent, duration, and significance of impacts upon SPA and SAC supporting habitats is required to inform a robust assessment of the likely impacts upon designated ornithological and marine mammal features. We consider that this has not been adequately undertaken for sites including Flamborough and Filey Coast SPA and the Southern North Sea SAC. (7.09)* Deadline 3 status - No change - no new information relevant to this issue has been submitted at this deadline. Please see response to ExQ HRA 1.3 in Appendix K at Deadline 3.		See response to REP3-060: C10 above.
REP3-060: C25	Initial Relevant Representation - A *drill arising footprint has not been provided. The placement of drill arisings adjacent to turbines may result in further habitat loss/change. As mitigation, the Applicant should commit to the placement of drill arisings in areas of similar habitat/particle size. Otherwise, this will need to be assessed similar to that of scour prevention/cable protection as a lasting impact included within the AEoI for Dogger Bank SAC and commitments to remove at the time of decommissioning will be required. (6.1)* Deadline 3 status - Issue progessed. A footprint for drill arisings has been provided in Table 4-3 of [AS-141], however the remainder of this issue is unaddressed.		The Applicants re-iterate their position as provided in REP2-065:8.1 of **The Applicants' Responses to Deadline 2 Documents** [REP3-028]: *For turbines the Applicants have assumed a 11m monopile with 63m diameter scour protection (i.e. this extends outwards up to 26m from the base of the turbine). This equates to a footprint of 3,117m2 per turbine. If drilling is required arisings will be within this footprint. Within the assessment there is already an assumption of 100% permanent habitat loss within these footprints, there is therefore no need to add additional habitat loss as this would be double counting.*
REP3-060: C28b	Initial Relevant Representation - *A pre-consent Outline Cable Burial Risk Assessment within an updated Cable Statement should also be provided which considers all available geotechnical information to implement mitigation measures which further avoid, reduce and mitigate impacts*		A preliminary Cable Burial Risk Assessment (CBRA) for the Array Areas is included in Appendix A of the **Cable Statement (Revision 4)** [document reference: 8.20]. An updated preliminary CBRA for the Export Cable Corridor was submitted at Deadline 2 – see **Cable Statement (Revision 3)** [REP2-039]. The Applicants would like to reiterate that the final versions of the CBRAs will not be completed within the

I.D.	Natural England Response	RAG Status	Applicants' Response
	by ensuring that optimal cable burial depths can be achieved, thus avoiding/reducing the need for cable protection and enabling a realistic worst case scenario to be assessed. (7.09) Deadline 3 status - Issue progressed. The Applicant has provided an updated Cable Statement which includes an updated Cable Burial Risk Assessment for the Export Cable Route [REP2-040], but not for the Array Areas. If available, this should be provided as well.		time frame of examination. There will be no further updates to any existing CBRAs within the time frame of examination. Further updates to the preliminary CBRAs are dependent on future survey and design work which is not scheduled to be completed within the Examination timetable.
Disposal Site Characterisation Report (Revision 2) [REP2-035]			
REP3-060: C32	Initial Relevant Representation - *This document will need updating pre-consent based on comments Natural England has provided on the EIA within Appendix B and C as currently we do not agree with conclusions on the level of impacts. (8.18)* Deadline 3 status - Issue progressed. The Applicant has provided an updated Disposal Site Characterisation Report [REP2-035] whereby values for the worst case scenarios have been updated. These changes are welcome and reduce the worst case parameters / impacts originally assessed in Chapter 9 Benthic Ecology [APP-085]. However, the reductions do not result in any changes to the outcomes of the original assessments - we continue to advise that that this document will need updating based on comments provided within worksheets B and C of this R&I log as we currently do not agree with conclusions on levels of impacts.		The Applicants direct Natural England to the responses regarding Marine Physical Environment and Benthic and Intertidal Ecology in responses REP3-060: B1 to REP3-060: C28b above.
REP3-060: C35	Initial Relevant Representation - *For intertidal exit pits, we advise that alternative storage options for material from the landfall exit pits are explored (see also comments (B15) Appendix B)* Deadline 3 status - Issue resolved. As detailed in [AS-141], the short trenchless crossing and intertidal exit pits have been removed from the project design envelope.		The Applicants welcome Natural England's agreement on this matter.
Outline Scour Protection Plan (Revision 3) [REP2-051]			
REP3-060: C37	We highlight that as the final SCP will be provided post-consent, if the impacts of plastic based scour protection have not been included and/or fully assessed as part of the Application Environmental Statement/RIAA, a further assessment will be required at that time. And depending on the outcome may require an additional HRA assessment to inform Condition Discharge.		The Applicants acknowledge Natural England's position.
Benthic Compensation			
REP3-060: D1	Initial Relevant Representation - *The SNCBs are not in agreement on the presented WCS of habitat damage of Annex I Sandbanks within Dogger Bank SAC. We advise that the points raised in Appendix B and C of our Relevant Representations/Written Representations (RR/WR) are addressed.* Deadline 3 status - Please see our response to Examiner's Questions (ExQ) BE.1.6-1.8 in Appendix K, and Appendix C3 of Natural England's Deadline 3 submission for further detail.		The Applicants direct Natural England to their response on this matter in REP3-057: BE.1.6 and REP3-057: BE.1.8 of **The Applicants' Comments on the Responses to ExQ1** [document reference: 14.3].
REP3-060: D2	Initial Relevant Representation - The SNCBs have outstanding concerns about the outcomes of the Impact Assessment and evidence used to support conclusions on scale and significance of potential impacts from cable installation activities and cable protection installation from DBS.		The Applicants direct Natural England to theirs response on this matter in REP3-057: BE.1.6 and REP3-057: BE.1.8 of **The Applicants' Comments on the Responses to ExQ1** [document reference: 14.3].

I.D.	Natural England Response	RAG Status	Applicants' Response
	Until these issues are resolved we do not agree with the scale and extent of the compensation measures required. This compensation measure will be led by DEFRA (with interested parties), therefore delivery mechanisms, scale costs and timeframes presented by the Applicant cannot and should not be relied upon. Deadline 3 status - Please see our response to Examiner's Questions (ExQ) BE.1.6-1.8 in Appendix K of Natural England's Deadline 3 submission for further detail.		
REP3-060: D3	Initial Relevant Representation - *We recognise that there are likely to be time lags between impact occurring and compensation achieving the desired outcomes. In this scenario, the SNCBs would wish to see the project contribution to the measure to be such that it ensures an overall environmental net positive outcome for the impacted feature over the lifetime of the project. We advise that the points raised in Appendix B and C of our RR/WR are addressed* Deadline 3 status - No change. This will be for DEFRA to determine as part of the strategic compensation.		No response is required.
Compensation Measure: Reduction of fishing pressures as a supplementary measure for Annex I Sandbanks			
REP3-060: D5 - 12	Initial Relevant Representation - *The use of byelaws to remove fisheries pressures from another SAC has ecological merit. However, outside of a designated site this would require legislative changes to address impacts from other industries that could still occur. It is unclear how this measure will ensure the coherence of the National Site Network. We note that this is a 'supplementary' measure if site extension fails and is outside of the SNCBs' remit.* Deadline 3 status - Following publication of the DESNZ Written Ministerial Statement, the Applicant has removed Reduction of Fishing Pressures from their Dogger Bank Compensation Plan [REP2-103]. Natural England supports this decision.		The Applicants welcome Natural England's agreement on this matter.
Compensation Measure: Seagrass Habitat Creation/Restoration for Annex 1 sandbanks			
REP3-060: D13 – D20	Initial Relevant Representation - *Please see the published 'Offshore Wind Leasing Round 4 Dogger Bank Strategic Compensation Plan (April 2024). In section 3.4.2 it is stated that "seagrass restoration is a lower preference measure compared to those supporting the same ecological function of the habitat being compensated for". We advise the same is true for project level compensation and welcome this not being progressed by the Applicant at this time.* Deadline 3 status - Following publication of the DESNZ Written Ministerial Statement, the Applicant has removed Seagrass Habitat Creation/Restoration from their Dogger Bank Compensation Plan [REP2-103]. Natural England supports this decision.		The Applicants welcome Natural England's agreement on this matter.
Detailed comments			
REP3-060: D22	Initial Relevant Representation - *If the Applicant is delivering Plan Level compensation, it is assumed that they do not also have to provide project level compensation, but this is not explicit here. It is also unclear why the Applicant has developed a project level compensation plan as DEFRA are moving ahead with work on new designations as a form of compensation following the agreement by DEFRA and SoS in Feb 2024. Ultimately it will be for DEFRA to determine the*		The Applicants welcome Natural England's agreement on this matter.

I.D.	Natural England Response	RAG Status	Applicants' Response
	amount of compensation required, irrespective of what the Applicant has detailed in Section 5 Compensation Quantum. The SNCBs request legal clarification from the Applicant on this. Deadline 3 status - Issue resolved. The Project Level Dogger Bank Compensation Plan [REP2-103] has been revised to reflect delivery of strategic compensation only.		
REP3-060: D24	Initial Relevant Representation - *We do not agree with the inclusion of any 'as built' figures as this is not legally secured. The SNCBs advise that figures included in consents are used to inform incombination assessments.* Deadline 3 status - Resolved. We note that the values presented in [REP2-103] use the consented parameters.		The Applicants welcome Natural England's agreement on this matter.
Fish and Shellfish Ecology			
REP3-060: E1	Initial Relevant Representation - *There are three potential foundation options for the Electrical Switching Platform (ESP) in the Export Cable Corridor (ECC): jacket piles, monopiles, or a gravity-based structure. Clarity is needed on if gravity bases have been included in the worst-case scenario for operational habitat loss in the ECC.* Deadline 3 status - Issue resolved. Natural England no longer deems this an issue due to the removal of the ESP in the ECC through the Change Request.		The Applicants welcome Natural England's agreement on this matter.
REP3-060: E2	Initial Relevant Representation - *Underwater noise modelling for Atlantic herring for monopile and pin-pile installations uses a worst-case position of piling in the northern most point of the DBS West array. The worst-case position at the most south-westerly point of the DBS West array should be assessed as this may result in greater overlap with the High and Very High herring spawning potential habitat.* Deadline 3 status - No change. Please refer to Appendix E3 (Section 1.2) of Natural England's Deadline 3 submission.		See response to REP3-053:1.2 in **Table 2-11**. However, in summary the Applicants are undertaking this modelling of the most south-westerly point of DBS West Array Area, and will present the results at Deadline 5.
REP3-060: E3	Initial Relevant Representation - *Further clarity is needed regarding simultaneous piling for monopiles for the in-isolation development scenario. For two monopiles installed simultaneously, the worst-case scenario for underwater noise and vibration impacts on sandeel would be two simultaneous monopile piling events in the DBS West array area. We advise that underwater noise models are provided for the worst-case scenario in each build out scenario.* Deadline 3 status - Issue Progressed. We welcome the Applicant has reassessed monopiling impacts for the in-isolation development scenario in [AS-142]. However when reassessing the projects combined, only pin pilling is reassessed. Natural England require further clarification as to why information on monopiling has been provided when assessing impacts of DBS West and East together.		As discussed in the **Noise Reduction Technical Note** [document reference 14.9], the Applicants explain that: *'Within the original Environmental Impact Assessment, separate scenarios were presented for the Projects in isolation and together as described within section 10.6.1.3.5. of **Chapter 10 Fish and Shellfish Ecology** [APP-091]. These scenarios aimed to maximise spatial extent of underwater noise impacts to ensure the assessment of a worst case scenario applicable to all receptor groups.* *The together scenario was represented by three simultaneous pin piles at DBS East, DBS West, and at the Offshore Export Cable Corridor Electrical Switching Platform (ESP). This scenario maximised both spatial extent, and temporal extent due to the increased piling time required for the installation of pin piles.* *For the in isolation scenario two simultaneous monopile installations were considered within the Array Areas, with no simultaneous piling to occur at the ESP. In this scenario a precautionary approach to modelling was used to simplify assessment clarity whilst ensuring a worst case assessment was undertaken. Separation between the two piling locations within the Array Areas (the north most location at DBS West, and the south most location at DBS East) was used, rather than using two piling locations within a single Array Area as*

I.D.	Natural England Response	RAG Status	Applicants' Response
			would be realistic in the in isolation scenario. This precautionary approach over-estimated the spatial extent of underwater noise in the in isolation scenario, but improved the clarity of the assessment. *Following revisions to project design presented within **Project Change Request 1 – Offshore and Intertidal Works** [AS-141] and **Appendix A: Fish and Shellfish Environmental Assessment Update** [AS-142] the potential for piling at the ESP was removed from assessment. In terms of temporal impacts, simultaneous pin piling at two locations remains the worst case scenario for the together assessment (maximising temporal extent). However, in terms of spatial impact, which remains the key consideration when determining potential impacts on Atlantic herring in this Technical Note, simultaneous monopiling at the same two locations that were used in the original assessment remained the worst case scenario for the in isolation scenario (maximising spatial extent). For the purposes of this Technical Note, therefore, the in isolation scenario is the same as the worst case together scenario.'*
REP3-060: E4	Initial Relevant Representation - *The Applicant has provided underwater noise modelling for three pin-piles piled concurrently across the array areas and in the ECC, and has committed to no concurrent monopiling occurring across the arrays area with the ECC, clarity is needed as it is unclear if two monopiles (one in DBS West, one in DBS East) and pin piling in the ECC could occur concurrently. Clarification is needed on the worst-case scenario for concurrent piling. In the case that monopiling in the array areas can occur concurrently with pin piling within the ECC, we advise the Applicant to provide underwater noise models and figures to assess impacts on fish receptors.* Deadline 3 status - Issue Resolved. Natural England no longer deems this an issue due to the removal of the need for piling in the ECC.		The Applicants welcome Natural England's agreement on this matter.
REP3-060: E5	Initial Relevant Representation - *The Applicant should utilise sandeel abundance data (such as the North Sea sandeel dredge survey) to support the assessment of impacts on localised sandeel populations (currently only habitat suitability heat maps and drop down video have been used).* Deadline 3 status - No Change. Please refer to Appendix E3 for further detailed comments on [AS-105] Heat Mapping Report.		See response to REP3-053:1.1 in **Table 2-11** above.
REP3-060: E6	Initial Relevant Representation - *EMF impacts from cables on sandeel and Atlantic herring have not been considered. We advise that the impacts of EMF on sandeel and herring high potential spawning habitat should be assessed.* Deadline 3 status - Natural England remain concerned about EMF in array areas which include high and very high sandeel spawning habitat. The Applicant highlights that some receptors exhibit flexibility in their range of habitats, but Natural England highlights the high site fidelity known for sandeel. Whilst we agree they are less electrosensitive when compared with elasmobranchs, there is insufficient evidence to confirm no impact on sandeel, particularly as lost habitat across the sandbank. However, we acknowledge that the lack of evidence base would prevent a more accurate assessment being undertaken.		No response is required.
REP3-060: E12	Initial Relevant Representation - *'soft start and ramp-up' approaches are not appropriate piling mitigation measures for impacts to fish. We therefore advise they are removed from the assessment and a more appropriate worst-case scenario is presented.*		The Applicants can confirm any reference to 'soft start and ramp-up' regarding fish will be removed in an updated version of **Chapter 10 Fish and Shellfish Ecology** [APP-091], to be submitted into Examination at Deadline 7.

I.D.	Natural England Response	RAG Status	Applicants' Response
	Deadline 3 status - Issue Progressed. NE welcome that the Applicant has committed to not modelling fish as fleeing receptors and not including mitigation within their models, but would like further clarification from the Applicant that any reference to 'soft start and ramp-up' regarding fish is removed when discussing these mitigation measures.		
REP3-060: E13	Initial Relevant Representation - *Evidence for habituation has been based on ship/trawl noise and seismic air guns. We advise that habituation should not be taken into account within the assessment without provision of more appropriate supporting evidence for impulsive piling noise.* Deadline 3 status - No Change. Natural England continue to disagree that habituation is applicable to noise sources impacting fish from the Projects. We continue to advise the Applicant provide more appropriate supporting evidence. Please refer to Appendix L for further detail.		See response to REP3-058: A14 in **Table 2-15** above.
REP3-060: E14	Initial Relevant Representation - *We advise the Applicant commit to additional cable protection mitigation to reduce impacts to herring and sandeel spawning habitat (also mentioned in Risk and Issues Log Points B22 and C12). In addition, the Applicant should explore options to avoid placing cable protection within high – very high potential spawning habitat areas for herring and sandeel in the ECC and array areas. Currently, the full volume/length of cable protection applied for (20% of the ECC length, 10% for the inter-array cables) could be installed within these areas. A commitment should be made to avoid placing cable protection in these areas, or to only a certain proportion of the full volume being allowed in these areas. It should also be demonstrated through the Cable Burial Risk Assessment why the volumes applied for are needed and cannot be refined down further. We consider cable protection estimates should be based on an assessment of likely burial success.* Deadline 3 status - No Change. Please refer to R& I log B22 and C12 for further detail.		See responses to REP3-060: B3 and REP3-060: B4 in **Table 2-9** of this document.
REP3-060: E16	Initial Relevant Representation - *The behavioural threshold (135 dB) modelled also overlaps the high and very high spawning habitat potential sites when piling in the array areas. As well as seasonal restriction in the ECC, a seasonal restriction should also be committed to for piling in the array areas. We defer to Cefas for further advice on timings of any such restriction.* Deadline 3 status - No change. Our previous advice remains that the the Applicant updates any reference to the worst-case scenario from underwater noise impacts on Atlantic herring to behavioural changes with a behavioural threshold of 135 dB SELss.		See response to REP3-058: A10 in **Table 2-11** of this document.
REP3-060: E19	Initial Relevant Representation - *The worst-case piling event for migratory fish species is likely to be when piling takes place in the ECC. Underwater noise impacts from piling in the ECC should be fully assessed for Annex II migratory fish.* Deadline 3 status - Issue Resolved. Natural England no longer deems this an issue due to the removal of the need for piling in the ECC.		The Applicants welcome Natural England's agreement on this matter.
REP3-060: E20	Initial Relevant Representation - *The cumulative assessment for Dogger Bank SAC should be updated to include the total habitat loss within the SAC, including loss occurring within any*		See response to REP3-058: A12 in **Table 2-15** of this document.

I.D.	Natural England Response	RAG Status	Applicants' Response
	overlap of the ECCs with the site. See also E19 and E22 in relation to the total habitat loss area to be assessed. Deadline 3 status - No Change. Please see Appendix L for more detail on providing updated habitat loss assessments.		
REP3-060: E22	Initial Relevant Representation - *The Applicant has proposed pre- and post- construction habitat sampling to validate statements made regarding habitat suitability and recoverability for sandeel. We advise that longer-term sandeel monitoring would provide a more robust evidence base and would be beneficial in assessing the impacts of the Project on Dogger Bank sandeel populations (e.g. changes in sediment composition that could arise from dispersing drill spoil or settling of sediments suspended by cable laying). Once assessments have been updated, monitoring should be secured via the In-Principal Monitoring Plan to determine whether the residual impacts are as predicted. This could be via provision of a post-consent Sandeel Monitoring Plan, or the inclusion of sandeel specific objectives in the Benthic Monitoring Plan.* Deadline 3 status - Please refer to Appendix J regarding Natural England's advice regarding the IPMP.		See response to REP3-056: A.10 in **Table 2-14** of this document.
Marine Mammals			
REP3-060: F1	Initial Relevant Representation – *The Applicant has committed to no concurrent monopile installation between the Offshore Export Cable Corridor (ECC) and the Project array areas; however, it is unclear if there could be concurrent pin pile installation in the ECC with monopile installation in the array areas. Clarity is needed on the WCS for concurrent piling between the ECC and array areas.* Deadline 3 status - Issue Resolved. Natural England no longer deems this an issue due to the removal of the need for piling in the ECC.		The Applicants welcome Natural England's agreement on this matter.
REP3-060: F2	Initial Relevant Representation – *Clarity is needed on how the worst case scenario (WCS) for the maximum number of piles to be installed concurrently in 24 hours across the two arrays will be secured in the dMLs for the separate Projects.* Deadline 3 status - Natural England will provide further comment at Deadline 4		The WCS for the maximum number of piles to be installed concurrently in 24 hours across the two arrays has been secured in the **Draft DCO (Revision 7)** [document reference 3.1] in condition 15(4-7), Part 2, Schedule 10 of dML1; conditions 15(4-7), Part 2, Schedule 11 of dML2; conditions 13(5-8), Part 2, Schedule 12 of dML3; conditions 13(5-8), Part 2, Schedule 13 of dML4.
REP3-060: F3	Initial Relevant Representation – Clarity is needed on the WCS for simultaneous piling across the two arrays in a concurrent build out scenario, and how the dMLs for the separate Projects will secure this. Deadline 3 status - Natural England will provide further comment at Deadline 4		
REP3-060: F4	Initial Relevant Representation – *Permanent Threshold Shift (PTS) should be scoped into the Cumulative Effects Assessment. We do not agree that the mitigation outlined in the MMMP and ES is sufficient to minimise the risk of injury for all PTS impact ranges (see below). Further, due to*		Defra have recently published their Marine Noise package, which provides a suite of new and updated policy and guidance relating to the reduction and mitigation of underwater sound, in particular the Defra noise policy (2025)[31] which states that *'all offshore wind pile driving activity across all English waters will be required to demonstrate that they have utilised best endeavours to deliver noise reductions through the use of*

[31] The Department for Environment Food and Rural Affairs (Defra). (2025) Defra Policy Paper on Reducing Marine Noise. Published January 2025. Available online at: https://www.gov.uk/government/publications/reducing-marine-noise/reducing-marine-noise

I.D.	Natural England Response	RAG Status	Applicants' Response
	the nature of marine mammals, mitigation cannot guarantee that no animals will be at risk of PTS. Deadline 3 status - No Change. Natural England maintain our advice provided at Relevant Representations.		*primary and/or secondary noise reduction methods in the first instance'.* Therefore, all offshore wind farms are required to use primary and / or secondary noise management measures, and this will mitigate any risk of cumulative Permanent Threshold Shift. The Applicants consider with the new guidance in place, this issue can be resolved.
REP3-060: F5	Initial Relevant Representation – Natural England have reviewed the Underwater Noise Modelling Report and have no comments to make. However, we defer to Cefas for detailed comments on the methodology undertaken. Deadline 3 status - Natural England defer to Cefas on the UWN methodology.		No response is required.
REP3-060: F6	Initial Relevant Representation – *The maximum predicted PTS impact range for a single pile installation is 13 km for harbour porpoise and 26 km for minke whales. These distances are too large to effectively be mitigated by Acoustic Deterrent Devices (ADDs). The Applicant needs to demonstrate how the full PTS impact range will be mitigated to ensure no injury is caused to marine mammals. Alternatively, the PTS impact range needs to be reduced to ensure ADDs can effectively deter animals from the zone of injury within 80 minutes (maximum PTS range will need to be 7.2 km for harbour porpoise and 15.6 km for minke whale). This could be achieved my reducing the maximum hammer energy in the Project envelope, or by committing to the use of NAS to reduce the sound at source.* Deadline 3 status - No Change. Natural England's advice remains that The Applicant should be committing to using Noise Abatement Sytems at this stage in the application. See Appendix F3 for further detail.		In response to the Defra Policy Paper on Reducing Marine Noise which was published as part of Defra's Marine Noise Package, the Projects will utilise best endeavours to deliver noise reductions, where applicable, through the use of primary and/or secondary noise reduction based on the final project design. In support of this statement, the Applicants have submitted a technical note at Deadline 4 (**Underwater Noise Reduction Technical Note** [document reference 14.6]) presenting predicted impact ranges from **Appendix 11-3 Underwater Noise Modelling Report (Revision 2)** [AS-137] using a 10dB noise reduction. With the removal of piling in the Offshore Export Cable Corridor, the worst case predicted PTS impact ranges are at DBS East Array Area. The predicted PTS ranges without a 10dB reduction are 11km for harbour porpoise and 18km for minke whale. Predicted PTS impact ranges with a 10dB noise reduction are 0.98km for harbour porpoise and 4.6km for minke whale. With the reduced PTS impact ranges, the ADD would need to be activated for approximately 25 minutes to deter marine mammals outside of the predicted PTS impact area.
REP3-060: F7	Initial Relevant Representation – *The predicted maximum injury zone for some UXO clearance events is larger than the area for many ADDs to effectively deter marine mammals from. Provide planned ADD durations to demonstrate that the maximum injury zone for UXO clearance can be mitigated. If this is not possible, additional mitigation or methods to reduce the sound at source should be investigated.* Deadline 3 status - No Change - no new information relevant to this issue has been submitted at this deadline.		The Applicants are submitting updates to the **Outline Marine Mammal Mitigation Protocol (MMMP) (Revision 4)** [document reference 8.25] to clarify that low order methods for UXO clearance will be the default method. If the situation occurs where a contingency high-order detonation is needed, the Applicants have committed to using NAS which is stated in section 2.2.2 of the **Outline MMMP (Revision 4)** [document reference 8.25], submitted at Deadline 4.
REP3-060: F8	Initial Relevant Representation – *Natural England supports increasing the Monitoring Area (MA) to ensure it is greater than the maximum predicted impact range for PTS. Consideration should be given to how this zone can be effectively monitored to ensure all marine mammals can be detected. This may require using more marine mammal observers (MMObs) and implementing stricter limits on workable weather conditions. The MMMP should be updated as needed.* Deadline 3 status - No Change - no new information relevant to this issue has been submitted at this deadline.		The MA will be the maximum predicted PTS impact area from the underwater noise modelling results as presented in section 5 of the **Appendix 11-3 Underwater Noise Modelling Report (Revision 2)** [AS-137]. The Applicants have submitted a technical note at Deadline 4 (**Underwater Noise Reduction Technical Note** [document reference 14.6]) to present predicted impact ranges (peak sound pressure level (SPL_{peak}) with noise reduction. The maximum predicted PTS impact area with a 10dB noise reduction is 150m for harbour porpoise. Therefore, the MA would likely be 500m, which can be monitored via trained MMObs and Passive Acoustic Monitoring (PAM).
REP3-060: F10	Initial Relevant Representation – *Piling should not commence (or recommence) in poor visibility or hours of darkness where Marine Mammal Observers (MMOb) cannot be used. There are limitations to Passive Acoustic Monitoring (PAM) so it should be used as well as, rather than*		In Paragraph 110, of the **Outline MMMP (Revision 4)** [document reference: 8.25] submitted at Deadline 4, it states that '*the PAM equipment would be appropriate to detect vocalising cetaceans in the monitoring area'*. Details on the PAM equipment to be used will be confirmed post consent and consulted on as part of the final MMMP. Other options such as night vision binoculars, infrared cameras and any new emerging

I.D.	Natural England Response	RAG Status	Applicants' Response
	instead of MMOb to optimise the ability to detect marine mammals and provide the best mitigation. Update Outline MMMP. Deadline 3 status - No Change. Natural England can only agree to piling during reduced visibility / darkness if the Applicant can demonstrate that the Passive Acoustic Monitoring (PAM) equipment can cover the whole Mitigation Area (MA).See Appendix F3 for further detail.		technologies will also be considered if required. All approved mitigation measures and piling protocols will be agreed through consultation and presented in the final MMMP and all PAM operations will be in line with the JNCC guidance for the use of Passive Acoustic Monitoring (2023).
REP3-060: F11	Initial Relevant Representation – *Natural England does not agree that the mitigated impacts of Permanent Threshold Shift (PTS) from piling are minor adverse - negligible for all marine mammals (See F5-F7). These conclusions are hinged on mitigation outlined in the MMMP which is not currently sufficient to fully mitigate the predicted PTS impacts.* *To ensure the impacts from underwater noise caused by piling are reduced for marine mammals we advise that the sound is reduced at source, this could be by modifying the design envelope (e.g. reducing the maximum hammer energy) or by using Noise Abatement Systems.* Deadline 3 status - No Change. See Appendix F3 for further detail regarding Noise Abatement Systems.		In Paragraph 144, of the **Outline MMMP (Revision 4)** [document reference: 8.25] submitted at Deadline 4, the Applicants have stated that the Projects will utilise best endeavours to deliver noise reductions, where applicable, through the use of primary and/or secondary noise reduction based on the final project design. These measures may include different foundation types/installation methods and/or noise reduction systems. In support of this statement, the Applicants have submitted a technical note at Deadline 4 (**Underwater Noise Reduction Technical Note** [document reference 14.6]) presenting predicted impact ranges using a 10dB noise reduction.
REP3-060: F12	Initial Relevant Representation – To reduce impact of piling in the Offshore Export Cable Corridor (OECC) on grey seals, we advise the Applicant commits to changing the design envelope (e.g. foundation bases with lower construction noise, reduced hammer energy) or the use of NAS to reduce the sound at source. Deadline 3 status - Issue progressed. Natural England welcome the removal of piling in the ECC however outstanding concerns remain with the grey seal assessment. See Appendix L for further detail.		**Appendix C Marine Mammal RIAA Update** [AS-144] only presents the updated assessment in regard to the removal of the Electrical Switching Platform in the Offshore Export Cable Corridor. The effects of other potential impacts and potential in-combination effects are considered based on the proportion of the SAC impacted in the **RIAA HRA Part 3 of 4 - Annex II Marine Mammals** [APP-047]. The **RIAA HRA Part 3 of 4 - Annex II Marine Mammals** [APP-047] in-combination assessment presented the numbers of individuals, and the proportion of the SAC impacted from piling. In the iPCoD, the worst-case numbers of disturbance and PTS was used, based on the density and population of the SAC. Updates to the information in the RIAA and incorporation of the change request **Appendix C Marine Mammal RIAA HRA Update** [AS-144] will be submitted in **RIAA HRA Part 3 of 4 - Annex II Marine Mammals (Revision 3)** [document reference 6.1] at Deadline 5.
REP3-060: F13	Initial Relevant Representation – *The number of Harbour porpoise potentially disturbed during single piling at DBS East, DBS West and both projects together is high, with up to 12.53% of the North Sea Management Unit (MU) disturbed. We consider this should result in a Major Adverse impact score. The Applicant has concluded minor adverse based on the results of iPCoD modelling alone. The EIA assessment should be updated based on the highest predicted impact values, for all receptors and pathways (not using iPCoD). Where a significant impact cannot be ruled out, the mitigation hierarchy should be explored to reduce the potential impacts.* Deadline 3 status - No change. See Appendix L for Natural England's advice on the use of iPCoD modelling.		The Applicants submitted a technical note at Deadline 3 (**Marine Mammal Technical note: Significance of Effect for disturbance from piling and cumulative underwater noise** [REP3-031]) showing the magnitude and significance of effect for harbour porpoise presenting a quantitative assessment using numbers from Effective Deterrent Ranges (EDRs) and dose response curve in addition to the iPCoD. However, it is considered that the cumulative assessment is over precautionary as it is highly unlikely that all relevant OWFs could be concurrently piling at the same time for various reasons such as vessel constraints, programme changes, technical issues, or weather delays. Also, the assessment is using a 26km EDR, whereas many of the projects will be utilising a method of sound reduction in accordance with Defra's marine noise policy, therefore reducing the EDR to 15km, making this assessment over precautionary. In addition, Brown *et al.* (2023[32]) highlights that the approach used to produce the current 26km EDR for harbour porpoise likely highly overestimates the response because it does not account for underlying seasonal variation during baseline and piling periods. In addition, recent findings in the latest

[32] Brown, A.M., Ryder, M., Klementisová, K., Verfuss, U.K., Darias-O'Hara, A.K., Stevens, A., Matei, M., Booth, C.G.(2023). An exploration of time-area thresholds for noise management in harbour porpoise SACs: literature review and population modelling.

I.D.	Natural England Response	RAG Status	Applicants' Response
			PrePared report (Benhemma-Le Gall *et al.* 2024[33]) looking at harbour porpoise response to piling at Ocean Winds Moray West OWF found evidence of an EDR of 10km for unabated piling of a 10m monopile, providing a strong case for reducing the current 26km EDR for unabated impact piling of monopiles, and highlighted further evidence of over precaution within the cumulative assessment.
REP3-060: F14	Initial Relevant Representation – The number of grey seals disturbed during single piling at DBS East, DBS West and both projects together is high, with up to 30.62% of the South-East England MU disturbed. Using the number of animals potentially disturbed, the magnitude of impact is high, resulting in an impact score of moderate (significant). The EIA assessment should be updated based on the highest predicted impact values. Where a significant impact cannot be ruled out, the mitigation hierarchy should be explored to reduce the potential impacts. Deadline 3 status - No change. See Appendix L for Natural England's advice on the use of iPCoD modelling.		The Applicants submitted a technical note at Deadline 3 (**Marine Mammal Technical note: Significance of Effect for disturbance from piling and cumulative underwater noise** [document reference: 13.6]) showing the magnitude and significance of effect for all marine mammal species, including grey seal from all methods including EDRs and dose response curves presented in sections 11.7.3.1.1.3 and 11.7.3.2.10 of **Chapter 11 Marine Mammals** [APP-095]. This technical note presents any potential cumulative disturbance from piling based on the other methods of calculating disturbance alongside the results from the iPCoD presented in **Chapter 11 Marine Mammals** [APP-095]. However, the Applicants maintain that population modelling is the best tool to understand cumulative disturbance over the long term. If the significance of effect is solely based on EDRs or dose response curve, this highlights only the short-term disturbance, therefore not considering any long-term effects, or animals returning to the area after piling. In response to the Defra Policy Paper on Reducing Marine Noise which was published as part of Defra's Marine Noise Package, the Projects will utilise best endeavours to deliver noise reductions, where applicable, through the use of primary and/or secondary noise reduction based on the final project design. Noise reduction systems, such as NAS, are being included within the Projects' procurement strategy as an optional element to allow it to be called upon should it be required based on the final design parameters.
REP3-060: F15	Initial Relevant Representation – *Natural England supports the Applicant's commitment to a joint industry project or site-based monitoring project, and requests to be consulted on future marine mammal monitoring plans.* Deadline 3 status - Please refer to Appendix J regarding Natural England's advice on the IPMP.		See the Applicants responses to Natural England's comments on the IPMP in **Table 2-14** of this document.
REP3-060: F16	Initial Relevant Representation – *We do not agree with the Applicant screening out PTS from the assessment on the basis of it being screened out from the Cumulative Effects Assessment. PTS should be screened into the HRA assessment. See comment F16.* Deadline 3 status - No Change - no new information relevant to this issue has been submitted at this deadline.		See comment REP3-060: F4. However, **a**s a precautionary approach, PTS numbers were included in the population modelling for the cumulative assessment presented in section 4.1.2 of **Appendix B Marine Mammal Environmental Statement Update [AS-143]** so while not looked at individually, the potential impact has been given consideration in the significance of effect at a cumulative level**.**
REP3-060: F17	Initial Relevant Representation – *The conclusions for the RIAA illustrate that the noise thresholds for the SNS SAC would be significantly breached by the Project in combination with other noisy activities. Additional mitigation will be needed to avoid an Adverse Effect on Site Integrity (AEoI), however the current approach to implementing Site Integrity Plans (SIPs) for piling impacts to the Southern North Sea SAC does not allow sufficient time for mitigation methods, such as NAS, to be procured by the Applicant prior to construction should they be required. We strongly advise that*		In Paragraph 94 of the **In Principle SIP for the SNS SAC (Revision 3)** [REP2-049], the Applicant added '*the Projects will utilise best endeavours to deliver noise reductions, where applicable, through the use of primary and / or secondary noise reduction based on the final project design*'. The Applicants are submitting a technical note at Deadline 4 (**Underwater Noise Reduction Technical Note** [document reference 14.6]) presenting predicted impact ranges using a 10dB noise reduction in

[33] Benhemma-Le Gall, A., Hastie, G.D., Brown, A.M., Booth, C.G., Graham, I.M., Fernandez-Betelu, O., Iorio-Merlo, V., Bashford, R., Swanson, H., Cheney, B.J., Abad Oliva, N. & Thompson, P.M. (2024). Harbour porpoise responses to the installation of XXL monopiles without noise abatement; implications for noise management in the Southern North Sea. PrePARED Report, No. 004. August 2024

I.D.	Natural England Response	RAG Status	Applicants' Response
	the Applicant commit to the use of specific mitigation measures including noise abatement in the Outline SIP and MMMP at this stage. We advise that the effect of noise abatement systems in reducing noise impacts should be included in the submitted assessments. Deadline 3 status - No Change. See Appendix F3 for further detail regarding the Draft In Principle Site Integrity Plan for the Southern North Sea SAC.		comparison to the impact ranges presented in section 11.6.1.1.1 of **Chapter 11 Marine Mammals** [APP-095].
REP3-060: F18	Initial Relevant Representation – *Natural England cannot agree to the conclusion of no AEoI on grey seals in the Humber Estuary SAC. The Applicant's assessment suggests that more than 9% of the Humber Estuary SAC grey seal population has the potential to be impacted by disturbance from piling (monopile or jacket pin pile) in the OECC. The assessment conclusions should be updated based on the highest predicted impact values. Where an AEoI cannot be ruled out, additional mitigation should be explored to avoid or reduce impacts.* Deadline 3 status - Natural England cannot rule out AEoI on Humber Estuary SAC at this time.See Appendix L for further detail.		The removal of the Electrical Switching Platform (ESP) in the Offshore Export Cable Corridor results in no piling in the Offshore Export Cable Corridor as described in the **Project Change Request 1 – Offshore and Intertidal Works** [AS-141]. This has greatly reduced the number of grey seal that could be potentially disturbed from piling for the Humber Estuary SAC (as presented in section 3.1.2 of **Appendix C Marine Mammal RIAA HRA Update** [AS-144] resulting in no AEoI on the Humber Estuary SAC for the Projects alone.
REP3-060: F19	Initial Relevant Representation – *Natural England cannot agree to the conclusion of no AEoI on grey seals in the Berwickshire North Northumberland Coast (BNNC) SAC. The Applicant's assessment suggests that more than 5% (and therefore a significant number) of the BNNC SAC grey seal population could be disturbed by piling at DBS West and OECC in isolation and together using the dose response approach. The assessment conclusions should be updated based on the highest predicted impact valuesys. Where an AEoI cannot be ruled out, additional mitigation should be explored to avoid or reduce impacts.* Deadline 3 status - Natural England cannot rule out AEoI on Berwickshire North Northumberland Coast (BNNC) SAC at this time.See Appendix L for further detail.		As response above, the removal of the ESP in the **Project Change Request 1 – Offshore and Intertidal Works** [AS-141], has greatly reduced the number of grey seal that could be potentially disturbed from piling for Berwickshire and North Northumberland Coast SAC (as presented in section 5.1.2 of **Appendix C Marine Mammal RIAA HRA Update** [AS-144]). The Applicants maintain that population modelling is the best tool to understand cumulative disturbance from piling over the long term. If the significance of effect is solely based on EDRs or dose response curve, this highlights only the short-term disturbance, therefore not considering any long-term effects, or animals returning to the area after piling. The results from the iPCoD modelling show no AEoI on Berwickshire and North Northumberland Coast SAC for the Projects alone.
REP3-060: F20	Initial Relevant Representation – *Indirect Effects - We disagree that it can be concluded that there is no risk of AEoI to marine mammal SAC features as a result of impacts on prey species, solely due to impacts being ruled out at EIA scale. Consideration has also only been given to temporary construction impacts on prey in the RIAA, rather than the indirect effects of permanent spawning habitat loss that will also occur. Please see Appendix E for our detailed comments on the indirect effects assessment.* Deadline 3 status - No Change - no new information relevant to this issue has been submitted at this deadline.		Impacts upon prey are considered in the Plan Level Habitat Regulations Assessment (HRA) (RIAA Appendix I Marine Mammal Array Assessment Part 2; The Crown Estate, 2022[34]) under the following pressures P1 Habitat Loss / Gain, P2 Direct Physical Damage and P3 Indirect Physical Damage. The HRA concludes that: The effect of this habitat loss will be to reduce the area available for foraging and also the extent of habitat for species which form prey. However, all marine mammal species forage widely within the marine environment and the predicted loss of habitat represents a very small proportion of the foraging habitat available. Any impact on marine mammal features is, therefore, considered to be negligible at any meaningful population scale and would not make an appreciable difference to any in-combination impact. Damage to physical habitats could affect prey species, or benthic communities upon which these are dependent. However, all marine mammal species forage widely within the marine environment and the predicted loss of habitat represents a very small proportion of the foraging habitat available. Any impact on marine mammal features is, therefore, considered to be negligible at any meaningful population scale and would not make an appreciable difference to any in-combination impact.

[34] The Crown Estate (2022). RIAA Appendix I Marine Mammal Array Assessment Part 2. Available at: [redacted]

I.D.	Natural England Response	RAG Status	Applicants' Response
			The Applicants direct Natural England to the **Effects on Prey Species Technical Note** [document reference: 14.8] submitted at Deadline 4, which presents all information previously submitted by the Applicants regarding effects on prey species from the Environmental Statement and the RIAA, in addition to the Applicants' responses to comments received from stakeholders during the pre-examination / examination stages of the Projects. This report has been produced to provide a single source of information on the topic of effects on prey species for stakeholders / the Examining Authority to refer to, noting that information in the Application originally appeared in many separate documents.
REP3-060: F21	Whilst Natural England welcomes the Applicant updating the DCO to include the Maximum Hammer Energy, we advise that within Section 3.1.5 of the Outline MMMP [AS-101] it is clearly stated what the Applicant's intentions are regarding the commencing hammer energy in addition to the percentage of the maximum hammer energy this represents.		In section 3.1.5; paragraph 129, of the **Outline MMMP (Revision 3)** [REP2-047] it states that "*the soft-start starting hammer energy would be the lowest possible starting hammer energy*" and in paragraph 132, '*it is proposed that each piling event would commence with a minimum of 10 minutes at reduced hammer energy, for example 10% of the maximum hammer energy, followed by a gradual ramp-up for at least 20 minutes for all pile driving activities*'. The initial starting hammer energy and % of the maximum hammer energy this represents will be confirmed post consent with the final project design and included in the final MMMP.
REP3-060: F22	Natural England welcomes the Applicant's Scheduling of UXO clearance with other projects (Section 9.6 of Draft In Principle Site Integrity Plan) as a useful tool for minimising the area of disturbance on a particular day; however this method should be in addition to noise reducing technology as outlined in Defra's recently published Marine Noise Package. Natural England will provide further comment following the Applicant's review of the Defra Noise Package documents and updated assessment and mitigation measures.		Along with the measures listed in the **In Principle SIP for the SNS SAC (Revision 3),** low order clearance for UXO clearance will be the default method used by the Projects. If the situation occurs where a contingency high-order detonation is needed, the Applicant has committed to using NAS which is stated in section 2.2.2 of the **Outline MMMP (Revision 4)** [document reference 8.25], submitted at Deadline 4.

2.13 Ørsted IP

Table 2-20 The Applicants' Response to Ørsted IP's Deadline 3 Document [REP3-064]

I.D.	Ørsted IP Response	Applicants' Response
Comments on the Applicants' Responses to Deadline 1 Documents		
REP3-064: 1	The Ørsted IPs have included further comments in the table below on matters that are addressed in the Applicants' Responses to Deadline 1 Documents [REP2-058], to the extent that such matters are not already addressed in the Ørsted IPs' responses to ExQ1 above. In the interests of conciseness, the Ørsted IPs have provided comments on a topic-by-topic basis.	No response is required.
REP3-064: 2	**NPS-EN3** The Ørsted IPs note the comments from the Applicants in relation to NPS EN-3 and initially refer to the Ørsted IPs' response to ExQ1 IOU.1.6 above and the comments on paragraph 2.8.197 in the Ørsted IPs' Deadline 1 Submission [REP1-086]. To reiterate, the Ørsted IPs note that paragraph 2.8.44 of NPS EN-3 states that "*there may be constraints imposed on the siting or design of offshore wind farms because of the presence of other offshore infrastructure…*". The Ørsted IPs consider this paragraph provides support for the proposition that the Project should properly assess its potential effects on other offshore wind farms. The Ørsted IPs also note that the NPS EN-3 requires that new offshore wind development assess the effects of development on existing infrastructure, by stating that "*where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities*". A proper interpretation of NPS EN-3 requires that the Applicant assess and consider its potential effects on the Ørsted IPs assets. It is noted that wake loss assessments are extremely commonplace in the wind industry. Developers will likely carry out thousands of wake loss assessments while developing a project as they are essential to estimate the expected production of a project which feeds into the economic assessment. There are multiple softwares available in the industry, both commercial and open source, which have been validated with operational data. In addition, specialist consultants provide wake modelling services, typically to feed into an independent view of the project economics to support financing decisions. The Ørsted IPs consider that, if wake effects remain unassessed at the close of the examination, the Examining Authority will not be in a position to understand the degree of the potential effect and how it has been mitigated nor the extent to which a requirement could provide mitigation for any residual impacts. As such, the SoS would not be in a position to make a decision in accordance with the NPS EN-3. In relation to the Awel y Mor decision, the Ørsted IPs refer to the Clean Power 2030 Action Plan, in which the UK Government identified that wake effects between developments present a risk to offshore wind development. In particular, that document recognises that new projects with larger and/or a greater number of turbines have "an even greater propensity" to cause wake effects on existing downstream operational projects. The document goes on to describe the Awel y Mor decision as setting a "precedent" through the imposition of a wake loss condition (where historically the issue had been dealt with privately). The Government is now working to bring together industry experts to work on this issue, in particular in relation to mitigation. In light of these statements, there can be no doubt that the	The Applicants do not propose to restate their position regarding NPS EN-3. The Applicants have submitted at Deadline 4 a response to the ExA's Action Points from ISH3 regarding wake assessment, on a without prejudice basis (**Wake Effects – Response to ISH3 Action Points** [document reference 14.14]). This submission includes the conclusions of 3 wake effects modelling assessments (including that originally referenced in **Chapter 16 - Infrastructure and Other Users** [APP-130] of the ES) for the impact of the Projects on Dogger Bank A, being the closest wind farm to the Projects. As explained in that submission, the level of impact on DBA (2% of AEP, with the various caveats in the document) means that specific wake assessments of other projects are not justified. This is particularly the case for the Orsted Projects, given the distances involved. The Applicants would highlight that, even if NPS EN-3 applies in the way the Orsted IPs argue it does, none of the Orsted projects could conceivably be said to be "close" to DBS pursuant to paragraph 2.8.197. Accordingly, in any event, there is no requirement for the Applicants to provide a specific wake assessment. Finally, as the Applicants have already explained at ISH3 and above at IOU.1.9, the Orsted IPs are better placed to conduct any wake assessment. Accordingly, the Applicants do not consider the ExA or the Secretary of State will be lacking information necessary to make a recommendation or decision on the Application.

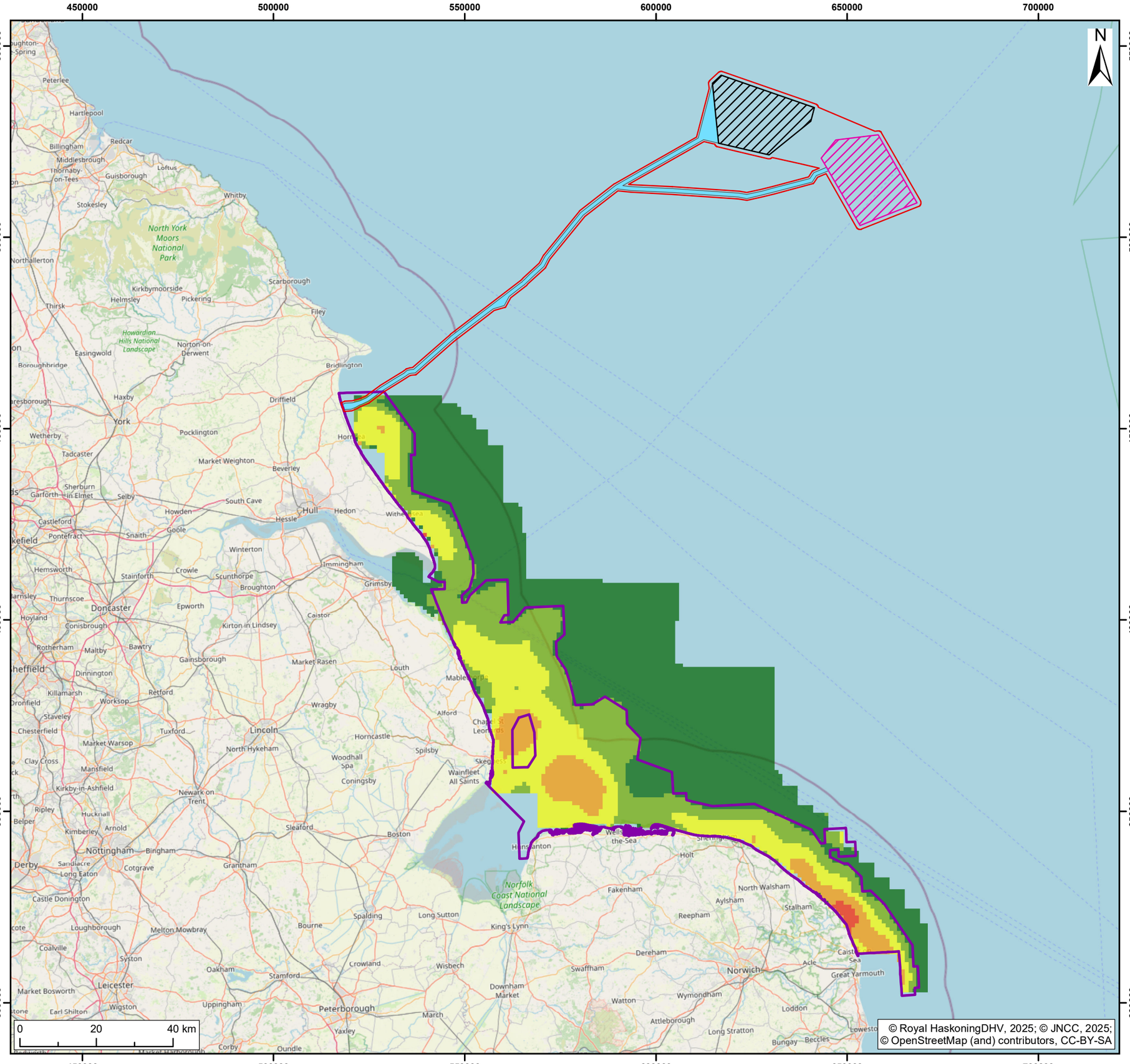
I.D.	Ørsted IP Response	Applicants' Response
	Government's position is that wake effects from new developments can result in material adverse effects and that there is a need for these effects to be addressed. This does not support the Applicants' position that a wake assessment is outwith the requirements of NPS EN-3. The Secretary of State, via the Awel y Mor decision, has clearly determined that the wording of paragraph 2.8.197 of NPS EN-3 applies to wake loss by one offshore windfarm on another, and concluded that an assessment should have been undertaken by the Applicant.	
REP3-064: 3	The Ørsted IPs note the comments from the Applicants in relation to The Crown Estate and do not have anything further to add on this matter which has not already been stated in the Ørsted IPs' Deadline 1 Submission [REP1-086].	No response is required.
REP3-064: 4	Orsted Hornsea Project Four Limited notes the comments from the Applicants in relation to negotiations with Orsted Hornsea Project Four Limited and note that they have returned comments on the draft Heads of Terms for a cooperation agreement to the Applicants on 7 March 2025. Orsted Hornsea Project Four Limited intends to prioritise these negotiations, but in the absence of such negotiations progressing (which the Ørsted IPs are confident will not be the case) Orsted Hornsea Project Four Limited will submit its preferred form of protective provisions into the examination at a later stage for the Examining Authority's consideration.	The Applicants have agreed Heads of Terms with Orsted Hornsea Project Four Limited for a Cooperation Agreement to provide a mechanism for ongoing engagement between the parties in relation to project interactions both onshore and offshore. The Applicants will provide a draft Cooperation Agreement shortly for Orsted Hornsea Project Four Limited's consideration. The Applicants agree that negotiations on the Cooperation Agreement will be prioritised.

Appendix A – Worst-case operational impacts of "Cable Repairs and Reburial" on Relevant Protected Sites

Table A-1 Worst-case operational impacts of "Cable Repairs and Reburial" on Relevant Protected Sites

Protected Site	DBS East in isolation	DBS West in isolation	DBS West and DBS East concurrently and / or in sequence	Notes and rationale
Dogger Bank SAC	**Maximum estimated volume of displaced sediment during maintenance activities within the Dogger Bank SAC Areas – 1,702,500m³** Volume of displaced sediment from array cable repairs over Projects lifetime – 108,000m³ (Nine events x 12,000m³ per event) Volume of displaced sediment from inter-platform cable repairs - over Projects lifetime – 24,000m³ (Two events x 12,000m³ per event) Volume of displaced sediment from jacking-up activities over Projects lifetime – 1,534,500m³ (51,150m³ per year x 30 year lifespan) Volume seabed disturbance from export cable repairs over Projects lifetime within the Dogger Bank SAC – 36,000m³ (Three events x 12,000m² per event)	**Maximum estimated volume of displaced sediment during maintenance activities within the Dogger Bank SAC – 1,702,500m³** Volume of displaced sediment from array cable repairs over Projects lifetime – 108,000m³ (Nine events x 12,000m³ per event) Volume of displaced sediment from inter-platform cable repairs - over Projects lifetime – 24,000m³ (Two events x 12,000m³ per event) Volume of displaced sediment from jacking-up activities over Projects lifetime – 1,534,500m³ (51,150m³ per year x 30 year lifespan) Volume seabed disturbance from export cable repairs over Projects lifetime within the Dogger Bank SAC – 36,000m³ (Three events x 12,000m² per event)	**Maximum estimated volume of displaced sediment during maintenance activities in the Array Areas – 3,417,000m³** Volume of displaced sediment from array cable repairs over Projects lifetime – 204,000m³ (17 events x 12,000m³ per event) Volume of displaced sediment from inter-platform cable repairs - over Projects lifetime – 72,000m³ (Six events x 12,000m³ per event) Volume of displaced sediment from jacking-up activities over Projects lifetime – 3,069,000m³ (102,300m³ per year x 30 year lifespan) Volume seabed disturbance from export cable repairs over Projects lifetime within the Dogger Bank SAC – 72,000m³ (Six events x 12,000m² per event)	Jack-up vessel footprint assumes a maximum penetration depth of 5m Cable repairs assume a maximum depth of 2m. The cable is buried 0.5-1.5m but repairs also account for potential additional mobile sand coverage.
Flamborough Head SAC	Volume of displaced sediment from export cable repairs over Projects lifetime – 84,000m³ (seven events x 12,000m³ per event)	Volume of displaced sediment from export cable repairs over Projects lifetime – 60,000m³ (Five events x 12,000m³ per event)	Volume of displaced sediment from export cable repairs over Projects lifetime – 144,000m³ (12 events x 12,000m³ per event)	Cable repairs assume a maximum depth of 2m. The cable is buried 0.5-1.5m but repairs also account for potential additional mobile sand coverage.
Humber Estuary SAC				
Holderness Inshore MCZ				
Holderness Offshore MCZ				

Appendix B - Red-Throated Diver Density Within the Greater Wash SPA in Relation to the Offshore Export Cable Corridor



Legend:

- Offshore Development Area
- DBS West Array Area
- DBS East Array Area
- Offshore Export Cable Corridor
- Greater Wash Special Protection Area (SPA)

Density of red-throated diver within the Greater Wash SPA

- 0 - 0.15
- 0.15 - 0.3
- 0.31 - 0.6
- 0.61 - 1.2
- 1.21 - 3.5

SUI	REV	DATE	DESCRIPTION	DRW	CHK	APR
S3	P02	15/04/2025	Suitable for review & comment	SM	CC	
S2	P01	07/04/2025	Suitable for information	SM	CC	

Title:

Offshore Export Cable Corridor and the Greater Wash SPA

Figure: B-1

Drawing No: PC2340-RHD-OF-ZZ-DR-Z-1039

Co-ordinate system: British National Grid

Page Size: A3

Scale: 1:1,000,000

Project:

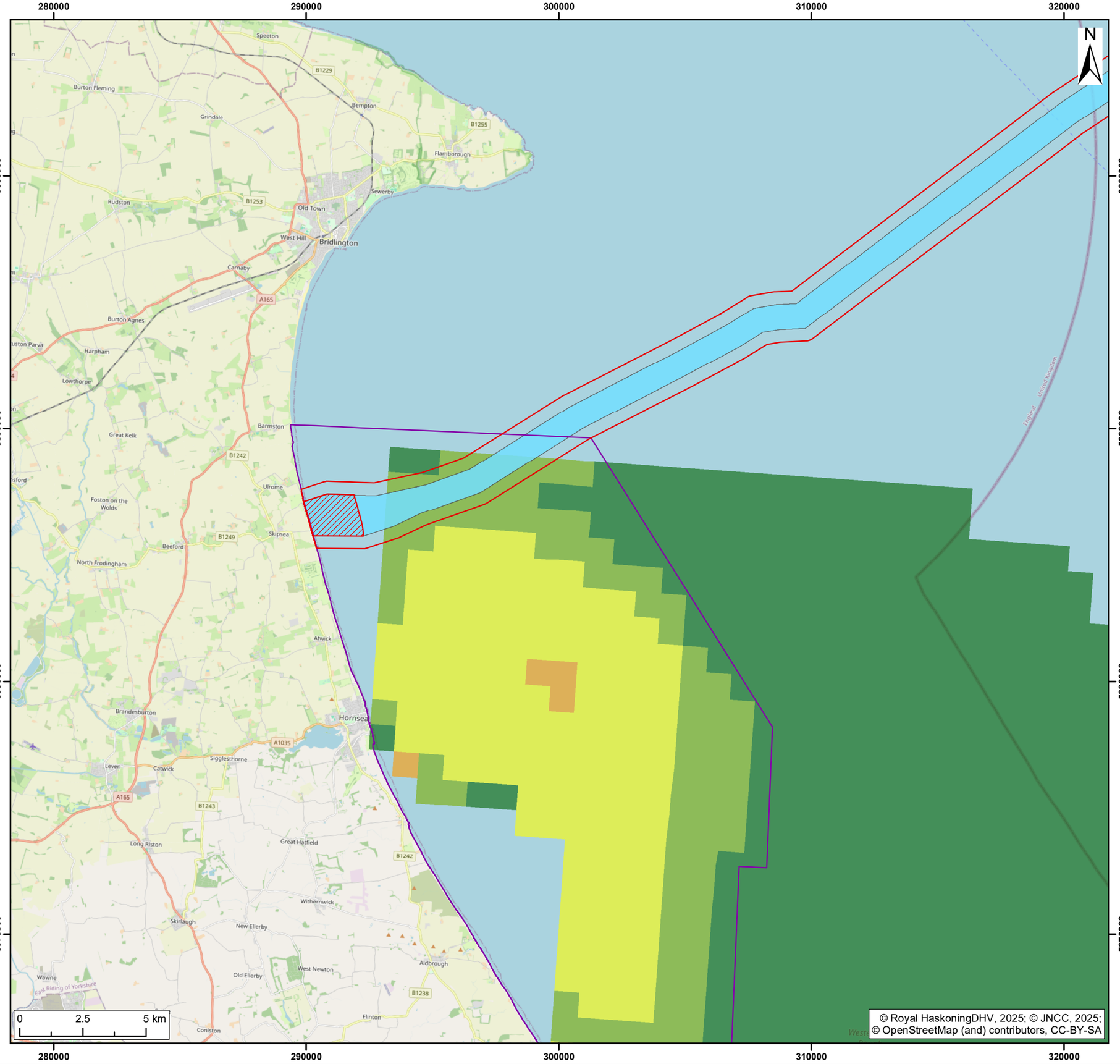
Dogger Bank South Offshore Wind Farms

Report:

Ornithology Hearings

Royal HaskoningDHV
Enhancing Society Together

DBS Offshore Wind



Legend:

- Offshore Development Area
- Offshore Export Cable Corridor
- Indicative Location of Subtidal Exit Pits
- Greater Wash Special Protection Area (SPA)

Density of red-throated diver within the Greater Wash SPA

- 0 - 0.15
- 0.15 - 0.3
- 0.31 - 0.6
- 0.61 - 1.2
- 1.21 - 3.5

SUI	REV	DATE	DESCRIPTION	DRW	CHK	APR
S3	P02	24/04/2025	Suitable for review & comment	SM	CC	RF
S2	P01	15/04/2025	Suitable for information	SM	CC	RF

Title:

Red-Throated Diver Density Within the Greater Wash SPA in Relation to the Offshore Export Cable Corridor

Figure: B-2

Drawing No: PC2340-RHD-OF-ZZ-DR-Z-1040

Co-ordinate system: WGS 1984 UTM Zone 31N

Page Size: A3

Scale: 1:150,000

Project: Dogger Bank South Offshore Wind Farms

Report: Ornithology Hearings

Royal HaskoningDHV
Enhancing Society Together

DBS Offshore Wind

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