

Morecambe Offshore Windfarm: Generation Assets

Examination Documents

Volume 9

The Applicant's Comments on Written Representations Appendix A: Applicant's Comments on Natural England Risk and Issue Log

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Glossary of Acronyms

ADD	Acoustic Deterrent Device
AEol	Adverse Effect on the Integrity
AONs	Automatic Obsolescence Notification System
вто	British Trust for Ornithology
CEA	Cumulative Effects Assessment
CEFAS	Centre for Environment, Fisheries and Aquaculture Science
CGNS	Celtic and Greater North Seas
CIS	Celtic and Irish Seas
CRM	Collision Risk Modelling
DCO	Development Consent Order
dML	Deemed Marine Licence
EIA	Environmental Impact Assessment
ES	Environmental Statement
EU	European Union
ExA	Examining Authority
GBBG	Great Black Backed Gull
HAT	Highest astronomical tide
HRA	Habitat Regulations Assessment
INNS	Invasive Non-Native Species
IP	Interested Parties
IPMP	In Principle Monitoring Plan
JNCC	Joint Nature Conservation Committee
LBBG	Lesser black-backed gull
M&DE	Morecambe Bay and Duddon Estuary
MBES	Multibeam Echo Sounder
MCZ	Marine Conservation Zone
MDS	Maximum Design Scenario
MMMP	Marine Mammal Mitigation Plan
ММО	Marine Management Organisation
MU	Management Unit
NAS	Noise Abatement Systems

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OMP	Operations and Maintenance Plan
OOMP	Offshore Operations and Maintenance Plan
OWF	Offshore windfarm
PADSS	Principal Areas of Disagreement Summary Statement
PTS	Permanent Threshold Shift
PVA	Population Viability Analysis
R&AE	Ribble and Alt Estuaries
RAG	Red Amber Green
RSPB	Royal Society for the Protection of Birds
RTD	Red Throated Diver
SAC	Special Area of Conservation
sCRM	stochastic Collision Risk Model
SEL	Sound Exposure Level
SELcum	Sound Exposure Level from cumulative exposure
SELss	Sound Exposure Level from single strike
SNCBs	Statutory Nature Conservation Body
SoCG	Statements of Common Ground
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
TTS	Temporary Threshold Shift
UK	United Kingdom
UWN	Underwater Noise
UWSMS	Underwater Sound Management Strategy
UXO	Unexploded ordnance



Glossary of Unit Terms

m ³	cubic metre
m	metre
km²	square kilometre
km	kilometre

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Glossary of Terminology

Agreement for Lease (AfL)	Agreements under which seabed rights are awarded following the completion of The Crown Estate tender process.
Applicant	Morecambe Offshore Windfarm Ltd.
Application	This refers to the Applicant's application for a Development Consent Order (DCO). An application consists of a series of documents and plans which are published on the Planning Inspectorate's (PINS) website.
Generation Assets (the Project)	Generation assets associated with the Morecambe Offshore Windfarm. This is infrastructure in connection with electricity production, namely the fixed foundation wind turbine generators (WTGs), inter-array cables, offshore substation platform(s) (OSP(s)) and possible platform link cables to connect OSP(s).
The Planning Inspectorate	The agency responsible for operating the planning process for Nationally Significant Infrastructure Projects.
Windfarm site	The area within which the WTGs, inter-array cables, OSP(s) and platform link cables would be present.



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1 Introduction

- This document presents Morecambe Offshore Windfarm Ltd (the Applicant) comments on Natural England's (NE) Risk and Issue Log, submitted at Deadline 1 (REP1-097 and REP1-098).
- 2. As the owner of the Morecambe Offshore Windfarm Generation Assets, Morecambe Offshore Windfarm Ltd is the named undertaker that has the benefit of the Development Consent Order (DCO). References in this document to obligations on, or commitments by, 'the Applicant' are given on behalf of Morecambe Offshore Windfarm Ltd as the undertaker of Morecambe Offshore Windfarm Generation Assets.

2 Comments on NE's Risk and Issue Log

3. The Applicant's comments on NE Risk and Issue Log are presented in **Table 2.2**. Please note that NE's colour coding is as follows:

Table 2.1 NE's Risks and Issues Log colour coding

Description Colour **Purple** Note for Examiners and/or competent authority. May relate to DCO/Deemed Marine Licence (dML) NE considers that unless these issues are resolved it will have to advise that (in relation to any one of them, and as appropriate) it is not possible to ascertain beyond reasonable scientific doubt that the project will not affect the integrity of an Special Area of Conservation (SAC)/ Special Protection Area (SPA)/Ramsar and/or significantly hinder the conservation objectives of an Marine Conservation Zone (MCZ) and/or damage or destroy the interest features of a Sites of Special Scientific Interest (SSSI) and/or comply fully with the Environmental Impact Assessment requirements. Addressing these concerns may require the following: new baseline or survey data; and/or significant revisions to baseline characterisation and/or impact modelling and/or significant design changes; and/or significant mitigation In addition, NE may use this category to highlight where there is a significant risk that an issue will not be sufficiently addressed within the Examination timescales. Consequently, issues that start out as Amber may progress to Red in the latter stages of the examination. NE does not agree with the applicant's position or approach and consider that this could make a material difference to the outcome of the decision-making process for this project. NE considers that these matters <u>may</u> be resolved through: provision of additional evidence or justification to support conclusions; and/or

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Description Colour

- revisions to impact assessment methodology and/or assessment conclusions; and/or
- minor to moderate revisions to impact modelling; and/or
- well-designed mitigation measures that are adequately secured through the draft DCO/dML and/or
- amendments to draft plans

If these issues are not addressed or are unlikely to be resolved by the end of the Examination, then they may become a Red risk as set out above.

Yellow

NE doesn't agree with the Applicant's position or approach. We would ideally have liked this to be addressed prior to the examination but are satisfied that for this particular project it is unlikely to make a material difference to our advice or the outcome of the decision-making process and would not expect these matters to be a ongoing focus of the examination. However, we reserve the right to revise our opinion should further evidence be presented.

It should be noted by interested parties (IP) that just because these issues/comments are not raised as significant concerns in this instance, it should not be understood or inferred that NE would be of the same view in other cases or circumstances.

Once a Risk or Issue has been categorised as yellow, NE will not make further comment on the matter at subsequent deadlines, unless specifically requested to through Examining Authority (ExA) Questions. These rows will then be greyed out at subsequent deadlines in order to rationalise the risk and issues log.

Green

NE is in broad agreement with the Applicant's approach and has no significant outstanding concerns.

As above, we reserve the right to revise our opinion should new evidence be presented.

Once a Risk or Issue has been categorised as green, NE will not make further comment on the matter at subsequent deadlines, unless specifically requested to through ExA Questions. These rows will then be shaded grey at subsequent deadlines in order to rationalise the risk and issues log.

4. To note, although not specifically detailed in **Table 2.1** above, the colour grey denotes the following (see also WR-097-05 below):

"Once a risk or issue has been categorised as yellow or green, NE will not make further comment on the matter at subsequent deadlines, unless specifically requested to through ExA Questions. These rows will then be greyed out at subsequent deadlines in order to rationalise the Risk and Issues Log. For Deadline 1 only, some acknowledgements of minor changes made to address yellow-rated issues are present in the Risk and Issues Log."

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Table 2.2 Applicant's comments on NE's Risk and Issue Log

ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
Summary of	Deadline 1 Response for Morecambe Offshore Win	dfarm (EN010	121)	
WR-097-01	Dear Robert Jackson, Morecambe Offshore Windfarm Generation Assets The following constitutes Natural England's formal statutory response for Examination Deadline 1.	N/A	N/A	The Applicant notes this response.
WR-097-02	Natural England's Deadline 1 Submissions Natural England has reviewed the documents submitted by the Applicant at Procedural Deadline A. We are submitting the following detailed responses: EN010121 Morecambe Generation NE Risk and Issues Log Deadline 1			
WR-097-03	2. Risk and Issues Log and Engagement through Examination Natural England has submitted a Risk and Issues Log, which aims to track progress on the issues raised in our relevant/written representations. It is anticipated that the Risk and Issues Log will be updated and submitted alongside our submissions during examination at each deadline to reflect any progress in issue resolution during examination.			

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
WR-097-04	Natural England wishes to highlight that the focus of our engagement during Examination will be on reviewing relevant updated documents/outline plans submitted by the Applicant. We therefore request that the Applicant submits future updates in the form of tracked changes to the relevant documents and plans. Whilst the Applicant has provided updates on issues we have raised through their response to our Relevant Representations and through their submissions at Procedural Deadline A, these are yet to be reflected in updated documentation and our RAG rating will therefore not be changed. Many of these issues are readily resolvable once updates have been made to the relevant plans and assessments.			The Applicant notes this response and has updated the following documents to be submitted at Deadline 2: Chapter 7 Marine Geology, Oceanography and Physical Processes (Chapter 7 Marine Geology, Oceanography and Physical Processes_Rev 03 Clean and Chapter 7 Marine Geology, Oceanography and Physical Processes_Rev 03 Tracked) Chapter 8 Marine Sediment and Water Quality (Chapter 8 Marine Sediment and Water Quality _Rev 03 Clean and Chapter 8 Marine Sediment and Water Quality _Rev 03 Tracked) Chapter 9 Benthic Ecology (Chapter 9 Benthic Ecology_Rev 02 Clean and Chapter 9 Benthic Ecology_Rev 02 Tracked) Please note that the following documents have not yet been updated and will be submitted later into Examination (anticipated to be Deadline 4) but updated timing will depend on when

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
				comments are received from NE on material submitted into examination: Chapter 11 Marine Mammals Chapter 12 Offshore Ornithology
WR-097-05	Once a risk or issue has been categorised as yellow or green, Natural England will not make further comment on the matter at subsequent deadlines, unless specifically requested to through ExA Questions. These rows will then be greyed out at subsequent deadlines in order to rationalise the Risk and Issues Log. For Deadline 1 only, some acknowledgements of minor changes made to address yellow-rated issues are present in the Risk and Issues Log.			The Applicant notes this response.
WR-097-06	We are unlikely to respond directly to further commentary on our representations (including on the Risk and Issues Log) from the Applicant or Interested Parties, unless there is significant new material included, a misinterpretation of Natural England's position, or if the Examining Authority (ExA) questions direct us to do so. The Risk and Issues Log will be used to track issue progress and we will signpost to our advice where applicable. Likewise, if the Applicant wishes to provide a signposting document that directs us and the ExA to where they address our concerns with tracked			The Applicant notes this response.



ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	changes in the various plans, documents or /assessments then that would be welcomed.			
WR-097-07	Natural England's current concerns for Subtidal Benthic Ecology have a yellow RAG status or arise from risks and issues identified in our comments for Marine Geology, Physical Processes, Sediment and Water Quality. We will therefore not be providing any further advice or Risk and Issues Log updates for Subtidal Benthic Ecology, unless specifically requested through ExA questions.			The Applicant notes this response.
WR-097-08	Natural England's current concerns for Fish and Shellfish Ecology have now all been categorised as green or yellow RAG status. We will therefore not be providing any further advice or Risk and Issues Log updates for this topic, unless specifically requested through ExA questions.			The Applicant notes this response.
WR-097-09	Please note that due to resource constraints, unless there is a significant change to the project design or changes in the Applicant's position in relation to the points raised within our Relevant Representations, Natural England will no longer be providing full marine mammal advice for this Examination.			The Applicant notes this response.
WR-097-10	3. Statement of Commonality for Statements of Common Ground (SoCG), Principal Areas of Disagreement Summary Statements (PADSS) and other progress tracking documents			The Applicant notes this response.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	At the request of the ExA, the Applicant has provided a Combined Examination Progress Tracker and Statement of Commonality (PD1-013). In this document, the Applicant notes Natural England's preference not to engage in Statements of Common Ground and that our updated Risk and Issues Log and Principal Areas of Disagreement Summary Statement (PADSS) will be used instead. Natural England will provide an updated Risk and Issues Log at each Deadline (1-6), with which the "Summary" tab will track progress on the issues identified in our PADSS. This will include any relevant points regarding ongoing engagement with the Applicant.			
WR-097-11	The Applicant has included a table, "Summary of Commonality with each stakeholder in relation to each topic covered at Procedural Deadline A" in this document, in which they provide a RAG rating against each topic area for each stakeholder. We draw the ExA's attention to the fact that the RAG ratings used in this table are the Applicants overall assessment of whether there is agreement between the Applicant and the stakeholder for a given topic area, and are not reflective of Natural England's assessment of risk as indicated in our RAG ratings, for which our Risk and Issues log and PADSS must be consulted. We are not commenting on the agreement rating given to specific thematic areas at this stage, but we advise that because			The Applicant notes this response and highlights that the majority of topics have been categorised as in-discussion given the ongoing discussion with NE, however the Applicant has updated the Summary of Commonality at Deadline 2 (Combined Examination Progress Tracker and Statement of Commonality_Rev 03 Clean and Combined Examination Progress Tracker and Statement of Commonality_Rev 03 Tracked) and aimed to align this with the Risk and Issues Log, noting that it is expected the Risk and Issues Log should still be referred to, with the Summary of

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	none of the topics are rated amber or red for Natural England, the table does not accurately represent the level of disagreement that still exists regarding key receptors.			Commonality to provide a broad overview.
WR-097-12	Natural England submitted a PADSS within our Relevant Representations cover letter and will submit an updated PADSS at Deadline 4. Unless the ExA requests otherwise, we will also submit an updated final PADSS at Deadline 6 rather than input to an Applicant-led final SoCG. We hope this will be of assistance to the ExA in rapidly identifying Natural England's outstanding issues and will demonstrate progress on issue resolution. We also hope that this will assist the Applicant in updating their Statement of Commonality and SoCGs at the relevant stages.			The Applicant notes this response.
WR-097-13	For any queries relating to the content of this letter please contact me using the details provided below. [REDACTED]			The Applicant notes this response.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	NE's Relevant and Written Representations Generation – Principal Areas of Disagreement Sumi	mary Stateme	nt (PADSS)	
WR-097-14	During construction monitoring condition does not require a stop to work should noise significantly exceed the assessed level. This is a key mitigation to protect noise sensitive mammal and fish species. We ask for an update to the construction noise monitoring condition to reflect standard requirements.	Condition 15 has been updated with appropriate wording.		The Applicant has updated Condition 15 with the appropriate wording and submitted an updated Draft Development Consent Order (PD1-002 and PD1-003) at Procedural Deadline A. The Applicant welcomes confirmation from NE that the change has been accepted. The matter is considered to be resolved, and no further action required.
WR-097-15	There is no pre- or post-construction benthic, marine mammal or ornithological monitoring secured by conditions. Monitoring conditions should be included.	No change		To clarify, the Applicant has committed to monitoring, which is secured by dML Schedule 6, Conditions 14 (preconstruction monitoring and surveys), 15 (construction monitoring) and 16 (postconstruction monitoring) and presented in the In Principle Monitoring Plan (APP-148). Monitoring proposed for benthic, marine mammals and ornithology is outlined below. Benthic: Invasive Non-Native Species (INNS) monitoring in line with asset inspection surveys (also committed to in the Commitments Register REP1-094; ID C021).

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
				 Marine mammals: Noise measurements taken from the first four piled foundations of each piled foundation type at the windfarm site would be undertaken to validate the assessments within the ES and RIAA (committed to in the Commitments Register REP1-094; ID C008). The Applicant also proposes to collect information during the winter on marine mammal species in line with the aerial surveys proposed below for Red Throated Diver monitoring. Ornithology: The Applicant has proposed disturbance monitoring for Red Throated Diver which will be included in the In Principle Monitoring Plan (IPMP) at Deadline 3, if agreed by Natural England. The In Principle Monitoring Plan (IPMP) will be updated for Deadline 3 to confirm the measures that have been committed to.
WR-097-16	Offshore Ornithology Some historic projects have not been considered quantitatively for the cumulative and in-combination	No change		The Applicant has presented information to address the 'gap-filling' of historic projects at Deadline 1 within the Offshore Ornithology Technical Note 1

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	assessments. This introduces the risk that impacts assessed are incomplete. We also question the apportioning of the impacts assessed to specific SPAs and therefore the results of appropriate assessments for these sites.			(Environmental Impact Assessment (EIA)) (REP1-080) and Offshore Ornithology Technical Note 2 (Habitat Regulations Assessment (HRA)) (REP1-081), and also updated apportioning for lesser black-backed gull, in accordance with NE's comments, in Offshore Ornithology Technical Note 2 (HRA) (REP1-081). See also detailed responses to ID WR-097-17 and WR-097-35 below.
WR-097-17	A full quantitative assessment should be presented, following the method Natural England has previously supplied to the applicant. We also urge collaboration with other OWF projects in the Irish Sea so that the same data are being used to perform cumulative and in-combination assessments across the region.	No change		The Applicant has presented information to address the 'gap-filling' of historic projects at Deadline 1 within the Offshore Ornithology Technical Note 1 (EIA) (REP1-080) and Offshore Ornithology Technical Note 2 (HRA) (REP1-081).
WR-097-18	Adverse effect on red-throated diver (RTD) at Liverpool Bay / Bae Lerpwl SPA. Due to displacement impacts on RTD we do not agree that an adverse effect on the integrity of Liverpool Bay SPA can be ruled out. The additional 18km² of habitat used by RTD over which displacement will occur is a concern in light of the objective to restore the distribution of the species in the site. The most effective way to avoid this adverse effect would be a change to the red line boundary or commitment to an	No change		The Applicant has presented additional information at Deadline 1 to support its conclusions in respect of red-throated diver from Liverpool Bay SPA (Offshore Ornithology Technical Note 3 (Red-throated diver at Liverpool Bay SPA update assessment) (REP1-082)). Notwithstanding this position, the Applicant has continued to engage with NE on this matter, to seek agreement where possible.



ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	exclusion zone for structures such that no turbines are located within 10km of this area.			
WR-097-19	Adverse effect on lesser black-backed gull at Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuary SPA. Due to in-combination collision impacts, an adverse effect on the integrity of these sites cannot be ruled out. Both sites' populations of this species are below their target so avoiding any further deterioration is imperative. Assessments should be updated to consider current population trajectories and refined apportioning of impacts. The scale of the proposed compensatory measures should be adjusted in line with the revised assessments, and landowner agreement evidenced.	No change		The Applicant has presented updated assessments for lesser black-backed gull at Morecambe Bay and Duddon Estuary Special Protection Area (SPA) and Ribble and Alt Estuary SPA at Deadline 1 (Offshore Ornithology Technical Note 2 (HRA) (REP1-081)). The updates have resulted in small changes to predicted mortality apportioned to the SPAs, but has not affected the conclusions presented by the Applicant, i.e. that there would be no adverse effect on integrity (AEoI) for either SPA. The Applicant is also continuing to progress the without prejudice compensation measures for lesser blackbacked gull, with an updated position provided at Deadline 1 (Update on Without Prejudice Compensation Measures (REP1-093)). Further updates will be provided during the Examination, as appropriate.
WR-097-20	Marine Mammals The applicant has not made a commitment to use Noise Abatement Systems (NAS) during	No change		The Applicant is planning appropriately for the potential requirement for noise abatement systems (NAS) for piling,

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	construction. From January 2025 it will be an expectation that all developers proposing offshore piling activity in English waters should demonstrate best endeavours to deliver noise reductions. We anticipate that the majority of piling will not be able to proceed without noise abatement in place. The Applicant should fully commit to using noise abatement as mitigation to reduce both injury and disturbance to marine mammal receptors during construction activities. This should be reflected in a DCO/dML condition that requires consideration of NAS in the Marine Mammal Mitigation Protocol.			which we understand may become UK Government guidance from January 2025. NAS is one of the options that will be considered as part of the finalisation of the Marine Mammal Mitigation Plan (MMMP) as detailed in the draft MMMP. The Applicant has also provided an Outline Underwater Sound Management Strategy (UWSMS) at Deadline 2 (Document Reference 9.32) as a mechanism of agreeing mitigation post- consent, which includes the consideration of NAS among a range of measures to deliver noise reductions. The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the dML submitted with the updated draft DCO at Procedural Deadline A to secure this (PD1-002 and PD1-003).
WR-097-21	Benthic Ecology and Physical Processes Assessment of impacts to benthic habitats and physical processes is incomplete. The potential impacts from seabed preparation works have not been fully considered within the assessment. The Applicant should provide an updated assessment of impacts on physical processes and benthic ecology	In progress. Rule 9 response presents updated worst case scenario that clarifies		The Applicant welcomes the clarification from NE that the information provided in Rule 9 may address the issue. The updated assessments have now been incorporated into Chapter 7 Marine Geology, Oceanography and Physical Processes (Chapter 7 Marine Geology, Oceanography and Physical

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	that incorporates a realistic worst case scenario for these activities.	and includes these pressures and receptors, but this is not yet included in an updated assessment.		Processes_Rev 03 Clean and Chapter 7 Marine Geology, Oceanography and Physical Processes_Rev 03 Tracked) and Chapter 9 Benthic Ecology (Chapter 9 Benthic Ecology_Rev 02 Clean and Chapter 9 Benthic Ecology_Rev 02 Tracked), submitted at Deadline 2. It should be noted that Chapter 8 Marine Sediment and Water Quality has also been updated to account for impacts of UXO clearance on water quality (Chapter 8 Marine Sediment and Water Quality _Rev 03 Clean and Chapter 8 Marine Sediment and Water Quality _Rev 03 Tracked).

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
Risk and Iss	sues Log Deadline 1 – DCO			
Taken from	NE's Relevant and Written Representations Moreca	mbe¹ Generat	tion Appendix	A - Development Consent Order (DCO)
WR-097-22	The during construction monitoring condition is missing a key element that provides for a stop to works should the noise monitoring highlight the noise is significantly in excess of the noise assessed within the environmental statement. This is a key mitigation to protect marine mammal and sensitive fish species. Natural England advises that the during construction noise monitoring condition is updated to match the standard requirements.	Condition 15 has been updated with appropriate wording.		The Applicant updated Condition 15 in the Draft Development Consent Order (PD1-002 and PD1-003) submitted at Procedural Deadline A with appropriate wording. The Applicant welcomes confirmation from NE that the change has been accepted. The matter is considered to be resolved, and no further action required.
WR-097-23	Natural England notes this condition requires a Marine Mammal Mitigation Protocol (MMMP). Natural England considers that this condition should refer to the requirement to consider Noise Abatement Systems (NAS) within the MMMP as these are considered important mitigation for Marine Mammals. Natural England advises that the condition to require the consideration of the use of NAS within the MMMP is amended within the dML.	No change		See detailed response to ID WR-097-20 above.

¹ Note this was incorrectly labelled as Morgan in NE's Risks and Issues log



ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
WR-097-24	These conditions cover the monitoring for the project. Natural England notes that there is no preconstruction benthic, marine mammal or ornithological monitoring secured within condition 14 or post construction monitoring at condition 16. This monitoring is considered standard. We advise that monitoring conditions should be updated and informed by a pre consent In Principle Monitoring Plan.	No change		See detailed response to ID WR-097-15 above.
WR-097-25	The definition of Statutory Nature Conservation Body (SNCB) is fairly open to interpretation. See below an example of wording used in other DCOs which provide more certainty with regard to the SNCB. "statutory nature conservation body" means a statutory nature conservation body, being the appropriate nature conservation body as defined in Regulation 5 of the Conservation of Habitats and Species Regulations 2017(b) or its equivalent in the Conservation of Offshore Marine Habitats and Species Regulations 2017(c). This comment also applies to Schedule 6 Part 1 condition 1, which has similar wording. For brevity this comment will not be repeated	SNCB definition has been updated.		The Applicant updated the definition of SNCB in the updated Draft Development Consent Order (PD1-002 and PD1-003) submitted at Procedural Deadline A. The Applicant welcomes confirmation from NE that the change has been accepted. The matter is considered to be resolved, and no further action required.



ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
WR-097-26	Natural England notes that at no point within the dML is the maximum hammer energy for piling secured. This is a key metric for the impact to marine mammals and sensitive fish species. This has been secured by condition on many similar projects, see East Anglia Two as a recent example. We would expect the maximum hammer energy for monopile and pin piles to be secured within the project design conditions.	Max hammer energy is now secured in dML		The Applicant has now secured the maximum hammer energy in the updated dML (PD1-002 and PD1-003) submitted at Procedural Deadline A. The Applicant welcomes confirmation from NE that the change has been accepted. The matter is considered to be resolved, and no further action required.
WR-097-27	Within this condition there is usually a requirement to microsite the cables around features of conservation importance, as well as archaeological features. The condition as drafted only provides for exclusion of archaeological features. Natural England would note that even outside of benthic designated sites important conservation habitats such as Sabellaria spinulosa reef are protected under the NERC act and appropriate mitigation should be included. We would note this micro-siting has been included in most OWF DCOs as standard and would refer you to the East Anglia Two DCO for a recent example. Natural England advises amending the condition to include requirement to micro-site around features of conservation importance.	No change		The Applicant defers back to their response (ID RR-061-43)) in The Applicants response to Relevant Representations (PD1-011). Paragraph 9.113 of Chapter 9 Benthic Ecology (APP-046) notes no species listed in the OSPAR list of threatened and/or declining species and no species of principal importance/Biodiversity Action Plan (BAP) species were recorded during the 2022 benthic characterisation survey of the windfarm site. The benthic environment of East Anglia Two and the presence of <i>Sabellaria</i> reef does not reflect the baseline conditions in the Morecambe Project windfarm site. As such, no further benthic surveys have been identified as being required. To

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
				note, there are no benthic designated sites located within the DCO order limits.
				Therefore, the Applicant does not believe this condition requires amendment.
				By virtue, the DCO does provide for 'micro-siting' in that the final positions of infrastructure must be agreed with the Marine Management Organisation (MMO) (Condition 9(1)(a) of the dML requires submission and approval of a design plan, which includes a final layout plan and coordinates).
WR-097-28	Natural England notes this allows for Operations and Maintenance Plan (OMP) to be provided based on the outline operations and maintenance plan (OOMP). The OOMP implies that cable protection may be deployed throughout the operational life of the windfarm. With regard to replenishment of existing cable protection Natural England has no concerns. However, deployment of new areas of cable protection should be limited to within a maximum period of ten years from the start of operations. This is Natural England's standard position for cable protection deployment after construction outside of designated sites. This would	No change. Addition to OOMP is useful but does not fulfill this standard requirement		The Applicant notes the addition to the outline operations and maintenance plan (OOMP) is useful which has been provided at Deadline 2 (Outline Offshore Operation and Maintenance Plan_Rev 02 Clean and Outline Offshore Operation and Maintenance Plan_Rev 02 Tracked). The Applicant has also amended the wording of the DCO to reflect the limitation for cable protection in new areas within ten years from the start of operations. This is secured by a new dML condition (Deployment of cable

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	apply to the deployment of scour protection in new areas as well. Please note within benthic designated sites further cable protection during the operational phase would require a new marine licence. Natural England advises that the condition is amended to make it clear new areas of cable protection can only be deployed up to ten years following submission of the updated OMP outside of designated sites.			protection) included in the updated DCO submitted at Deadline 2 (Draft Development Consent Order_Rev 3 Clean and Draft Development Consent Order_Rev 3 Tracked). To note, there are no benthic designated sites located within the DCO order limits.
WR-097-29	Natural England notes that this condition provides that most of the plans and documentation submitted in condition 15 be submitted 4 months prior to the works. Natural England notes that 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 of such 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. We would refer to East Anglia Two as a recent example of an OWF development with a standard 6 months requirement.	In progress. Awaiting communicat ion from applicant.		It has been discussed with Historic England that four months is acceptable for submission of the Written Scheme of Investigation (WSI). The Applicant is aware for other documentation where NE are seeking a six month requirement however, the Applicant does not believe this is required for all documents. The Applicant will further discuss with NE and the MMO the timescales included in the dML conditions for approval of preconstruction documentation and expects to agree documents where 4 months can remain and those where 6 months can be accepted.



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WR-097-30	Natural England notes this condition allows for the use of the Marine Recovery fund as an alternative compensation. Natural England notes that there is ongoing work on strategic compensation and would support the inclusion of appropriate provisions to allow use of agreed strategic compensation. However, the wording here is insufficient, if that is its purpose. We have included details in Annex A1 below of some draft wording we proposed for a strategic benthic provision which could also be extrapolated into an appropriate provision for LBBG. Natural England recommends amending this provision and consideration of how to appropriately implement a provision allowing strategic compensation options.	No change.		The Applicant has extrapolated the proposed wording from Annex A1 of NE's relevant representation to secure its without prejudice lesser black-backed gull compensation schedule within the updated DCO (see Schedule 7 of Draft Development Consent Order_Rev 03 Tracked and Draft Development Consent Order_Rev 03 Clean). The Applicant will continue to discuss the wording of this Schedule with NE.	
	Risk and Issues Log Deadline 1 – Offshore Ornithology Taken from NE's Relevant and Written Representations Morecambe ² Generation Appendix B - Offshore Ornithology				
WR-097-31	Natural England are satisfied that the project description is adequate for assessing impacts, including the worst-case design scenario parameters (i.e. the largest number of smaller turbines) provided for collision risk modelling.	No further comment.		The Applicant welcomes this response.	

² Note this was incorrectly labelled as Morgan in NE's Risks and Issues log



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WR-097-32	Natural England are satisfied that appropriate baseline data has been gathered for the purposes of ornithological impact assessment.	No further comment.		The Applicant welcomes this response.
WR-097-33	Natural England consider that the Applicant has identified the key pressures, impacts and receptors.	No further comment.		The Applicant welcomes this response.
WR-097-34	The rotation speed is given in this table as 7.74 whereas in the technical appendix Table 2.1 it is given as 7.64.	No further comment.		The Applicant confirmed in The Applicant's Response to Relevant Representations (PD1-011) at Procedural Deadline A that the value in Table 12.2 in Chapter 12 Offshore Ornithology (APP-049) was a typographical error and should be 7.64. The correct value has been used in CRMs used throughout the assessment. An updated Chapter 12 Offshore Ornithology was submitted at Deadline 1 (REP1-032 and REP1-033).
WR-097-35	NE's advised approach to gap-filling for the CEA has not been followed. Natural England is concerned that some projects are effectively treated as having 0 impact based on highly uncertain qualitative assessments. Proxy data from nearby OWFs should be used in preference to assigning no impact to historic OWFs that lack assessments of collision and displacement impacts. Natural England is also concerned that approaches	No change		The Applicant has presented information to address the 'gap-filling' of historic projects at Deadline 1 within the Offshore Ornithology Technical Note 1 (EIA) (REP1-080) and Offshore Ornithology Technical Note 2 (HRA) (REP1-081). The Applicant confirms that it has worked with the Mona Offshore Wind Project and Morgan Offshore Wind Project Generation Assets projects to ensure a

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	taken to filling data gaps by other projects to date (e.g., White Cross, Morgan, Mona) may not be aligned, leading to inconsistent assessments and confusion. We advise that all the Round 4 Irish Sea OWF projects should be considering the same data within their CEAs to ensure consistency across the assessments. The Applicant should therefore endeavour to work with other OWF projects in the Irish and Celtic Seas as well as relevant SNCBs to generate and agree impacts from historic projects for consideration in cumulative and in-combination assessments, following Natural England's advised approach.			consistent approach across the projects as far as possible.
WR-097-36	Some of the average mortality values the Applicant has calculated do not align with those recommended by Natural England. Through the EWG process with Round 4 wind farms, Natural England noted that there was some inconsistency between projects in the average mortality rates that were being used, despite them generally being based on the same source (Horswill and Robinson 2015). To rectify this, Natural England and NRW reviewed the evidence and calculation methods and produced standard mortality rates and reference populations for the key seabird species. An interim advice note containing this information was sent to the Applicant in April	No further comment.		The Applicant has reviewed the average mortality values and incorporated them into Offshore Ornithology Technical Note 1 (EIA) (REP1-080) submitted at Deadline 1. The Applicant can confirm that these changes did not affect the overall assessment conclusions.

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	2024 (see Annex B3). The differences between the Applicant's values and Natural England's are mostly minor and unlikely to make a material difference to the assessment. The most significant difference is for razorbill, where the Applicant has calculated an average mortality rate of 0.178, while Natural England recommend a value of 0.1302. We advise that the average mortality rates recommended in the NE and NRW interim advice note are used for the assessment (see Annex B3).			
WR-097-37	There is some inconsistency in the months assigned to each season for gannet. Where a month overlaps with both a migration season and the breeding season, Natural England advise that it should be considered as the breeding season. The Applicant has shaded the seasons correctly in Table 12.16, but comparison of the seasonal mean peak abundances in Table 12.21 with the array +2km buffer abundances in Table 5.76 in the Technical Report show an inconsistency, as the mean peak abundances reported are higher than any abundance values detected in the relevant months for those seasons. Assigning abundances to the correct NE-advised	Addressed by applicant in RR and Rule 9 response. No further comments on the proviso that this will be reflected in an updated ES in due course.		The Applicant has addressed this inconsistency in The Applicant's Response to Rule 9 Letter (PD1-010) and will update this in Chapter 12 Offshore Ornithology, expected to be Deadline 4.

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	seasons would mean that no gannets were detected in the wind farm array + 2km buffer in the Spring migration period of Dec-Feb, and far fewer gannets were detected in the Autumn migration period of Oct-Nov. We note that the correct NE-advised months have been used for assigning collision impacts to seasons. The assessment should be reviewed and updated as necessary.			
WR-097-38	Several of the total annual LCI and UCI values in the CRM results table appear to be incorrect.	No further comment.		As per The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (ID R9-05; PD1-010) and The Applicant's Response to Relevant Representations (ID RR-061-73; PD1-011), the Applicant has reviewed the values in Table 12.46 in Chapter 12 Offshore Ornithology (APP-049) and confirms that they are correct. No further action required.
WR-097-39	NE has not been able to replicate the collision risk modelling results for little gull, so we are not providing comment on these results at Deadline 1. This may be due to an issue with the sCRM tool.	No change at D1. Applicant has supplied		The Applicant has provided NE with all relevant input and output files for little gull, and NE confirmed at a meeting with the Applicant on 28th November 2024 that it was now satisfied with the little gull

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	NE does agree that due to poor undertsanding of the population and migration of little gull, the Liverpool Bay SPA is likely to be used by a greater number of birds transiting the site. We request that the Applicant provides log files for the little gull sCRM run, including full inputs and outputs. Furthermore, any methodological updates should be detailed, e.g. if a bespoke flight height distribution was used. Natural England therefore cannot comment on the impact of the Project on little gull until these issues are addressed.	flight height data directly to NE but not to the Examinatio n. NE has not yet confirmed results. Furthermor e, this data has not been presented in an updated assessment .		Collision Risk Modelling (CRM) results presented in ES Chapter 12 Offshore Ornithology (APP-049). An update to the cumulative and incombination (Liverpool Bay SPA) assessments for little gull was presented by the Applicant at Deadline 1 within the Offshore Ornithology Technical Note 1 (EIA) (REP1-080) and Offshore Ornithology Technical Note 2 (HRA) (REP1-081) respectively. These updates did not affect the Applicant's conclusions presented in ES Chapter 12 Offshore Ornithology (APP-049) and the RIAA (APP-027); i.e. that there would be no significant effect on little gull at the EIA scale, and no adverse effect on integrity on Liverpool Bay SPA. Notwithstanding this position, the Applicant has continued to engage with NE on this matter, to seek agreement where possible.
WR-097-40	The number of non-breeding collisions listed for great black-backed gull in this table is incorrect.	The Applicant has confirmed the error in the table,		As per The Applicant's Response to Relevant Representations (PD1-011), the non-breeding season mortality total in Table 12.47 in Chapter 12 Offshore Ornithology (APP049) had erroneously omitted the predicted December mortality

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		but that the correct value has been used in results.		(0.65), and so the total mortality for this period should be 1.10, rather than 0.45 birds. It is noted that the total annual value presented in Table 12.47 is correct (1.75 birds). This is the value used in the assessment, and therefore this error does not affect assessment conclusions. An updated Chapter 12 Offshore Ornithology will be submitted, expected to be Deadline 4.
WR-097-41	Natural England welcome the consideration of migratory birds and impact estimates derived by CRM. We note the low levels of predicted impact from the project alone relative to the contributing populations. Natural England are satisfied that the project alone will not result in any significant level of impact to migratory birds that are qualifying features of SPAs/Ramsar sites within 100km of the Project.	No further comment.		Noted, the Applicant welcomes this response. No further action required.
WR-097-42	Guillemot could be at risk of significant impacts due to cumulative displacement effects and should be considered in displacement assessments. Natural England's recommended approach to gap-filling should be followed.	No change.		An update to the guillemot cumulative assessment, incorporating data for 'gap-filled' historic projects, was presented by the Applicant at Deadline 1 within the Offshore Ornithology Technical Note 1 (EIA) (REP1-080). This confirmed that there would be no significant adverse effect on this species.

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WR-097-43	Natural England has some reservations regarding the use of the minimum EU wintering population for little gull to measure EIA-scale impacts against. However, this is a particularly data-poor species and no BDMPS population estimate or equivalent exists. We appreciate that the Applicant has made an effort to consider the issue and provided a value to indicate the scale of impact.	No further comment.		Noted, the Applicant welcomes this response. No further action required.
WR-097-44	Collision impacts to little gull are not currently considered in the CEA. Natural England advise that little gull abundance data from projects in the CEA is investigated and the assessment updated.	No change		An update to the little gull cumulative assessment, including consideration of the potential contribution of other projects to little gull mortality, was presented by the Applicant at Deadline 1 within the Offshore Ornithology Technical Note 1 (EIA) (REP1-080). This confirmed that there would be no significant adverse effect on this species.
WR-097-45	Significant effect on herring gull due to collision impacts cannot be ruled out based on the applicant's cumulative assessment. NE's approach to gap filling should be followed and more robust assessments may be need for herring gull depending upon the level of risk identified.	No change.		An update to the herring gull cumulative assessment, incorporating data for 'gap-filled' historic projects, was presented by the Applicant at Deadline 1 within the Offshore Ornithology Technical Note 1 (EIA) (REP1-080). This confirmed that there would be no significant adverse effect on this species.
WR-097-46	Significant effects on lesser black-backed gull are not ruled out by the Applicants cumulative	No change		An update to the lesser black-backed gull cumulative assessment, incorporating



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	assessment. Natural England's recommended approach to gap filling for cumulative assessments should be followed to produce a more comprehensive assessment. We note that it may then be necessary to undertake more robust assessments depending on the remaining level of risk and uncertainty.			data for 'gap-filled' historic projects, was presented by the Applicant at Deadline 1 within the Offshore Ornithology Technical Note 1 (EIA) (REP1-080). This confirmed that there would be no significant adverse effect on this species.
WR-097-47	The breeding season reference population for great black-backed gull (GBBG) is overestimated due to a discrepancy in the presentation of this species in the referenced dataset. The non-breeding season BDMPS population for GBBG for SW UK & Channel of 17,742 individuals should be used as the annual reference population, in accordance with the recommendation within our interim advice note sent to the Applicant in April 2024.	No change		An update to the great black-backed gull cumulative assessment, incorporating data for 'gap-filled' historic projects and including a Population Viability Analysis (PVA), was presented by the Applicant at Deadline 1 within the Offshore Ornithology Technical Note 1 (EIA) (REP1-080). This confirmed that there would be no change to the assessment
WR-097-48	The cumulative assessment for GBBG is particularly affected by the approach of assigning negligible impacts to historic projects, based on qualitative assessments. There is potentially a significant underestimate of total mortality for this species, exacerbated by the assumption made in the PVA that such historic projects have zero contribution to mortality. Natural England consider that there are significant cumulative effects on GBBG at the EIA scale, especially when the correct BDMPS reference	No change		conclusions presented in ES Chapter 12 Offshore Ornithology (APP-049); i.e. that there would be a moderate adverse effect on this species. The Applicant also provided a review of the effect of increasing air gap, and the potential benefits to great black-backed gull, within REP1-080. Noting that the Applicant has increased the proposed air gap from 22m to 25m above highest astronomical tide (HAT) between PEIR and DCO submission, the review

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	population of 17,742 birds is considered. Natural England's recommended approach to gap filling for cumulative assessments should be followed to produce a more comprehensive assessment. We advise that the Applicant then re-runs PVA for GBBG using NE's recommended approach to gap-filling for historic projects and with this reference population as an input to indicate the significance of the adverse effect. We recommend that the applicant considers further avoidance or mitigation measures (e.g. increased air gap) to reduce the Project's contribution to this significant cumulative effect.			confirmed that further increasing air gap would achieve no measurable benefit to this species.
WR-097-49	Natural England welcome the Applicant's approach to HRA, in which a comprehensive list of SPAs has been considered for impacts. We note that due to the location of Morecambe OWF, protected sites from the other devolved administrations are screened into the assessment. We highlight that Natural England are the relevant SNCB to consult on impacts to English sites, but we cannot advise on integrity judgements on sites located in Wales, Scotland, Northern Ireland, the Isle of Man, or the Republic of Ireland.	No further comment.		Noted, the Applicant welcomes this response. The Applicant confirms that it has also engaged with the relevant agencies in respect of SPAs outside of England, with ongoing discussion with Natural Resources Wales (NRW), and comments recently received from NatureScot (6th December 2024), noting they would not participate in examination. The Applicant has also contacted Department of Agriculture, Environment and Rural Affairs (DAERA) regarding Northern Irish sites, but no direct

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				response has been received from DAERA to date.
WR-097-50	Natural England note that the Applicant continues to advocate for a method that effectively reduces the total area over which displacement impacts to red-throated divers are felt at the SPA by considering the diminishing displacement effect with distance from the array. Natural England highlight that the relevant conservation objective of most concern is to "Restore the distribution of the feature; preventing further deterioration, and where possible, reduce any existing anthropogenic influences impacting feature distribution." (https://publications.naturalengland.org.uk/publication/3236717) Whilst we recognise the desire to factor in the diminishing displacement effect to the assessment somehow, we remain of the opinion that the calculation of an 'effective displacement area' for red-throated diver is fundamentally flawed. There is no logical way to proportionally reduce the area of habitat loss by the expected level of displacement. Some level of displacement is occurring over the full extent of the area. Ultimately, calculating a (reduced)	No further comment.		NE's position on this matter is noted. The Applicant provided further detailed evidence to support its position in respect of red-throated diver at Liverpool Bay SPA at Deadline 1 within the Offshore Ornithology Technical Note 3 (Red-throated Diver at Liverpool Bay Update Assessment) (REP1-082). It is noted that the Applicant maintains that it is reasonable and appropriate to consider the diminishing effect of displacement when considering the 'distribution' conservation objective for this species. Notwithstanding this position, the Applicant has continued to engage with NE on this matter, to seek agreement where possible.

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	area of effect in this way underestimates the simple % of the SPA that is subject to displacement effects.			
WR-097-51	Lesser black -backed gull breeding population estimates are out of date. Natural England advise that the most recent SPA population counts for lesser black-backed gull of 862 AONs (equivalent to 1,724 breeding adults) for Morecambe Bay and Duddon Estuary SPA and 2,319 AONs (equivalent to 4,638 breeding adults) for Ribble and Alt Estuaries SPA are considered by the assessment where appropriate (e.g. when interpreting the outcomes of PVA models).	No change		An update to the lesser black-backed gull assessment, incorporating the recent SPA counts advised by NE, was presented by the Applicant at Deadline 1 within the Offshore Ornithology Technical Note 1 (HRA) (REP1-081). No changes to the assessment conclusions (i.e. that there would be no AEoI) for this species at either Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuaries SPA have been identified as a result of these updates.
WR-097-52	For lesser black-backed gull in-combination assessments, the Applicant has used the Morecambe project as a proxy for apportioning the impacts of other projects to the Morecambe Bay and Duddon Estuary SPA. However, the cluster of windfarms in question (Ormonde, Walney 1&2, Walney Extension, West of Duddon Sands) are significantly closer to the SPA colonies than the Morecambe project and are therefore likely to have a higher proportion of the birds they impact associated with this SPA. This may lead to severe underestimation of in-combination impacts.	No change		An update to the lesser black-backed gull assessment, incorporating updated apportioning estimates for Ormonde, Walney 1&2, Walney Extension, West of Duddon Sands, was presented by the Applicant at Deadline 1 within the Offshore Ornithology Technical Note 1 (HRA) (REP1-081). No changes to the assessment conclusions (i.e. that there would be no AEoI) for this species at Morecambe Bay and Duddon Estuary SPA have been identified as a result of these updates.

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	apportioning birds from Walney 1 & 2 (as the central OWF in the cluster) to Morecambe Bay and Duddon Estuary SPA is calculated, and that this value is used as the proxy value for other wind farms in the cluster.			
WR-097-53	As noted in our PEIR response, the study by Clewley et al (2020) covered the period from 2016-2019 so there is no overlap with the aerial surveys carried out for the project. During that time connectivity with existing wind farms was found for >50% of the birds from the South Walney colony surveyed. The authors of the study noted that lesser black-backed gulls are more likely to forage offshore when rearing chicks. The study coincided with a period of very poor productivity at the South Walney colony. Productivity has since improved; hence it is possible that more offshore foraging was occurring at the time when the Project baseline characterisation surveys were carried out, and this could be expected to continue in the operational lifetime of the Project if the Walney colony continues to recover.	No further comment.		Noted, the Applicant reiterates its response to this comment set out in The Applicant's Response to Relevant Representations (PD1-011). The apportioning approach for the Project (as set out in the RIAA (APP-027)) assumed that birds from the South Walney colony will occur at the windfarm site, but that the study presented by Clewley et al. (2020) provides evidence that the derived collision estimates (upon which the assessment conclusions are based) may be an overestimate. Accordingly, the Applicant has not relied on this information to inform the assessment conclusions. No further action required.
WR-097-54	Impacts to lesser black-backed gull have been apportioned to colonies from which Natural England considers it highly unlikely that birds will be present in the project area. Natural England advise that in the absence of evidence, expert judgement is	In progress. Natural England has provided a		An update to the lesser black-backed gull assessment, incorporating updated apportioning that excludes more distant colonies (as advised by NE in its response at Procedural Deadline A (PD1-

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	applied to critically appraise the likelihood of colonies contributing to the population observed within the project study area. Colonies considered unlikely to display connectivity, despite technically being within potential foraging range, should be disregarded during apportioning.	list of relevant colonies in our Rule 9 letter response. There is potential for resolution once this is reflected in an updated assessment		017), was presented by the Applicant at Deadline 1 within the Offshore Ornithology Technical Note 1 (HRA) (REP1-081). No changes to the assessment conclusions (i.e. that there would be no AEoI) for this species at either Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuaries SPA have been identified as a result of these updates. The Applicant will update this in the RIAA, expected to be Deadline 4.
WR-097-55	The Applicant has committed to an air gap of 25m above HAT. However, their impacts on collision-sensitive species including from SPA colonies could be decreased further by increasing the air gap further. The Applicant should consider further increases to the air gap as a means of further mitigation.	No change		The Applicant provided a review of the effect of increasing air gap, and the potential benefits to lesser black-backed gull from Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuaries SPA (the only species sensitive to collision risk for which NE has identified outstanding concerns at the HRA scale), within the Offshore Ornithology Technical Note 1 (HRA) (REP1-081). Noting that the Applicant has increased the proposed air gap from 22m to 25m above HAT between PEIR and DCO submission, the review confirmed that further increasing

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				air gap would achieve no measurable benefit to this species.
WR-097-56	The Applicant has presented a vessel management plan for minimising impacts on displacement-sensitive species, based on best practice guidance. It is not clear that the proposal is sufficient from the information presented. Potential ports for construction, operation and maintenance activity should be considered to determine if the best practice measures proposed can be implemented and adhered to. Natural England advise that further mitigation may be required such as seasonal restrictions to avoid impacts at particularly sensitive areas within the Liverpool Bay SPA.	No change		 The Applicant reiterates its comments on this matter, as set out in The Applicant's Response to Relevant Representations (PD1-011): In relation to vessel traffic accessing the windfarm site, the Applicant notes that port selection would not be complete within the timescales of Examination and that the worst-case scenario considers that vessels would transit Liverpool Bay SPA. No direct construction/installation activities are proposed within the SPA and vessel access to the windfarm site would be required throughout the year. The detail of measures with regard to vessel disturbance would be expected to be agreed post-consent through the finalisation of the Project Environmental Management Plan (PEMP) and the Vessel Traffic Management Plan (VTMP), with a number of best practice measures that can be used to reduce effects.



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				 Further detail, and in line with comments on marine mammals (RR-061-210) has been added to the VTMP at Deadline 2 (Outline Vessel Traffic Management Plan_Rev 02 Clean and Outline Vessel Traffic Management Plan_Rev 02 Tracked). This includes looking to minimise vessels between November and March where possible.
WR-097-57	The Applicant concludes no AEOI from the project alone on red-throated diver at the Liverpool Bay SPA. Natural England does not agree with this conclusion. Natural England conclude that the project alone will impact red-throated diver distribution over 9.07% of the total SPA, and in particular 1.24% of the original SPA area, where red-throated diver densities were sufficiently high for these areas to qualify for inclusion within the SPA. As a result, we cannot rule out AEOI from the project alone. We note that the projects impact is slightly reduced when considered in-combination as some areas of impact are closer to other OWFs. We advise that it is appropriate that displacement impact is assigned to the OWF in closest proximity.	No change		NE's position on this matter is noted. The Applicant provided further detailed evidence to support its position in respect of red-throated diver at Liverpool Bay SPA at Deadline 1 within the Offshore Ornithology Technical Note 3 (Red-throated Diver at Liverpool Bay Update Assessment) (REP1-082). It is noted that the Applicant maintains that there would be no AEoI for this species. Notwithstanding this position, the Applicant has continued to engage with NE on this matter, to seek agreement where possible.

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WR-097-58	Natural England note that 53.29% of the SPA boundary is impacted by (in-combination) OWF displacement effects on red-throated divers, with 42.55% of the original SPA being impacted. The Applicant calculates that the project contributes 8.75% and 1.06% to those in-combination totals respectively. This is slightly smaller than the project-alone impact as parts of the impacted buffer area are closer to other OWFs. We agree with the Applicant's position that the most concerning effect is that upon the original SPA boundary area. Natural England advise that the Applicant considers any opportunity to mitigate the impact on red-throated diver displacement within the original SPA boundary area, by increasing the distance between this part of the original SPA and potential turbine locations.	No change		
WR-097-59	Natural England have advised that AEOI cannot be ruled out in-combination for red-throated diver at Liverpool Bay SPA since the Burbo Bank Extension OWF examination. Further, we understand from NRW and JNCC that the advice given to the Awel y Môr OWF related to specific factors in that area, namely the low numbers of divers encountered in the area and the findings of the post-construction	No change		

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	monitoring of the Gwynt y Môr windfarm. As a result, the SNCBs concluded that Awel y Môr would not significantly affect the distribution of RTD in this particular area. It should be borne in mind that Morecambe OWF is impacting the northern part of the SPA, which to date, has been less impacted than the south. Given the 'restore' conservation objective for feature distribution, Natural England advise that efforts are made to mitigate the impacts of the project with respect to displacement of red-throated divers. We consider this especially critical with respect to the original SPA boundary area.			
WR-097-60	Natural England cannot comment conclusively on the impact of the Project on little gull until NE Ref B11 regarding the sCRM methodology used for this species has been addressed. Natural England agrees with the Applicant that the population and migration patterns of this species are poorly understood, the SPA population is likely to be an underestimate, and that the area is likely to be used by a much larger number of gulls on a transitory basis.	No further comment.		The Applicant has presented an update to the assessment for little gull from Liverpool Bay SPA at Deadline 1 within the Offshore Ornithology Technical Note 1 (HRA) (REP1-081). As noted in the response to comments on little gull at the EIA scale above (WR-097-39), NE confirmed at a meeting with the Applicant on 28th November 2024 that it was now satisfied with the little gull CRM results presented in ES Chapter 12 Offshore Ornithology (APP-049). The Offshore Ornithology Technical Note 1 (HRA) (REP1-081) confirms that there would be no changes to the assessment conclusions for little gull at Liverpool Bay

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
				SPA presented in the RIAA (APP-027); i.e. that there would be no AEoI.
WR-097-61	The results of the Applicants population viability analysis indicates a significant reduction in population size and growth rate for lesser blackbacked gull. Natural England therefore considers that AEOI cannot be ruled out for this species at Morecambe Bay and Duddon Estuary SPA due to incombination collision impacts. Whilst the contribution of the project Project is small, we retain concerns about the approach used for apportioning of impacts. Natural England advise that the apportioning is critically evaluated (RI_B27). Any changes will be reflected in the mortality increase calculation. We can then advise on the project alone impacts in the context of the likely AEOI in-combination.	No change		An update to the lesser black-backed gull assessment, incorporating updated apportioning that excludes more distant colonies (as advised by NE in its response at Procedural Deadline A (PD1-017)), was presented by the Applicant at Deadline 1 within the Offshore Ornithology Technical Note 1 (HRA) (REP1-081). No changes to the assessment conclusions (i.e. that there would be no AEol) for this species at either Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuaries SPA have been identified as a result of
WR-097-62	Natural England considers that AEOI cannot be ruled out for LBBG at Ribble and Alt Estuaries SPA due to in-combination collision impacts. Whilst the contribution of the Project is small, we retain concerns about the approach used for apportioning of impacts. Natural England is particularly concerned regarding impacts to this SPA given the recent population declines and noting that the projects impacts are predominantly apportioned to this SPA. Natural England advise that the apportioning is critically evaluated (RI_B27). Any changes will be reflected in the mortality increase calculation. We	No change		these updates, noting that the Applicant considers that the Project would make no meaningful contribution to in-combination mortality.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	can then advise on the project alone impacts in the context of the likely AEOI in-combination.			
	sues Log Deadline 1 – Ornithology Compensation NE's Relevant and Written Representations Moreca ion	mbe³ Genera	tion Appendix	B1 - Offshore Ornithology
Compensati	on measure: Feature Exclusion of mammalian preda	ators at colon	ies using fend	ing
WR-097-63	Overall confidence in the measure: Natural England is moderately confident in this measure. We are content that the measure is likely to be effective, but we do not agree that the compensation level proposed and therefore the scale and extent of the measure is appropriate. Furthermore, no landowner agreement has been secured for the evaluated sites and this would be required to provide sufficient certainty that the measure is deliverable.	Summary comment.		Noted. An update on the proposed without prejudice compensation measures was provided at Deadline 1, including evidence of landowner agreement to secure the Banks Marsh megafence scheme (REP1-093). See detailed responses below.
WR-097-64	Theoretical measure to deliver compensation: This measure is likely to be effective and could directly benefit either the impacted population of the lesser black-backed gull (LBBG) feature of the Morecambe Bay and Duddon Estuary SPA (M&DE) or the Ribble and Alt Estuaries SPA (R&AE) if the fence was inside one of them, or the wider metapopulation from which the SPAs draw their recruits if	No further comment.		Noted. The Applicant welcomes confirmation from NE that this measure is likely to be effective in delivering compensation.

³ Note this was incorrectly labelled as Morgan in NE's Risks and Issues log



ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	located in the vicinity. Vegetation within the fenced area would need to be monitored and some works outside the breeding season may be necessary to create optimum nesting habitat. This has been considered by the Applicant.			
WR-097-65	Technical feasibility: We welcome the Applicant's undertaking that proposed predator-proof fence design would be informed through discussion with the proposed lesser black-backed gull compensation steering group (LBBGCSG) and with reference to RSPB guidance should this compensation measure be adopted. We suggest that fence design receives careful consideration, and we highlight how capable badgers in particular can be in their ability to climb high fences. We recognise that recent predator-exclusion fencing at South Walney (M&DE SPA) appears to have contributed to an increase in nesting LBBG demonstrates that this measure can be successful in increasing the number of nesting pairs, at least in the short-term.	No further comment.		Noted. The Applicant welcomes confirmation from NE that this measure is likely to be technically feasible. An update on fence design was presented at Deadline 1 in Update on Without Prejudice Compensation Measures (REP1-093). The Applicant confirms that current best practice will be reviewed during the detailed design of fencing to ensure maximum probability of success.
WR-097-66	Agreed compensation level: An appropriate impact value is yet to be agreed for lesser black-backed gull at Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuaries SPA. Natural England's advice is that the project alone impacts are currently an underestimate, meaning that the proposed	No change		The predicted Project-alone mortality apportioned to Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuaries SPA has been updated by the Applicant and presented at Deadline 1 within the Offshore Ornithology Technical



ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	compensation level is likely to be inadequate once the impact values are updated following our advice (see our Relevant Representations and Risk and Issue log tab B). Once an appropriate impact value is identified, Natural England advise that for the purposes of scaling compensatory measures, the precautionary upper confidence limit impact is the appropriate level of mortality to consider. Increases in numbers of LBBG within the recently fenced area at South Walney within the M&DE SPA, and the proposed 'mega-fence' at Banks Marsh within the R&AE SPA, means that the impacts on lesser black-backed gull from the project apportioned to each SPA, both alone and in-combination, are likely to increase. Therefore the compensation level is likely to be inadequate as a future-proof measure on this basis as well. We also have concerns about how the level of compensation has been calculated. A very basic calculation has been undertaken to determine the size of the breeding population that will be required to generate the required number of adults into the population each year. Only productivity and survival are considered. We advise that the method used by Hornsea 3 OWF to calculate requirements for their kittiwake compensation is also relevant to LBBG, and we recommend that this be used instead by the Applicant.			Note 1 (HRA) (REP1-081). Once these values have been agreed with NE, the Applicant will review the estimated compensation requirement. Final estimates will be presented in an update to the HRA Without Prejudice Derogation Case (APP-029), which the Applicant intends to submit at Deadline 3. It is noted that the approach used to estimate required compensation in the HRA Without Prejudice Derogation Case (APP-029) is aligned with the approach used for the Norfolk Boreas and Norfolk Vanguard projects. While it was acknowledged by those projects that the approach was relatively simplistic, the fact that it is anticipated that any proposals are likely to overcompensate for any predicted loss indicates that a more sophisticated approach would not be warranted. It is noted that the Dogger Bank South project reviewed the approach used to calculate the level of compensation for kittiwake by the Hornsea 3 project (RWE, 2024). This demonstrated that the Hornsea 3 approach included unnecessary levels of complication (that

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	Under these circumstances, it is difficult to agree with the proposed requirement to create an additional 18 lesser black-backed gull nests annually to compensate for the loss of 4 adult gulls.			did not impact the final outputs) and, furthermore, effectively double-counted adult mortality, and hence overestimated the compensation requirement. Dogger Bank South concluded that the approach used by Hornsea 4 was more appropriate, as it did not include this double-counting, although it is noted that in its relevant representations to the Dogger Bank South Project, NE maintained that the Hornsea 3 approach was appropriate to estimate the required scale of compensation (NE, 2024). Notwithstanding this, the Applicant will review the compensation calculations (including use of the Hornsea 3 and Hornsea 4 kittiwake approaches) once apportioned project-alone mortality estimates have been agreed.
WR-097-67	Scale/extent of measures: A site has not yet been secured, so we cannot advise on the scale of nesting habitat provision. We acknowledge that the size of the fenced areas required (assuming one of the sites in question can be secured), has been considered and would likely be adequate to deliver the proposed compensation level, even at lower LBBG nesting densities. Following our advice on the likely inadequacy of the	No change		Noted. The Applicant will continue to progress compensation proposals during the Examination period. As above, it is anticipated that overcompensation for loss is likely to be achieved for any of the proposed measures, and therefore further increase in extent is unlikely to be required.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	proposed compensation level, the scale at which this measure is required to be delivered is also likely to be an underestimate. Increased foraging distances are likely to occur with increased numbers of birds at the impacted SPA colonies, meaning more birds are likely to encounter OWFs, increasing collision risk. Relocation of adults from other nearby sites with less suitable habitat is not considered in the proposed compensation ratio. We therefore advise that compensation levels could be future-proofed by considering an increase in extent of the measure (and see also comments on the proposed scrub clearance measure on Steep Holm below).			
WR-097-68	Timing: Deliverable before impact: LBBG reach breeding age maturity at 4 years old and it is unlikely that offspring fledging from the compensation site will have recruited into the adult breeding population (and thereby started providing compensation) by the time the development is operational. This is of particular relevance in light of concerns that a compensation site has yet to be secured for this measure (see below). However, we welcome the consideration of potential mortality debt under these circumstances detailed, and acknowledge that two separate compensation measures have been proposed. We consider that both are feasible options	No further comment.		Noted. The Applicant welcomes confirmation from NE that this measure could be delivered prior to any impact.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	that, if successful, could potentially deliver in excess of the currently proposed compensation level, thereby addressing any accrued mortality debt early in the operational lifespan of the project. If the compensation ratio were to be found inadequate and thus recommended for a modest increase, there could be a greater initial mortality debt. We consider this debt could still be compensated for if the measure was implemented at appropriate scale.			
WR-097-69	Location of measure: No landowner agreement has been secured for this measure, without this Natural England cannot be confident that it is deliverable. This should be secured as soon as possible.	No change		The Applicant has presented evidence of landowner agreement from NE (and Royal Society for the Protection of Birds (RSPB) as it is a joint project) in Appendix A of the Update on Without Prejudice Compensation Measures (REP1-093) submitted at Deadline 1.
WR-097-70	Long term implementation: We welcome the commitment to the regular monitoring of the integrity of the fence both for predator incursion and for the state of vegetation within the compensation site, noting that even a single night of predator ingress could significantly undermine colony reestablishment. We also welcome the commitment to long-term monitoring. We recommend that the BTO ringing and colour-ringing scheme and re-sightings surveys should	No further comment.		Noted. The Applicant welcomes confirmation from NE that the proposed outline monitoring proposals are suitable. The Applicant will continue to work with relevant parties to ensure that final monitoring plans are agreed and secured (as required).

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	continue beyond the first 3 years of implementation of the compensation plan, and until such time as quantum is achieved (including the discharging of any mortality debt), to ensure that those juveniles colour-ringed at the site can be followed through to at least 4 years of age when breeding could commence. This would help document that the compensation measure had contributed additional adults into the impacted population. We are aware that colour ringing has been ongoing for many years at South Walney and is already underway on Steep Holm. Initially, hatching and fledging success should be monitored by three visits throughout the breeding season to count eggs, hatched eggs and fledging young. Drones could be used for this purpose and novel methods, such as thermal drone surveys, could be explored if it is considered they provide more accurate results. Initial ground-truthing of drone surveys would be required to calibrate the detection rate of nests/young. We recognise that individual colony performance should be considered holistically in relation to other LBBG colonies, but welcome the undertaking to explore reasons for failure and consequent adaptive management measures if considered necessary.			



ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
WR-097-71	Success criteria/ability to prove additionality: See above.	No further comment.		See response to WR-097-63 – WR-097-70.
WR-097-72	Suitable as sole measures for target species: Subject to a suitable site being secured, Natural England consider that this measure alone could theoretically deliver an appropriate level of compensation.	No further comment.		Noted. The Applicant welcomes confirmation from NE that this measure could be deliver an appropriate level of compensation. No further action required.
Compensati	on measure: Feature Scrub clearance and habitat m	anagement or	n Steep Holm	
WR-097-73	Overall confidence in the measure: We are confident that this measure will be effective, but we do not agree that the proposed compensation level or extent is appropriate.	Summary comment.		The Applicant welcomes confirmation from NE that this measure will be effective. A detailed response is provided in comments below.
WR-097-74	Theoretical merit to deliver compensation: Steep Holm SSSI sits within the Severn Estuary SPA. Neither designation have LBBG as a designated breeding feature. Nor does the Severn Estuary Ramsar site, however it was identified for a possible future consideration as a breeding feature. In 1993, 2,040 pairs of lesser black-backed gull bred on the islands of Flat Holm and Steep Holm, representing 2.5% of the British total. Since then, numbers fluctuated on Steep Holm, increased on Flat Holm, but both have suffered notable declines in recent years (SMP database). Therefore the proposed intervention has the potential to result in increases in the LBBG population.	No further comment.		Noted. The Applicant welcomes confirmation from NE that this measure is likely to be effective in delivering the required compensation. No further action required.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	Although LBBG appear to show high philopatry, primarily recruiting into the breeding population at the natal site, it is entirely possible that individuals fledging from Steep Holm could recruit into other nearby lesser black-backed gull colonies such as the Skomer, Skokholm and the Seas off Pembrokeshire SPA or Isles of Scilly SPA, thereby contributing to the coherence of the site network. Further, given Steep Holm sits within the Severn Estuary SPA, should the population be increased to a level where it was considered to qualify as a new feature of the SPA, these LBBGs could themselves form part of the network in due course.			
WR-097-75	Technical feasibility: We welcome the Applicant's undertaking that scrub clearance would be informed through discussion with the LBBGCSG should this compensation measure be adopted. We also recognise that habitat variables are important and welcome discussion on how a proportion of the plateau area on Steep Holm could be cleared of scrub and subsequently be subject to further enhancements. We agree that encroachment of scrub appears to be a key factor in the decline in lesser black-backed gull nests on Steep Holm and suggest that scrub clearance and habitat management is likely to be an	No further comment.		The Applicant welcomes confirmation from NE that this measure is considered technically feasible. It is correct that discussions are underway with a suitable contractor who should have the flexibility to work on the island when suitable conditions occur. Further updates have been provided by the Applicant at Deadline 1 in Update on Without Prejudice Compensation Measures (REP1-093).

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	effective measure, thereby potentially addressing impacts on lesser black-backed gull by improving productivity. We understand that the proposed works should be able to achieve SSSI consent, as potential impacts to the vascular plant assemblage SSSI feature can be avoided. Sufficient monitoring of both the plateau and cliffs during the initial years of scrub clearance should provide sufficient evidence that the measure is successful. It is worth noting that under current arrangements, Steep Holm is served by a RIB from both Weston-super-Mare and Cardiff. Trips are highly dependent on prevailing weather conditions (wind/swell) and the state of the tide, with beach availability always restricting landings on the island, and a primary consideration when travelling from Weston-super-Mare. We appreciate that coordinating scrub clearance works under these conditions may be challenging but suggest that, should this measure be adopted, opportunities for scrub clearance are maximised at an appropriate time of year (September to February), subject to landowner agreement, whenever they become available within this timeframe to mitigate the risk that no works are possible due to inaccessibility. We understand that a potential contractor for works has been identified who is able to be flexible regarding the timings of			

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	works. If appointed, it may be necessary for them to be flexible with respect to embarkation point as well.			
WR-097-76	Agreed compensation level: See comments on compensation level for the measure "exclusion of mammalian predators at colonies using fencing" above.	No change		See corresponding response above (ID WR-097-66).
WR-097-77	Scale/extent of measure: Following our advice on the likely inadequacy of the proposed compensation level, the scale at which this measure is required to be delivered is also likely to be an underestimate. Increased foraging distances are likely to occur with increased numbers of birds at the impacted SPA colonies, meaning more birds are likely to encounter OWFs, increasing collision risk. Relocation of adults from other nearby sites with less suitable habitat is not considered in the proposed compensation ratio. Nesting birds from the cliff at Steep Holm could relocate to the plateau, which would need to be accounted for. We recommend that the cliff nesting birds are surveyed (likely using a drone due to practical considerations) to monitor this effect and it's implications for the level of compensation actually being delivered. Up to 40 muntjac deer are estimated to be resident on Steep Holm. Birds' eggs can reportedly constitute a part of a muntjac's diet. We would recommend that	No change		Noted. The Applicant highlights that the proposed management at Steep Holm is likely to deliver substantial overcompensation for the potential loss. It is therefore very unlikely that additional extent of area would be required, although there would be abundant scope to provide further increase as part of future adaptive management, in the unlikely event that this was required. Final estimates of the extent of compensation relative to compensation requirements will be presented in an update to the HRA Without Prejudice Derogation Case (APP-029), which the Applicant intends to submit at Deadline 3.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	hatching success is monitored at nest sites with no muntjac access (e.g. on the roofs of suitable buildings) and compared with hatching success from ground nests on the plateau, to assess the possibility that muntjac are predating or destroying some eggs. We accept however that such sites may not exist and that fenced enclosures on Steep Holm would be impractical (if not impossible) due to the thin soil and limestone bedrock. Due to these factors, we advise that a greater extent for this measure than currently proposed should be considered.			
WR-097-78	Timing: Deliverable before impact: LBBG reach breeding age maturity at 4 years old, and offspring fledging from the compensation site will not have recruited into the adult breeding population (and thereby started providing compensation for the project's in-combination impacts) by the time the development is operational. However, we welcome the consideration of potential mortality debt under these circumstances and acknowledge that two separate compensation measures have been proposed. We consider that both are feasible options that, if successful, could deliver in excess of the currently proposed compensation level, should that be agreed, thereby addressing any accrued mortality debt early in the operational lifespan of the project. However, if the currently proposed compensation	No further comment.		Noted. The Applicant welcomes confirmation from NE that this measure could be delivered prior to any impact.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	ratio were to be found inadequate, there would be a greater mortality debt. We consider this debt could still be compensated for if the measure was implemented at appropriate scale.			
WR-097-79	Location of measure: We welcome that landowner agreement has already been secured with the Keneth Allsop Memorial Trust for this measure and are aware that further positive discussions are taking place.	No further comment.		Noted and welcomed. The Applicant confirms that positive engagement with the Kenneth Allsop Memorial Trust has continued, with further detail provided at Deadline 1 in Update on Without Prejudice Compensation Measures (REP1-093).
WR-097-80	Long term implementation: We welcome the commitment to long-term monitoring. We also recommend that the BTO ringing and colour-ringing scheme and re-sightings surveys should continue beyond the first 3 years of implementation of the compensation plan, and until such time as quantum is achieved (including the discharging of any mortality debt), to ensure that those juveniles colour-ringed at the site can be followed through to at least 4 years of age when breeding could commence. This would help document that the specific measure had contributed additional adults to the colony directly as a result of the compensation. We are aware that colour ringing has been ongoing for many years at South Walney and already underway on Steep Holm.	No further comment.		Noted. The Applicant welcomes confirmation from NE that the proposed outline monitoring proposals are suitable. The Applicant will continue to work with relevant parties to ensure that final monitoring plans are agreed and secured. It is noted that discussions with the Severnside Ringing Group and drone survey contractors regarding delivery of the required monitoring at Steep Holm are well progressed.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	Initially, hatching and fledging success should be monitored by three visits throughout the breeding season to count eggs, hatched eggs and fledging young. Drones could be used for this purpose and novel methods, such as thermal drone surveys, could be explored if it is considered they provide more accurate results. Initial ground-truthing of drone surveys would be required for the plateau, at least initially, to identify a correction factor to accurately calibrate the detection rate of nests/young. These could then be applied to drone surveys of the cliffs, as ground-truthing would be impossible there. We recognise that individual colony performance should be considered holistically in relation to other lesser black-backed gull colonies but welcome the undertaking to explore reasons for failure and consequent adaptive management measures if considered necessary, although we note that supplementary feeding would not be practical on Steep Holm.			
WR-097-81	Success criteria/Ability to prove additionality: See above.	No further comment.		See responses to ID WR-097-73 – WR-097-80.
WR-097-82	Suitable as sole measure for target species: Successful clearance of scrub and subsequent habitat management of an appropriately sized area could theoretically deliver the currently proposed	No further comment.		The Applicant welcomes confirmation from NE that this measure could deliver an appropriate level of compensation. Further information will be presented in

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	scale of compensation for impacts on lesser black-backed gull alone.			an update to the HRA Without Prejudice Derogation Case (APP-029), which the Applicant intends to submit at Deadline 3.
Additional d	letailed comments (Table 2 Relevant Reps B1)			
WR-097-83	It is stated that Steep Holm; "accommodated over 1,500 nesting pairs of lesser black-backed gulls in 1995 when the island was relatively free of scrub" and references the Severn Estuary SPA citation as a source. Neither the referenced citation nor the Seabird Monitoring Programme database support this count for that year. We do accept that the count of lesser black-backed gull on Steep Holm has historically been higher. e.g. 596 AONs/pairs in 2018 (880 AONs/pairs in 1997 was part of a gap-filling exercise), and that scrub encroachment is likely to be a contributory factor in the decline.	Applicant acknowled- ged error, issue resolved provided this is reflected in updated plan		Noted. This error will be corrected in an update to the HRA Without Prejudice Derogation Case (APP-029), which the Applicant intends to submit at Deadline 3. The Applicant notes, however, that NE acknowledges that the population of lesser black-backed gulls on Steep Holm has suffered 'notable decline' (refer to NE comment ID WR-097-74).
WR-097-84	The proposed monitoring measure is proposed for the first three years following implementation only. This would not allow sufficient time to see whether juveniles fledging from the compensation site(s) were being recruited into the breeding population after 4 years (as one might expect from a species exhibiting high philopatry). Colour ringing of gulls has been on-going at South Walney for some years (by RSPB/North West Gull Project) and for 2 years on	No change		The Applicant notes NE's comments. Monitoring proposals will continue to be developed during Examination, taking NE's comments into account. It is important that any monitoring proposals are realistic/achievable, noting the unpredictability of accessing the island. Further detail will be provided in an update to the HRA Without Prejudice

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	Steep Holm already (by Severnside Ringing Group). The number of productivity monitoring visits should be specified as it is not currently stated.			Derogation Case (APP-029), which the Applicant intends to submit at Deadline 3. Following discussions with Severnside Ringing Group, it is proposed that three productivity monitoring visits are undertaken for each breeding season. The Applicant considers that this is realistic, given the restraints of accessing the island, and would be sufficient to provide robust productivity data.
	sues Log Deadline 1 – Fish and Shellfish Ecology NE's Relevant and Written Representations Morecal	mbe⁴ Generati	ion Appendix	C - Fish and Shellfish Ecology
WR-097-85	Natural England are content that the detail provided is sufficient to inform the Maximum Design Scenario (MDS) and Environmental Impact Assessment (EIA) as it relates to Fish and Shellfish Ecology.	No further comment.		The Applicant welcomes this response.
WR-097-86	Natural England are content that the WCS/MDS presented is suitable as it relates to Fish and Shellfish Ecology.	No further comment.		The Applicant welcomes this response.
WR-097-87	It is stated "Adult Atlantic salmon are observed to commence entry into the Leven, Kent, Lune, and Wyre rivers during early spring, whilst sea trout	No further comment.		The Applicant provided a full reference for this statement in The Applicant's Response to Relevant Representations

⁴ Note this was incorrectly labelled as Morgan in NE's Risks and Issues log



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	commence entry in June (through until the autumn), although the upstream migration of sea trout is not considered as extensive". However, no referenced evidence is provided to support this statement.			(ID RR-061-154; PD1-011) and updated Chapter 10 Fish and Shellfish Ecology at Deadline 1 (REP1-028 and REP1-029).
WR-097-88	It is stated "These species are unlikely to be encountered in the windfarm site, as (except in the case of sea lamprey) they remain in close association with estuarine environments during the marine phase of their life cycle." However, no referenced evidence is provided to support this statement.	No further comment.		The Applicant has provided a full reference for this statement in The Applicant's Response to Relevant Representations (ID RR-061-155; PD1-011) and updated Chapter 10 Fish and Shellfish Ecology at Deadline 1 (REP1-028 and REP1-029).
WR-097-89	In [APP-047] it is stated "The current understanding is that European eels spawn in the Sargasso Sea, but there are potentially other, more distant, spawning grounds, and the routes to and from these spawning grounds for European eels remain unclear.". However, no referenced evidence is provided to support this statement. Natural England are not aware of any potential alternative spawning grounds for European eel.	No further comment.		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-156) whilst European eel are thought to spawn in the Sargasso sea (Wright et al., 2022), others have highlighted the potential for spawning to occur beyond the boundaries of the Sargasso Sea (Chang et al., 2020). This point does not affect the assessment however and no changes were made to the chapter. No further action required.
WR-097-90	Natural England defer to CEFAS on data sources, assessment methodology and conclusions in relation to herring and sandeel.	No further comment.		The Applicant notes this response.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
WR-097-91	The dynamics between protected avian predator species (i.e. piscivorous species of Liverpool Bay SPA) and prey (i.e. sandeel, herring) has been discussed in collaboration with Natural England ornithological specialists and impacts to birds due to prey fish losses have been deemed unlikely despite proximity to Liverpool Bay SPA.	No further comment.		The Applicant welcomes this response.
WR-097-92	While underwater noise (UWN) modelling has been conducted to determine noise thresholds for impacts to fish as both moving fleeing and static stationary receptors, it is Natural England's view that fish should only be considered as static receptors when modelling underwater sound thresholds and assessments should be based on the static animal modelling results. Natural England's Offshore Wind Marine Environmental Assessments: Best Practice Advice for Evidence and Data Standards states: "There is currently insufficient evidence to support the inclusion of fleeing behaviour of fish into models. Whilst some degree of movement would be expected, fish may also choose to remain in the affected area (e.g., due to prey availability or mating opportunities) despite the harmful noise exposure (Faulkner et al. 2018). Therefore, for the purposes of environmental assessments, it is currently advised	No further comment.		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-159), whilst underwater noise modelling results for both fleeing and stationary receptors have been presented in the ES (Chapter 10 Fish and Shellfish Ecology (APP-047)), the fleeing results are presented for information only and the assessment is based on stationary receptors. The Applicant notes NE's position that these matters are unlikely to make a difference to the outcome of the decision-making process. No further action required.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	that fish are considered to be stationary receptors within underwater noise models. However, applications may also assess the effects of underwater noise with fleeing behaviours included within the model, if presented in addition to assessments of stationary receptors."			
WR-097-93	Further to the above comment, while it is useful to display Temporary Threshold Shift (TTS) UWN range and impact ranges for fleeing and stationary animals in tabular format, it would be preferable to have underwater noise contour maps for the site displaying these ranges. This would allow Natural England to visually assess proximity to protected sites more easily. We advise these figures also clearly state the piling scenario modelled and includes the UWN modelling locations and protected site boundaries. While Figure 3.8 displays an example plot, this is assuming the animal is a fleeing receptor, not stationary (see comment above for reasoning). Natural England advise that it is difficult to gauge TTS and Sound Exposure Level (SEL) threshold UWN impact ranges for stationary receptors in relation to protected sites without a contour map.	No further comment.		As noted in The Applicant's Response to the Relevant Representations (PD1-011; ID RR-061-160), a figure has been produced (Figure 10.10) and was submitted at Procedural Deadline A (PD1-008) to provide further context. The figure displays contours for key Popper <i>et al.</i> , (2014) Sound Exposure Level from cumulative exposure (SELcum) piling noise impact thresholds on fish. The Applicant notes NE's position that these matters are unlikely to make a difference to the outcome of the decision-making process. No further action required.
WR-097-94	Natural England do not agree with the use of Marine Mammal Mitigation Protocol (MMMP) methods such as soft start and ramp up as a means of mitigation	No further comment.		The Applicant notes this response. As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	for fish species. This mitigation is designed primarily for cetaceans that regularly exhibit consistent fleeing behaviours, i.e., detect noise and move away from the area of influence. The few studies investigating fish fleeing responses do not show consistent, directional fleeing out of the area of influence. Fish responses to underwater noise are highly variable, and rarely directional (i.e., shoaling in place, or in haphazard directions, flinching, fleeing into shelter)			RR-061-161), the Applicant has submitted an Outline UWSMS (Document Reference 9.32) at Deadline 2. The Applicant has also added a new condition 30 (Underwater Sound Management Strategy) in the dML submitted with the updated draft DCO at Procedural Deadline A to secure this (PD1-002 and PD1-003). Additionally, the Outline UWSMS has been added as document to be certified as one referred to in the DCO. Whilst mitigation is not considered to be required for fish and shellfish receptors, the Outline UWSMS also includes additional measures that could mitigate effects for some sound sensitive fish species.
WR-097-95	Natural England acknowledges and agrees with findings of no or negligible impacts to Annex II diadromous fish species.	No further comment.		The Applicant welcomes this response.
WR-097-96	Natural England acknowledges and agrees with findings of no or negligible impacts to MCZ fish features.	No further comment.		The Applicant welcomes this response.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	sues Log Deadline 1 – Marine Mammals			
Taken from	NE's Relevant and Written Representations Morgan	Generation A	ppendix D - M	larine Mammals
WR-097-97	The maximum pile diameter for monopiles and jacket piles differs between the ES Chapter and the underwater noise modelling.	No further comment.		The Applicant has confirmed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-174) that the underwater noise assessment report (Appendix 11.1 Underwater Noise Assessment (APP-065)) presented modelling for larger pile sizes (14m for monopile and 5m for pin piles) as the modelling was undertaken prior to a Project refinement whereby pile diameters were reduced to 12m for monopile and 3m for pin-piles. The modelling is therefore precautionary and encompasses the worst-case scenario.
WR-097-98	The maximum piling duration in the RIAA and ES is based on piling at a higher strike rate, making the duration per pin pile installed 38% shorter. The applicant should use the lower strike rate to determine the realistic maximum piling duration and use this in their assessment.	Potential resolution once Applicants rationale from Rule 9 response is included in		The Applicant welcomes that the information provided in the Rule 9 response may resolve the issue. The Applicant will provide an updated Chapter 11 Marine Mammals, incorporating the rationale presented in The Applicant's Response to the Rule 9 Letter (PD1-010), expected to be at Deadline 4.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
		a named plan.		
WR-097-99	The Applicant has used a maximum charge weight of 353.5kg for UXO, which is contrary to Natural England's Best Practice Advice to use a nominal 750 kg weight. The donor charge for high order clearance is also typically greater than 0.5 kg, and should be added to the total NEQ. When applying for the UXO licence post-consent, ensure that an appropriate maximum UXO charge weight plus donor charge is modelled.	The Applicant refers back to their desk based UXO research that the worst case UXO for clearance is predicted to be 356.6kg.		The Applicant notes this response. No further action required.
WR-097- 100	No reference is made to the presence of harbour seals on the Isle of Man. Given its geographical location, any harbour seals here should be included in the reference population. Clarify the presence of harbour seal on the Isle of Man and include in the assessment if necessary.	The Applicant states that the Manx Wildlife Trust have indicated that there is little or no information on any resident harbour seals on the		The Applicant welcomes this response, with the matter discussed with NE in a meeting. No further action required.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
		Isle of Man to be considered in the Applicant's assessment s. Unlikely to affect conclusion of assessment .		
WR-097- 101	The Applicant should clearly present the numbers added to each species' total through their apportioning approach.	No further comment.		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-178), the methodology that HiDef (aerial survey data provider) uses for deriving species densities with the apportioning approach is presented in Appendix 12.2 Aerial Survey Two Year Report March 2021 to February 2023 (APP-071). The number of animals in the survey are presented in Table 3.2; Appendix 11.2 Marine Mammal Information and Survey Data (APP-066). This includes the count of seals and seal/small cetacean species which have been apportioned.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
				No further action required.
WR-097- 102	Natural England advises that the reference population for grey seal should be the NW England MU alone. Revise assessment so that it is undertaken against the NW MU grey seal population alone, as the reference population.	The Applicant states that the 'combined population' consists of the NW Manageme nt Unit (MU) and the Isle of Man population, and that this approach has been justified to NE on the 12th of September. NE agreed that the differing approaches do not make a substantial		The Applicant welcomes this response, which was discussed with NE at a meeting, and considers there is no further action.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
		change to the outcome of the assessment		
WR-097- 103	The baseline noise levels have not been presented, despite the NPS requirement.	No further comment.		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-180), the Applicant notes the NPS requirements states 'where necessary'. The Applicant considers that baseline noise levels do not contribute to the underwater noise assessment, which relies entirely on absolute noise thresholds as criteria. There are two available baseline noise level datasets in the region, from Burbo Bank Extension in 2016 and Gwynt y Môr in 2022. Supplementary baseline information has been provided in a Marine Mammals Technical Note 1 (EIA) (REP1-083) submitted at Deadline 1, noting there are no changes to the assessment or the Applicant's position.
WR-097- 104	Natural England agree with the project-specific harbour porpoise density used in the project	No further comment.		The Applicant welcomes this response.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	assessment, which is based on the average summer density. We note that the average summer density (1.62 animals/km2) is marginally higher than the average winter density (1.53 animals/km2), meaning that it is the worst-case but also appropriate for assessment of impacts during winter (which is relevant to the Bristol Channel Approaches SAC in particular).			
WR-097- 105	The Applicant refers to habitat preference modelling for the Celtic and Irish Seas by Lepple (2023 unpublished). Natural England is not aware of this report, but it appears relevant to the baseline characterisation and so should be included.	No further comment.		As noted in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-182), the Applicant cited the Master's dissertation (Lepple, 2021) as a recent reference concerning habitat suitability for harbour porpoise, utilising a large spatio-temporal dataset from the Irish Sea. It was cross-referenced by Evans & Waggitt (2023), highlighting high areas of harbour porpoise occurrence within the Irish Sea. It was included in Rev 03 of Appendix 11.2 Marine Mammal Information and Survey Data (REP1-044 and REP1-045) submitted at Deadline 1.
WR-097- 106	It is not clear what the Applicant means when they say that the (best) data from Evans and Waggitt (2023) and/or Waggit et al. (2019) were applied to	No further comment.		As noted in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-183), the Applicant presented in

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	the area of SCANS-IV block CS-E. We request further information on this approach.			ES Chapter 11 Marine Mammals (APP-048) (Section 11.4.6) the limitations of using the Waggitt et al. (2019) data for absolute densities for fine-scale distributions such as the windfarm site. Following discussions in ETGs and in order to provide a wider, yet regional view on species densities, the method included the use of QGIS, in which the Evans and Waggitt (2023) and/or Waggitt et al. (2019) data blocks were overlaid with the area of SCANS block CS-E in which the Project is located. This allowed for comparison of densities from a number of data sources at the same scale across all available data sources and the highest, worst-case density was applied to the assessment. No further action required.
WR-097- 107	The density of harbour seal used in the assessment has significantly reduced (by a factor of 200) between the PEIR and the Application. The densities in both documents have been calculated from the same source (Carter et al., 2022), so it is unclear why they differ so significantly. Revise the assessment so that it uses the harbour seal density	No change		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-184), the Applicant calculated the densities using a method that incorporates the seal count data from Carter <i>et al.</i> (2022) along with the latest counts taken from the annual report from the SCOS.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	presented in the PEIR. Unless sufficient justification can be presented as to why it differs so significantly.			In ES Chapter 11 Marine Mammals (APP-048) the density was recalculated for the refined windfarm site, following a boundary change between PEIR and the ES, with a 4km buffer. During these calculations a misalignment with the original Geographic Information System (GIS) mapping and Carter et al. (2022) data was discovered indicating an error in the cell allocation for the project area at PEIR. This was corrected for the ES densities and the accurate density for the refined windfarm site has been used in the calculations presented and accounts for the variation between the two assessments. It is considered the density used in the ES is correct, with the error associated with the PEIR and thus there is no further action.
WR-097- 108	Natural England advises that dolphin and seal species should be assumed to have the same (medium) sensitivity to disturbance effects and over a similar range as harbour porpoise (~25km range). The sensitivity values should be changed and the assessment revised accordingly.	No change. Applicant to update at Deadline 1.		The Applicant provided updates to disturbance assessments in the ES Chapter 11 Marine Mammals (APP-048) for Project-alone and for cumulative effects in Marine Mammals Technical

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
				Note 1 (EIA) (REP1-083) submitted at Deadline 1.
WR-097- 109	The Applicant has not presented an assessment of the impacts from vibro-piling. Whilst vibro-piling is not the worst-case, it would be beneficial to assess the impacts from it in case this pile installation method is used.	No further comment.		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-186), the Applicant can confirm that the underwater noise for vibro-piling was modelled in Appendix 11.1 Underwater Noise Assessment (APP-065). The permanent threshold shift (PTS) impact ranges were estimated to be the same, while the Temporary Threshold Shift (TTS) impact ranges were lower than those of suction dredging and rock placement (see Table 5.4; Appendix 11.1 Underwater Noise Assessment (APP-065), which both (alone or together) resulted in a negligible magnitude in the assessments. The Applicant therefore considers that an assessment of impacts from vibro-piling is not necessary at this time given the worst-case has been assessed. No further action required.
WR-097- 110	It would have been beneficial to assess barrier effects to seals using the known response distances and/or dose-response relationships with the noise contours. This approach would be preferable to	No further comment.		As detailed in The Applicant's Response to Relevant Representations (RR-061-187), the Applicant considers there is good evidence that behavioural

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	using the TTS distances, as disturbance can occur at greater distances than TTS.			responses diminish with decreasing received noise levels. As a result, doseresponse curves more accurately reflect actual animal responses compared to fixed noise thresholds or known deterrence ranges. For example, the dose-response curve for harbour seals assumes conservatively that all harbour seals would respond to noise levels greater than SELss 180 dB re 1 µPa²s (Whyte et al., 2020). However, it is important to note, that the original dataset in Whyte et al. (2020) indicated a significant decrease in predicted seal density within 25km of the wind farm site or "above each 5dB zone above SELss 145dB re 1µPa²s". As shown in Appendix 11.2: Marine Mammal Information and Survey Data (APP-066), legend 6.2 it is clear there is no overlap with the SELss 145dB re 1µPa²s contour and the coast from piling at the worst-case location (south-west (SW)), therefore verifying the assessment conclusions. No further action required.



ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
WR-097- 111	We note that, based on a TTS distance of 34 km for minke whale, there is potential for barrier effects to extend to the coast during piling.	No further comment.		A clarification of the potential for barrier effects was added to Paragraph 11.455 of Chapter 11 Marine Mammals (REP1-030 and REP1-031) at Deadline 1. No further action required.
WR-097- 112	The Applicant has not presented information to justify why minke whale has a medium sensitivity to collision risk, compared to low sensitivity for other marine mammals. We advise that sensitivity to collision risk should be medium for all species. We consider this appropriate based on the statement in paragraph 11.475. The applicant should change the sensitivity of all marine mammal species to collision risk to medium and update the collison risk assessment.	No change.		As detailed in the Applicant's Response to Relevant Representations (PD1-011; ID RR-061-189), the Applicant acknowledges and agrees that further justification was needed for the sensitivity of minke whales in Section 11.6.3.6 of Chapter 11 Marine Mammals (APP-048). The sensitivity of marine mammals to collision risk has been further clarified in a technical note (Marine Mammals Technical Note (EIA) (REP1-083) submitted at Deadline 1.
WR-097- 113	The values in the collision risk rate (%) do not appear correct. For example, for harbour porpoise: the number of deaths due to physical trauma of unknown cause (n=69) plus the deaths due to physical trauma following probable impact from vessel (n=14), totalling 83, is equivalent to 6.90% of the total necropsies where cause of death was established (n=1203); not the 5.6% presented.	No further comment.		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-190), the Applicant agrees with the discrepancies identified by NE and presented an updated vessel collision risk assessment in Section 5.2 of The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm (PD1-010), submitted at Procedural Deadline A.

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				This will also be incorporated into an updated Chapter 11 Marine Mammals, expected to be submitted at Deadline 4. It is noted that there is no change to the assessment conclusion on significance.
WR-097- 114	For clarity, we advise that a single sensitivity is presented for each receptor to the impact pathway. Listing two sensitivities (e.g. Low to Medium for harbour porpoise) is not conducive for a clear assessment. The assessment should be precautionary and so use the worst-case sensitivity.	No further comment.		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-191), the Applicant notes that the range assessed is justified in Paragraphs 11.496 and 11.497 of ES Chapter 11 Marine Mammals (APP-048). The assessment provides a precautionary assessment, and the significance is provided for both sensitivities in Table 11.60 and 11.76 of ES Chapter 11 Marine Mammals (APP-048). The low or medium sensitives both result in a non significant effect, and the Applicant considers the worst case is presented.
WR-097- 115	The significance of the disturbance impact must be presented for each of the approaches used to determine disturbance distance. Each approach and subsequent assessment of impact significance provides necessary information for Natural England to inform its advice.	No change. Potential resolution once Applicants rationale		The Applicant welcomes comments that information provided in response to the Rule 9 request may resolve this issue. The Applicant presented information of the significances for each assessment method, as well as updated supporting text for the assessment conclusions

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	For example, the magnitude of impact to harbour porpoise using the EDR approach is Medium, which when combined with a Medium sensitivity, leads to a Moderate impact significance which is Significant in EIA terms. Information such as this is currently missing. It is not appropriate to only present the significance of the disturbance impact after population modelling has been undertaken. This also applies to the CEA. We advise that an assessment of cumulative impacts to cetacean species is presented using the approach that generates the worst-case numbers disturbed. The Applicant should not only present the iPCoD modelling results. Present the impact significance for each approach used to determine the disturbance range, using the combination of sensitivity and magnitude (percentage of reference population within the disturbance range). Present the cumulative impact significant for each species using the worst-case numbers disturbed i.e. not only the iPCoD modelling results.	from Rule 9 response is included in a named plan.		within Section 5.1 of The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (PD1-010), submitted at Procedural Deadline A. This will also be incorporated into an updated Chapter 11 Marine Mammals, expected to be submitted at Deadline 4. Further it is noted that an Outline UWSMS has also been provided at Deadline 2 as a mechanism to agree mitigation post-consent in line with the final Project design.
WR-097- 116	We acknowledge the Applicant's statement that the findings of Graham et al. (2017), i.e. the dose-	No further comment.		As detailed in The Applicant's Response to Relevant Representations (PD1-011;

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	response relationship for harbour porpoise, should not be extrapolated to other cetacean species. We then query why it has been applied to dolphin species, but not other cetacean species such as minke whale. We suggest that an alternative approach, such as determining a likely effects range from the literature as presented in Appendix 5.2.11.2 Section 6.1.2, would be more appropriate.			ID RR-061-193), the literature on dolphin disturbance lacks specific data on the ranges at which behavioural changes have been observed. Although dolphins and porpoises do not have the same frequency hearing ranges, there is considerable overlap between dolphins as a high-frequency cetacean and harbour porpoise as a very high-frequency cetacean. This led to the precautionary approach of using a doseresponse curve for dolphins until an agreed disturbance range is established. For minke whale, however, the Applicant chose to rely on known disturbance ranges from seismic sources, as outlined in Section 6.1.3 in Appendix 11.2 Marine Mammal Information and Survey Data (APP-066), rather than applying doseresponse curves. This decision was made because minke whales belong to a different hearing group (low frequency cetaceans), with only partial overlap in frequency ranges with harbour porpoise, making the seismic source data more appropriate and proportionate measure of disturbance effects. No further action required.

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
WR-097- 117	We welcome that the Applicant has undertaken an assessment of the disturbance impact from ADD activation.	No further comment.		The Applicant welcomes this response.
WR-097- 118	We do not agree that the effect ranges of ADDs will be limited to the (minimum) distance the receptor can swim in the time that the ADD is active. To illustrate, Thompson et al (2020) showed that harbour porpoise had a 50% probability of response within 21.7km after 15 minutes of ADD playback. This highlights that the effects range of ADDs does not only correspond to the duration of the activation.	No further comment.		As detailed in The Applicant's Response to Relevant Representations (PD1-011; RR-06-195), a review of new literature of marine mammal deterrent ranges as well as any new devices would be further investigated when finalising the MMMP post-consent. No further action required.
WR-097- 119	In all iPCoD modelling results tables, including those in the CEA, the values in the median impacted as percentage of unimpacted column do not correspond to the unimpacted population mean and impacted population mean. We advise that the applicant present the difference between the two means in each table that displays iPCoD modelling results, and provide information to support the value they consider to be most appropriate.	No change. The Applicant has justified the assessment methodolog y they consider most appropriate, but this is not yet reflected in updated ES		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-196), further metrics (including the mean of the ratio of impacted:unimpacted population sizes), explanation and clarification have been provided within Section 5.3 of The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (PD1-010). This will also be incorporated into an updated Chapter 11 Marine Mammals, expected to be submitted at Deadline 4.

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		chapter and both means are still not presented.		
WR-097- 120	There are small discrepancies between the Tiers. Natural England's suggested Tiers has 6 levels, not 7. We infer that our suggested Tier 5 has been split into two Tiers (Tiers 5 and 6 presented by the Applicant).	No further comment.		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-197), the 7 Tier system listed in Table 2.1 of Appendix 11.4 Marine Mammal Cumulative Effects Assessment (CEA) Project Screening (APP-068) was extracted from the NE and Defra (2022): Best Practice Advice for Evidence and Data Standards (Phase III) listed in Table 11.1.
WR-097- 121	The Applicant has not used the species-specific Celtic and Greater North Seas (CGNS) MU to screen in projects to the CEA for those relevant species (namely common dolphin, Risso's dolphin, white-beaked dolphin, and minke whale), instead using the smaller Celtic and Irish Seas (CIS) MU. By taking this approach, the cumulative effects of projects in the screening area are likely to affect a subset of the CGNS MU populations, rather than the populations as a whole. Therefore, presenting the numbers impacted as a percentage of the whole CGNS MU may downplay the potential significance of this	No further comment.		Acknowledgment of this point has been made to Paragraph 21 of Appendix 11.4 Marine Mammal CEA Project Screening (REP1-048 and REP1-049) submitted at Deadline 1. No further action required.

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	impact. This point should be acknowledged in the assessment.			
WR-097- 122	The CEA Screening approach has screened projects in or out on the basis of them contributing to disturbance from underwater noise. This approach is not suitable for screening out projects that may act cumulatively through other impact pathways e.g. collision risk.	No further comment.		The Applicant notes that the following changes have been made to Appendix 11.4 Marine Mammal CEA Project Screening (REP1-048 and REP1-049) submitted at Deadline 1. Paragraph 60 has been amended to read 'Both UK and European marine renewable energy (D) projects (e.g. wave and tidal) have been considered in the CEA screening in regard to both underwater noise and collision risk', The heading of Section 3.3 has been amended to read "3.3 Underwater noise and increase of collision risk due to shipping and vessel traffic from operational wind farms". These changes have not affected the number of projects being screened in.
WR-097- 123	We do not agree with the Applicant's assumption that all projects with unknown construction timelines will not overlap with the Morecambe construction period. We consider that it would be conservative to assume that construction for consented projects	No further comment.		The Applicant has provided a thorough response in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-200).



ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
	could overlap with the project, if an operational date is known (as presented in Table 4.1 for the projects listed in Paragraph 53) and is similar to the Morecambe project's operational date.			
WR-097- 124	Table 4.1 does not list some of the seal MUs used in the screening area (namely MU 1 Southwest Scotland, and the Isle of Man MU). The Applicant should confirm that there are no projects that could act cumulatively in these MUs.	No further comment.		As detailed in The Applicant's Response to Relevant Representations (PD1-011; RR-0061-201), the Applicant agrees that Table 4.1 of Appendix 11.4 Marine Mammal CEA Project Screening (APP-068) omitted the listing of the Isle of Man and the Southwest Scotland MU. The Applicant can confirm that for the Southwest Scotland MU and the Isle of Man the same methodology was applied to find other plans and projects as outlined in Section 2.5 of Appendix 11.4 Marine Mammal CEA Project Screening (APP-068). For the Isle of Man for example, several plans and projects were screened: Mooir Vannin Offshore Wind Farm (OWF), disposal sites, a new interconnector cable between the Isle of Man and England, as well as an additional, already operational Manx interconnector cable. Additionally, an enquiry regarding Isle of Man coastal works (marine licences) was conducted

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ID	Risk and Issue Log comment	Update Procedural Deadline A	NE Red Amber and Green (RAG) Status at D1	Applicant comment
				through email communication with the Isle of Man Government on 4 August 2023. Similarly, Southwest Scotland projects have been screened, such as disposal sites, coastal developments, or wind farms such as Robin Rigg OWF, North Channel Wind 1 & 2. No updates are required.
WR-097- 125	The Project has identified a residual PTS impact that it has not committed to fully mitigate at this stage. It is not sufficient to say that mitigation for the Project would be put in place post-consent, as this is not secured. Natural England advises that this should be secured as a commitment. The PTS risk of other relevant projects should be assessed cumulatively in the CEA.	No change.		The potential risk of (residual) PTS from other OWF projects has been incorporated in the cumulative disturbance assessment using population modelling (iPCoD) in the ES Chapter 11 Marine Mammals (APP-048). The iPCoD approach is a tool for assessing both PTS and disturbance on marine mammal populations. Further information on the assessment of PTS in the CEA, will be provided in separate Technical Note, expected to be submitted at Deadline 3. Additionally, appropriate mitigation will be secured through the MMMP.
WR-097- 126	There is a discrepancy between the activity types listed here as being screened into the CEA, and that listed in Table 5.1 of the CEA Screening document. Specifically, the ES Chapter has omitted disturbance	No further comment.		The Applicant acknowledges the oversight in consistency between the ES Section 11.7.3.2 of Chapter 11 Marine Mammals (APP-048) and Table 5.1 /

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	from operational windfarms (operational after baseline surveys commenced), but included licenced disposal sites (which is listed as being screened out in the CEA Screening).			Table 5.2 in Appendix 11.4 Marine Mammal CEA Project Screening (APP-068). Paragraph 11.750 of Chapter 11 Marine Mammals (REP1-030 and REP1-031) has been updated and submitted at Deadline 1. No further updates required.
WR-097- 127	The dose-response curve approach has not been used to determine the number of common dolphin impacted at White Cross. This is contrary to what is stated in Paragraph 11.760. The approach used (TTS) is not sufficiently precautionary for a disturbance impact and is not consistent with how the other projects have been assessed.	No further comment.		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-204), Paragraph 11.761 of Chapter 11 Marine Mammals (APP-048) states that "for all other projects, the worst-case disturbance numbers were taken from the relevant PEIRs and ESs", as these were publicly available at the time writing. The Applicant has utilised the best available data from each project to assess the disturbance to animals caused by piling activities. As stated, White Cross has not applied the dose-response curve to any marine mammal receptor. Instead, the TTS range has been used as a proxy,

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				which is sufficiently precautionary given the very high density of common dolphins (5.23 animals/km²) from the site-specific surveys at White Cross (White Cross Offshore Wind Limited, 2024b). This approach ensures a conservative estimate of cumulative disturbance for common dolphin, considering that the Project-alone accounts for only 0.2% of the disturbed reference population, while all other projects combined account for 2.3%.
WR-097- 128	This table presents that, during each piling event at Awel Y Mor OWF, 2,112 harbour porpoise will be affected by PTS but only 83 will be disturbed. We consider this improbable, given disturbance occurs over a much larger range than PTS. The Applicant should justify these values. More generally, it would be beneficial for the Applicant to summarise briefly the method used by each project to determine the number of animals affected by PTS and disturbance, for sense-checking.	No further comment.		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-205), the Applicant acknowledges that the numbers for PTS and disturbance in Table 7.6 of Appendix 11.2 Marine Mammal Information and Survey Data (APP-066) are in the incorrect order. The correction is that 83 harbour porpoise experienced PTS and 2,112 harbour porpoise experienced behavioural disturbance from piling a 5,000kJ

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				monopile (based on a density of 1.0 animals/km²). The numbers were used correctly in the assessment, therefore there is no change to the assessment conclusions. Updates to Table 7.6 were made to Appendix 11.2 Marine Mammal Information and Survey Data (REP1-044 and REP1-045) and submitted at Deadline 1.
WR-097- 129	SNCBs have not provided formal guidance on an EDR for low order UXO clearance. Such EDRs that have been used for this purpose so far have been agreed on a case-by-case basis only.	No further comment.		The Applicant notes this response. No further action required.
WR-097- 130	Natural England welcomes the UXO Assessment undertaken. We acknowledge that the assessment is illustrative at this stage as the UXO clearance Marine Licence will be applied for post-consent. We do not expect that additional information will be available to refine the UXO assessment envelope prior to the application for a Marine Licence. Hence we are content that the UXO assessment does not require further update at this stage.	No further comment.		The Applicant welcomes this response.

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WR-097- 131	The illustrative UXO assessment concludes that UXO clearance activities should not have a significant impact on marine mammal populations so long as appropriate marine mammal mitigation is secured. The Applicant has provided a draft MMMP which contains mitigation options for UXO clearance. Our comments on the MMMP regarding UXO clearance should be addressed.	No further comment.		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-208), the Applicant is committed to developing an assessment and final MMMP for UXO clearance if required during the marine licence application process for UXO clearance (post-consent). The Applicant will clearly state in the final MMMP for UXO clearance all the mitigation measures that would be adhered to during UXO clearance when the number and size of any targets to be cleared has been confirmed in the marine licence application, which would be submitted post-consent.
WR-097- 132	In the piling scenario at a higher strike rate, there is a residual injury impact because the mitigation proposed is insufficient to reduce the impact. The maximum ADD duration provided is 80 minutes, and in order to ensure a harbour porpoise was outside the PTS zone the ADD would have to be on for 92 minutes. The Applicant must present an assessment of the residual impact post-mitigation, and from this additional mitigation should be considered such as noise abatement. Alternatively, remove the higher strike rate from the project envelope.	No change.		The Applicant has provided an Outline UWSMS (as requested by NE in RR-061-215) at Deadline 2 (Document Reference 9.32). This includes the mechanism to refine the Project design, and the consideration of NAS if design refinements are not enough to reduce the impact. The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the dML submitted with the

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				updated draft DCO at Procedural Deadline A to secure this (PD1-002 and PD1-003).
WR-097- 133	The Vessel Traffic Management Plan does not contain any reference to reducing collision risk or disturbance to marine mammals. It is therefore not appropriate to cross-reference that document here as it does not currently provide any marine mammal mitigation.	No further comment.		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-210), the Outline VTMP (APP-153) does not reference mitigation for collision risk <i>per se</i> , but refers to the determination of transit routes for construction and operation vessels once ports are made known, and that vessel crew will be briefed regarding the impacts on marine mammals. Further detail has been added to Section 7 of the Outline VTMP (Document Reference 6.9 Outline Vessel Traffic Management Plan_Rev 02 Clean and 6.9.1 Outline Vessel Traffic Management Plan_Rev 02 Tracked) submitted at Deadline 2.
WR-097- 134	The Applicant's quantified approach to collision risk impact does not accurately represent the actual risk of collision to marine mammals from the project alone or cumulatively, as it artificially inflates the number at risk. The quantified approach has not, to our best knowledge, been peer reviewed. Relying on best practice measures to reduce the risk of collision	No change.		The Applicant notes that justification for the methodology used was provided at Procedural Deadline A in response to Relevant Representations, noting that this was a precautionary approach to support a qualitative assessment. The Applicant has included measures to reduce

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	in order to conclude no residual effect to marine mammal species from collision risk is insufficient as it is not enforceable. Natural England advises that the Applicant commit to measures to reduce vessel collision.			disturbance and collision risk to marine mammals as part of the Outline PEMP (APP-146) and are now included in the VTMP supplied at Deadline 2. While these measures are considered best practice and important to include to reduce impacts where possible, it is not considered that without these measures there would be a significant effect considering the wider population of all marine mammal species.
WR-097- 135	Here the Applicant has stated that "Project related vessels transiting to and from the port[would] endeavour to stay at least 1km from the coast where possible". This distance should be included in the Outline PEMP.	No further comment.		Paragraph 41 of the Outline PEMP has been updated to include the following text: "In the instance of Project related vessels transiting to and from the port, the vessels would use main shipping channels and endeavour to stay at least 1km from the coast, where possible. However, it is noted that this distance could not be committed to within existing shipping channels/entrance into ports". The updated Outline PEMP was submitted at Deadline 1 (REP1-054 and REP1-055). No further action required.



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WR-097- 136	Natural England highlights that Marine Wildlife Licences are typically applied for less than 1 year prior to piling. Due to financial and design commitments that will have happened prior to this licence application, the options for implementing further mitigation will be comparatively limited. Committing to mitigation now will ensure that it can be taken into account in the design and financial decisions. Hence we strongly advise that the Applicant commit to undertaking mitigation measures such as noise abatement now. We also highlight that the Applicant must demonstrate that certain EPS licencing tests are met in order to be granted an EPS licence, and that one of these test is to demonstrate that there are "no satisfactory alternatives," which includes mitigation options.	No further comment.		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-213), the Applicant notes a table of additional planned consultation is presented in Table 1.3 in the Draft MMMP (APP-149) to help ensure appropriate measures based on the final Project design are being implemented and the needs of the EPS licences are being met. The Applicant is planning appropriately for the potential requirement for NAS but maintains the position that the effects may be suitably mitigated through further design refinement and other embedded mitigation. Further the Applicant has provided an Outline UWSMS (Document Reference 9.32) at Deadline 2. This includes the requirement to consider NAS. The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the dML submitted with the updated draft DCO at Procedural

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				Deadline A to secure this (PD1-002 and PD1-003).
WR-097- 137	The Applicant does not appear to have presented the number of animals impacted from all cumulative disturbance pathways (piling at other OWFs; contruction activities (other than piling) at other OWFs; other industries and activities). This combined disturbance impact should be presented. Present the combined cumulative effect of disturbance from underwater noise, across the three pathways that are currently assessed only separately.	No change.		In response to NE's comment, the Applicant has provided a quantified assessment of all cumulative disturbance pathways from other noisy activity for each marine mammal receptor in the Mammals Technical Note (EIA) (REP1-083) provided at Deadline 1. Although the Applicant believes the quantified assessment may not accurately represent disturbed animals due the indicative nature of most activities, the most representative method using iPCoD has not changed the assessment conclusion in ES Chapter 11 Marine Mammals (APP-048).
WR-097- 138	Only piling impacts from other OWFS are considered as a cumulative impact for disturbance. Natural England therefore cannot agree with the conclusion in Table 11.108 and advises that other sources of disturbance to marine mammals should be considered in this assessment. We further advise that the applicant should commit to measures to reduce temporal overlap with other activities to ensure that cumulative disturbance impoacts are sufficently mitigated. A standalone vessel code of conduct should be	No change.		As detailed in the response above (WR-097-137), Table 2.39 in the Mammals Technical Note (EIA) (REP1-083) submitted at Deadline 1 provides an updated version of Table 11.108 of ES Chapter 11 Marine Mammals (APP-048). This table summarises the conclusions regarding the significance of potential cumulative disturbance effects from other



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	secured as a consent condition, for all project phases, and contain appropriate measures for marine mammal mitigation. Natural England requests to be consulted on the code of conduct.			noisy projects and activities, including piling at the Project. While this assessment included activities with currently unknown timelines (such as UXO clearances, geophysical and seismic surveys), some activities, like piling at other OWFs have published expected timelines. Due the indicative nature of most activities, the most representative method is considered to be iPCoD which has not changed the assessment conclusion in ES Chapter 11 Marine Mammals (APP-048). However, in recognition of the potential number of noisy activities that could take place, to avoid or mitigate effects of sounds to marine mammals (and to reduce the contribution from the Project to cumulative effects), the Applicant has provided an Outline UWSMS (Document Reference 9.32). In regard to vessel disturbance, measures have been included in the PEMP and also in the VTMP (updated in the Deadline 2 submission). The Applicant proposes that the Code of Conduct should be agreed with SNCBs for inclusion in the final PEMP which will be reflected in the

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				VTMP, based on the latest available research and information post-consent.
WR-097- 139	The Applicant should provide evidence to support their statement that other offshore projects and industries would follow similar best practice measures (other than OWF).	No further comment.		The Applicant has provided a thorough response to this matter in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-216). No further action required.
WR-097- 140	We consider that cumulative effect 6: assessment of disturbance from operational offshore turbines generators could have been included in the cumulative effect 1: disturbance from underwater noise assessment. Indeed it should be included in the combined assessment of cumulative effect 1.	No further comment.		The Applicant has provided a thorough response to this matter in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-217). No further action required.
WR-097- 141	The scope of the OPEMP with regards to marine mammals appears appropriate. However, please see our comments on other aspects of the assessment and mitigation, which may be relevant to the content of the OPEMP regarding marine mammals. Where changes are made to other documents, they should also be made in the OPEMP.	No further comment.		The Applicant welcomes the comment and will consider, upon resolving other comments, whether any updates to the Outline PEMP are necessary, noting that the finalisation of the PEMP will be undertaken post-consent. It anticipated that an updated Outline PEMP would be submitted at Deadline 4.
WR-097- 142	Natural England considers that there is insufficient evidence provided to agree with the EIA assessment conclusions, on the following matters: - Aspects of the seal baseline	No further comment.		The Applicant has signposted to detailed responses to the majority of these points in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-219).

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	 Some of the sensitivities used The project-alone assessment of disturbance from piling Residual PTS risk Aspects of the assessment of collision risk The assessment of cumulative disturbance Some of these concerns stem from insufficient mitigation of the impact pathway. Points 3 to 6 can be addressed by securing further mitigation at this application stage. See recommended actions for the specific comments underpinning each of these areas of disagreement. 			In relation to points 3-6 generally, the Applicant has provided an Outline UWSMS (Document Reference 9.32) at Deadline 2 which includes the commitment to consider NAS alongside other measures. The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the dML submitted with the updated draft DCO at Procedural Deadline A to secure this (PD1-002 and PD1-003). The Applicant is planning appropriately for the potential requirement for NAS but maintains the position that the effects may be suitably mitigated through further design refinement and other embedded mitigation.
WR-097- 143	Natural England considers that all relevant SACs with marine mammal features in English waters have been screened in. We also agree that the key impact pathways have been identified.	No further comment.		The Applicant welcomes this response.
WR-097- 144	Please note that it is Natural England's remit to provide advice on the assessment in so much as it relates to SACs in English waters. We defer to the	No further comment.		The Applicant notes this response and is in discussion with NRW on Welsh sites

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	relevant SNCBs on the appropriate approach for assessing SACs outside English waters.			following their Written Representation at Deadline 1.
WR-097- 145	For clarity, we agree with the Applicant's assessment that there would be no adverse effect on integrity of the Bristol Channel Approaches SAC from the project alone. We do not necessarily agree with the terminology used by the Applicant when they state that "there would be no LSE on the harbour porpoise CIS MU population", as the CIS MU population is not the designated SAC feature, and this conclusion takes into account mitigation.	No further comment.		The Applicant welcomes the agreement in relation to Bristol Channel Approaches SAC. Updates have been made to the terminology of Paragraph 3400 of the Report to Inform Appropriate (REP1-012 and REP1-013) submitted at Deadline 1. No further action required.
WR-097- 146	The Applicant has used a distance of 4km for their assessment of harbour porpoise disturbance during non-piling construction activities. However, the 4km distance, from Benhemma-Le Gall et al. (2021) is based only on harbour porpoise responses to non-piling construction vessels, rather than other noisy activities (such as cable installation and protection). The Applicant has not presented evidence to demonstrate that 4km is appropriate or precautionary for other noisy activities.	No further comment.		The Applicant has provided a thorough response to this matter in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-223). No further action required.
WR-097- 147	Natural England's comments on the CEA are also relevant to the HRA in-combination assessments. Changes to the CEA should be reflected in the incombination assessment also. Further mitigation to	No change.		The Applicant has provided a technical note in relation to clarification points and updates in respect of the RIAA incombination assessment at Deadline 1

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	reduce impacts to the marine mammal populations would also reduce the risk of an impact to English marine mammal SACs in the region.			(Marine Mammal Technical Note 1 (EIA); REP1-083). The Applicant has also provided an Outline UWSMS (Document Reference 9.32) at Deadline 2 which includes the commitment to consider NAS.
WR-097- 148	The IPMP should identify monitoring that seeks to validate areas of the marine mammal assessment where assumptions have been made with high uncertainty or low confidence. Marine mammal monitoring should be undertaken in addition to the standard monitoring of underwater noise generated from the piling of the first four piles. Further detailed discussion of this is required in the monitoring plans. See Natural England's Best Practice Advice for requirements.	No change.		The Applicant maintains that monitoring should be proportionate to the level of effects, must be focused to a specific area of uncertainty and provide meaningful results at a Project level. The Applicant has further considered the request for monitoring and is considering that winter aerial surveys proposed for Red Throated Diver provide a means to provide information on marine mammal presence and densities, particularly gathering further insight on the high numbers of harbour porpoise seen in the baseline surveys. This will be discussed further with NE and updated in the IPMP if agreed.
WR-097- 149	The Applicant should clarify how it will be secured that the final UXO MMMP will be developed in accordance with the Draft MMMP.	No further comment.		The Applicant has provided a thorough response to this matter in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-226). No further action required.

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WR-097- 150	It is not clear whether the High Order section of the table takes into account the reduction in source level through the use of a bubble curtain. When finalising the UXO MMMP post-consent, clearly state whether noise reduction has been factored into the modelling and so impact ranges. Note, it would be beneficial to present both (unabated and abated noise levels at ranges/PTS and TTS distances), for comparison to underwater noise monitoring results.	No further comment.		The Applicant has provided a thorough response to this matter in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-227). No further action required.
WR-097- 151	The Applicant has not provided the anticipated duration of the ADD activation during UXO clearance. An illustrative example of ADD duration, based on the PTS ranges presented, would be beneficial.	No further comment.		The Applicant has provided a thorough response to this matter in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-228). No further action required.
WR-097- 152	The Applicant has not committed to several mitigation measure options, instead saying that they will be implemented "if required". This increases the uncertainty about what measures will be undertaken during UXO clearance, and so complicates the worst-case scenario (i.e. what the minimum mitigation is that will be implemented). Examples include: - Avoidance or relocation of UXO - Bubble curtain usage	No further comment.		The Applicant has provided a thorough response to this matter in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-229). No further action required.

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	- Passive Acoustic Monitoring			
WR-097- 153	The final piling MMMP should present the injury ranges based on SPL also, as those distances correspond to the necessary size of the mitigation zone. When finalising the piling MMMP post-consent, present the injury ranges based on instantaneous PTS.	No further comment.		The Applicant has provided a thorough response to this matter in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-230). No further action required.
WR-097- 154	The Applicant should clearly state the precise mitigation measures that are being relied upon to conclude no adverse effect from impact pathways covered in the ES. The current mitigation measure options outlined in Paragraph 90 increase the uncertainties around which measures will be used during piling and therefore complicates the worst-case scenario (i.e. what the minimum mitigation is that will be implemented).	No change.		The draft MMMP has been revised at Deadline 2 to clarify the measures that are committed to in the draft MMMP. The Outline UWSMS (Document Reference 9.32) has been submitted at Deadline 2 to inform the mitigation and management measures that will be required for the Project.
WR-097- 155	The break procedure outlined here, for piling breaks between 10 minutes and 2 hours, does not adhere to the JNCC piling mitigation guidelines. Revise the break procedure in the draft MMMP.	No change.		As outlined in ID RR-061-232 of The Applicant's Response to Relevant Representations (PD1-011), the Applicant acknowledges the request, however notes that the finalisation of procedures in the MMMP would be undertaken post-consent alongside developed Project design information and will follow the latest Joint Nature Conservation

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				Committee (JNCC) guidelines at the time as required.
WR-097- 156	We query the reliability of PAM in detecting all species in the project area, particularly minke whales and seals. We advise that the more precautionary approach would be to delay start up of piling until conditions allow for visual monitoring.	No further comment.		The Applicant acknowledges the response. As outlined in ID RR-061-233 of The Applicant's Response to Relevant Representations (PD1-011), the final MMMP will outline the monitoring details and will be discussed through any final consultations and post-consent.
WR-097- 157	The Applicant's outlined approach of activating the ADD for 80 minutes is insufficient to ensure that harbour porpoise will be outside the injury zone (based on PTS from SELcum) during piling. Further mitigation is therefore required to reduce the risk of injury to harbour porpoise. We do not agree that the proposed approach is sufficient for all species. Commit to further mitigation, e.g. the use of noise abatement systems, to ensure that the risk of injury to harbour porpoise is reduced as far as possible.	No further comment.		As outlined in ID RR-061-209 of The Applicant's Response to Relevant Representations (PD1-011), Acoustic Deterrent Device (ADD) durations and the subsequent mitigation requirements will be confirmed post-consent based on the final project design. Other mitigation, including NAS, will be considered alongside design evolution. The Applicant is planning appropriately for the potential requirement for NAS but maintains the position that the effects may be suitably mitigated through further design refinement and other embedded mitigation. The Applicant has provided an Outline UWSMS (Document Reference 9.32) at

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				Deadline 2 which includes the commitment to consider NAS. The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the dML submitted with the updated draft DCO at Procedural Deadline A to secure this (PD1-002 and PD1-003).
WR-097- 158	It is not appropriate for the MMMP to contain measures aimed at reducing the cumulative noise effects across multiple projects. A more appropriate place for these measures would be an underwater sound management strategy. See other comments on underwater sound management strategy.	No further comment.		The Applicant has provided an Outline UWSMS (Document Reference 9.32) at Deadline 2 which includes the commitment to consider NAS. The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the dML submitted with the updated draft DCO at Procedural Deadline A to secure this (PD1-002 and PD1-003).

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Taken from	sues Log Deadline 1 – Marine Geology, Physical Pro NE's Relevant and Written Representations Morecal and Water Quality			
WR-097- 159	We advise that further detail is required in the project description to inform the Maximum Design Scenario (MDS) and Environmental Impact Assessment (EIA).	No further comment.		Further information was provided in The Applicant's Response to the Rule 9 Letter (PD1-010) and has now been incorporated into Chapter 7 Marine Geology, Oceanography and Physical Processes (Chapter 7 Marine Geology, Oceanography and Physical Processes_Rev 03 Clean, Chapter 7 Marine Geology, Oceanography and Physical Processes_Rev 03 Tracked), Chapter 8 Marine Sediment and Water Quality (Chapter 8 Marine Sediment and Water Quality _Rev 03 Clean, Chapter 8 Marine Sediment and Water Quality _Rev 03 Tracked) and Chapter 9 Benthic Ecology (Chapter 9 Benthic Ecology (Chapter 9 Benthic Ecology_Rev 02 Clean, Chapter 9 Benthic Ecology_Rev 02 Tracked), submitted alongside this document at Deadline 2. No further action required.
WR-097- 160	Cable and pipeline crossings. More specific information is required on the maximum volume figures used for cable/pipeline crossings: it should be clear whether this volume refers to the amount of	In progress. Locations and figures still to be		The Applicant provided a clarification of the cable protection material volume in ID RR-061-244 of The Applicant's Response to Relevant Representations (PD1-011).

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	cable protection material to be placed, or a broader overall volume for the crossings. Information on the location of these crossings should also be provided, in accordance with Natural England's best practice guidance for cabling.	secured in named plans and DCO		Table 5.13 of Chapter 5 Project Description was updated to clarify that the volumes presented related to cable/pipeline protection (REP1-022 and REP1-023) and submitted at Deadline 1. The maximum volume of cable protection (including cable protection, entries to OSPs and WTGs and cable crossings) is secured in Schedule 2, Requirement 2 (Design parameters) of the draft DCO (PD1-002 and PD1-003). With regard to specific locations of cable/pipeline crossings, it is still the case that the Project does not yet have a defined layout and therefore crossing locations can't be confirmed at this stage. The locations will be defined post-consent, noting all crossings would be within the windfarm site which is outside of any MPA.

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⁵ Note this was incorrectly labelled as Morgan in NE's Risks and Issues log



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WR-097- 161	Natural England agrees that the baseline description of physical processes through the desktop review of existing literature and existing data sources, project specific surveys and numerical modelling baseline scenarios are sufficient to appropriately characterise the study area.	No further comment.		The Applicant welcomes this response.
WR-097- 162	Natural England is content that monitoring of effects on physical processes will be captured during pre and post construction multibeam echo sounder (MBES) and side scan sonar (SSS) surveys to document bedform topography as per [APP-148]. These surveys should be secured in the IPMP.	No further comment.		The Applicant welcomes this response. Monitoring of effects on physical processes is captured in Table 2.1 of the IPMP (APP-148). Pre-construction surveys, such as Multibeam Echo Sounder (MBES) and SSS, are commitment to within ID C020 of the Commitments Register (REP1-094).
WR-097- 163	Natural England agrees with the numerical modelling approach and scenarios conducted in relation to hydrodynamics, waves and sediment transport to inform the potential changes in the Morecambe Generation physical processes study area arising from the construction, operation and decommissioning.	No further comment.		The Applicant welcomes this response.
WR-097- 164	Seabed preparation activites (UXO and boulder clearance) have not been included in the assessment of impacts to physical processes or water quality. Natural England advises that physical process, marine sediment and water quality impacts due to UXO clearance and boulder clearance should	In progress. Rule 9 response presents updated worst case		The Applicant welcomes comments from NE that information provided in the response to Rule 9 may resolve the issue. The consideration of UXO clearance, presented in The Applicant's Response to the Rule 9 Letter (PD1-010) has now



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	be considered and assessed within an updated ES. Without consideration of these activites, there is insufficient information to assess impacts to these receptors.	scenario that clarifies and includes these pressures and receptors, but this is not yet included in an updated assessment.		been incorporated into Chapter 7 Marine Geology, Oceanography and Physical Processes (Chapter 7 Marine Geology, Oceanography and Physical Processes_Rev 03 Clean, Chapter 7 Marine Geology, Oceanography and Physical Processes_Rev 03 Tracked), Chapter 8 Marine Sediment and Water Quality (Chapter 8 Marine Sediment and Water Quality _Rev 03 Clean, Chapter 8 Marine Sediment and Water Quality _Rev 03 Tracked) and Chapter 9 Benthic Ecology (Chapter 9 Benthic Ecology (Chapter 9 Benthic Ecology_Rev 02 Clean, Chapter 9 Benthic Ecology_Rev 02 Tracked), submitted at Deadline 2. As per the response (ID RR-061-248) in The Applicant's Response to Relevant Representations (PD1-011), it is considered that boulder clearance is encompassed within the seabed disturbance assessments already and so no updates were made in this regard.
WR-097- 165	Whilst a commitment is made to implementing mitigation measures, these are not yet secured within the DCO/dML and so it cannot be confirmed how effected they will be.	No change. The Schedule of Mitigation indicates		A Commitments Register has been submitted at Deadline 1 (REP1-094) which alongside the Schedule of Mitigation (APP-144) indicates where each mitigation measure is secured in the

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		the means by which measures would be secured in the DCO/dML, but does not secure commitment to any given level of mitigation. See also comment A8		DCO/dML and the Application documents. Details around the level of mitigations are included within DCO documentation, such as the Outline PEMP, IPMP and VTMP. It is noted that commitments made to considering different installation techniques will be included within the Offshore Construction Method Statement which will be developed through consultation with SNCBs and others) and is secured in Condition 9(1)(d) of Schedule 6 of the draft DCO (PD1-002 and PD1-003). However, the worst case installation techniques are assessed within the ES and no significant effects are identified. See ID WR-097-27 for a response to NE's 'A8' point.
WR-097- 166	Natural England notes that the Applicant is proposing to leave scour and cable protection in-situ. We advise that regardless of legislation or being outside of designated sites, the Applicant should aim to remove infrastructure. Decommissioning should aim to remove infrastructure to avoid irreversible (permanent) habitat loss, thus returning the seabed	No change. The Applicant committed to providing the outline decommisio		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-250), consideration will be given to scour and cable protection that would be more readily removable at the time of decommissioning. However, commitments on removal of infrastructure

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	habitat to its pre-developed baseline status as required by OSPAR. Natural England advises that the Applicant considers using scour and cable protection which is more readily removable at the time of decommissioning. We would welcome and encourage this to be secured as a commitment. Ideally this would also be included in an Outline Decommissioning Plan submitted to support the consenting phase. We highlight that it is a requirement to prepare a decommissioning programme under Section 105 of the Energy Act 2004.	ning plan during consenting.		cannot be made at this stage and the details of decommissioning would be agreed as part of a Decommissioning Programme. Requirement 8 of the draft DCO (Revision 2) (PD1-002 and PD1-003) requires a written decommissioning programme to be submitted to the Secretary of State for approval before offshore works may commence. This is also now committed to in C028 of the Commitments Register (REP1-094). The Applicant does not consider that an outline version of this is required to be submitted pre-consent. During the post-consent stage when more accurate details of the Project design are known, a decommissioning programme can be prepared based on those details. The Applicant would also note that Guidance for industry ⁶ issued by the Department for Business, Energy and Industrial Strategy

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⁶ https://assets.publishing.service.gov.uk/media/5f5b2724e90e0718e212a22d/decommisioning-offshore-renewable-energy-installations-energy-act-2004-guidance-industry 1 .pdf



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				in March 2019, entitled "Decommissioning of Offshore Renewable Energy Installations under the Energy Act 2004" makes it clear that a decommissioning plan does not require to be approved prior to commencement (and, accordingly, that no outline decommissioning plan is required).
	ues Log Deadline 1 – Subtidal Benthic Ecology NE's Relevant and Written Representations Morecar	mbe ⁷ Generati	on Appendix	F - Subtidal Benthic Ecology
WR-097- 167	We advise that further detail is required in the project description to inform the Maximum Design Scenario (MDS) and Environmental Impact Assessment (EIA). Please see detailed comments in relevant headings of this table.	No further comment.		The Applicant notes this response, please see response to ID WR-097-159 above.
WR-097- 168	Cable/pipeline crossings – Natural England notes that information pertaining to cable protection volumes for cable/pipeline crossings is unclear. In [MOR001-FLO-CON-ENV-RPT-1050] paragraph 5.73 notes that "Cable protection would be required at the crossings (and is additional to the cable	Commentar y for this issue is now amalgamat ed with RI_E8 in		The Applicant notes this response, please see response to ID WR-097-160 above.

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⁷ Note this was incorrectly labelled as Morgan in NE's Risks and Issues log



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	protection requirements set out in Table 5.12)". Table 5.13 sets out the cable/pipeline crossings design envelope and includes maximum cable/pipeline crossing volume per crossing (m3), and maximum cable/pipeline crossing volume for all crossings (m3). However, it is not explicit that these volumes relate to cable protection. Additionally, there is no information on location of crossings. It would be helpful if these could be provided and updated in the final ES.	Tab E as this is the same issue. Further updates will be addressed there.		
WR-097- 169	Natural England agrees that the data included in the baseline characterisation for benthic ecology is sufficient to characterise the study area. Therefore, unless there is a change in the project design parameters, we will provide no further comment on the data during examination.	No further comment.		The Applicant welcomes this response.
WR-097- 170	Natural England agrees with the approach and scenarios conducted to inform the potential changes in the Morgan Generation benthic ecology study area arising from the construction, operation and decommissioning. Therefore, we advise that unless there are significant changes to project design parameters, we will provide no further comment on data during examination.	No further comment.		The Applicant welcomes this response.

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WR-097- 171	Natural England notes that Unexploded Ordnance (UXO) clearance has not been considered for impacts in [APP-046] on the basis that UXO clearance activities for the Project would be considered as part of a separate licence application. UXO clearance can lead to pressures such as abrasion/disturbance of the substrate on the surface of the seabed, changes in suspended solids, smothering etc. In addition, there appears to be no consideration given to boulder clearance activities. And it is unclear whether boulder clearance will be required. However, to have confidence in assessments of benthic ecology impacts it is important to understand these requirements and provide assessments for activities if they are to take place. We advise that the Application should provide sufficient information to assess the potential impacts from seabed preparation.	Commentar y for this issue is now amalgamat ed with RI_E11 in Tab E as this is the same issue. Further updates will be addressed there.		The Applicant notes this response, please see response to ID WR-097-164 above.
WR-097- 172	Natural England advises that it is key that all mitigation measures are secured in any consent issued. Whilst we understand there is a commitment to implementing them, it cannot be fully understood	Commentar y for this issue is now amalgamat ed with		The Applicant notes this response, please see response to ID WR-097-165 above.

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	at this stage the level of mitigation some measures may be able to provide.	RI_E13 in Tab E as this is the same issue. Further updates will be addressed there.		
WR-097- 173	F12a: Long term degradation of plastic based geotextile bags has the potential to release plastics into the environment. Consideration should be given to use of novel technologies such as rock bags, and to removing plastics from the site after use.	F12a: In progress. Use of non-plastic technologie s will be given consideratio n by the Applicant. This should be reflected by a commitment in the Schedule of Mitigation to measures to reduce		As detailed in The Applicant's Response to Relevant Representations (PD1-011; ID RR-061-250), the Applicant acknowledges the consideration of the risks associated with the introduction of plastic infrastructure. The selection of scour protection methods, where required, will be evaluated and further considered post-consent in the Offshore Construction Method Statement, focusing on both engineering and suitability and environmental recoverability. The Offshore Construction Method Statement will be developed through consultation with the MMO and is secured in Condition 9(1)(d) of Schedule 6 of the draft DCO (PD1-002 and PD1-003). It is possible that external cable protection systems may be available on the market

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		impacts to the wider environmen t including but not restricted to alternatives to plastic use.		that are manufactured from non-plastic material and would be recoverable where necessary after the lifetime of the Project. Selection of the appropriate system for use at the Project will be completed at the pre-construction stage once the requirements are better understood.
WR-097- 174	F12b: Natural England notes that the Applicant is proposing to leave scour and cable protection in-situ. We advise that regardless of legislation or being outside of designated sites, the Applicant should aim to remove infrastructure. Decommissioning should aim to remove infrastructure to avoid irreversible (permanent) habitat loss, thus returning the seabed habitat to its pre-developed baseline status as required by OSPAR.	F12b: Scour and cable protection commentar y is now amalgamat ed with RI_14 in Tab E as this is the same issue. Further updates will be addressed there. This row will only be used for further		The Applicant notes this response, please see response to ID WR-097-166 above.

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		updates and comments on F12a		



3 References

Natural England (2024). Dogger Bank South (East and West) Offshore Wind Farm – Relevant Representations of Natural England.