Partners in UK offshore wind

MONA OFFSHORE WIND PROJECT

Appendix to Response to WRs: JNCC

Deadline: 2

Application Reference: EN010137

Document Reference: S_D2_3.3

Document Number: MOCNS-J3303-RPS-10291

27 August 2024

F01

Image of an offshore wind farm

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Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
F01	Submission at D2	RPS	Mona Offshore Wind Ltd	Mona Offshore Wind Ltd	27 Aug 2024

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Glossary

Term	Meaning
Applicant	Mona Offshore Wind Limited.
Appropriate Assessment	A step-wise procedure undertaken in accordance with Article 6(3) of the Habitats Directive, to determine the implications of a plan or project on a European site in view of the site's conservation objectives, where the plan or project is not directly connected with or necessary to the management of a European site but likely to have a significant effect thereon, either individually or in-combination with other plans or projects.
Bodelwyddan National Grid Substation	This is the Point of Interconnection (POI) selected by the National Grid for the Mona Offshore Wind Project.
Competent Authority	Regulation 6(1) defines competent authorities as "any Minister, government department, public or statutory undertaker, public body of any description or person holding a public office".
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Project (NSIP).
Environmental Statement	The document presenting the results of the Environmental Impact Assessment (EIA) process for the Mona Offshore Wind Project.
Evidence Plan Process	The Evidence Plan process is a mechanism to agree upfront what information the Applicant needs to supply to the Planning Inspectorate as part of the Development Consent Order (DCO) applications for the Mona Offshore Wind Project.
Expert Working Group (EWG)	Expert working groups set up with relevant stakeholders as part of the Evidence Plan process.
Inter-array cables	Cables which connect the wind turbines to each other and to the offshore substation platforms. Inter-array cables will carry the electrical current produced by the wind turbines to the offshore substation platforms.
Interconnector cables	Cables that may be required to interconnect the Offshore Substation Platforms in order to provide redundancy in the case of cable failure elsewhere.
Intertidal access areas	The area from Mean High Water Springs (MHWS) to Mean Low Water Springs (MLWS) which will be used for access to the beach and construction related activities.
Intertidal area	The area between MHWS and MLWS.
Landfall	The area in which the offshore export cables make contact with land and the transitional area where the offshore cabling connects to the onshore cabling.
Local Authority	A body empowered by law to exercise various statutory functions for a particular area of the United Kingdom. This includes County Councils, District Councils and County Borough Councils.
Local Highway Authority	A body responsible for the public highways in a particular area of England and Wales, as defined in the Highways Act 1980.
Marine licence	The Marine and Coastal Access Act 2009 requires a marine licence to be obtained for licensable marine activities. Section 149A of the Planning Act 2008 allows an applicant for a DCO to apply for a 'deemed' marine licence as part of the DCO process. In addition,

Term	Meaning
	licensable activities within 12nm of the Welsh coast require a separate marine licence from Natural Resource Wales (NRW).
Maximum Design Scenario (MDS)	The scenario within the design envelope with the potential to result in the greatest impact on a particular topic receptor, and therefore the one that should be assessed for that topic receptor.
Mona 400kV Grid Connection Cable Corridor	The corridor from the Mona onshore substation to the National Grid substation at Bodelwyddan.
Mona Array Area	The area within which the wind turbines, foundations, inter-array cables, interconnector cables, offshore export cables and offshore substation platforms (OSPs) forming part of the Mona Offshore Wind Project will be located.
Mona Array Scoping Boundary	The Preferred Bidding Area that the Applicant was awarded by The Crown Estate as part of Offshore Wind Leasing Round 4.
Mona Offshore Cable Corridor	The corridor located between the Mona Array Area and the landfall up to MHWS, in which the offshore export cables will be located.
Mona Offshore Cable Corridor and Access Areas	The corridor located between the Mona Array Area and the landfall up to MHWS, in which the offshore export cables will be located and in which the intertidal access areas are located.
Mona Offshore Transmission Infrastructure Scoping Search Area	The area that was presented in the Mona Scoping Report as the area encompassing and located between the Mona Potential Array Area and the landfall up to MHWS, in which the offshore export cables will be located.
Mona Offshore Wind Project	The Mona Offshore Wind Project is comprised of both the generation assets, offshore and onshore transmission assets, and associated activities.
Mona Offshore Wind Project Boundary	The area containing all aspects of the Mona Offshore Wind Project, both offshore and onshore.
Mona Offshore Wind Project PEIR	The Mona Offshore Wind Project Preliminary Environmental Information Report (PEIR) that was submitted to The Planning Inspectorate (on behalf of the Secretary of State) and NRW for the Mona Offshore Wind Project.
Mona Offshore Wind Project Scoping Report	The Mona Scoping Report that was submitted to The Planning Inspectorate (on behalf of the Secretary of State) and NRW for the Mona Offshore Wind Project.
Mona Onshore Cable Corridor	The corridor between MHWS at the landfall and the Mona onshore substation, in which the onshore export cables will be located.
Mona Onshore Development Area	The area in which the landfall, onshore cable corridor, onshore substation, mitigation areas, temporary construction facilities (such as access roads and construction compounds), and the connection to National Grid substation will be located
Mona Onshore Transmission Infrastructure Scoping Search Area	The area that was presented in the Mona Scoping Report as the area located between MHWS at the landfall and the onshore National Grid substation, in which the onshore export cables, onshore substation and other associated onshore transmission infrastructure will be located.
Mona PEIR Offshore Cable Corridor	The corridor presented at PEIR that was consulted on during statutory consultation and has subsequently been refined for the application for Development Consent. It is located between the Mona Array Area and the landfall up to MHWS, in which the offshore export cables and the offshore booster substation will be located.

Term	Meaning
Mona PEIR Offshore Wind Project Boundary	The area presented at PEIR containing all aspects of the Mona Offshore Wind Project, both offshore and onshore. This area was the boundary consulted on during statutory consultation and subsequently refined for the application for Development Consent.
Mona Potential Array Area	The area that was presented in the Mona Scoping Report and in the PEIR as the area within which the wind turbines, foundations, meteorological mast, inter-array cables, interconnector cables, offshore export cables and OSPs forming part of the Mona Offshore Wind Project were likely to be located. This area was the boundary consulted on during statutory consultation and subsequently refined for the application for Development Consent.
Mona Proposed Onshore Development Area	The area presented at PEIR in which the landfall, onshore cable corridor, onshore substation, mitigation areas, temporary construction facilities (such as access roads and construction compounds), and the connection to National Grid infrastructure will be located. This area was the boundary consulted on during statutory consultation and subsequently refined for the application for Development Consent.
Mona Scoping Report	The Mona Scoping Report that was submitted to The Planning Inspectorate (on behalf of the Secretary of State) and NRW for the Mona Offshore Wind Project.
National Policy Statement (NPS)	The current national policy statements published by the Department for Energy Security & Net Zero in 2024.
Non-statutory consultee	Organisations that an applicant may choose to consult in relation to a project who are not designated in law but are likely to have an interest in the project.
Offshore Substation Platform (OSP)	The offshore substation platforms located within the Mona Array Area will transform the electricity generated by the wind turbines to a higher voltage allowing the power to be efficiently transmitted to shore.
Offshore Wind Leasing Round 4	The Crown Estate auction process which allocated developers preferred bidder status on areas of the seabed within Welsh and English waters and ends when the Agreements for Lease (AfLs) are signed.
Pre-construction site investigation surveys	Pre-construction geophysical and/or geotechnical surveys undertaken offshore and, or onshore to inform, amongst other things, the final design of the Mona Offshore Wind Project.
Point of Interconnection	The point of connection at which a project is connected to the grid. For the Mona Offshore Wind Project, this is the Bodelwyddan National Grid Substation.
Relevant Local Planning Authority	The Relevant Local Planning Authority is the Local Authority in respect of an area within which a project is situated, as set out in Section 173 of the Planning Act 2008. Relevant Local Planning Authorities may have responsibility for discharging requirements and some functions pursuant to the DCO, once made.
the Secretary of State for Business, Energy and Industrial Strategy	The decision maker with regards to the application for development consent for the Mona Offshore Wind Project.
Statutory consultee	Organisations that are required to be consulted by an applicant pursuant to the Planning Act 2008 in relation to an application for development consent. Not all consultees will be statutory consultees (see non-statutory consultee definition).

Term	Meaning
Wind turbines	The wind turbine generators, including the tower, nacelle and rotor.
The Planning Inspectorate	The agency responsible for operating the planning process for NSIPs.

Acronyms

Acronym	Description
AfL	Agreement for Lease
BEIS	Department for Business, Energy and Industrial Strategy
BNG	Biodiversity net gain
DCO	Development Consent Order
EIA	Environmental Impact Assessment
EnBW	Energie Baden-Württemberg AG
EWG	Expert Working Group
HVAC	High Voltage Alternating Current
IEF	Important Ecological Feature
IEMA	Institute for Environmental Management and Assessment
ISAA	Information to support the Appropriate Assessment
MDS	Maximum Design Scenario
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
NBB	Net Benefits for Biodiversity
NRW	Natural Resources Wales
NSIP	Nationally Significant Infrastructure Project
NTS	Non-Technical Summary
OSP	Offshore Substation Platform
PDE	Project Design Envelope
PEI	Preliminary Environmental Information
PEIR	Preliminary Environmental Information Report
POI	Point of Interconnection
SAC	Special Area of Conservation
SoCC	Statement of Community Consultation
SPA	Special Protection Area
TCE	The Crown Estate
WTW	Wildlife Trust Wales
TWT	The Wildlife Trusts

Units

Unit	Description
GW	Gigawatt
km	Kilometres
km^2	Kilometres squared
kV	Kilovolt
MW	Megawatt
nm	Nautical miles

1 Response to JNCC's Written Representation

1.1 Introduction

1.1.1.1 Details of the Applicant's response to the Written Representations (WRs) of the Joint Nature Conservation Committee (JNCC) are set out in the document below.

1.1.1.2 The Applicant has numbered the WRs in line with the Planning Inspectorate's document library, with subsequent paragraph number e.g. REP1-050.1, REP1-051.1 etc.

2 RESPONSES TO JNCC'S WRITTEN REPRESENTATIONS

Table 2.1: REP1-066 - JNCC

Reference	Written Submission Comment	Applicant's response
REP1-066.1	Marine ornithology comments Overall comments 1. We disagree with several approaches the Applicant has taken to the assessment of offshore ornithology within the Environmental Statement and the HRA. In addition, there are multiple errors within the tables and text of the application documentation and errors when using values in subsequent stages of the assessment, and many aspects of the assessment have been difficult to follow in terms of what has been done or where parameters used have come from. Therefore, JNCC currently does not have confidence in the results, nor are we able to agree with the overall conclusions, either within the EIA or the HRA, particularly with regards to Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro Special Protected Area (SPA).	The Applicant notes the JNCC's comment and has responded in the table below in relation to the specific points raised. The Applicant also refers JNCC to its Response to the Examining Authority's Rule 17 Letter (S_D2_2), which sets out the overall approach proposed by the Applicant to addressing inconsistencies in the application material, requests for clarification and the submission of additional information in accordance with the advice provided by Natural Resources Wales (NRW) and the JNCC within their Relevant Representations (RR-011 and RR-033, respectively) and Written Representations (REP1-056 and REP1-066/REP1-067, respectively).
REP1-066.2	2. Further, aspects of JNCC advice appear to have been misinterpreted, for instance foraging values and agreements and disagreements on breeding Biologically Defined Minimum Population Scales (BDMPS) reference populations. Some aspects of JNCC advice also appear to have been taken on board in some circumstances but not in others, despite agreement during pre-application meetings and correspondence. For instance, specific displacement rates being used in the HRA and EIA. We highlight these disagreements, errors, and unclear aspects in detail below. We have identified errors to the best of our ability with the time available, but this may not be an exhaustive list of all errors, and we recommend that a full and thorough check of all tables and in-text values is conducted. We note that it is stated in several places in the Applicant's Response to Relevant Representations (PDO-008) that various elements of the application have been checked and are either correct or will be included in the Errata document to be submitted at Deadline 1. We look forward to receiving and reviewing the Errata document.	The Applicant acknowledges the JNCC's comments and has responded to specific points below.

Reference	Written Submission Comment	Applicant's response
REP1-066.3	3. Please note that JNCC can only comment on sites for which we have jurisdiction (UK marine sites wholly or partly in waters beyond 12nm). We note that NRW and Natural England (NE) have been involved in pre-application discussions and defer to those agencies on their respective sites. We also note that a number of SPAs in Irish and Scottish waters are screened in at Likely Significant Effect (LSE), and recommend consultation with the relevant nature conservation advisers. There is a risk of not receiving advice on specific SPAs within other nations, or on the UK Marine Protected Area (MPA) network if the relevant SNCBs are not consulted.	The Applicant acknowledges the JNCC's comment.
REP1-066.4	Presenting SNCB recommended approaches to assessments in Application documentation 4. We recommend that the applicant presents both their preferred approach and JNCC's advised approach throughout the EIA/HRA. To that end JNCC notes the instruction to the Outer Dowsing Offshore Wind Project by the Examining Authority in that Examination in their Rule 17 letter dated 3rd July 2024 (Macarthur, 2024), requesting the same. a. "The ExA appreciates that the Applicant may not entirely agree with the preferred methodological approaches on some matters that have been referenced in the RRs from NE [RR-045], the Marine Management Organisation [RR-042] the RSPB [RR-056] and the Environment Agency [RR-018]. Nevertheless, where differences of opinion have been detailed in the aforementioned RRs the ExA considers it to be very important that it is presented with assessment outputs based on the methodological approach adopted by the Applicant as well as the approach respectively advocated by these organisations, and which make use of the most up to date data available to the Applicant."	The Applicant acknowledges the JNCC's comment and notes that the Examining Authority issued a Rule 17 letter to the Applicant, Natural Resources Wales and the Joint Nature Conservation Committee on 15 August 2024 regarding the examination of the Mona Offshore Wind Project development consent order application. This included, among other things, a request for the Applicant to "*provide additional submission consisting of an assessment of effects on ornithological features (for both the EIA and HRA) using the methods and parameters highlighted by NRW (Advisory) and JNCC during pre-application consultation, and in their relevant representation [RR-011; RR-033] and written representations [REP1-056; REP1-066 and REP1-067]*". Please see the Applicant's response with respect to this point within the Applicant's Response to the Examining Authority's Rule 17 Letter (S_D2_2) submitted at Deadline 2.
REP1-066.5	5. Therefore, we recommend that the approaches and parameters that we advise should be used are presented and taken through the impact assessment in the EIA and the HRA. This also includes approaches and parameters which we understood to have been previously been agreed between JNCC and the applicant during pre-application	

Reference	Written Submission Comment	Applicant's response
	consultation, but which, in the application documents submitted to date, go against that previous agreement.	
REP1-066.6	Updating Application Documentation (ES, HRA, and associated documents and appendices) 6. As highlighted in our Relevant Representations (RR-033) and in our overall comments on offshore ornithology above, JNCC has a number of issues of concern in the current application documentation. We note that in response to our Relevant Representations, the Applicant has accepted that errors were made in these assessments and undertakes to produce an Errata document highlighting where errors have been made and the correct values that should have been used. JNCC welcomes this.	The Applicant acknowledges that discrepancies have been identified in the application material in relation to offshore ornithology. As stated in the Applicant's Response to Relevant Representations (PDA-008), these discrepancies were included in the Errata Sheet submitted at Deadline 1 (REP1-044). As outlined in paragraph 1.1.1.4 of the Errata Sheet (REP1-044), the Applicant confirmed that updated versions (tracked and clean) of the offshore ornithology application material would be provided at Deadline 2 to address the errata presented in the Errata Sheet (REP1-044). The Applicant confirms that the following application documents have been updated and submitted at Deadline 2 to address the errata presented in the Errata Sheet (REP1-044) and any further discrepancies considered to be errata identified in NRW's and the JNCC's Written Representations (REP1-056; REP1-066/REP1-067, respectively): • Volume 2, Chapter 5: Offshore ornithology (F2.5 F02); • Volume 6, Annex 5.2: Offshore Ornithology displacement technical report (F6.5.2 F02); • Volume 6, Annex 5.3: Offshore Ornithology collision risk modelling technical report (F6.5.3 F02); • Volume 6, Annex 5.5: Offshore ornithology apportioning technical report (F6.5.5 F02); • Volume 6, Annex 5.6: Offshore ornithology population viability analysis technical report (F6.5.6 F02); • HRA Stage 1 Screening Report (E1.4 F02); • HRA Stage 2 Part Three: Special Protection Areas and Ramsar sites Assessments (E1.3 F02); and • HRA Integrity Matrices (E1.5 F02). This approach outlined above has ensured discrepancies have been worked through the relevant EIA and HRA application material and any potentially compounding effects have been identified and corrected to ensure that assessments and conclusions presented are evidenced and remain robust. The Applicant can confirm that the amendments made to the application documents outlined above do not change the conclusions presented.
REP1-066.7	7. Whilst we welcome the Applicant's response to this issue, we are concerned that providing an update in this manner risks updated assessment parameters and impact totals not being readily available for use in the in-combination/cumulative assessments of future proposed projects. To illustrate this risk, we note that the Applicant themselves had difficulty in obtaining impact totals from other projects where updated parameters have been contained in supplemental documentation submitted to Examination rather than the original ES (see comments in paragraphs 64 to 65 below, where updated totals for the Erebus project were contained in a supplemental document submitted to Examination, rather than and updated ES).	
REP1-066.8	8. We are therefore concerned that any revisions to Mona OWF parameters/outputs would be similarly difficult to find for cumulative/in-combination assessments by future projects were they to be contained in a separate document submitted to Examination and advise that updated Application documentation is produced (ES, HRA and associated documentation/appendices).	
REP1-066.9	Multiple, potentially compounding errors 9. JNCC noted in our Relevant Representations (RR-033) that multiple errors have occurred within the assessments for the same	

Reference	Written Submission Comment	Applicant's response
	SPA/qualifying feature. We are concerned that these errors have been considered individually (see Applicant's responses to our Relevant Representation comments (PDA-008)) without an overview of how these errors may compound at each stage of an assessment.	Further information regarding the above can also be found in the Applicant's Response to the Examining Authority's Rule 17 Letter (S_D2_2) and the Schedule of Changes to the Offshore Ornithology EIA and HRA Documents (S_D2_7) submitted at Deadline 2.
REP1-066.10	10. By way of illustration the assessment of displacement impacts for Atlantic Puffin has errors in: • Incorrect Mean Seasonal Peak • Not presenting the full range of displacement and mortality rates from the displacement matrix • Incorrect foraging ranges • Incorrect apportioning of impacts to adults and immatures during the non-breeding season • Incorrect apportioning of impacts to SPAs (Applicant's response to our Relevant Representation (PDA-008) is that "no SPAs are located between 250.8 and 265.4 km, and therefore, no SPAs have been excluded that should have otherwise been included in the assessments." However, the Skomer, Skokholm and Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA occurs within this distance to the proposed Project, of which breeding Atlantic puffin is a qualifying feature. In addition, there are multiple other SPAs within foraging range of the Mona Array, for instance Lambay Island SPA, Rathlin Island SPA, and Saltee Islands SPA.	The Applicant acknowledges the JNCC's comment and the points raised in relation to Atlantic puffin. Please see the Applicant's Response to the Examining Authority's Rule 17 Letter (S_D2_2) submitted at Deadline 2 as this is relevant to the Atlantic puffin and black-legged kittiwake examples given by the JNCC. The Applicant's Response to the Examining Authority's Rule 17 Letter (S_D2_2) sets out the overall approach proposed by the Applicant to addressing inconsistencies in the application material, requests for clarification and the submission of additional information in accordance with the advice provided by NRW and the JNCC within their Relevant Representations (RR-011 and RR-033, respectively) and Written Representations (REP1-056 and REP1-066/REP1-067, respectively). The Applicant maintains that the JNCC has misinterpreted how Atlantic puffin has been considered within the HRA Stage 1 Screening (E1.4 F02). See row RR-033.31 of the Applicant's Response to Relevant Representations (PDA-008), which confirms that there are no SPAs between 250.8 and 265.4km, which could have been excluded from the application documents. Table 1.9 of HRA Stage 1 Screening (E1.4 F02) sets out the SPAs considered and includes all of the SPAs referenced by the JNCC for Atlantic puffin. These sites were all included at the point of application. For clarity, Atlantic puffin has not been presented in Volume 2, Annex 5.5: Offshore Ornithology Apportioning Technical Report (F6.5.5 F02) due to the updated impacts still not requiring apportioning to individual SPAs. The corrected annual impact on Atlantic puffin from displacement was 0 (0 to 2) birds (30% displacement to 1% mortality to 70% displacement to 10% mortality). Considering the maximum impact on Atlantic puffin is 2 birds annually, inclusion in the apportioning report was not deemed necessary.
REP1-066.11	11. Similarly, the collision impacts on black-legged kittiwake has errors in: • Incorrect seasonal collision mortality estimates • Not presenting the full range of displacement/mortality within the displacement matrix • Incorrect apportioning of impacts to adults and immatures in the bereding season • Incorrect apportioning of impacts to adults and immatures during the non-breeding season	
REP1-066.12	12. We illustrate this point in the two tables below with an example of the	The Applicant notes and welcomes the worked example for black-legged kittiwake presented by the JNCC within Table 1 and Table 2 of JNCC's Written

Reference	Written Submission Comment	Applicant's response
	compounded differences in parameters used at different stages, for black-legged kittiwake qualifying feature of Rathlin Island SPA. The differences between JNCC's recommended approach (Table 1) and that taken by the Applicant (Table 2) are in the seasonal definitions, the displacement and mortality rates, the breeding season age class apportioning, and the non-breeding season age class apportioning, which ultimately results in very different seasonal and annual apportioned adult mortalities. It is therefore difficult to know whether this would result in impacts greater than 1% baseline mortality for any feature of any SPA and hence whether an SPA feature should have been taken through to Population Viability Analysis (PVA). On the basis of this, we do not currently consider that a sound conclusion of no AEOSI can be made. In addition, updated outputs should be provided in updated application documentation (ES, HRA and associated documentation/appendices) so that they are available for cumulative and in-combination assessments of future projects.	Representation (REP1-066). Please see the Applicant's response to REP-066.6 to REP1-066.11 above. As outlined in the Applicant's Response to the Examining Authority's Rule 17 Letter (S_D2_2) submitted at Deadline 2, the Applicant intends to provide additional information in accordance with the advice provided by NRW and the JNCC within their Relevant Representations (RR-011 and RR-033, respectively) and Written Representations (REP1-056 and REP1-066/REP1-067, respectively) for examination at Deadline 3. The Applicant intends to engage with both NRW and the JNCC to seek further guidance on how best to present the information requested in order to provide additional clarity with respect to the Applicant's assessment approach.
REP1-066.13	Workings need to be shown throughout 13. We follow the logic of the worked example provided in the Applicant's Response to Relevant Representations (PDA-008) to generate HRA values for great black-backed gull from the Isles of Scilly SPA. We suggest that the same calculations are provided within the relevant HRA documents, such as within Appendix A.2 of the HRA Stage 1 Screening Report (APP-034). Additional columns should include: Seasonal abundance for displacement assessments; Displacement and mortality rates used; Collision estimates; SPA apportioning values; and Age-class apportioning values. The Applicant may wish to provide separate tables for their preferred approach and for SNCB advised approach.	The Applicant welcomes the JNCC's feedback on the worked example for great black-backed gull from the Isles of Scilly SPA provided in the Applicant's Response to Relevant Representations (PDA-008). Please see the Applicant's response to REP1-066.12 for further information.
REP1-066.14	Misrepresented SNCB advice 14. We welcome that the Applicant acknowledges (Applicant's Response to Relevant Representations (PDA-008)) that species group avoidance rates presented in Ozsanlav-Harris et al. (2023) are incorrectly referred to as "JNCC avoidance rates" within certain documents, specifically Volume 2, Chapter 5: Offshore ornithology (APP-057) and Volume 6, Annex 5.5: Offshore ornithology apportioning technical report (APP-095).	The Applicant notes that these matters were raised in the JNCC's Relevant Representation (RR-033) and responses were provided in the Applicant's Response to Relevant Representations (PDA-008) (see row RR-033.9) submitted at the Procedural Deadline. The Applicant can confirm that these points were included in the Errata Sheet (REP1-044) submitted at Deadline 1. These discrepancies have also been corrected in the updated Volume 2, Chapter 5: Offshore ornithology (F2.5 F02), HRA Stage 1 Screening Report (E1.4 F02), and the HRA Stage 2 ISAA Part Three: SPAs and Ramsar sites

Reference	Written Submission Comment	Applicant's response
REP1-066.15	15. Similarly, the Applicant acknowledges (Applicant's Response to Relevant Representations (PDA-008)) that JNCC advice regarding foraging ranges, particularly those of Atlantic puffin, common guillemot, and razorbill, has been misinterpreted, but the correct values have been applied and/or there is no impact on the assessment nor on the conclusions drawn.	Assessments (E1.3 F02) submitted at Deadline 2. The Applicant refers the JNCC to the Schedule of Changes to the Offshore Ornithology EIA and HRA Documents (S_D2_7) submitted at Deadline 2 for further information.
REP1-066.16	16. Although these corrections may seem semantic as there is neither a material impact on the assessment presented nor on the conclusions drawn, JNCC's view is that the texts not only significantly misrepresent JNCC advice, but puts these misrepresentations into the public domain as the JNCC position. This could then be relied upon erroneously by future projects. We therefore strongly advise that the errors should be corrected by submitting full updated and revised versions of the affected chapters (see also paragraphs 6 to 8 above).	
REP1-066.17	Deviating from previously agreed approaches 17. JNCC remain concerned that previously agreed approaches (during EWG meetings) have not been implemented in the presented assessments.	The Applicant notes the JNCC's comment and has responded to specific points below.
REP1-066.18	18. It had been agreed that: • Collision impacts using the SNCB-recommended input parameters would be taken through all stages of the assessment, in addition to those using the Applicant's preferred input parameters (APP-042, D.8.1, item no. 4). However, it isn't clear whether the collision estimates using the Applicant's preferred input parameters have solely been taken through the impact assessment, or whether the SNCB approach has been taken through. We require clarification on this point.	The Applicant can confirm that the species parameters (e.g. body length, flight speed, etc.) that have been used in the assessments were provided by Natural England following the second Expert Working Group meeting (see section D.3.13 of Technical Engagement Plan Appendices Part 1 (A to E) (APP-042) for further information)) and that there has been no deviation from these. For avoidance rates that required updating following the publication of the Ozsanlav-Harris et al. (2023) review, the Applicant has presented and considered both species-group and species-specific avoidance rates (where available - see table 1.4 of Volume 6, Annex 5.3: Offshore Ornithology Collision Risk Modelling Technical Report (F6.5.3 F02)). Assessments using both the species-group and species-specific avoidance rates have been presented in Volume 2, Chapter 5: Offshore Ornithology (APP-057) and HRA Stage 2 ISAA for SPAs and Ramsar sites Assessments (APP-033).
REP1-066.19	• Age classes would be determined from Digital Aerial Survey (DAS), otherwise all adult-type birds would be assumed to be adults (APP-042, D.8.1, item no. 5). As it stands, age class apportioning based on DAS has only been undertaken for Northern gannet, herring gull, great black-backed gull, and lesser black-backed gull in the breeding season.	The Applicant notes JNCC's comment and believes that the JNCC has misinterpreted table 1.6 of Volume 6, Annex 5.5: Offshore Ornithology Apportioning Technical Report (APP-095). The Applicant confirms that age classes from site-specific survey data (rather than theoretical generalised stable age structure) have been used during the breeding and non-breeding season

Reference	Written Submission Comment	Applicant's response
	However, for black-legged kittiwake, Northern gannet, herring gull, great black-backed gull, and lesser black-backed gull in the non-breeding season, and common guillemot, razorbill, and Manx shearwater in the breeding and non-breeding seasons, age class apportioning has been undertaken using stable age structures from Furness (2015). In addition, black-legged kittiwake age class apportioning in the breeding season has been carried out using a combination of DAS age classes and age-specific survival rates.	within the assessments but recognises that the information provided in the application with respect to this is unclear. Volume 6, Annex 5.5: Offshore Ornithology Apportioning Technical Report (F6.5.5 F02) has been resubmitted at Deadline 2 with the following updates: • Amendments to the presentation of the apportioning method used during the non-breeding season. • Amendments so that the Applicant's approach to age-class apportioning (which aligns with SNCB guidance and advice) is more clearly presented; and • Corrections to Table 1.4 to present the age-class apportioning percentages during the breeding and non-breeding season, which were applied in the HRA Stage 1 Screening Report (E1.4 F02). For species where age-class was not able to be confirmed during the digital area surveys, it is presumed that 100% of the birds were assumed to be adults during the breeding and non-breeding season within the assessment. Specifically for Manx shearwater, common guillemot and razorbill which cannot be aged accurately, this is in line with SNCB advice during the EWG03 (Technical Engagement Plan Appendices - Part 1 (A to E) (APP-042)). The Applicant refers NRW to the Schedule of Changes to the Offshore Ornithology EIA and HRA Documents (S_D2_7) for further information on specific changes made to Volume 6, Annex 5.5: Offshore Ornithology Apportioning Technical Report (F6.5.5 F02) submitted at Deadline 2.
REP1-066.20	Measures to mitigate and avoid displacement by vessels of red-throated diver and common scoter in the Liverpool Bay/Bae Lerpwl SPA 19. Table 1.1 of APP-203 appears to suggest that JNCC have deferred to NRW following EWG06, on the topic of vessel movements at the landfall to install the export cable which would not be subject to seasonal restrictions. However, JNCC does not have the same recollection of this position, and the minutes of EWG 06 also do not match this position. The landfall is within the Liverpool Bay/Bae Lerpwl SPA, for which JNCC has joint responsibility with NRW and NE. Our position in the agreement log (APP-042, D.9, item 22) is "No justification is given for the need to do this during winter. It is also not clear what "vessel movements" actually means. For instance, how many and long [sic] will these vessels be in the SPA? More information	The Applicant notes the JNCC's comment regarding the representation of JNCC's position in Table 1.1 of Measures to minimise disturbance to marine mammals and rafting birds from transiting vessels (APP-203) and agrees that this text does not accurately represent the minutes of the sixth expert working group which makes no reference to the JNCC deferring to NRW on the topic of vessel movements associated with the installation of the offshore export cable at the landfall. This correction has been included in the Errata Sheet submitted at Deadline 2 (S_PD_1 F03). The JNCC requests justification for why the timing restriction on offshore export cable installation activities within the Liverpool Bay/Bae Lerpwl Special Protection Area (SPA) will not apply to vessel movements at the landfall. The

Reference	Written Submission Comment	Applicant's response
	is required before JNCC can fully agree to this approach.". The trenchless works on the intertidal zone including up to eight vessel movements at the landfall over the winter period ((APP-033) sections 1.6.3.48 and 1.6.3.63), which is an exception to the seasonal restriction on cable installation works (see seasonal restriction details in APP-203, section 1.3.1.1). Any disturbance impact to features of the SPA will be temporary for the time of the vessel presence, therefore JNCC do not expect this temporary activity to result in an AEOSI. It is not clear where will vessels transit to and from during these works? Clarification is required before JNCC can fully agree to this approach. JNCC raised these queries in response in the agreement log (APP-042, D.9, item 22), but we have yet to receive a direct response	Applicant has provided this information in row RR-011.24 in the Applicant's Response to Relevant Representations (PDA-008). At this stage, no decision has been made regarding which port or ports will be used for the construction of the Mona Offshore Wind Project, and therefore, it is currently unknown where vessels will be transiting to and from. However, as outlined in paragraph 1.3.1.2 of Measures to minimise disturbance to marine mammals and rafting birds from transiting vessels (APP-203), key vessels travelling to the Mona Offshore Cable Corridor and Array Area within and outside Liverpool Bay/Bae Lerpwl SPA will use regular vessel transit routes, as detailed in the Outline Vessel Traffic Management Plan (APP-200) which follow, where possible, established shipping routes within Liverpool Bay and, or chartered approaches to ports and harbours. This measure will restrict and minimise the spatial distribution of any disturbance to rafting birds. The Applicant welcomes the JNCC's view that disturbance to features of the SPA from vessel movements at the landfall over the winter period will be temporary and not expected to result in an adverse effect on integrity.
REP1-066.21	20. We welcome suggestions to minimise impacts to marine mammals and rafting birds. However, as it currently stands it is unclear what measures relate to which activity or receptor, and when the measures are or are not applied. For example: • Table 1.2 (AAP-203) describes vessel activities and whether such measures will apply. It is unclear why measures would apply to vessels travelling to the Mona Offshore Cable Corridor and Array Area within and outside Liverpool Bay/Bae Lerpwl SPA, yet "Vessels installing export cables outside the Liverpool Bay/Bae Lerpwl SPA" and "Vessels involved in intertidal trenchless installation within Liverpool Bay/Bae Lerpwl SPA" are excluded from mitigation. • Related to this, no detail is given in this table as to which activities the measures fully apply to and which in part apply to, and where measures only apply in part, which measures would not be applied to which activities. No detail is provided on where cable installation vessels will travel from in order to reach the export cable corridor outside of the Liverpool Bay/Bae Lerpwl SPA. It is therefore possible that these vessels will transit across the SPA. Clarification should be provided as to why this activity is excluded from the proposed measures. It also isn't	The Applicant notes the JNCC's comment requesting further clarity on which measures outlined in Measures To Minimise Disturbance To Marine Mammals And Rafting Birds From Transiting Vessels (APP-203) are applicable to which vessel activity. With respect to vessels installing export cables inside the Liverpool Bay/Bae Lerpwl SPA, the principal measure to minimise disturbance to rafting birds and, specifically, common scoter and red-throated diver features of the SPA during the overwintering period is the commitment to no offshore export cable laying between 1 November and 31 March within the Liverpool Bay SPA. Outside of this period (i.e. between 1 April and 31 October), vessels installing export cables inside the Liverpool Bay/Bae Lerpwl SPA will be expected to comply with the key principles of the Wildlife Safe (WiSe) Scheme (noting the relevant exceptions outlined in paragraph 1.4.1.1 of Measures To Minimise Disturbance To Marine Mammals And Rafting Birds From Transiting Vessels (APP-203)). All vessels travelling to and from the Mona Offshore Cable Corridor and Array Area within and outside Liverpool Bay/Bae Lerpwl SPA during the construction and operational and maintenance phases) will also be expected to comply with the key principles of the WiSe Scheme where possible (noting the relevant

Reference	Written Submission Comment	Applicant's response
	entirely clear what is actually being referred to as "measures" throughout the document. There are "Proposed measures applicable to marine wildlife" and "Proposed measures specific to rafting birds". When Table 1.2 references the measures which apply, which measures does this mean? Similarly, in section 1.4 exceptions to measures are described. Which measures would not apply under these exceptions?	exceptions outlined in paragraph 1.4.1.1 of Measures To Minimise Disturbance To Marine Mammals And Rafting Birds From Transiting Vessels (APP-203)). In addition, the following measures will be discussed with the licencing authority in consultation with JNCC through finalisation of the offshore environmental management plan: • Key vessels travelling to the Mona Offshore Cable Corridor and Array Area within and outside Liverpool Bay/Bae Lerpwl SPA will use regular vessel transit routes, as detailed in the Outline Vessel Traffic Management Plan (APP-200) which follow, where possible, established shipping routes within Liverpool Bay and, or chartered approaches to ports and harbours. This will act to restrict and minimise the spatial distribution of any disturbance to rafting birds. • Where it is necessary for vessels to go outside of established navigational routes during transit to/from port and working areas, routes will be pre-selected to avoid locations where birds are known to aggregate in accordance with the key principles of the WiSe Scheme. Vessel operators will be made aware of bird sensitivities in the Liverpool Bay/Bae Lerpwl SPA and visible aggregations of rafting birds will be actively avoided, within the limitations of vessel safety and manoeuvrability. • All vessels associated with the Mona Offshore Wind Project will use an Automatic Identification System (AIS) which broadcasts the location of the vessel and is monitored by the Projects' Marine Co-ordination Centre. The Applicant has committed to the development of and adherence to an offshore environmental management plan. This will include details of Measures To Minimise Disturbance To Marine Mammals And Rafting Birds From Transiting Vessels (APP-203) as set out within Schedule 14 Condition 18(1)(e)(vi) of the draft development consent order (C1 draft Development Consent Order F04). The Applicant recognises that it would be beneficial to include further detail in Measures To Minimise Disturbance To Marine Mammals And Rafting Birds From Transiting Vessels (APP-203) to clarify which measures are applicable to which vessel transit activity. As such an updated version of this document will be submitted at Deadline 3.

Reference	Written Submission Comment	Applicant's response
REP1-066.22	• Some statements within document APP-203 appear to be contradictory. For the Liverpool Bay/Bae Lerpwl SPA will not take place during 1st November to 31st March (section 1.3.1.1). It is also stated that where it is necessary for cable laying vessels to go outside of established navigational routes during transit to/from port and working areas, routes will be pre-selected to avoid locations where birds are known to aggregate (section 1.3.1.2). However, it is then suggested that there is an exception to the measures proposed, whereby the measures don't apply to vessels actively laying cable in areas that coincide with known areas of bird aggregations (1.4.1.1). These statements appear to directly contradict one another. Furthermore, we question why there would be a need for an exception, such that the measures don't apply to vessels actively lay cables in areas that coincide with known areas of bird aggregations. Neither document APP-203 or APP-200 (Outline vessel traffic management plan) describe the ports and shipping routes to be used to transit to and from the array and cable corridor. Therefore, it is not entirely clear how a view as been formed that a seasonal restriction would only be required for export installation vessels within Liverpool Bay/Bae Lerpwl SPA. There is no evidence that vessels would not need to go outside of existing shipping routes in order to access the array or cable corridor during the winter.example there appears to be a measure whereby cable installation activities in	Please see the Applicant's response to REP1-066.21.
REP1-066.23	21. In addition, as currently drafted, the DCO neither specifies the period during which relevant measures are required (November to March inclusive for red-throated diver and common scoter), nor does it require the agreement of the JNCC, which has joint responsibility for the Liverpool Bay/Bae Lerpwl SPA. We therefore request the DCO be amended as per our additions in italics to read: 18.— (1) No part of the authorised scheme may commence until the following (insofar as relevant to that activity or phase of activity) have been submitted to and approved in writing by NRW-Licensing, in consultation with the relevant statutory nature conservation bodies (NRW Advisory and JNCC), Trinity House and the MCA as appropriate— (e) an offshore environmental management plan covering the period of construction and operation to include details of— (vi) measures to minimise disturbance from transiting vessels to marine	The Offshore Environmental Management Plan (EMP) will be finalised in accordance with the Measures to Minimise Disturbance to Marine Mammals and Rafting Birds from Transiting Vessels (APP-203). The Applicant's commitment to a seasonal restriction for the offshore export cable installation works during the period 1 November to 31 March within the Liverpool Bay Special Protection Area (SPA) is included in the Measures to Minimise Disturbance to Marine Mammals and Rafting Birds from Transiting Vessels and is only relevant to the transmission marine licence which is outside the scope of the DCO dML, As set out in the Marine Licence Principles document (J9 F03) this commitment is also expected to be secured within the standalone NRW marine licence.

Reference	Written Submission Comment	Applicant's response
	mammals, and rafting birds; (vii) works associated with the installation and/or protection of the cables will not be carried out within the Liverpool Bay/Bae Lerpwl SPA during the most sensitive time period of 1st November to the 31st March inclusive; and (viii) measures to minimise the potential spread of invasive non-native species;	
REP1-066.24	22. These advised amendments are in alignment with the DCOs for the approved East Anglia One North and East Anglia Two Offshore Wind Farms, and the proposed DCO for the refused Thanet Offshore Wind Farm Extension project.	
REP1-066.25	23. In our Relevant Representations (RR-033), JNCC made the recommendation for seasonal restrictions on offshore cable laying to apply to a 2km and 2.5km buffer (for red-throated diver and common scoter, respectively) around the Liverpool Bay/Bae Lerpwl SPA. Having reviewed the response by the Applicant to those comments (PDA-008, RR-033.12), we are of the view that this would not be required for a conclusion of no Adverse Effect on Integrity to be reached.	The Applicant welcomes the JNCCs response and confirmation that this matter is resolved.
REP1-066.26	Cumulative and in-combination assessments 24. JNCC raised concerns over the approach to both the Cumulative (EIA) and Incombination (HRA) assessments in our Relevant Representations (RR-033). We note the Applicant's response to those concerns (PDA-008, RR-033.18). Whilst no progress has been made at the time of submission of these Written Representations, we wish to make the Examining Authority aware that there are on-going discussions with the Applicant on this matter, and we will provide any updated comments we have in due course.	The Applicant notes the JNCC's comment and welcomes further engagement with JNCC regarding the Applicant's approach to cumulative and in-combination assessments, in particular, gap-filling of historical projects. The Applicant also highlights its Response to the Examining Authority's Rule 17 Letter (S_D2_2) submitted at Deadline 2, which provides further information regarding this matter.
REP1-066.27	Seasonal definitions Volume 2, Chapter 5: Offshore ornithology (APP-057) Table 5.13 and 5.14 25. Seasonal definitions differ across table 5.13 and 5.14, so it is not clear which is being used in each circumstance it is used. As this could influence seasonal impact values, without this being clarified, we cannot agree the results of the EIA and HRA rule out there being an adverse effect beyond reasonable scientific doubt.	The Applicant notes the JNCC's comments and highlights that NRW have also raised the matter of seasonal definitions within their Written Representation (REP1-056). The Applicant acknowledges that the approach described by the JNCC (in REP1-066.30 to REP1-066.34) and NRW (in REP1-056.44) should have been undertaken for the assessment of collision impacts presented in the application. For collision impacts (including for northern gannet, black-legged kittiwake, Manx Shearwater, great black-backed gull and lesser black-backed gull, which

Reference	Written Submission Comment	Applicant's response
REP1-066.28	Volume 2, Chapter 5: Offshore ornithology (APP-057) Tables 5.38, 5.39, 5.42, and 5.44 26. For some species it would appear, though it is unclear, that impacts for a particular month which is within two BDMPS seasons have been split between the two seasons. Clarity is required if this is the case, and when this has been undertaken, and whether this is an appropriate use of the survey data, for instance when within a month the survey was carried out. For example, if data was calculated at one end of a month, is it appropriate to halve this value and associate one half with the other end of the month? Without this being clarified, we cannot agree the results of the EIA and HRA rule out there being an adverse effect beyond reasonable scientific doubt.	are the examples given by the JNCC), Volume 2, Chapter 5: Offshore ornithology (F_2_5 F02), Volume 2, Annex 5.6: Offshore Ornithology Population Viability Analysis Technical Report (F_6_5.6 F02), HRA Stage 1 Screening Report (E_1.4 F02) and the HRA Stage 2 ISAA Part Three: SPAs and Ramsar sites Assessments (E1.3 F02) have been updated to include the corrected seasonal definition and abundances and submitted at Deadline 2. Table 1.14 of Volume 2, Chapter 5: Offshore ornithology (F_2_5 F02) continues to present the bio seasons quoted Furness (2015), but Table 1.15 of Volume 2, Chapter 5: Offshore ornithology (F_2.5 F02) has been corrected to clarify which months are included within each of the bio seasons taken through to assessment. The Applicant can confirm that all the species assessed have been carried out using the full breeding season, as presented in Furness (2015) and recommended by the JNCC.
REP1-066.29	27. If it is the case that impacts for a particular month which is within two seasons have been split between the two seasons, it is unclear whether this approach is appropriate when put into context of seasonal reference populations (e.g. Furness (2015)). Do the seasonal reference populations used also split populations in the one month between seasons? Without this being clarified, we cannot agree the results of the EIA and HRA rule out there being an adverse effect beyond reasonable scientific doubt.	
REP1-066.30	28. Furness (2015) defines the full breeding season for Northern gannet as March-September. Therefore, we advise this definition is used, and then adjust the nonbreeding season definitions in Furness (2015) accordingly to ensure no months are considered in two seasons. This would make the post-breeding season October to November, and the pre-breeding season December to February.	
REP1-066.31	29. Furness (2015) defines the full breeding season for black-legged kittiwake as March-August. Therefore, we advise this definition is used, and then adjust the non-breeding season definitions in Furness (2015) accordingly to ensure no months are considered in two seasons. This would make the post-breeding season September to December, and the pre-breeding season January to February.	
REP1-066.32	30. Furness (2015) defines the full breeding season for Manx shearwater as April to August. Therefore, we advise this definition is used, and then adjust the non-breeding season definitions in Furness (2015) accordingly to ensure no months are considered in two seasons.	

Reference	Written Submission Comment	Applicant's response
	This would make the post-breeding season September to October, and the pre-breeding season March. Therefore, the post-breeding mean seasonal peak should be calculated as the mean from year 1 (25 individuals) and year 2 (1 individual), giving a mean of 13 individuals, not 182 individuals as stated in the Applicant's response to RR-33.10 (PDA-008). A seasonal mean of 182 individuals appears to have been calculated assuming the post-breeding season is August to October (which is incorrect), as opposed to September to October.	
REP1-066.33	31. Furness (2015) defines the full breeding season for great black-backed gull as late March-August. Therefore, we advise this definition is used, and then adjust the nonbreeding season definitions in Furness (2015) accordingly to ensure no months are considered in two seasons. This would make the non-breeding season September to February.	
REP1-066.34	32. Furness (2015) defines the full breeding season for lesser black-backed gull as April-August. Therefore, we advise this definition is used, and then adjust the non-breeding season definitions in Furness (2015) accordingly to ensure no months are considered in two seasons. This would make the post-breeding season September to October, the winter season November to February, and pre-breeding season as March.	
REP1-066.35	33. We advise that full breeding seasons are used, and therefore monthly density estimates are not split for input into the Collision Risk Modelling (CRM). This is also due to the dates when the digital aerial surveys were carried out. The majority of surveys were carried out during the beginning of the month; therefore it is debatable whether it is appropriate to assume that the abundance is sufficiently representative to assign half the value to the latter half of the month.	
REP1-066.36	Foraging ranges HRA Stage 1 Screening Report (APP-034) Table 1.2 and 1.7 34. We disagree with the application of foraging ranges for Atlantic puffin. Although breeding season apportioning has not been carried out, our view is that it should be when using the correct Mean Season Peak value (see paragraph 36 on the issue of incorrect Mean Season Peak calculation), therefore it is important to use the correct foraging range. It is not accurate to state, in Tables 1.2 and 1.7 of the HRA	The Applicant notes the JNCC's comment and that this matter was raised in JNCC's Relevant Representation (RR-033). Please see row RR-033.31 of the Applicant's Response to Relevant Representations (PDA-008) for further information. The Applicant can confirm that the foraging range for Atlantic puffin has been updated in the HRA Stage 1 Screening Report (E_1.4 F02) submitted at Deadline 2.

Reference	Written Submission Comment	Applicant's response
	Stage 1 Screening Report (APP-034), that "JNCC requested (via their S42 response) that all SPAs to the north of the Mona Offshore Wind Project within 265.4km be considered for Atlantic puffin.". In JNCC correspondence to the Applicant on 28 June 2023 (APP-042, D.6.2), we advised "We confirm that the foraging range to use for Atlantic puffin is 265.4km (MM+SD). Woodward et al. (2019) state (page 138) that "As was the case for common guillemot and razorbill, foraging distances travelled by Atlantic puffin from Fair Isle are higher than those at most other sites (RSPB dataset), although they are not as exceptional when compared to other sites as those of the other two auk species" and "Observations of birds carrying fish have been made at distances of 250km from the Faeroe Islands (Harris & Wanless 2011), offering further speculative evidence that Atlantic puffins forage at longer distances than the other auk species. Hence the distances observed from Fair Isle and Hermaness should not necessarily be considered exceptional until more data and data from additional colonies have been collected, particularly data from colonies where local prey availability may be greater". Therefore, we advise using the generic mean max +1SD value as stated in Table 5.". Therefore, we advise that the foraging range within Table 5 of Woodward et al. (2019) (137.1 ± 128.3 = 265.4km) should be applied to all SPAs. There is no exception to this value for Atlantic puffin. This value should be used throughout. Without this error and other errors being fixed, we cannot agree the results of the EIA and HRA rule out there being an adverse effect beyond reasonable scientific doubt.	
REP1-066.37	HRA Stage 1 Screening Report (APP-034) Table 1.2 and 1.7 35. We disagree with the application of foraging ranges for common guillemot and razorbill. It is not accurate to say, in Tables 1.2 and 1.7 of the HRA Stage 1 Screening Report (APP-034), that "JNCC requested via their S42 response all SPAs to the north of the Mona Offshore Wind Project within 153.7km be considered for common guillemot" and "JNCC requested via their S42 response all SPAs to the north of the Mona Offshore Wind Project within 164.6km be considered for razorbill". We do recommend that these values are applied in certain circumstances. However, these circumstances are not "all SPAs north of Mona", the circumstances are for all Northern Isle SPAs. Therefore, it is unclear whether the correct SPAs and other sites have been screened in with regard to Atlantic puffin, common guillemot, and	The Applicant notes the JNCC's comment and that this matter was raised in JNCC's Relevant Representation (RR-033). Please see row RR-033.32 of the Applicant's Response to Relevant Representations (PDA-008) for further information. The Applicant can confirm that the foraging ranges for common guillemot and razorbill have been updated in the HRA Stage 1 Screening Report (E1.4 F02) submitted at Deadline 2.

Reference	Written Submission Comment	Applicant's response
	razorbill. It is therefore also unclear whether the calculations in Volume 6, Annex 5.5: Offshore Ornithology apportioning technical report (APP-095) are correct, and subsequently, whether any of the values relevant to these species and SPAs in the HRA are accurate.	
REP1-066.38	Displacement assessments Volume 2, Chapter 5: Offshore ornithology (APP-057) Table 5.25 36. The incorrect Mean Seasonal Peak abundance for inputting into the displacement matrix appears to have been calculated for Atlantic puffin in the non-breeding season. Comparing Volume 6, Annex 5.1: Offshore Ornithology Baseline Characterisation Technical Report (APP-091) Table 1.38, Volume 6, Annex 5.2: Offshore Ornithology Displacement Technical Report (APP-092) section 1.4.3, and Volume 2, Chapter 5: Offshore ornithology (APP-057) Table 5.13 and 5.14, suggests that the Mean Seasonal Peak should be 22 for Atlantic puffin during the non-breeding season, not 0 as is stated in APP-057 Table 5.25. Therefore, the predicted displacement mortalities during both the non-breeding season and annually may be incorrect. This may then have implications for the subsequent assessment, such as the need for apportioning of impacts. Therefore, multiple SPAs may not have been correctly treated at the LSE screening stage, and SPAs may not have been taken through to the Appropriate Assessment. We recommend a thorough review of the Mean Seasonal Peak calculation and the need for any subsequent assessment. It is necessary to carry out this review in order to carry out a robust HRA. This review should also apply to other species assessed for displacement impacts.	The Applicant notes the JNCC's comment and that this matter was raised in JNCC's Relevant Representation (RR-033). Please see row RR-033.13 of the Applicant's Response to Relevant Representations (PDA-008) for further information. The seasonal abundance for Atlantic puffin has been corrected in Volume 2, Chapter 5: Offshore ornithology (F2.5 F02) and Volume 2, Annex 5.2: Offshore Ornithology Displacement Technical Report (F6.5.2 F02) submitted at Deadline 2. The predicted impact on Atlantic puffin from displacement was also updated within HRA Stage 1 Screening (E1.4 F02). However, no sites were taken through to HRA Stage 2 ISAA Part Three: SPAs and Ramsar sites Assessments (E1.3 F02). Please refer to the Applicant's response to REP1-066.12 for consideration of other species. The Applicant can confirm that the amendments made to the documents outlined above do not alter the conclusions presented.
REP1-066.39	Volume 2, Chapter 5: Offshore ornithology (APP-057) section 5.7.2.11 to 5.7.2.27 and HRA Stage 1 Screening Report (APP-034) section 1.4.6.17 37. We do not agree that single values of displacement and mortality should be used for analysis of population impacts, as the Applicant has suggested in APP-057 section 5.7.2.11 to 5.7.2.27. As advised in the Joint SNCB Interim Displacement Advice Note, we advise that a range of displacement mortality values are taken through to the assessment of population impacts (SNCBs, 2022). We specifically advise that single figures are not used. Whilst we would not base our advice solely on the worst-case likely scenario, it is important to look at the range of likely scenarios in order to determine whether there is a	The Applicant acknowledges the JNCC's comments. As outlined in the Applicant's Response to the Examining Authority's Rule 17 Letter (S_D2_2) submitted at Deadline 2, the Applicant intends to provide additional information in accordance with the advice provided by NRW and the JNCC within their Relevant Representations (RR-011 and RR-033, respectively) and Written Representations (REP1-056 and REP1-066/REP1-067, respectively) for examination at Deadline 3. This will include presentation of displacement impacts apportioned to designated sites for the full range of displacement and mortality rates recommended by the SNCBs (including those outlined here in REP1-066.40 to REP1-066.41) to aid the SNCB's interpretation of the apportioned impacts on individual SPAs.

Reference	Written Submission Comment	Applicant's response
	realistic possibility of impact that would need further consideration (i.e. through a Population Viability Analysis).	
REP1-066.40	38. For most species, the evidence suggests that there is a range of displacement rates occurring at operational wind farms, including the upper end of the SNCB-advised range, and sometimes beyond. For example, with regard to the evidence of displacement rates and distance, Peschko et al. (2023) observed a reduction of 91% of common guillemot within offshore wind farms plus a 1km buffer, and 76% within offshore wind farms plus a 10km buffer, in autumn. In winter, they found a reduction of 67% within offshore wind farms plus a 1km buffer, and 50% within offshore wind farms plus a 10km buffer. Guillemot density in autumn was significantly affected up to a mean distance of 19.5km (range 18–21km) with a reduction of 79% within this area. Guillemot density in winter was significantly affected up to a mean distance of 16.5km (range 15–18km) with a reduction of 51% within this area. In addition, Pesckho et al. (2020a) found a reduction in guillemot densities during the breeding season inside offshore wind farms of 63% (75% when the blades were turning). Further, a study by Pesckho et al. (2020b) found a 63% reduction in guillemot density in the wind farm plus a 3km buffer, and a 49% reduction in the wind farm plus a 9km buffer during spring. A 44% reduction was found in the wind farm plus a 3km buffer during the breeding season. Therefore, we regard a 70% displacement rate to be within a potential range of displacement. This variation in displacement rates is why we advise that a range of potential impacts are considered.	
REP1-066.41	39. There is currently no empirical evidence of mortality rates of displaced birds, however the individual-based model SeabORD has been used to investigate the potential ranges of mortality for select species and SPAs. This suggested that mortality rates could occur within the 1-10% range advised by SNBCs, but could also be higher, e.g. up to 14.5% for razorbill (Searle et al., 2020). Therefore, we regard a 10% mortality rate to be within a potential range of mortality. This variation in mortality rates is why we advise that a range of potential impacts are considered.	
REP1-066.42	40. Where the 1% threshold of baseline mortality is surpassed, we recommend further investigation is carried out via a PVA (for both the scenario of displacement and mortality rates exceeding 1% baseline	The Applicant notes the JNCC's comment. Please see the Applicant's response to rows REP1-066.39 to REP1-066.41 above.

Reference	Written Submission Comment	Applicant's response
	mortality, and the worst-case scenario of displacement and mortality rates). A single value of mortality from displacement doesn't give a full picture of the range of potential impacts, and indicates false precision in this estimate. Therefore, we do not recommend that single estimates of displacement are relied upon when making decisions.	
REP1-066.43	41. For the EIA, we have confidence that annual impacts against the largest BSMPS population do not exceed 1% baseline mortality, and further investigation (e.g. through PVA) would not be required in this case, at the worst-case scenario of displacement and mortality rates for each species.	The Applicant welcomes the JNCC's agreement that for all species examined in the environmental impact assessment, the worst-case scenario of displacement and mortality rates would not increase the baseline mortality by more than 1%.
REP1-066.44	42. However, given the issues on assigning age classes to individuals highlighted below (paragraph 48 to 51) we do not have the same confidence for HRA. The Applicant has not provided SPA-apportioned displacement matrices within the documentation. The displacement and mortality rates used can make a large difference to the magnitude of impact (see comparative examples of displacement mortalities for black-legged kittiwake in table 1 and 2 above). It is therefore difficult to know whether any combination of displacement and mortality rates would result in impacts greater than 1% baseline mortality for any feature of any SPA. Therefore, it is unclear whether an SPA feature should have been taken through to PVA. On the basis of this, we do not currently consider that a sound conclusion of no AEOSI can be made.	The Applicant has confirmed in response to row REP1-066.19 that the age-class apportioning undertaken for the HRA used the method advised by the JNCC and acknowledges that this was not clearly presented in the application materials. Volume 6, Annex 5.5: Offshore Ornithology Apportioning Technical Note (F6.5.5 F02) has been updated at Deadline 2 to provide further detail of the Applicant's methodology. As outlined in the Applicant's Response to the Examining Authority's Rule 17 Letter (S_D2_2) submitted at Deadline 2, the Applicant intends to provide additional information in accordance with the advice provided by NRW and the JNCC within their Relevant Representations (RR-011 and RR-033, respectively) and Written Representations (REP1-056 and REP1-066/REP1-067, respectively) for examination at Deadline 3. This will present the range of displacement and mortality rates requested by the JNCC. Please note the Applicant's response to REP1-056.88, which welcomes NRW's advice that "NRW (A) are not advising that the HRA be based solely on the upper end of the % displacement and % mortality rates advised (e.g. 70% displacement and 10% mortality for auks)".
REP1-066.45	We strongly advise that the application documents are updated with this information.	
REP1-066.46	Collision risk modelling Volume 2, Chapter 5: Offshore ornithology (APP-057) Tables 5.38, 5.39, 5.40, 5.41, 5.42, 5.43, 5.44, 5.45, and 5.48, and sections 5.7.5.65, 5.7.6.4 and 5.7.6.7. Volume 6, Annex 5.5: Offshore ornithology apportioning technical report (APP-095) Table A.1 44. We disagree with the use of the term 'JNCC avoidance rates', or	Please see row RR-033.9 of the Applicant's Response to Relevant Representations (PDA-008). Reference to the term "JNCC Avoidance Rates" has been removed from the following documents submitted at Deadline 2: • Volume 2, Chapter 5: Offshore Ornithology (F2.5 F02)

Reference	Written Submission Comment	Applicant's response
	similar, to describe the Ozsanlav-Harris report. Although Ozsanlav-Harris et al. (2023) is a JNCC report, it does not in itself constitute our recommended avoidance rates. Referring to it as 'JNCC avoidance rates' incorrectly gives the message that JNCC advise use of every number in the report as it appears, which is not necessarily the case. Our advice on implementation of the results of Ozsanlav-Harris et al. (2023) is included in the joint SNCB guidance note on Collision Risk Modelling (CRM). This uses the rates from Ozsanlav-Harris et al. (2023), but species grouping is an important aspect of this. This information is contained within advice which Natural England provided on 7 July 2022 directly to the Applicant and is also used. Those rates should be regarded as and referred to as 'joint SNCB avoidance rates', whilst the Ozsanlav-Harris et al. (2023) should be named as Ozsanlav-Harris et al. (2023) rates. This has been iterated to Mona Offshore Wind during the Expert Working Group (EWG) several times, for example during the Ornithology EWG06 meeting held on 19 October 2023 (APP-042, section D.7.1, agenda item no. 5), and within JNCC comments provided on 23 November 2023 on the minutes of the Ornithology EWG06 meeting (APP-042, section D.7.1, agenda item no. 5).	• Volume 6, Annex 5.5: Offshore Ornithology Apportioning Technical Report (F6.5.5 F02)
REP1-066.47	45. The applicant's response to JNCC comments on the minutes of the Ornithology EWG06 meeting (APP-042, section D.7.1, agenda item no. 5) state "Applicant response: Thank you – we have updated the reference throughout our documents" yet clearly this is not the case (see tables and sections listed in heading).	
REP1-066.48	46. Although this correction may seem semantic as there is neither a material impact on the assessment presented nor on the conclusions drawn, JNCC's view is that the text not only significantly misrepresents JNCC advice, but puts these misrepresentations into the public domain as the JNCC position. This could then be relied upon erroneously by future projects. We therefore strongly advise that the errors should be corrected by submitting full updated and revised versions of the affected chapters (see also paragraphs 6 to 8 above).	
REP1-066.49	Volume 2, Chapter 5: Offshore ornithology (APP-057) section 5.7.5 47. We disagree with the use and presentation of only mean or central collision estimates throughout. The Confidence Intervals associated with collision estimates should also be provided and taken through the	Please see row RR-033.15 of the Applicant's Response to Relevant Representations (PDA-008), which provides the details of the upper and lower 95% confidence intervals from the collision risk model, which are presented within Volume 6, Annex 5.3: Offshore ornithology collision risk modelling

Reference	Written Submission Comment	Applicant's response
	assessment to assess the full range of potential effects. This comment also applies to the HRA Integrity Matrices document (APP-035), Section 1.2.5, and the HRA Stage 1 Screening Report document (APP-034). However, we don't consider that this makes a material difference to the outcomes of the impact assessment.	technical report (APP-093). However, it is noted that the assessment presented in Volume 2, Chapter 5: Offshore ornithology (APP-057), the HRA Stage 1 Screening Report (APP-034) and the HRA Stage 2 Information to Support an Appropriate Assessment, Part Three: Special Protection Areas and Ramsar Sites Assessments (APP-033) is based on the mean collision estimates only. Additional information for the EIA and HRA based on upper and lower confidence intervals will be provided at Deadline 3. This will include the apportioned impacts to individual SPAs.
REP1-066.50	Assigning age-classes to individuals Offshore ornithology apportioning technical report (APP-095) Table 1.4 48. The last column in Table 1.4 should be titled "Proportion of adult birds (%)" not "Proportion of immature birds (%)".	The Applicant thanks the JNCC for identifying this typing error. This has been amended in an update to Volume 6, Annex 5.5: Offshore Ornithology Apportioning Report (APP-095) submitted at Deadline 2.
REP1-066.51	Offshore ornithology apportioning technical report (APP-095) section 1.3.3 49. No information is provided on the number of adults and immatures identified from Digital Aerial Surveys (DAS, for example either within the Volume 6, Annex 5.5: Offshore ornithology apportioning technical report (APP-095) or Volume 6, Annex 5.1: Offshore Ornithology Baseline Characterisation Technical Report (APP-091). Without an understanding of the number of birds identified to age classes, as a proportion of the total number of birds (per species), it is hard to know whether a representative sample was identified, and whether this was appropriate to use when applying a ratio of adults and immatures to unidentified birds.	The Applicant notes the JNCC's comment. This has been amended in an update to Volume 6, Annex 5.5: Offshore Ornithology Apportioning Report (APP-095) submitted at Deadline 2.
REP1-066.52	Offshore ornithology apportioning technical report (APP-095) section 1.3.3 50. We disagree with the calculation of black-legged kittiwake age classes. This approach was not raised by the applicant during EWG meetings or subsequently, and therefore JNCC has not agreed to this approach. The Hornsea Offshore Wind Farm Project Two approach to apportioning to age class referred to in section 1.3.3.5 relies on reliable counts of first year birds, i.e. in the case of black-legged kittiwake first summer birds which by August of that year have largely transitioned to adult plumage and therefore indistinguishable from adults. Therefore, the identification rate of first summer blacklegged kittiwake is	The Applicant can confirm that as part of the correction to Volume 6, Annex 5.5: Offshore Ornithology Apportioning Report (APP-095) the age-class apportionment during the breeding season has been amended to 95.23% for black-legged kittiwake.

Reference	Written Submission Comment	Applicant's response
	questionable and calculations derived from this, for example, applying survival rates to define an age class structure is also questionable. It is noticeable that more recent projects such as Hornsea Offshore Wind Farm Project Four and the East Anglia projects have not used this approach. Further, we advise that stable age structures are not derived using population viability analysis, and the method outlined in this report is effectively a manual version of this, which we do not recommend. We therefore disagree with the percentage of black-legged kittiwake adults and immatures in the breeding season in Volume 6, Annex 5.5: Offshore ornithology apportioning technical report (APP-095) Table 1.6.	
REP1-066.53	Offshore ornithology apportioning technical report (APP-095) section 1.3.3 51. We disagree with the methods of apportioning impacts between adults and immatures during the non-breeding season (Volume 6, Annex 5.5: Offshore ornithology apportioning technical report (APP-095), paragraph 1.3.3.8). We advise that the same approach is taken as for the breeding season, as has been advised previously during EWG meetings and correspondence, by using the proportions of adults and immatures identified by surveys, and otherwise assuming all adult-type birds are adults. Without this approach being agreed, we cannot agree the results of the EIA and HRA rule out there being an adverse effect beyond reasonable scientific doubt.	Please refer to the Applicant's response to REP1-066.19.
REP1-066.54	Apportioning individuals to SPAs Offshore ornithology apportioning technical report (APP-095) section 1.3.5 52. We require clarity regarding the method of apportioning impacts to SPAs during the non-breeding season. We advise that to calculate apportion impacts to colonies in the non-breeding season, this should be based on the proportion of the SPA adult birds, across the BDMPS total of birds of all ages, for each relevant non-breeding BDMPS season, as has been advised previously during EWG meetings and correspondence.	The Applicant can confirm that the apportioning of adult birds during the non-breeding season has been calculated by dividing the number of adult birds from a colony by the number of adult birds within the BDMPS. This means that the resulting apportioned value presents adult birds only. This then allows the site-specific age-class proportions from the DAS to be used to correct the impact value. The methodology section of Volume 6, Annex 5.5: Offshore Ornithology Apportioning Technical Note (F6.5.5 F02) has been updated at Deadline 2 to present the Applicant's approach more clearly.
REP1-066.55	Offshore ornithology apportioning technical report (APP-095) Table 1.7 53. It is not clear whether sabbatical birds (individuals which do not breed in a particular year) have been removed from the assessment. There is suggestion that they haven't (Section 1.3.4.5), yet the heading	Please see row RR-033.27 of the Applicant's Response to Relevant Representations (PDA-008) where the matter of sabbatical birds is addressed. To reiterate, the Applicant can confirm that sabbatical birds have not been removed from any of the assessments presented within the application

Reference	Written Submission Comment	Applicant's response
	of Table 1.7 suggests that sabbatical rates are considered within the HRA. JNCC advice is that sabbatical birds should not be removed (i.e. that all adult birds are considered to be breeding), and suggest that Table 1.7 is removed to aid clarity. Without this issue being clarified, we cannot agree the results of the EIA and HRA rule out there being an adverse effect beyond reasonable scientific doubt.	documents. The Applicant acknowledges that the inclusion of Table 1.7 in Volume 2, Annex 5.5: Offshore Ornithology Apportioning Technical Report (APP-095) added confusion. Volume 2, Annex 5.5: Offshore Ornithology Apportioning Technical Report (F6.5.5 F02) has been updated to remove Table 1.7.
REP1-066.56	Offshore ornithology apportioning technical report (APP-095) Table 1.17 54. There are two black-legged kittiwake colonies, "Offshore - Irish Sea" and "Morecambe Central Gas Platform" which are very close to the Mona Array (20.56km and 33.15km, respectively) with very large adult counts (1234 and 1112, respectively). It is not clear what or where these colonies are (and hence whether these are two single or multiple colonies, and whether the given distances from the Mona Array are mean distances of two or more colonies), or where the data on counts has come from. We request clarification as to whether these are offshore colonies on oil and gas platforms, the origin of the data, and the confidence that can be placed on it (i.e. whether standard survey methodologies were used. Given that these colonies have some of the largest proportional SPA weight values, much of the impacts are apportioned to these colonies, with consequently reduced impacts apportioned to SPAs. Therefore, it is important to have reliable data to use in the apportioning value calculations. We strongly recommend that these clarifications are provided, to give confidence in the data and resultant conclusions for the HRA.	As stated in section 1.3 of Volume 6, Annex 5.5: Offshore ornithology apportioning technical report (APP-095), the data for the two black-legged kittiwake colonies, "Offshore - Irish Sea" and "Morecambe Central Gas Platform" are taken from the Seabird Monitoring Programme database. To confirm, the Offshore - Irish Sea is made up of the Douglas complex, Hamilton North and Hamilton. The "Morecambe Central Gas Platform" is a single site. These platforms were counted in 2022 for "Offshore - Irish Sea" and 2020 for "Morecambe Central Gas Platform". The distance of 20.56 km is the average distance between the Mona Array Area and each of the three platforms (Douglas complex, Hamilton North and Hamilton).
REP1-066.57	Reference populations Volume 2, Chapter 5: Offshore ornithology (APP-057) sections 5.3.9.10 to 5.3.9.12 55. We maintain our disagreement over the breeding season BDMPS reference population used for the alone assessment (Volume 2, Chapter 5: Offshore ornithology (APP-057)), as has previously been advised.	Please see row RR-033.11 in the Applicant's Response to Relevant Representations (PDA-008), where the matter of the breeding season BDMPS reference population as a basis for the Mona Offshore Wind Project alone assessment is addressed.
REP1-066.58	56. In the offshore ornithology EWG07 meeting (APP-042, section D.8.1, agenda item no.2), we agreed to disagree on EIA breeding reference population "RB - We will need to"agree to disagree" on other	

Reference	Written Submission Comment	Applicant's response
	species but for Northern gannet and Manx shearwater the lower number should be used", the lower value meaning whichever is lower betweenthe SNCB approach and the applicant's proposed approach. Our agreement log (APP-042, section D.9, item 13) maintains our disagreement with the proposed approach.	
REP1-066.59	57. The Applicant states in Section 5.3.9.12 of Volume 2, Chapter 5: Offshore ornithology (APP-057) that "During the seventh EWG meeting (held 8 December 2023) [APP-042, section D.8.1, item no. 2], it was agreed that for the project alone assessment, foraging range populations could be used, however if the foraging range population is greater than the regional seas populations (BDMPS from Furness, 2015) then impacts would also be assessed against this population." This doesn't accurately reflect the discussion or minutes of the offshore ornithology EWG07 meeting (APP-042, section D.8.1, agenda item no. 2). Our advised approach remains to consider breeding adult birds at colonies within the relevant BDMPS in which the project is located, plus the immatures associated with those colonies. Data should come from the tables in Appendix A of Furness (2015) for both breeding adults and immatures.	
REP1-066.60	Population Viability Analysis Volume 2, Chapter 5: Offshore ornithology (APP-057) sections 5.7.2.105 to 5.7.2.106 58. We note the lack of PVA for common guillemot against the reference population relevant to the 1% baseline mortality trigger prompting the need for a PVA within the ES. It is acknowledged that during the breeding season the worst-case scenario of 70% displacement and 10% mortality, an increase in baseline mortality greater than 1% is predicted for common guillemot. However, it is then stated that for a more realistic 50% displacement and 5% mortality, the increase in baseline mortality would be 0.52% and therefore below the 1% threshold. This appears to suggest that the impacts from only the Applicant's preferred displacement and mortality rate are used to calculate whether 1% baseline mortality is passed, and whether a PVA is required. We advise that the full range of displacement and mortality rates should be used to calculate if and where the impact crosses the 1% baseline mortality threshold for taking through to PVA. Whilst we would not base our advice solely on the worst-case likely scenario, it is important to look at the range of likely scenarios in order to determine	The Applicant notes the JNCC's comment and maintains that an assessment using population viability analysis (PVA) based on the worst-case scenario of 70% displacement and 10% mortality is overly precautionary for the Mona Offshore Wind Project alone and welcomes the JNCC's advice that they "would not base our advice solely on the worst case likely scenario". The Applicant has provided a PVA for the cumulative impact on common guillemot within Volume 6, Annex 5.6: Offshore Ornithology Population Viability Analysis Technical Report (APP-096). Volume 6, Annex 5.6: Offshore Ornithology Population Viability Analysis Technical Report (F6.5.6 F02) has been resubmitted at Deadline 2 to address errata within the cumulative effects assessment (as identified in the Errata Sheet (REP1-044) submitted at Deadline 1 and the Schedule of Changes to the Offshore Ornithology EIA and HRA Documents (S_D2_7) submitted at Deadline 2). Within Volume 6, Annex 5.6: Offshore Ornithology Population Viability Analysis Technical Report (APP-096), the full range of impacts from 30% displacement and 1% mortality up to 70% displacement and 10% mortality is presented. The results of the cumulative PVA indicate that the population is likely to increase in size under all of the impact scenarios. This further justifies the reasoning for not

Reference	Written Submission Comment	Applicant's response
	whether there is a realistic possibility of impact that would need further consideration.	presenting a PVA for the Mona Offshore Wind Project alone as the impact would be smaller than the one predicted for cumulative impacts.
REP1-066.61	59. It is stated that PVAs have been carried out on two Sites of Special Scientific Interest (SSSI) breeding colonies. It is not clear why impacts have been assessed against those colony populations, when the reference population against which the predicted displacement mortalities were assessed was the foraging range breeding BDMPS population. We would expect to see a PVA carried out for the breeding season alone impact mortalities against the breeding season reference population. However, we don't consider that this makes a material difference to the outcomes of the impact assessment.	Please see row RR-033.14 of the Applicant's Response to Relevant Representation (PDA-008), where this point is addressed in paragraph 5.7.2.107 to 5.7.2.109 in Volume 2, Chapter 5 Offshore Ornithology (F2.5 F02). In summary, PVAs were undertaken at the request of NRW for these two Welsh SSSIs (Pen y Gogarth/Great Ormes Head SSSI and Creigiau Rhiwledyn/Little Ormes Head SSSI) following apportioning of the breeding season impacts to these two sites.
REP1-066.62	Volume 2, Chapter 5: Offshore ornithology (APP-057) section 5.7.5.13 60. We note the lack of PVA for breeding season collision impacts to great black-backed gull. Predicted collisions are above 1% baseline mortality during the breeding season, yet a PVA has not been carried out. Therefore, we would expect to see a PVA carried out for the breeding season alone impact mortalities against the breeding season reference population. However, we don't consider that this makes a material difference to the outcomes of the impact assessment.	The Applicant notes that this matter was raised in the JNCC's Relevant Representation (RR-033), and a response was provided in the Applicant's Response to Relevant Representations (PDA-008) (see row RR-033.16) submitted at the Procedural Deadline. The Applicant has provided an updated population viability analysis (PVA) for the cumulative impact on great black-backed gull in Volume 6, Annex 5.6: Offshore Ornithology Population Viability Analysis Technical Report (F6.5.6 F02) submitted at Deadline 2. This uses both the species-group and species-specific avoidance rates. The results of the cumulative PVA indicate that the population is likely to increase in size under all of the impact scenarios. This further justifies the reasoning for not presenting a PVA for the Mona Offshore Wind Project alone.
REP1-066.63	Volume 6, Annex 5.6: Offshore ornithology population viability analysis technical report (APP-096) Table 1.4 61. The BDMPS and baseline mortality values for great black-backed gull appear to be associated with the wrong seasons. For the annual assessment the BDMPS should be 44,753 with a baseline mortality of 4,252. For the non-breeding season, the BDMPS population should be 17,742 with a baseline mortality of 1,685. The PVA logs in Appendix A2.1 and A2.2 appear to have associated the correct reference populations per season, therefore the PVA itself appears to have used the correct values, but the values in Table 1.4 are incorrect. Hence, we don't consider that this makes a material difference to the outcomes of the impact assessment.	The Applicant acknowledges a discrepancy in the heading of table 1.4 of Volume 6, Annex 5.6: Offshore ornithology population viability analysis technical report (APP-096). This has been rectified in an update to this document submitted document at Deadline 2.

Reference	Written Submission Comment	Applicant's response
REP1-066.64	Volume 6, Annex 5.6: Offshore ornithology population viability analysis technical report (APP-096) Table 1.12 and 1.13 62. The extremely high predicted growth rates associated with great black-backed gull are at odds with the general trend in Global and European (where non-breeding great black-backed gull in UK waters are likely to originate) and UK breeding populations being that of decline (albeit with range expansion). For example, Burnell et al. (2023) highlights the overall declines in breeding great black-backed gull in Britain and the UK since the previous national census (Seabird 2000) of -55% and -52%, respectively. England has suffered a smaller decline (-3%), with the breeding population of the Isles of Scilly increasing slightly (14%). Given the overall picture of decline, we question whether increases in population of ~12,000% predicted by the PVA would ever be realised in reality, and hence the reliability of the PVA predictions. We strongly recommend a sense check of the PVA input and outputs before having reliance on the outputs. An obviously unrealistic outcome of the PVA does not provide confidence that the results can be relied upon, therefore we cannot agree the results of the EIA and HRA rule out there being an adverse effect beyond reasonable scientific doubt.	The Applicant notes that concerns regarding the population viability analysis outputs for great black-backed gull was raised in the JNCC's Relevant Representation (RR-033), and a response were provided in the Applicant's Response to Relevant Representations (PDA-008) (see row RR-033.29) submitted at the Procedural Deadline.
REP1-066.65	Cumulative and in-combination assessments Volume 2, Chapter 5: Offshore ornithology (APP-057) section 5.9 63. We maintain our disagreement over the approach to cumulative (EIA) and incombination assessments (HRA), and specifically the inclusion of projects with unquantified levels of impact (either because modelling techniques have changed, or their impacts were not quantitatively assessed), and this disagreement has been raised in Preliminary Environmental Information Report (PEIR) responses (APP-040, D.25.11, Unique Reference Identifier Mon_060_101_010623). In October 2023, the SNCBs supplied bespoke advice to the Mona, Morgan generation and Morecambe generation projects (Proposed methodology for 'gap-filling' the Irish Sea R4 cumulative & incombination assessments, circulated by Natural England (APP-042, section D.6.13)), providing a suggested approach to filling in gaps in data on impacts from relevant projects for cumulative/in-combination assessment. The Applicant has not followed this approach and has presented a qualitative approach for the projects with no data. We do	The Applicant notes the JNCC's comment. The Applicant has considered the advice of the statutory nature conservation bodies (SNCBs) to the Mona Offshore Wind Project regarding a hierarchal method to quantify impacts from historical offshore wind projects in the Irish Sea. In response to Section 42 comments on the Preliminary Environmental Information Report (PEIR) and the bespoke advice provided by the SNCBs (outlined in Section D.6.13 of Appendix D of Technical Engagement Plan APP-042), the Applicant updated the cumulative effects assessments (CEAs) and in-combination assessments ahead of application. The updates incorporated quantitative assessment information for historical projects where this was available from project documentation and presented in a useable format (e.g., provided a monthly breakdown of abundances or impacts). In the absence of quantitative assessment information for historical projects, a qualitative assessment using project-specific documentation was included in the CEAs presented in Volume 2, Chapter 5: Offshore ornithology (APP-057) and the in-combination assessment presented in the HRA Stage 2 ISAA Part Three: Special Protection Areas and Ramsar sites Assessments (APP-033).

Reference	Written Submission Comment	Applicant's response
	not consider that the qualitative assessments presented by the Applicant are sufficient and do not consider that robust conclusions can be drawn to rule out there being an adverse effect without reasonable scientific doubt, regarding the accumulating scale of impact to some species. We therefore reiterate that our advice for a pragmatic method to address the lack of impact assessments for a number of historical Offshore Wind Farms (OWFs) in the region remains as detailed in the original SNCB advice.	The Applicant maintains that the assessment approach presented in Volume 2, Chapter 5: Offshore ornithology (APP-057) and the in-combination assessment of the HRA Stage 2 ISAA Part Three: Special Protection Areas and Ramsar sites Assessments (APP-033) is robust and includes sufficient detail to conclude beyond reasonable scientific doubt no significant effects and no adverse effect on integrity from the Mona Offshore Wind Project alone and in-combination with other plans and projects. However, noting SNCBs concerns raised pre- and post-application with respect to the potential contribution of historical projects to the offshore ornithology CEAs and in-combination assessment for the Mona Offshore Wind Project, the Applicant has undertaken a 'gap-filling' exercise in accordance with SNCBs advice (which is presented in Section D.6.13 of Appendix D of Technical Engagement Plan APP-042) to generate indicative estimates for currently unquantified impacts from historical projects. This information is intended to further facilitate the SNCB's understanding of the total quantitative cumulative and in-combination impact for offshore ornithology. The Applicant is currently engaging with the SNCBs on the results of the gap-filling exercise for the Mona Offshore Wind Project and anticipates being able to submit information with respect to this for examination at Deadline 3.
REP1-066.66	Volume 2, Chapter 5: Offshore ornithology (APP-057) sections 5.9.2, 5.9.3, and 5.9.4 64. In the cumulative assessment, the abundance estimates at Erebus offshore wind farm are incorrect for several species. This was also the case in the Section 42 PEIR (Mona Offshore Wind Ltd. (2023), Volume 2: Chapter 10 Offshore ornithology, table 10.49, table 10.53, and table 10.59), and JNCC responded to these errors in our Section 42 PEIR response (APP-040, D.25.11, Unique Reference Identifier Mon_060_100_010623). However, the same errors remain. The abundance estimates to use should be those within Table 5-1 for common guillemot and Table 5-3 for Atlantic puffin in Blue Gem Wind (2022). The abundance estimates for Northern gannet should be those within Table 23 of HiDef (2021). The abundance estimates for blacklegged kittiwake should be those within Table 18 to 20 of HiDef (2021). Without these errors and other errors being fixed, we cannot agree the results of the EIA and HRA rule out there being an adverse effect beyond reasonable scientific doubt.	The Applicant notes the JNCC's comments. The Applicant notes that discrepancies within the cumulative effects assessment (CEA) tables were raised in JNCC's Relevant Representation (RR-033) and a response provided in the Applicant's Response to Relevant Representations (PDA-008) (see row RR-033.19) submitted at the Procedural Deadline. All of the CEA tables have been updated within Volume 2, Chapter 5: Offshore ornithology (F2.5 F02) submitted at Deadline 2 to account for errata identified in the Errata Document submitted at Deadline 1 (REP1-004) and any further discrepancies considered to be errata identified in NRW's and the Joint Nature Conservation Committee's Written Representations (REP1-056; REP1-066/REP1-067, respectively). The Applicant refers the JNCC to the Schedule of Changes to the Offshore Ornithology EIA and HRA Documents (S_D2_7) submitted at Deadline 2 for further information. The Applicant can confirm that the amendments to Volume 2, Chapter 5: Offshore ornithology (F2.5 F02) do not alter the conclusions presented.

Reference	Written Submission Comment	Applicant's response
REP1-066.67	Volume 2, Chapter 5: Offshore ornithology (APP-057) sections 5.9.3 and 5.9.4 65. In the cumulative assessment, the collision estimates for Northern gannet at Erebus are incorrect in Table 5.128. The collision estimates to use should be those within Table 5-31 of Blue Gem Wind (2022). Without this and other errors being fixed, we cannot agree the results of the EIA and HRA rule out there being an adverse effect beyond reasonable scientific doubt.	
REP1-066.68	Volume 2, Chapter 5: Offshore ornithology (APP-057) sections 5.9.2, 5.9.3, and 5.9.4 66. Impacts in the cumulative tables often do not add up to the totals at the foot of the tables, and have multiple other errors in them, such as figures apparently attributed to the wrong wind farms, seasonal impacts not adding up to annual impacts. Without this error and other errors being fixed, we cannot agree the results of the EIA and HRA rule out there being an adverse effect beyond reasonable scientific doubt.	
REP1-066.69	Volume 2, Chapter 5: Offshore ornithology (APP-057) section 5.9.3 67. For the ES cumulative assessment, it appears that collision estimates from other offshore wind farm projects have been adjusted to account for different avoidance rates. However, it is not stated that this has been done, nor how this has been done. Therefore, we cannot replicate the findings, or determine whether the method or results are correct. Without this being clarified, we cannot agree the results of the EIA and HRA rule out there being an adverse effect beyond reasonable scientific doubt.	The Applicant notes that cumulative collision estimates from other offshore wind projects and the adjustment for difference avoidance rates were raised in JNCC's Relevant Representation (RR-033), and a response provided in the Applicant's Response to Relevant Representations (PDA-008) (see row RR-033.21) submitted at the Procedural Deadline.
REP1-066.70	Part Three: Special Protection Areas and Ramsar sites Assessments (APP-033) section 1.4.6.3 68. The threshold of using 0.05% baseline mortality from the project alone to screen whether impacts should be considered in-combination was not raised by the applicant during EWG meetings or subsequently, and therefore JNCC has not agreed to this approach. We recommend that the Applicant be clear on what this percent increase in baseline mortality would be in absolute mortality terms. We are not aware that similar thresholds have been applied in other cases to screen projects in or out from incombination assessment. We request	The Applicant notes that the baseline mortality threshold for in-combination assessment was raised in JNCC's Relevant Representation (RR-033), and a response provided in the Applicant's Response to Relevant Representations (PDA-008) (see row RR-033.38) submitted at the Procedural Deadline.

Reference	Written Submission Comment	Applicant's response
	that the Applicant provide justification for the appropriateness of this approach.	
REP1-066.71	SPA features HRA Stage 1 Screening Report (APP-034) Table 1.68 69. Throughout the HRA, the qualifying features of Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA appear to be incorrect. We recommend the features and assemblages are carefully checked against the SPA designation information (JNCC, 2019), and the details within the HRA updated. We have advised on errors in the description of features of Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA during the Section 42 PEIR response (APP-040, D.25.11, Unique Reference Identifiers Mon_060_089_010623, Mon_060_116_010623, Mon_060_117_010623, Mon_060_118_010623, and Mon_060_124_010623), yet the errors remain.	The Applicant notes that the presentation of the qualifying features of Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA in the HRA application materials was raised in JNCC's Relevant Representation (RR-033), and a response provided in the Applicant's Response to Relevant Representations (PDA-008) (see row RR-033.35) submitted at the Procedural Deadline. The Applicant can confirm that discrepancies identified in the Errata Sheet (REP1-004) submitted at Deadline 1 have been addressed in updates to Volume 2, Chapter 5: Offshore ornithology (F2.5 F02), the HRA Stage 1 Screening Report (E1.4 F02) and the HRA Stage 2 ISAA for SPAs and Ramsar sites Assessments (E1.3 F02) submitted at Deadline 2. The Applicant refers the JNCC to the Schedule of Changes to the Offshore Ornithology EIA and HRA Documents (S_D2_7) submitted at Deadline 2 for further information. The Applicant can confirm that the amendments to these application documents do not alter the conclusions presented.
REP1-066.72	Part Three: Special Protection Areas and Ramsar sites Assessments (APP-033) section 1.6.3.44 70. We disagree with the interpretation that birds on migration are not specifically part of the Liverpool Bay/Bae Lerpwl SPA citation and therefore are not considered part of the non-breeding season assemblage. The SPA citation refers to non-breeding birds. There are no breeding red-throated divers in England or Wales, and therefore any birds present within the SPA will be non-breeding birds (even when present during the defined breeding season cited). We therefore do not agree that they can be discounted as not part of the protected population. We note that as per the SPA Conservation Advice (Natural England (NE), Natural Resources Wales (NRW) and the Joint Nature Conservation Committee (JNCC), 2022), April and September represent months where smaller numbers of this species can be expected, and significant Impact and Adverse Effect on Integrity (AEOI) is less likely than in 'core' months of the non-breeding period. We do not consider therefore that red-throated diver will occur in sufficient numbers and densities during the summer months (April to September)	The Applicant notes that the non-breeding season assemblage feature of the Liverpool Bay/Bae Lerpwl SPA was raised in JNCC's Relevant Representation (RR-033), and a response provided in the Applicant's Response to Relevant Representations (PDA-008) (see row RR-033.40) submitted at the Procedural Deadline. The Applicant can confirm that discrepancies identified in the Errata Document submitted at Deadline 1 (REP1-004) have been addressed in an update to the HRA Stage 2 ISAA for SPAs and Ramsar sites Assessments (E1.3 F02) submitted at Deadline 2. Please see the Schedule of Changes to the Offshore Ornithology EIA and HRA Documents (S_D2_7) submitted at Deadline 2 for further information. The Applicant is content that the assessment and conclusion of no adverse effect on site integrity presented in HRA Stage 2 Information to Support an Appropriate Assessment Part 3: Special Protection Areas and Ramsar Sites Assessments (APP-033) remains valid and welcomes the JNCC agreement on this point.

Reference	Written Submission Comment	Applicant's response
	for there to be an impact of consequence for the Conservation Objectives of the site.	
REP1-066.73	HRA HRA Stage 1 Screening Report (APP-034) 71. There are multiple discrepancies between the main text of the HRA Stage 1 Screening Report and the appendix tables of the same document. All values (text and tables) must be double-checked and updated where necessary. The HRA Stage 1 Screening Report provides very little information to cross reference which values from other documents have been used, and through what calculation, in order to generate results. Therefore, it is nearly impossible to follow what values have or have not been used. We strongly recommend that the HRA Stage 1 Screening Report contains a clear audit trail of what values and parameters have been used, where they have been used, and how they have been applied. Without this, we cannot confidently replicate the results, and hence we cannot agree the results of the EIA and HRA rule out there being an adverse effect beyond reasonable scientific doubt.	Please refer to the Applicant's response to REP1-066.6 to REP-066.9.
REP1-066.74	HRA Stage 1 Screening Report (APP-034) section 1.4.6.30 72. While we have accepted the Applicant's general approach to Likely Significant Effect screening (i.e. carrying out a displacement and collision risk assessment at the LSE stage and apportioning impacts to SPAs) and Appropriate Assessment (i.e. assessing anything more than 0.0 mortalities) in this case, JNCC has consistently advised the Applicant throughout the pre-application process that the LSE test is a course filter, and an LSE should be considered to exist where there are instances of qualifying features with potential protected site connectivity and an impact pathway (see advice given during pre-application meetings (APP-042, D.4.4), our response to the Section 42 PEIR (APP-040, Table D.25.11), and as summarised in Table 1.2 of the HRA Stage 1 Screening report (APP-034).	The Applicant notes and welcomes the JNCC's agreement with the approach to Likely Significant Effects screening and Appropriate Assessment for the Mona Offshore Wind Project.
REP1-066.75	73. In our view, the screening presented in this application has gone beyond an assessment of whether an impact pathway has the potential to compromise the ability of the site to meet its conservation objectives, and has additionally examined the magnitude of impact, as apportioned to each relevant MPA, and whether this would represent an LSE. In this	The Applicant notes the JNCC's comment and welcomes agreement that all site features have been considered appropriately within the HRA Stage 1 Screening Report (APP-034).

Reference	Written Submission Comment	Applicant's response
	case, no relevant site features have been screened out of Appropriate Assessment that should not have been.	
REP1-066.76	74. However, the principles established in statute and case law (i.e. whereby those constituent elements of the plan or project which are (a) not directly connected with or necessary to the management of the European Site(s) features and (b) could conceivably adversely affect a European site, would have a likely significant effect, either alone or in combination with other plans and projects, upon the European sites and which could undermine the achievement of those conservation objectives) ensure the consistent and systematic examination of the potential of a plan or project to cause harm to an MPA and the magnitude to which it may do so. We are of the view that the approach taken by the Applicant may not be appropriate for projects where the magnitude of impact may be expected to be larger (for example where greater densities of birds would be expected and/or larger scale projects, resulting in potentially greater absolute mortality predictions) and risks site features being excluded from further assessment inappropriately.	The Applicant notes the JNCC's comment.
REP1-066.77	HRA Stage 1 Screening Report (APP-034) section 1.4.6.49 75. As far as we are able to calculate, we generate different values of apportioned adult impacts for at least great black-backed gull and black-legged kittiwake compared to those in the HRA Stage 1 Screening Report (APP-034) appendix Tables A6, A7, and A12, for example. Due to the unclear method and values used (e.g. our comments in paragraphs 25, 26 to 33, 49 to 51, 52, and 53), it is not known whether there are errors in the calculation, or a different method has been applied, or different values are being used, to those we assume are used. We recommend a thorough check of the values and calculations used to generate the results in the HRA Stage 1 Screening Report, and that the values and method of apportioning impacts are fully presented. Without these, we cannot confidently replicate the results, and hence we cannot have confidence in the results and hence we cannot agree the results of the EIA and HRA rule out there being an adverse effect beyond reasonable scientific doubt.	Please see row RR-033.36 of the Applicant's Response to Relevant Representations (PDA-008), where a worked example for great black-backed gull from the Isles of Scilly SPA is presented. Please also see the Applicant's response for REP1-066.12.
REP1-066.78	Part Three: Special Protection Areas and Ramsar sites Assessments (APP-033) 76. We disagree with several elements of the assessment to offshore	The Applicant has submitted an update to the HRA Stage 2 ISAA Part 3: SPAs and Ramsar sites Assessments (E1.3 F02) at Deadline 2, which amends several aspects of the Skomer, Skokholm and the Seas off

Reference	Written Submission Comment	Applicant's response
	ornithology within the HRA. In addition, there are multiple errors within the tables and text, and errors when using values in subsequent stages of the assessment. Many aspects of the assessment are difficult to follow what has been done or where values have come from. Due to these disagreements, errors, and lack of clarity, we do not have confidence in the results, nor are we able to agree with the overall conclusions of the HRA, particularly with regards to Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA, in either the HRA Stage 1 Screening Report (APP-034) Table 1.68 and paragraph 1.4.6.49 or Part Three: Special Protection Areas and Ramsar sites Assessments (APP-033) Table 1.18 and paragraphs 1.5.3.34 to 1.5.3.37.	Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA assessment in light of the JNCC's Relevant Representations (RR-033).
REP1-066.79	Part Three: Special Protection Areas and Ramsar sites Assessments (APP-033) section 1.6.3.44 77. Note that predicted works (cable repair and reburial) would not need to occur concurrently in order to have the predicted impacts (just within the same non-breeding season). However, we welcome that the assessment is based on the total predicted habitat loss, irrespective of when it may occur. We don't consider that this makes a material difference to the outcomes of the impact assessment.	The Applicant notes and welcomes the JNCC's comment.
REP1-066.80	Ornithology Conclusion 78. We disagree with several elements of the assessment to offshore ornithology within the ES and the HRA. In addition, there are multiple errors within the tables and text, and errors when using values in subsequent stages of the assessment. Many aspects of the assessment are difficult to follow in terms of what has been done or where values have come from. Due to these disagreements, errors, and lack of clarity, we do not have confidence in the results, nor are we able to agree with the overall conclusions, either within the EIA or the HRA, particularly with regards to Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro Special Protected Area (SPA).	Please see the Applicant's response to REP1-066.6 and REP1-066.78.
REP1-066.81	79. The Applicant has undertaken to produce an Errata document to highlight where errors in the assessment have been made and what the values should have been, which JNCC welcomes. However, we also advise that it is for the Applicant to provide the necessary information for an HRA to be conducted, and that it needs to be demonstrated	Please see the Applicant's response in REP1-066.1 and REP1-066.6.

Reference	Written Submission Comment	Applicant's response
	beyond reasonable scientific doubt that there would not be an Adverse Effect on the Integrity of a UK MPA network site. Similarly, it is for the Applicant to provide the necessary information for a judgement of the significance of effect at an EIA scale. As the application currently stands, we do not consider that there is sufficient confidence in the results of the assessments that would support a sound decision of no Adverse Effect on Integrity/no Significant Environmental Effects. Further, we are concerned that only providing an Errata document would not provide confidence that errors did not, in fact, make a material difference to the results of the assessment, and that affected modelling/assessment should be re-run and the results provided in revised application documentation (ES, HRA and associated documents).	
REP1-066.82	80. We have referred to Applicant's responses (PDA-008) to our Relevant Representations where we consider it helps to illustrate JNCC's position on the issues highlighted, but at the time of submission of these Written Representations have not had the opportunity to fully consider and respond to those comments. We shall provide any detailed comments we have at Deadline 2.	The Applicant notes the JNCC's comment.
REP1-066.83	Marine mammal comments 81. The following Written Representations (WR) expands on our Relevant Representations (RRs) regarding marine mammals and where appropriate, advice we provided on the Preliminary Environmental Impact Report (PEIR; APP-040).	The Applicant notes JNCC's response.
REP1-066.84	82. In line with JNCCs offshore remit, we defer to NRW-A and NE where appropriate regarding impacts and SACs in territorial waters e.g. for seals and bottlenose dolphins.	The Applicant notes JNCC's response.
REP1-066.85	83. Our RRs provided a list of documents we reviewed regarding marine mammals. According to the Examination Library (EN01037), only one of these has been updated since we submitted our RRs to the examining authority (highlighted below). Our WRs reference the following documents: Environmental Statement: − Chapter 4: Marine mammals (APP-056) − Volume 5, Annex 3.1: Underwater sound technical report (APP-079) − E1.2 Part Two: Special Areas of Conservation (SACs) Assessments	The Applicant notes JNCC's response.

Reference	Written Submission Comment	Applicant's response
	(APP-032) − F5.5.1 Cumulative effects screening matrix (APP-084) Offshore plans: − Outline Vessel Traffic Management Plan (APP-200) − Outline underwater sound management strategy (APP-202) − Measures to minimise disturbance to marine mammals and rafting birds from transiting vessels (APP-203) − Outline marine mammal mitigation protocol (APP-207) Other documents − Draft DCO (AS-011, previously PDA-003) − Applicants' response to relevant representations (PDA-008) − Consultation Report Appendices – Part 3 (APP-040) − Transcript of Issue Specific Hearing 2 (ISH2) - Part 3 - 17 July 2024 (EV3-004a) − Action Points arising from Issue Specific Hearing 2 (ISH2) (Onshore and Offshore Environmental Matters and dDCO) – English - 17 & 18 July 2024 (EV3- 006a)	
REP1-066.86	Overall comments 84. We disagree with a number of approaches being taken by the Applicant within the Environmental Statement and the HRA. The main point, being unexploded ordnance (UXO) clearance which is a topic that we have raised previously We have stated previously that we do not agree with UXO clearance being included within the Development Consent Order (DCO) and draft Marine Licence (dML), and here we provide our detailed reasons for this position.	The Applicant notes JNCC's comment and has responded to specific points below. As a general position, however, the Applicant does not consider it necessary to apply for a separate marine licence for unexploded ordnance (UXO) clearance activities as such activities are assessed within relevant chapters of the Environmental Statement, such as Volume 2, Chapter 4: Marine mammals (APP-056) and are controlled by Condition 21 in Schedule 14 (deemed marine licence) of the draft DCO (C1 Draft Development Consent Order F04)) and expected to be secured in the standalone marine licence. The DCO regime set out within the Planning Act 2008 is designed to remove the need for Applicants of nationally significant infrastructure projects to obtain multiple consents from various licensing authorities. Instead, the necessary consents, powers and rights can be included within the DCO, and this includes deemed marine licences. Requesting that the Applicant apply for a separate marine licence for UXO clearance activities, particularly when such activities have been assessed within the Environmental Statement is contrary to the intended purpose of the DCO regime.

Reference	Written Submission Comment	Applicant's response
		As currently drafted, the deemed marine licence does not permit any UXO clearance activities to be undertaken without the requirements of Condition 21 in the deemed marine licence first being complied with, which require the following to be approved by the licencing authority in consultation with JNCC: • A method statement including methodologies for the identification and investigation of potential unexploded ordnance targets, clearance of unexploded ordnance and removal and disposal of large debris • A plan showing the area in which clearance activities are proposed to take place • A programme of works • A marine mammal mitigation protocol in accordance with the outline marine mammal mitigation protocol UXO clearance activities are therefore adequately controlled within the deemed marine licence.
REP1-066.87	85. Within our Written Representations, we have provided comments on the following areas of concern: 1. The inclusion of unexploded ordnance (UXO) clearance within the assessment (Paragraphs 88-94) 2. The use of 'scare charges' (Paragraph 95) 3. Due consideration of noise abatement (Paragraphs 103-111) 4. Marine mammal collision risk (Paragraphs 118-123) 5. Conclusions regarding the North Anglesey Marine SAC (Paragraphs 124-126)	The Applicant notes JNCC's response.
REP1-066.88	86. We also provide comment on missing links and references within documents.	The Applicant notes JNCC's response.
REP1-066.89	Comments on specific elements Unexploded ordnance clearance 87. Throughout the pre-application consultation JNCC have repeatedly advised against including unexploded ordnance (UXO) clearance in the DCO and dML, in particular the option for high order clearance. We agree to including a high-level assessment of potential impacts from this activity in the Environmental Statement (ES), as this provides a holistic view of all potential impacts, however it also	The Applicant welcomes JNCC's agreement with regards to include a high-level assessment of potential impacts from UXO clearance in the Environmental Statement, which is provided in Volume 2, Chapter 4: Marine mammals (APP-056). Please also see the Applicant's response to REP1-066.86.

Reference	Written Submission Comment	Applicant's response
	highlights how little is known at this stage about the requirements for UXO clearance.	
REP1-066.90	88. All construction sites are required to be certified safe from UXOs before construction can commence. Time limitations on ALARP (as low as reasonably practicable) certificates mean magnetometer surveys to identify potential UXOs, and subsequent investigative surveys to confirm which of these are UXO and whether they need clearance via detonation, must be undertaken in the months immediately prior to construction commencing.	The Applicant can confirm that detailed surveys for potential UXO are required at the locations where infrastructure will be installed. In addition, the survey for identification of potential (pUXO) must be undertaken within approximately one year ahead of the start of construction as UXO surveys and the ALARP certificates issued against the surveys are only valid for one year due to the potential for hydrodynamics to uncover UXO that may not have been detected in pre- application surveys. The draft development consent order provides for the ability to undertake necessary surveys within Schedule 14 (deemed marine licence).
REP1-066.91	89. Historically clearance has been undertaken using a method referred to as high order clearance, where a donor charge (which can contain explosive material ranging between 1-20kg in net equivalent quantity (NEQ)) is detonated next to the UXO, causing both the donor and the UXO to explode. More recently, low noise alternatives have become commercially available and a Government Joint Position Statement1 (Annex MM1) requires these methods to be the primary method of clearance in commercial clearance campaigns. This statement has been signed by UK and Devolved Governments, marine regulators and SNCBs. This includes NRW (licensing and advisory) and JNCC.	As confirmed in the Applicants Response to RR-033.42 in the Applicant's Response to Relevant Representations (PDA-008), a staged mitigation hierarchy has been committed to via the outline Marine Mammal Mitigation Protocol (MMMP) (APP-207). The assessment in Volume 2, Chapter 4: Marine mammals (APP-056) has considered the maximum adverse scenario, which in this case is high order clearance, but the Applicant highlights its commitment to the mitigation hierarchy with respect to UXO clearance which is centred on a staged approach (see outline MMMP (APP-207)), in line with the Government's Joint Position Statement, that follows: • Avoid UXO • Clear UXO with low order techniques • Clear UXO with high order techniques As demonstrated, the Applicant has committed to prioritising low noise clearance methods and using high order clearance only where it is not possible to use low order techniques.
REP1-066.92	90. JNCC strongly advise against including UXO clearance in the DCO/dML for the following reasons: a) It is not known until the site investigative surveys what type/size of UXO require clearing or options available for clearing them. The only information available prior to this is based on historical records and data from nearby projects, if available. This desk-based data is used to estimate the number and type of UXO which may require clearance, however the nature of the data means it may not always be accurate or complete. In addition, natural movement of the seabed can move UXOs	Regarding point 'a)', The Applicant highlights Schedule 14, Condition 21 of the draft development consent order (C1 Draft Development Consent Order F04), which requires a method statement for UXO clearance in addition to other information as set out in the condition and described above against REP1-066.86 to be submitted to and approved by the licencing authority in consultation with JNCC before any removal or detonation of UXO can take place. Condition 21 in Schedule 14 has been specifically included to give the licencing authority full control over the process of authorising UXO clearance. At the point of submission of the details under this condition, UXO clearance

Reference	Written Submission Comment	Applicant's response
	to different locations making what records may be available incorrect. This lack of accurate information can have implications for licensing. For example, a wind farm project in Scotland recently had to apply for three marine licenses: the first with a number to be cleared and range of UXO types based on the desk study; the second to increase this number to more than double that originally requested as more than expected were confirmed; and a third to clear a device which was not expected as it was not identified as a risk in the desk study. This demonstrates how the scenario presented in the Mona ES may not be realistic and could underestimate the risks to marine mammals.	surveys will have been undertaken and the information used to inform those details.
REP1-066.93	b) Paragraph 4.9.4.5 (page 146) of APP-056, estimates that up to 22 devices will need to be cleared from within the array area and cable corridor. To support the impact assessment, it is assumed the commonest type of UXO will contain 130kg NEQ of explosive material however it could range between 25kg and 907kg. Until the investigative surveys are completed it is unknown whether this estimate is realistic. Without more accurate information, JNCC must assume the worst-case scenario, i.e. 22 x 907kg devices when providing advice and this could result in over-precautionary mitigation requirements which should be secured in the DCO. Alternatively, if this estimate is under-precautionary (i.e. investigation surveys identify more devices than predicted by the ES), conclusions within the ES become invalid and this will have implications for HRA (see paragraph 91e). We note it is not stated within this paragraph on what these estimates are based, however for the purpose of our advice we have assumed a desk-based study was undertaken as it is routine practice.	Regarding point 'b', the Applicant notes JNCC's comment however, does not agree that the Application underestimates the risks to marine mammals, as the assessment has been based upon the maximum design scenario (MDS) of a 907 kg high order clearance which is considered to be the absolute maximum UXO size (the most likely (common) maximum size is 130 kg) and it is therefore considered that the assessment is highly precautionary. Given that the Applicant has committed to the mitigation hierarchy when clearing UXOs, the mitigation in place will also be suitable for managing any impacts on marine mammals. The Applicant highlights that the Maximum Design Scenario (MDS) has been developed on the basis of the best available information to capture the worst-case scenario such that the number and sizes of UXO are expected to fall within the envelope assessed. The Applicant confirms a site-specific desktop study was commissioned specifically for the Mona Offshore Wind Project and undertaken to estimate potential UXO to be cleared (as set out under section 3.5.3.1 of Volume 1, Chapter 3: Project description (APP-050)), and considered multiple aspects such as past UXO quantities seen on similar projects, geophysical data available for the project, the historic use of project area and location of landfalls, ports/harbours, and carried out a risk assessment for the project. The Applicant considers therefore this represents a robust site-specific baseline to identify potential UXOs, prior to more detailed site investigation surveys post consent. The Applicant highlights that the assessment is considered to be highly precautionary, and the commitments secured via the outline Marine Mammal Mitigation Protocol (APP-207) (as secured under Schedule 14, Condition 21 within the draft development consent order (C1 Draft Development Consent Order F04),are suitable for managing impacts such that no significant effects will arise.

Reference	Written Submission Comment	Applicant's response
		Any requirements for UXO clearance mitigation will be tailored to the size or size class of UXOs identified and will be agreed with the licensing authority in consultation with JNCC through the discharge of the UXO clearance method statement, marine mammal mitigation protocol and underwater sound management strategy which are secured in Schedule 14 of the draft DCO (C1 Draft Development Consent Order F04) under Condition 21(1)(a), Condition 21(1)(b) and Condition 20 respectively.
REP1-066.94	c) It is not known at this stage what method of low noise clearance will be used or whether any devices identified will require high order clearance. The method of low noise clearance currently supported by evidence is referred to as low order deflagration. This still requires a donor charge containing explosives, but the volume is much smaller e.g. the first commercial campaign to successfully use a low order deflagration used 150-250g (Annex M22). The applicant has assumed a low order donor charge of 80g when predicting injury to marine mammals from this method in the impact assessment (Table 1.27, page 54 in APP-079, and referred to in paragraph 4.9.4.5, page 146 of APP-056). It is not known at this stage who will undertake the work and what clearance tools they will have access to. Should a contractor use a low noise tool that uses a larger volume of explosive material, e.g. 150-250g, the injury ranges provided in the ES are not valid. Not only will a new assessment be required, but this has implications for the outline marine mammal mitigation plan (APP-207) as predicted injury ranges could be larger than provided in the ES.	The Applicant agrees that it is not possible to know what clearance approach will be required at this point; however, as the assessment was based on high order detonation of the largest UXO (up to 907 kg), this exceeds any smaller charge sizes required for low order clearance. Volume 2, Chapter 4: Marine mammals (APP-56) concluded that clearance of UXOs up to the realistic worst case of 130 kg could be mitigated effectively with soft start and Acoustic Deterrent Devices and therefore Applicant is confident that smaller charges as required for low order clearance can also be fully mitigated through such measures (most likely without the requirement for soft start) detailed in the Marine Mammal Mitigation Protocol (MMMP) (APP-207). Should UXO clearance surveys reveal UXOs larger than 130 kg are present, the undertaker can rely on the measures in the Underwater Sound Management Strategy (APP-202) for mitigation. As detailed in paragraph 1.6.2.4 of the Outline Underwater Sound Management Strategy (UWSMS) (APP-202) 'for UXO sizes larger than 130 kg (e.g. for the maximum UXO size of 907 kg) the use of further sound abatement measures (such as NAS) may be considered as an option (if required) and refined post-consent as a part of the Final UWSMS'. It is, therefore, not necessary to know the exact size of the clearance charge sizes at this point, and this will be determined as more detailed information becomes available post-consent following further UXO clearance surveys. The Applicant highlights the Final MMMP (APP-207) and UWSMS (APP-202) will be developed post-consent and submitted to the licencing authority for approval in consultation with JNCC. Please also see REP1-066.112 for detailed discussion on modelling of charge weights and use of donor charges.
REP1-066.95	d) Paragraph 4.9.4.3 of APP-056 refers to Robinson et al 20203 as evidence that low order deflagration results in lower sound levels than equivalent high order clearance. While this is appropriate evidence, the results are specific to a particular tool, and it is unknown at this stage	Volume 2, Chapter 4: Marine mammals (APP-056) assessed a range of UXO clearance options to demonstrate possible scenarios for both high order and low order clearance. The Applicant acknowledges that the final clearance method and size of donor charge cannot be determined at this point. To capture the

Reference	Written Submission Comment	Applicant's response
	whether similar tools developed by other companies will provide the same level of noise reduction. In addition, no evidence is provided to support claims of reduced noise levels by the lowyield method referred to in this same paragraph, or information as to what this method is or how this method defers from deflagration. For example, the Table 4.31 allows for multiple low yield charges. It is not clear why these additional charges are needed or if they will be deployed at the same time. Without knowing what low-noise method will be used and the levels of sound reduction (compared to high order clearance) that can be expected, it is not possible to be confident that the outline marine mammal mitigation plan (APP-207) will be sufficient to reduce the risk of injury to marine mammals. We also note no reference is provided regarding the potential to have to undertake multiple attempts when clearing individual devices (for any of the clearance methods) e.g. if the first attempt fails or it does not clear all the explosive material. In the past, it has been common practice for clearance companies to be allowed up to three attempts of high order clearance on a single device. The campaign detailed in Annex MM2 used multiple deflagration charges on some of the larger devices to ensure all explosive material was burned and none required recovery and disposal onshore. While this does not change the predicted injury ranges in the ES or subsequent mitigation requirements, it could extend the number of days on which detonations occur, prolonging the risk of injury and disturbance. This could have implications for HRA (see paragraph 91e) and protections afforded to European Protected Species (paragraphs 97-99).	range of UXOs, the assessment considered options from single donor charges up to multiple charges (see paragraph 4.9.4.5 and Tables 4.31, 4.32 and 4.33 of Volume 2, Chapter 4: Marine mammals (APP-056)) which may be required for clearance of larger UXOs. The Applicant does not agree that 'no evidence is provided to support claims', as paragraph 4.9.4.3 specifically references Robinson *et al*. (2023) which is a peer-reviewed scientific paper with robust methodology and detailed information on charge sizes. The Applicant acknowledges they did not present additional detail on the Robinson *et al.* (2023) study in APP-056 further to the reference, but considers it important to consider balancing proportionate detail for the reader. Robinson *et al.*(2023) detonated four 10 kg shells and four 5 kg shells which simulated real UXOs, with two of each size undergoing deflagration. The study demonstrated a substantial reduction over high order detonation, with the peak sound pressure level and sound exposure level being more than 20 dB lower for the deflagration, and the acoustic output depending only on the size of the shaped charge (rather than the size of the UXO). Therefore the Applicant considers the study to be robust evidence for the statement made in 4.9.4.3 of Volume 2, Chapter 4: Marine mammals (APP-056)). Table 4.31 in Volume 2, Chapter 4: Marine mammals (APP-056) presents an example range of low order and low yield charge configurations available for the clearance of UXO (as detailed in Table 1.15 in Volume 5, Annex 3.1: Underwater Sound Technical Report (APP-079)), to illustrate the potential impact of different clearance techniques and UXO sizes. Paragraphs 1.7.3.16 to 1.7.3.21 in Volume 5, Annex 3.1: Underwater Sound Technical Report discuss in further detail the possible clearance techniques, with paragraph 1.7.3.19 stating 'a low-yield clearance technique could be utilised for UXOs utilising two 750 g donor charges, or four 750 g donor charges in the case of German ground mines. The outline MMMP (APP-207) provides a robust framework to demonstrate that, regardless of the UXO size requiring clearance, a mitigation hierarchy will be implemented to minimise the risk of injury to marine mammals. Whilst it may be necessary to make multiple attempts at clearance of UXOs, the Applicant highlights that such attempts are expected to be made within the same clearance operation and that appropriate mitigation measures will be in place to ensure animals are outside the injury zone throughout the clearance process. Therefore, it is unlikely that the number of days on which detonations could occur would be extended (highlighting also that each event results in a very short term (1 second) elevated sound pressure field).

Reference	Written Submission Comment	Applicant's response
REP1-066.96	e) Assuming a worst-case scenario that all devices would be cleared using high order could have implications for HRA. The project array area is 23.67km from the North Anglesey Marine SAC, designated for harbour porpoise (Table 4.11, page 50 of APP-056). One of the conservation objectives for this site is no significant disturbance of the species. A noise management approach is implemented for this site to reduce the risk of disturbance to harbour porpoise (Annex MM34 and MM45), which requires daily and seasonal thresholds not to be breached. When assessing compliance with these thresholds, JNCC advocate the use of Effective Deterrent Ranges (EDRs). These are fixed disturbance ranges for different activities based on empirical evidence oppose to distances predicted from noise modelling (detailed in MM3). The current EDR for high order UXO clearance is 26km, meaning disturbance from high order clearance in the array area could impact this harbour porpoise site. The daily threshold considers the spatial area from which harbour porpoise are excluded because of the noisy event, and the seasonal threshold the number of days on which the disturbance will occur. While the area of overlap should be small (see paragraph 125 of this advice), clarity is required on whether additional attempts to clear individual devices will increase the number of days on which clearance could occur, or if required, can additional attempts be completed within the same day. Both need to be considered in-combination with other noisy activities occurring within the site at the same time.	The Applicant confirms that Effective Deterrent Ranges (EDRs) have been used, alongside a fixed threshold approach in the E1.2 Part Two: Special Areas of Conservation (SACs) Assessments (APP-032) to assess behavioural disturbance. The Applicant highlights that behavioural disturbance is not a as much of a concern compared to injurious effects for UXO clearance as the magnitude of the impact is of very short duration (1 second) for each clearance event and therefore any behavioural disturbance to animals is likely to be limited to 'a short-lived startle reaction' (see paragraph 4.9.4.31 in Volume 2, Chapter 4: Marine mammals (APP-056)). In addition, applying the 26 km EDR, the spatial extent of overlap with the North Anglesey Marine / Gogledd Môn Forol SAC is very small (2.03% of the total area) and temporally is limited to 22 days (based on the precautionary worst case assumption of a single clearance activity per day) (see paragraph 1.7.3.135 of E1.2 Part Two: Special Areas of Conservation (SACs) Assessments (APP-032)), noting that clearance operations involving multiple attempts are expected to be completed in one day.
REP1-066.97	91. In conclusion, we advise there is a risk of injury or death to marine mammals from UXO clearance. There is currently insufficient information available to be able to robustly assess the scale of this risk or its impacts to marine mammals or confirm appropriate mitigation measures to reduce the risk of injury. We strongly advise against UXO clearance being included as a licensed activity in the DCO and dML, and request that a separate marine license is applied for post-consent, once more accurate information is available.	JNCC's comment is noted. The Applicant maintains that the Maximum Design Scenario for UXO assessed in in Volume 2, Chapter 4: Marine mammals (APP-056) presents sufficient information to inform the assessment of UXO clearance for the Mona Offshore Wind Project and that measures provided in the outline MMMP (APP-207) and Underwater Sound Management Strategy (APP-202) will be sufficient to reduce the risk of injury for all marine mammal species to not significant in EIA terms (Volume 2, Chapter 4: Marine mammals (APP-056). The Applicant highlights the Final MMMP and UWSMS (APP-202) will be developed post-consent and submitted to the licencing authority for approval in consultation with in consultation with JNCC. The Applicant's position on the inclusion of UXO clearance whin the deemed marine licence is set out in our response to REP1-066.86.

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REP1-066.98	92. If high order clearance was removed from the potential clearance methods, we would reconsider this position. However, we would expect to see this clearly stated in the DCO e.g. a commitment not to undertake high order clearance and to apply for a separate ML if it was deemed necessary.	The Applicant's position is that the impact assessment presented in Volume 2, Chapter 4: Marine mammals (APP-056) is precautionary, suitable mitigation is in place and secured through Condition 21 in Schedule 14 of the draft DCO (C1 F04) and that no UXO clearance can commence without approval of the licencing authority in consultation with JNCC. For those reasons, and the reasons given in REP1-066.86, it is appropriate to retain UXO clearance within Schedule 14 of the draft DCO.
REP1-066.99	93. If UXO clearance were to remain in the DCO, we provide the following advice regarding Section 21 of the draft DCO (AS-011), which relates to UXO clearance: f) Sub-section (1) states no removal will take place until a method statement has been approved by NRW and the relevant SNCBs, and that this document will be submitted to NRW at least three months prior to the date on which clearance activities are intended to begin. The wording suggests a single document will be submitted which includes methodologies for identification and clearance of potential UXO targets as well as clearance methods. This suggests the document will be submitted prior to the investigation surveys being undertaken, meaning no more information will be available than is currently presented in the ES. As the statutory advisor for offshore waters, if high order clearance is permitted in the DCO and is included as a potential option in this method statement, JNCC will have to base their advice when reviewing this document on the worst-case scenario, that is all devices will be cleared using high order clearance. The predicted injury range for harbour porpoise from such a clearance is more than 15km (APP-056, Paragraph 1.8.2.2) - this cannot be mitigated.	The draft DCO (C1 Draft Development Consent Order F04) states that the method statement and the marine mammal mitigation protocol must be submitted to the licensing authority for approval at least four months prior to the date on which unexploded ordnance clearance activities are intended to begin (Condition 21(2) in Schedule 14). Whilst the detailed pre-construction programme has not yet been developed at this pre-consent stage, it is expected that the method statement and MMMP would be submitted for approval to the licencing authority in consultation with JNCC after completion of the surveys to identify potential UXO. Therefore, the pre-commencement documents required under Condition 21 will be more detailed and based the results of the site-specific surveys. Paragraph 4.9.1.15 in Volume 2, Chapter 4: Marine mammals (APP-056) states where 'low order/low yield measures are not possible there is a maximum risk of injury (predicted for harbour porpoise) out to 15 km for a 907 kg UXO (absolute maximum) and 8 km for a 130 kg UXO (most likely (common) maximum)' and agrees that the injury ranges are considerably larger than the standard 1,000 m mitigation zone recommended for UXO clearance (paragraph 4.9.4.16 in APP-056), and therefore 'tertiary mitigation will therefore also include the use of ADDs and potentially scare charges to deter animals from the injury zone' (paragraph 4.9.4.16). The Applicant highlights the details of appropriate tertiary mitigation are set out in the Outline MMMP (APP-207) which will be discussed and agreed with stakeholders including JNCC post-consent when further details of the size and type of potential UXOs are understood.
REP1-066.100	g) The ES (Paragraph 4.9.4.5 (page 146), APP-056) has assumed a maximum of 22 devices will be cleared and the same number is used to define the maximum design scenario in the outline marine mammal mitigation plan (APP- 207). However, no maximum number is provided within the draft DCO.	There is no need to include a value for the maximum number of unexploded ordnance (UXO) that can be cleared as Condition 21 within Schedule 14 of the draft DCO (C1 F04) provides the licencing authority in consultation with JNCC, full control over the UXO clearance process.

Reference	Written Submission Comment	Applicant's response
	A maximum number of devices to be cleared should be stated in the DCO, and this should match that used in the ES when assessing potential impacts i.e. 22. If more than this number is found once the investigative surveys have been completed, a variation or separate marine licence should be required.	
REP1-066.101	h) The applicant has committed to following a mitigation hierarchy when clearing UXOs within the EA and marine mammal mitigation plan, there is no reference to this in the DCO. There is no commitment within the DCO to prioritise low noise methods of clearance, as required by the Government Position Statement on UXOs. We recommend that only low noise methods of clearance are allowed and a commitment in the DCO that if high order clearance is required, it will be requested via a separate marine licence application.	The Applicant highlights that this commitment is described in the outline MMMP (APP-207) (in paragraph 1.4.3.1 and Table 1.2) and the outline UWSMS (APP-202) (in paragraphs 1.6.2.2 and 1.8.3.1) which will feed into the development of the Final MMMP and Final UWSMS (as required) post-consent and submitted to the licencing authority for approval in consultation with in consultation with JNCC. Primary and tertiary measures for mitigation of UXOs up to a size of 130 kg is secured in the Outline MMMP (APP-207), but for higher charge sizes additional secondary mitigation measures may be required (as stated in paragraph 1.8.3.3 of the Outline UWSMS (APP-202)) and this is secured through the UWSMS (APP-202). The MMMP and UWSMS are secured within the deemed marine licence (Schedule 14 of the draft development consent order - Document Reference C1 F04, see also the Mitigation and Monitoring Schedule – Document Reference J10 F02) and does not therefore need to be included within the drafting of the deemed marine licence itself.
REP1-066.102	94. Section (1b) of the draft DCO states a marine mammal mitigation protocol will also be submitted to NRW, in accordance with the outline marine mammal mitigation protocol (APP-207). We expand on our comments on the outline plan in our RR below, and were relevant, how it interacts with the DCO: i) Section 1.4.3 UXO clearance maximum design scenario (MDS): The MDS defined in Table 1.7 states that high order donor charges will be either 1.2kg or 3.5kg of explosive material (assumed to be NEQ although not stated), a low order clearance charge will use 80g and low yield clearance 750g. This reflects the metrics used in the impact assessment. While this outline plan would be updated prior to clearance activities commencing, it is currently not known what clearance methods will be used therefore these metrics could change. Should they differ, the conclusions within the ES and this mitigation plan may become invalid. JNCC are not assured these metrics represent the maximum that could be used; therefore, we are unable to	The Applicant disagrees that the conclusions of the marine mammal impact assessment (Volume 2, Chapter 4: Marine mammals (APP-056) could become invalid if the size of the donor or clearance charges changes. This is because the assessment has considered the MDS which is for high order clearance and therefore these smaller charges would be captured in the worst case assessed within the assessment. It is therefore not necessary to know the exact size of the clearance charge sizes at this point and this will be determined as more detailed information becomes available following site-investigation surveys and will be included in the Final MMMP (APP-207).

Reference	Written Submission Comment	Applicant's response
	advise the mitigation measures included in the plan for UXO clearance will reduce the risk of injury. Should UXO clearance remain in the DCO, we recommend Section (1b) clarifies what the MDS is or confirms that it remains as defined in the outline document submitted during examination.	
REP1-066.103	j) Section 1.6.1: The mitigation zone should be defined as the area within which injury could occur, as defined in the impact assessment. Depending on the radius of this zone, it may be possible to visually search the entire area however for many UXO clearances, the area within which injury could occur (and subsequently the mitigation zone) will be larger than can be visually searched. In such cases the area within the mitigation zone which will be visually searched should be identified i.e. a 1km radius around the device. In line with JNCC mitigation guidelines (MM56), the minimum the mitigation zone should be is 1km, regardless of the predicted injury range.	The Applicant notes JNCC's comment and can confirm that a minimum mitigation zone of 1 km will be applied in respect of UXO clearance, as detailed in paragraph 1.6.1.2 of the Final MMMP (APP-207).
REP1-066.104	k) Section 1.6.3 Passive Acoustic Monitoring (PAM) operators: We highlight that PAM operators should also have undertaken a JNCC approved training course in addition to MMOs, as the purpose of these courses is to understand how to implement the JNCC mitigation guidelines and record the effort.	The Applicant notes JNCCs response and highlights that in paragraph 1.6.3.6 of the Outline MMMP (APP-207), it states 'The PAM Operator will be suitably trained in passive acoustic monitoring and the use of PAMGuard software, with training having been provided by an appropriate organisation. PAM Operators will also have an appropriate level of field experience (i.e. a minimum of one year PAM experience on offshore projects) and must be familiar with the UK regulatory procedures pertaining to managing risk to marine mammals and marine turtles from underwater sound'. The Applicant confirms that all MMOs will have completed a JNCC-accredited training course and PAM operators will be trained though the appropriate training course for the particular PAM software employed by the mitigation team. The Applicant notes that this detail will be added to the Final MMMP. As set out in response to REP1-066.93, JNCC will be consulted as part of the discharge process for the Final MMMP and Final UWSMS.
REP1-066.105	l) Section 1.8. UXO clearance: We note that noise abatement for UXOs will be considered for devices larger than 130kg (Figure 1.3 and paragraph 1.8.2.3, APP-207). We agree the need for NAS can be considered once more information on clearance requirements is available however, we question why it will only be considered for devices larger than 130kg. The harbour porpoise injury range for a	The final MMMP will include a justification of approach for any use of NAS in Section 1.8 and will be agreed with NRW post consent as part of the discharge process for the Final MMMP. The measures proposed in the outline MMMP suggest that injury to harbour porpoise (and other marine mammals) can be fully mitigated for a high order clearance of UXO up to 130 kg. The Applicant notes JNCC's concerns and recommendations regarding the use of scare charges in

Reference	Written Submission Comment	Applicant's response
	130kg high order clearance is predicted to be just over 8km; this distance cannot currently be mitigated. We also note the Marine Management Organisation routinely includes a consent condition in marine licenses for UXO clearance requiring noise abatement for all UXOs containing more than 50kg of explosive material (NEQ). Justification of this approach will be required. Section 1.8.4 discusses how PAM will be the only way of performing a predetonation search during periods of limited visibility including nighttime (paragraph 1.8.4.2). This implies that UXO detonation will occur 24-hours a day. JNCC do not recommend that UXO clearance is undertaken in periods when a visual search cannot be undertaken, including at night. A soft start procedure in the form of 'scare charges' is included in the protocol for high order clearance (Figure 1.3 and Section 1.8.6, APP-207). JNCC do not advocate the use of these charges as a soft start for UXO as their scaring effect is not proven (Lewis 19967, Keevin and Hempen 19978), and would result in unnecessary additional noise being emitted into the environment. We note the applicant's response to our relevant Response on this (RR-033.57 and RR-033.65, PDA-008); we agree this element of the mitigation plan could be discussed further when the mitigation plan is finalised as it involves taking something out rather than putting something in, however, we do not anticipate our stance changing on this. This advice should also be considered when justifying why noise abatement is only proposed for devices greater than 130kg in weight. JNCC currently advise that a visual search is undertaken prior to activating ADDs and visual searches should be adapted to accommodate this. Modelling undertaken for McGarry et al 20229 (Annex MM6) suggests injury could occur if animals are within 100m of an ADD when it is switched on. To reduce this risk, observers should ensure no animals are nearby before switching devices on.	REP1-066.102 and accepts that mitigation tools such as these (as well as ADDs) represent additional noise in the marine environment. The Applicant highlights that the outline MMMP (APP-207) was developed to include measures which would minimise the introduction of additional noise into the marine environment whilst also ensuring that the risk of injury can be mitigated. The proposed scare charges are very small in size (between 50 to 200 g) and the introduced noise from the charges (up to six in total) would result in an extremely short term (1 second each) elevation in sound. Such charges have been routinely used in UXO clearance activities to ensure marine mammals are deterred from areas where the risk of injury could occur. Therefore, on balance the additional noise (up to 6 seconds per UXO) from the scare charges is considered to outweigh the risk of a marine mammal experiencing a permanent hearing injury. The Applicant welcomes the agreement that the use of scare charges (or discussions of alternatives) can be finalised post consent. The Applicant can confirm that UXO clearance will occur in daylight hours only (as stated in paragraph 1.8.3.1 of the outline MMMP (APP-207)) and that both MMOs and PAM operators will be employed to ensure effective mitigation.
REP1-066.106	m) Generally, this outline document is not practical for use in the field. We question why so much detail is required on the outputs of the ES assessment, and if it is to remain in the final document, recommend it is done so as an annex. This would enable to mitigation personnel to more effectively find the information they need to perform the mitigation.	The Applicant notes JNCCs response and will consider revising the detail on the outputs of the Environmental Statement (APP-056) for the Final MMMP.

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REP1-066.107	Other comments: 95. The ES (APP-056) claims the UXO most likely to be found will contain 130kg explosive (paragraph 1.8.2.2). The impact assessment (Table 1.15) predicts injury to harbour porpoise for such a device could occur out to 8km using high order clearance. This is greater than can be currently mitigated for injury therefore a European Protected Species License for injury will likely be required. This application process requires three tests to be passed: a. Whether the activity fits one of the purposes specified in the Regulations. b. Whether there are no satisfactory alternatives to the activity proposed (that would not incur the risk of offence); and c. That licensing the activity will not result in a negative impact on the species'/population's Favourable Conservation Status (FCS).	The Applicant notes JNCC's response and highlights that as set out in rows REP1-066.101 and REP1-066.105 the outline MMMP (APP-207) suitably secures mitigation for high order clearance up to and including a UXO of 130 kg. The Applicant has provided a detailed response regarding this approach to JNCC's written representation REP1-066.102 and reiterates that discussion on the appropriate deterrence measures can be discussed post-consent. The Applicant notes JNCC advice regarding the requirement for an EPS licence and intends to submit a licence application for any activities which have the potential to impact marine mammals as per the Conservation of Habitats and Species Regulations 2017 ('the Regulations'). An additional document (an EPS supporting information document) will be produced to support an EPS licence application which will provide an assessment against the three tests as highlighted by JNCC in their written representation (REP1-066.107). The potential risk to EPS is highlighted within the Environmental Statement, with specific discussion of EPS in paragraphs 4.2.1.3; 4.5.2.2 and 4.5.3.1 and Table 4.10 of Volume 2, Chapter 4: Marine mammals (APP-056), and the information provided in Volume 2, Chapter 4: Marine mammals (APP-056) will be used to underpin the EPS supporting information document. The Applicant considers that the detail provided therein is sufficient based on information currently known, and this detail will be built on using information gathered through UXO clearance surveys post consent. The Applicant emphasises a specific EPS risk assessment will be carried out post consent, which will be refined following specific UXO surveys, and mitigation will be developed and agreed based on the actual UXO sizes identified. For example, Section 1.4.4 in APP-031 provides the information regarding the Imperative Reasons of Overriding Public Interest (IROPI) of the proposed development and provides an assessment of alternatives for the proposed development at a plan level (noting that additional detail will be provided in the tailored EPS supporting information document on each of the specific licensable activities), Volume 6, Annex 4.1: Marine Mammal Technical Report (APP-090) and section 4.5 in Volume 2, Chapter 4: Marine mammals (APP-056)provides information on species baseline, Section 4.5.4 in Volume 2, Chapter 4: Marine mammals (APP-056) states the favourable conservation status (FCS) of EPS in UK waters and Section 4.9 in Volume 2, Chapter 4: Marine mammals (APP-056)provides the quantitative information for those activities which require consideration under the EPS licence.
REP1-066.108	96. We do not believe sufficient information is provided in the ES to robustly pass these tests.	
REP1-066.109	97. Regarding disturbance to EPS, this will depend on the duration over which the clearance will occur. SNCB guidance10 (see Annex MM7) considers noisy activities lasting more than four to six weeks as causing an offence. If it is assumed clearance will take 22 days (one device per day), this campaign would take four weeks. Clarification would be needed on whether contingency attempts to clear individual devices would extend this duration, or if all devices can be cleared in a single day even with additional attempts. This will help determine whether a licence should also include disturbance.	

Reference	Written Submission Comment	Applicant's response
		The Applicant highlights that 22 days of UXO clearance would be under four weeks if undertaken consecutively but acknowledges the resulting potential risk of injury and disturbance and highlights the Applicant's commitment to the UWSMS (APP-202) which will provide measures to reduce the potential for significant effects in respect of elevated underwater sound from a range of activities including UXO, if required post consent following further information on UXO to be cleared. The Applicant highlights that behavioural disturbance may not be as much of a concern compared to injurious effects for UXO clearance as the magnitude of the impact is of very short duration (one second) for each clearance event and therefore any behavioural disturbance to animals is likely to be limited to 'a short-lived startle reaction' (see paragraph 4.9.4.31 in Volume 2, Chapter 4: Marine mammals (APP-056)); however, this will be fully considered within the EPS licence Risk Assessment accordingly.
REP1-066.110	98. Updates to the government Joint Position Statement on UXO clearance and release of a Defra noise policy paper referred to in our RRs have been delayed due to the recent election and change of government. Minutes from the workshop at which the noise policy was discussed can be found in Annex MM8.	Whilst the Applicant is aware of the Defra noise policy paper, at this point guidance is not in the public domain. The Applicant will consider any guidance on UXO clearance or noise policy when it is published and align accordingly through the final MMMP, final UWSMS and in the other information to be submitted under Condition 21 of Schedule 14 in the draft DCO (C1 Draft Development Consent Order F04).
REP1-066.111	99. Paragraph 4.9.4.8 (page 146) of APP-056 advises caution when interpreting large injury ranges such as those predicted for high order clearance. This is because the sound is unlikely to maintain its impulsive character as it travels away from the point of detonation. The references provided to support this hypothesis (Hastie et al 2019) refers to seismic airguns and pile-driving, both of which involve repeated pulses of noise resulting in prolong sound duration over, usually, several hours. This is not, however, the case for UXO clearance which involves a single pulse of noise. We request evidence is provided to confirm this theory can be applied to UXO clearance in the same manner as for piling and seismic surveys.	The transition from impulsive to non-impulsive sound is an effect which occurs during the propagation of sound, not at source. This propagation effect is due to non-linear dispersion and high frequency absorption and occurs for all impulsive (and indeed non-impulsive) sound sources. The resulting effect is an elongation of the pulse length for each individual pulse and a change to the shape of the waveform. In the case of seismic and piling sound there are multiple pulses which experience this same effect, whereas in the case of UXO clearance it is a single pulse which experiences this effect. A useful analogy would be hearing thunder at close range vs at a larger distance of several miles: at more distant ranges the thunder can be heard as a "rumble" rather than a "crack" at closer ranges. This effect is clearly demonstrated in noise monitoring data for UXO clearance and other underwater explosive use where more distant measurements consistently show an elongation of the pulse length, loss of high frequency energy and reduction in other measures of impulsivity such as kurtosis. Example reports which clearly demonstrate this effect for UXO clearance include the noise monitoring reports for Seagreen and Moray West

Reference	Written Submission Comment	Applicant's response
		(e.g. Cook *et al*., 2021, Lee *et al.,* 2023a and 2023b and Stephenson *et al.,* 2024).
REP1-066.112	100. Underwater sound technical report (APP-079), Table 1.29, potential impact ranges for high order clearance of UXOs: these results have assumed three weights of UXO however it is not clear whether this includes the donor charge or is just the weight of the UXO itself. If the latter the injury ranges could potentially be larger.	For the assessment of a potential "high order" detonation the modelling has been based on the size of the UXO NEQ. Typically, the "donor" charge sizes used for UXO clearance (whether high order or low order clearance techniques are used) are in the order of a few hundred grams of explosive, compared to several kilograms NEQ for the UXO. Any contribution from the donor charge is insignificant compared to the main UXO charge size in these calculations and any increase in calculated sound level is well below the inherent uncertainty of the noise modelling methodology. For example, adding a donor charge weight of 500 g to a UXO NEQ of 907 kg results in an increase in the received sound level by 0.0018 dB (based on calculations using the methodology as set out in Volume 5, Annex 3.1: Underwater Noise Technical Report (APP-079)), which does not affect the calculated PTS or TTS ranges. It is only when the UXO NEQ is of a similar size to the donor charge that the received sound level and injury ranges are affected significantly. For example, if the donor charge is of equal size to the UXO NEQ then the received sound level increases by 2.3 dB, reducing to a 0.3 dB increase if the donor charge is one-tenth of the weight of the UXO NEQ. It can therefore be concluded that in the case of the UXO NEQs assessed for Mona the increase in received sound level and PTS/TTS range would be negligible if the donor charge NEQ was added to that of the UXO.
REP1-066.113	Construction piling 101. Section 4.9.3 of the ES (APP-056) considers injury and disturbance from piling noise.	The Applicant highlights an errata in Table 1.2 of the MMMP (APP-207) that the use of noise abatement systems (NAS) should have been referred to as 'secondary measures' rather than 'tertiary measures'. Tertiary measures are those considered to be standard industry practice, whilst secondary measures are those that are considered additional mitigation and include the use of NAS. Whilst the Applicant is aware of ongoing discussion surrounding commitment to NAS, at this point guidance is not in the public domain. The Applicant does not have access to MM8 and verbal announcements at workshops that are not yet published in regulatory guidance. Furthermore, the efficiency of NAS has not been tested in UK waters at this stage. The Applicant has not ruled out NAS and has agreed to considering it as part of a holistic approach to ensuring no significant effects from underwater sound on marine mammals. The Applicant reiterates that NAS will be considered as part of the development of the final UWSMS (as detailed in Volume 2, Chapter 4:
REP1-066.114	102. When commenting on the PEIR (APP-040), JNCC requested the inclusion of noise abatement technologies in the outline marine mammal mitigation plan due to the large injury ranges predicted for minke whale when using the cumulative SEL metric (7.4km, Table 4.26 respectively (APP-056)). This was added to the current submissions (APP- 207) and is referred to in the impact assessment, however, we believe it has not been given sufficient consideration.	
REP1-066.115	103. Table 1.2 of the outline MMMP (APP-207) describes the measures to be adopted as part of this project; the use of noise abatement is included under the heading of Tertiary measures. This table describes noise abatement as something that will be considered in the	

Reference	Written Submission Comment	Applicant's response
	Underwater Sound Management Strategy (APP-202), 'if it is required as an option'.	Marine mammals (APP-056)), demonstrating the commitment to using best endeavours to deliver noise reductions on developments, but its requirement should not be taken as definitive at this stage. The UWSMS is a comprehensive approach that demonstrates the Applicant's commitment to utilising best endeavours to reduce the noise impacts of the Mona Offshore Wind Project and reduce underwater sound in our application across borders. The Applicant does not use its location in Welsh waters as justification for not using NAS given the MMO announcement and highlights the UWSMS considers the Project's contribution to any cumulative impacts also (see paragraphs 4.11.2.53/54, 4.11.2.83/83 for example in APP-056). When regulatory guidance on NAS is released, the Applicant will review and align accordingly. The Applicant disagrees that the document or APP-056 does not commit to measures which will avoid or reduce noise levels; Table 4.17 in APP-056 details measures such as piling soft start, ramp up, limits to maximum hammer energies and concurrent piling. Table 4.17 in Volume 2, Chapter 4: Marine Mammals (APP-056) states consideration of Noise Abatement Systems (NAS) will be made as part of a stepped strategy post consent and following the mitigation hierarchy - avoid, reduce, mitigate.
REP1-066.116	104. The Marine Management Organisation held a noise abatement workshop in March 2024, which in part aimed to forewarn industry that from 2025, they should expect to see changes in how noise from piling is managed in English waters. This was due to the expected increase in noise levels in coming years and the increasing need for developers to demonstrate they have used best endeavours to deliver noise reductions on their developments.	
REP1-066.117	105. Minutes from this workshop are provided in MM8. It was considered industry-wide adoption of noise reduction systems during piling will be the only way developments can continue to be authorised. Reference was made to a verbal announcement in January 2024 that the MMO would require all projects piling in 2025 to use noise abatement, and they will be expecting a thorough review of potential noise abatement options and its potential use for piling activities (MM8). This includes an expectation that industry will provide thorough justification why noise abatement can't be used, should that be the case.	
REP1-066.118	106. JNCC support this approach and agree the use of noise abatement will be crucial in managing underwater noise levels from piling in the future. While this development is not in English waters, the Mona wind farm array area borders English waters and noise from piling will travel across this border. We feel it is not unrealistic to expect all developers to demonstrate how they will avoid or reduce noise levels in their applications, regardless of project location. The Mona outline mitigation plan (APP-207) repeatedly refers to a mitigation hierarchy of avoid, reduce, mitigate, however this document (nor the ES) does not commit to any measures which will avoid or reduce noise levels produced during piling. Instead, it focusses on the mitigation option and reducing the risk of injury. The outline Underwater Sound Management Strategy (APP-202) does describe noise abatement as a potential secondary measure and briefly describes options currently available however, there is no commitment to use it.	
REP1-066.119	107. We are also aware of another three wind farm projects being progressed in the Liverpool Bay area: Morecombe (8.9km from Mona	

Reference	Written Submission Comment	Applicant's response
	array area), Morgan (11km) and Morven (357km). The construction of all these projects is expected to overlap with construction at Mona (Section 1.8, APP-084). Managing the cumulative noise from so many projects within a relatively small area will be extremely difficult, particularly if noise abatement is not committed to in the marine mammal mitigation plans of each project. These other projects are in English waters so given the MMO announcement, we can anticipate them using noise abatement, but we do not foresee this as justification for Mona not to.	
REP1-066.120	108. At this same workshop, Defra announced they would be publishing a noise policy paper. This was anticipated to be published end Q2 2024, however this has been delayed due to the recent change in government. The policy was described as providing Defra's priorities for underwater noise across the UK in coming years, including an expectation that industry has strong consideration of noise reduction methods on projects. A presentation was also provided detailing the outputs of a Defra commissioned project investigating the feasibility of introducing an underwater piling decibel limit in UK waters, which if introduced would require the use of noise reduction methods.	The Applicant is aware of the Defra feasibility project and consideration of piling decibel limit in UK waters and will consider the guidance and limits when in the public domain.
REP1-066.121	109. A clearer commitment to reducing noise levels would also support future European Protected Species (EPS) licence applications which may be required and are usually applied for post-DCO consent. This process requires three tests to be passed (see paragraph 96). Currently we do not believe sufficient evidence is provided to support compliance with test 2.	The Applicant notes JNCC advice regarding the requirement for an EPS and intends to submit a licence application for any activities which have the potential to impact marine mammals as per the Conservation of Habitats and Species Regulations 2017 ('the Regulations'). See the Applicant's response to paragraph REP1-066.96 which signposts to where in the Application the relevant information was provided to support the EPS licence application. The Applicant highlights that this information will be compiled in an EPS supporting information document which considers the compliance with the three EPS tests (see Applicant's response to REP1-066.96 above).
REP1-066.122	Other comments 110. Section 18(h) of the draft DCO lists a marine mammal mitigation plan as being a required document if piling is to occur. However, there is no link in the text to the Underwater Sound Management Strategy (Section 20), the outline version of which states this mitigation plan will form an annex of (Section 1.1.3, APP-202). Neither does it mention UXO clearance, as Section 21 of the DCO claims to use the same document. This makes the current wording contradictory as Section 18 implies the plan will only be developed if piling occurs. We also	The Applicant confirms that the Final MMMP (in accordance with the Outline MMMP (APP-207)) and Final UWSMS (in accordance with the Outline UWSMS (APP-202)) will provide measures to reduce the potential for significant effects in respect of elevated underwater sound from a range of activities which include UXO clearance as well as piling. Submission of the Final MMMP for piling is secured in Condition 18(1)(h) in Schedule 14 of the draft DCO (Document Reference C1 Draft Development Consent Order F04) and for UXO clearance Is secured in Condition 21.This is to allow for separate MMMPs for UXO clearance and piling to be submitted for approval to meet the project delivery programme.

Reference	Written Submission Comment	Applicant's response
	recommend links are made to vessel movement strategies to reduce collision risk in both the DCO and mitigation plan (see paragraph 116).	Condition 20 in Schedule 14 of the draft DCO (C1 Draft Development Consent Order F04) secures submission of a Final UWSMS in relation to piling and UXO. The Outline MMMP is described within the Outline UWSMS as an annex to demonstrate to interested parties that they are linked documents but this does not require them to be linked within the drafting of Schedule 14 of the Draft DCO.
REP1-066.123	111. We return to our comment on the PEIR regarding the assumption that the extent of disturbance from piling is likely to be over-estimated due to noise losing its impulsive characteristics with range [referenced in both APP-056 and APP-032]. Our original comment was based on the disturbance assessment being undertaking using a dose response curve, which was generated based on field observations collected up to several km from the piling activity, and that animals will have reacted to the noise they received at that location.	The Applicant notes JNCCs response on the application of the dose-response curve and highlights that, in their response to RR-011.34 in the Applicant's response to relevant representations (PDA-008), the Applicant stated that at these larger ranges (compared to the smaller ranges at Beatrice offshore Wind Farm), most of the sound within the peak hearing sensitivity of harbour porpoise will have dissipated, leaving primarily low frequency sound, which they are less sensitive to and may not even be able to hear. Therefore, at Beatrice, where ranges were much smaller, the sound may have retained its impulsive high-frequency characteristics for the entire range, whilst at Mona the contours are much larger and may have transitioned to low frequency sound. The Beatrice study which established the dose-response curve was based on the sounds encountered at the ranges for that study and therefore if the ranges (e.g. at Mona Offshore Wind Project) extend beyond that for Beatrice, then the frequency content and sound characteristics will naturally differ, and it is well established that sound loses high frequency content over larger ranges. As stated in paragraph 4.9.2.39 of APP-056 defining this transition range is an active area of research and scientific debate, with several other potential methods being investigated, and therefore comparison of dose response at different ranges is still limited and the Applicant has used the best available evidence in informing their assessment.
REP1-066.124	112. We note the applicant's response to a similar comment from NRW on this matter (RR-011.34, PDA-008). We agree that the characteristics of the sound source should not be ignored, however, as the dose response curve is based on field observations, it already accounts for differences in behaviour relative to an individual's distance from the noise source and any differences in the characteristics of the sound at that distance.	
REP1-066.125	113. We also note the applicants response that 'these ranges [single strike sound exposure level] predicted for Mona are much larger than the ranges measured in the Beatrice study (which was used to develop the dose-response curve), meaning that the frequency spectrum of sound used to derive the dose-response for Beatrice will differ and, for the same sound level (measured as SELs), the proportion of animals affected would likely be greater at closer distances compared to larger distances as the pulse characteristics of the sound are less dispersed. Thus, a proportional response curve from a study predicting smaller ranges will be more conservative when applied to a study predicting larger ranges'. This statement requires evidence to support it, and if not available, it should be made clear this is the applicants opinion/interpretation.	

Reference	Written Submission Comment	Applicant's response
REP1-066.126	114. We also agree that this is a topic which requires further study to establish ranges at which impulsive noise sources lose their impulsiveness.	
REP1-066.127	Elevated underwater noise levels from sources other than piling and UXO clearance 115. Please refer to our response to Action Point 25 from ISH2 (EV3-006a) regarding underwater noise from construction and operational vessel movements. We agree with Natural Resources Wales (NRW) Relevant Representations (PDA-008, Unique Reference Identifier RR-011.27) that, "there is inadequate justification for an overall conclusion of low magnitude'. We note that the estimated numbers of animals disturbed by vessels and any subsequent conclusions are based on static impact radii. Given the known sensitivity of harbour porpoise, in particular to vessel noise, and the increase in the number of vessels in the area compared to baseline vessel traffic, we advise that the assessment is revised and quantified both for the project alone and incombination with other projects." We note that the Applicant's response (PDA-009) gives examples of the studies used within the Environmental Statement (APP-056); however, these are often based on either a single vessel, or a single type of vessel, whereas there would likely be a range of vessels (or other noise sources) occurring simultaneously. We recognise it is impractical to determine the impact ranges of all vessels that may be present. We therefore agree with the suggestion being put forward in advice from NRW of assuming a single track for all vessels from port to the array area (e.g. the centre of the array), and using an impact radius taken from the literature to the estimated ensonified area.	The Applicant highlights that an alternative method was proposed and used in the assessment in APP-056, which gave numbers of animals disturbed per vessel using highly precautionary impact ranges from literature. The Applicant also quantified the elevation in vessels above the baseline. The Applicant did not go further and sum the impact ranges of all vessels, as, in agreement with NRW (page 182 of Consultation Report Appendices - Part 3 (D.25 to F) (APP-040)), this would be unrealistic and lead to a highly over-amplified assessment. The Applicant reviewed the suggested Wylfa assessment following S42 responses and highlights the Wylfa Newydd study had a maximum impact range of 60 m, whilst our assessment had modelled ranges of ~4 km. In any case, as described above, the assessment applied a highly conservative range of up to 7 km (based on a literature review) and therefore this represents a 3 km buffer around the modelled impact range. The Wylfa study also assessed harbour porpoise responses using different older thresholds for a "minor" behavioural effect, which were derived from single airgun impulses (i.e., not a continuous threshold) and therefore the approach is not comparable. The Applicant highlights that the conservative range of 7 km is far enough from the SAC and that there would be no time/area threshold exceedance leading to an adverse effect for harbour porpoise Special Areas of Conservation (SACs) (which lies 23.67 from the Mona Array Area / 17.5 km from the Mona Offshore Cable Corridor). The Applicant considers that they have gone above and beyond previously accepted DCO assessments such as Awel y Mor, and that further calculations would not change the outcome of the assessment. The Applicant also highlights that in their Written Representation (REP1-056), NRW agreed in paragraph 161, that due to the Applicant's commitment the development of, and adherence to, an Offshore Environmental Management Plan (EMP) which includes measures to minimise disturbance to marine mammals (and rafting birds) from transiting vessels, NRW consider the EMP should mitigate most of the impacts making the 'overall conclusion acceptable' (of low magnitude). See the Mitigation and Monitoring Schedule (Document Reference J10 F02) for further detail on how this is secured.
REP1-066.128	Collision risk to marine mammals from construction and operational vessels 116. JNCC did not provide comment on this potential risk in our	The Applicant welcomes JNCCs response and confirmation of no major concerns with collision risk.

Reference	Written Submission Comment	Applicant's response
	Relevant Representations as we have no major concerns with the assessment or its conclusions. We provide the following information for clarity of our position noting aspects of this assessment were raised at the ISH2 (EV3-004a).	The Applicant confirms that the MMMP (APP-202) will be considered when developing the final Vessel Traffic Management Plan (in accordance with teh outline - APP-200). The Outline MMMP (APP-207) focuses on mitigating injury from underwater sound in accordance with JNCC guidance, and it is not standard approach to include collision risk in a MMMP. Condition 18 in Schedule 14 of the draft DCO (C1 F04) required that the Applicant develop an Offshore Environmental Management Plan (EMP), which includes Measures to minimise disturbance to marine mammals and rafting birds from transiting vessels (in accordance with the outline measure to minimise disturbance to marine mammals and rafting birds from transiting vessels (APP-203)), which secures the commitment that the site induction processes will incorporate the principles of the Wildlife Safe (WiSe) Scheme to ensure that key personnel are aware of the need to follow the principles of the WiSe Code of Conduct. The WiSe Scheme is a UK national training scheme for minimising disturbance to marine life and will aid in minimising the potential for collision with marine mammals. The Applicant highlights that the Vessel Traffic Management Plan (APP-200) is a separate document to both the UWSMS (APP-202) and MMMP (APP-207), given the purpose of the VMP relates to improve safety of navigation and reduce risk of accidents occurring at sea, but directs JNCC to Measures to minimise disturbance to marine mammals and rafting birds from transiting vessels (APP-203) as part of the Offshore EMP. The Applicant highlights connectivity between plans are detailed in the Relationship of offshore plans included within the DCO (APP-197)).
REP1-066.129	117. JNCC agree that vessels travelling at faster speeds pose a greater risk of collision, as does erratically moving vessels, such as those associated with recreational activities. We also agree evidence is available demonstrating that reducing or restricting vessel speeds can reduce the risk of collision for marine mammals (for example, those provided in Section 4.9.6 of APP-056).	
REP1-066.130	118. The applicant has submitted an outline Vessel Traffic Management Plan (APP-200) which is of relevance to this discussion. Measures proposed within this plan include: − Advance planning, scheduling and coordination of vessel operations to deconflict and minimise simultaneous operation (SIMOPS). − Limitations on fuel types or vessel speeds to meet emissions requirements. − Passage planning and indicative transit routes.	
REP1-066.131	119. All the above will help reduce collision risk for marine mammals however, there is no reference to this in the Environmental Limits sections for either the construction or operational stages. This is despite Section 1.7 stating the Marine Mammal Mitigation Protocol may need to be considered with developing the final version of this vessel plan. We also note the outline Marine Mammal Mitigation Plan makes no reference to measures to reduce collision risk or the Vessel Management Plan.	
REP1-066.132	120. While we are in agreement with the ES conclusions, connectivity between these plans is required and clarity provided to support the conclusions in the ES of where measures being implemented will also reduce the risk of collision. We do not anticipate additional measures above what is currently proposed being required, rather acknowledgement of all the benefits. Given the conclusions of the assessment assume that not all collisions are lethal (paragraph 4.9.6.13, APP-056), and this is related to vessel size and transit speed (paragraph 4.9.6.8, APP-056), we advise that speed restrictions are imposed.	

Reference	Written Submission Comment	Applicant's response
REP1-066.133	121. We also note the measures proposed to minimise disturbance to marine mammals and birds from transiting vessels (APP-203). We highlight that Table 1.1 claims to summarise issues raised during consultation, however this document was not presented to the marine mammal EWG, as illustrated by Table 1.1. We do, however, note the commitment to comply with the Wildlife Safe Scheme or similar, to reduce potential disturbance impacts from vessel movements. It would be beneficial if this was also stated in the Vessel Traffic Management Plan.	The Applicant will review whether the inclusion of the Wildlife Safe Scheme in the final Vessel Traffic Management Plan (in accordance with the Outline VMP (APP-200)) is appropriate (given the purpose of the VMP relates to improve safety of navigation and reduce risk of accidents occurring at sea).
REP1-066.134	North Anglesey Marine SAC 122. In our RR (RR-033.48, PDA-008), we confirmed we agreed with the conclusion of no LSE to this site from piling and UXO clearance noise due to the distance of the project array area to this site.	The Applicant notes JNCCs response and considers that, even with the assessment using precautionary figures for the MDS (higher order 907 kg x 22 UXOs detonated at one per day), disturbance associated with UXO detonation would not exceed the daily 20% disturbance threshold or the 10% threshold of the relevant area of the site over the season. As stated in paragraph 4.9.4.45 of APP-056, a more detailed assessment of mitigation will be undertaken post-consent as further information on the number, condition, and type of UXOs becomes available through pre-construction UXO clearance surveys to inform the development of the Final MMMP and Final UWSMS which will be submitted the licensing authority and approved in consultation with JNCC. Therefore, the Applicant acknowledges this will be reviewed nearer to the time, in line with JNCCs request.
REP1-066.135	123. We further clarify that this agreement assumes a low noise method, for example deflagration, is used for all UXO clearances. We do not agree with the conclusion of no LSE for high order clearances as the proposed array area is within 26km of this site, the current effective deterrent range (EDR) for this activity. As described in the Special Areas of Conservation (SACs) Assessment (APP-032) paragraph 1.7.3.135 , the EDR overlaps with 2% of the site (66km2); therefore when UXO clearance is considered alone, the affected area of the SAC would be within the 20% daily threshold. Twentytwo days of clearance would account for 0.24% of the seasonal threshold. The current in-combination assessment also suggests the thresholds would not be breached, however this would need to be reviewed nearer the time to reflect any other activities licensed in the interim period.	
REP1-066.136	124. We agree that the current EDR for pin piles (15km) does not overlap with this site and highlight JNCC is about to commission a contract to review the harbour porpoise EDRs.	The Applicant notes JNCCs response and will consider the new EDR guidance when it is available in the public domain, noting the agreement that there is no potential for overlap with the North Anglesey Marine/Gogledd Môn Forol SAC.
REP1-066.137	125. Additional comments on the draft DCO: • Section 18.-1(e): we question why the Marine Mammal Mitigation Plan is not listed here, noting our previous comments on how it is referenced within the draft DCO. • Section 29, Marine Noise Registry (MNR): The MNR has been developed by JNCC on behalf of Department for Environment, Food and Rural Affairs (DEFRA) and the UK devolved administrations to	Condition 18(1)(h) includes the marine mammal mitigation protocol in relation to piling activities and it does not therefore need to be referenced in 18(1)(e), Schedule 14 of the draft Development Consent Order (Document Reference C1 F04). Regarding Condition 29, given the obligation to submit information on geophysical surveys to the MNR is not a requirement it is not necessary to

Reference	Written Submission Comment	Applicant's response
	record human activities in UK seas that produce loud, low to medium frequency (10Hz – 10kHz) impulsive noise, and supports commitments made in the UK Marine Strategy. The DCO only commits to submitting data for piling and UXO clearance. Geophysical surveys will be conducted during the construction of this project and may use equipment that falls with the range of data to be collected by the MNR. While these surveys do not require to be licenced, we request this data is voluntarily submitted by the applicant. A commitment to do so in the DCO would be beneficial.	include reference to this within the deemed marine licence. The Applicant can confirm it will do this at the relevant time in line with best practice.
REP1-066.138	126. The following advice relates to the offshore environment, extending out from the 12nm limit. For benthic ecology advice within 12nm, we defer to Natural Resources Wales (NRW).	The Applicant notes JNCCs response.
REP1-066.139	Overall comments 127. JNCC are of the opinion that not all seabed impacts have been fully considered and it is not always clear that the correct footprint values have been utilised within the analysis or between chapters. Further detail of this is provided in the below sections.	The Applicant notes JNCCs response and has responded to these points under the individual comments below.
REP1-066.140	128. JNCC do not agree with the values attributed within the assessment of significant effects, covered in Sections 2.9, page 92, and 2.11, page 235, of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054). The magnitude of impact has been assessed as too low, incorrect assumptions of feature sensitivity have been applied to the sea pens and burrowing megafauna communities Important Ecological Features (IEF), and the subsequent adverse significance has been under-represented. As an example, taking the 'as is' situation with a 'Low' magnitude of impact and a 'High' sensitivity, the adverse significance would be 'Minor or Moderate', as detailed on page 17 of Volume 1, Chapter 5: Environmental Impact Assessment methodology (APP-052), but has been reported as 'Minor'. We believe it would be more appropriate to take the worst-case scenario and apply a 'Moderate' adverse significance. We would therefore recommend that, as a minimum, all significance of effects be reassessed taking into account the worst-case scenario. In Section 5.3.6.8 and Table 5.4, page 14, of Volume 1 Chapter 5: Environmental Impact Assessment methodology (APP-052), the spatial extent of the impact is defined as "Geographical area over which the impact may occur". Including the whole licence area as the spatial extent is not proportionate to the	As set out in the Applicant's response to JNCC's RRs (RR-033.87), the assessments presented in Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054) have been undertaken to ensure the most precautionary sensitivity is applied when combining pressures. The site-specific benthic surveys identified very few burrows at stations where soft sediment was dominant. In combination with an absence of seapens and the predominantly gravelly sediment, it was concluded that these areas only had a negligible resemblance to the 'seapens and burrowing megafauna communities' habitat. Therefore, a precautionary approach was adopted for stations where burrows were observed at an average SACFOR of 'frequent', and these stations were, for the purposes of the assessment, assumed to represent the 'seapens and burrowing megafauna communities' habitat. The sensitivity allocated to the seapens and burrowing megafauna communities Important Ecological Feature (IEF) was based on the high sensitivity allocated in the Marine Evidence based Sensitivity Assessment (MarESA) to the relevant impacts (abrasion/disturbance at the seabed, penetration of the substratum subsurface and heavy smothering). This sensitivity rating is primarily driven by the fragile nature of seapens as an epifaunal species. The site-specific surveys

Reference	Written Submission Comment	Applicant's response
	identified impact pathway especially if the whole area has no opportunity to be impacted. This then gives an unrealistic percentage of impact area and subsequently a magnitude of impact that is not representative. Some more detailed examples are covered for specific sections below but we would recommend that all magnitude of impacts are re-assessed taking this into account.	identified few burrows and no seapens within the Mona Offshore Wind Project therefore, the sensitivity associated with this habitat was reduced to medium. An example of expert judgement being applied in regard to sensitivity is in the environmental statement for the consented Awel Y Môr Offshore Wind Farm. The benthic subtidal and intertidal ecology chapter for this project (Awel Y Môr Offshore Wind Farm Ltd., 2022) states that the infralittoral mixed sediment habitats were deemed to have a medium sensitivity to abrasion and disturbance. However based on the widespread distribution of the identified habitats and communities around the UK the infralittoral mixed sediment habitats were instead attributed a sensitivity of low. Therefore, the Applicant considers that the assessment of the 'seapens and burrowing megafauna communities' habitat is sufficiently precautionary in this regard. Furthermore, to have adopted the full MarESA sensitivities, without amending for the particular sensitivity of seapens, would have over-estimated the impact to the specific habitat present in the Mona Offshore Wind Project. The Applicant is confident that the impacts to the seapens and burrowing megafauna communities Important Ecological Features will be no greater than minor adverse significance and are therefore not significant in EIA terms (Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054)). In accordance with the EIA methodology followed for the Mona Offshore Wind Project, as detailed in Volume 1, Chapter 5: Environmental Impact Assessment methodology (APP-052), where a range is suggested for the significance of effect, there remains the possibility that this may span the significance threshold (i.e. the range is given as minor to moderate). In such cases, the final significance is based upon the topic expert's professional judgement as to which outcome delineates the most likely effect, with an explanation as to why this is the case. Where this has been undertaken in Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054), explanations are provided in the text to support the conclusions. This approach is supported by the general approach described in the Design Manual for Roads and Bridges, which suggests an evidence-based approach when reviewing the multiple outcomes presented in the conclusion of the effects matrix, as applied in this scenario regarding the lack of seapens identified in the site-specific surveys. This approach has been applied throughout Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054). For example, in paragraph 2.9.2.47, for the littoral sand and muddy sand supporting infaunal communities IEF, the low magnitude and high sensitivity resulted in a minor or moderate result in the significance matrix. A

Reference	Written Submission Comment	Applicant's response
		conclusion of minor adverse significance was determined due to the small scale of the work in the intertidal zone. Table 5.4, of Volume 1, Chapter 5: Environmental Impact Assessment methodology of the ES (APP-052) explains that topic-specific definitions for the magnitude categories are provided in each of the topic chapters. The definitions relevant to the assessment of magnitude for benthic subtidal and intertidal ecology are as outlined in Table 2.14 of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054). The assessments of magnitude have been based on the total areas of habitat disturbance/loss (in m^2/km^2) with percentages of the project areas affected presented to provide additional context.
REP1-066.141	129. Throughout the Environmental Statement and dDCO documentation there is little distinction between inshore and offshore, distinguished by the 12nm/territorial waters limit. Given the remit of Statutory Nature Conservation Bodies (SNCBs; i.e. JNCC and Natural Resources Wales, NRW) is divided based on this factor it would be helpful to have impacts, activities, and habitats broken down into these remits to allow JNCC to provide an accurate assessment. In particular, it would have been useful to have this delineation identified on all the maps provided and for benthic habitats and impacts that span the offshore and inshore to be assessed based on their offshore/inshore location. JNCC were unable to accurately assess benthic impact of the operations within the offshore environment due to impacts not being attributed directly to the offshore area (extending out from 12nm). This is of particular concern in relation to the export cables and the impacts on sandwave clearance.	The Applicant has considered the Mona Offshore Wind Project as a whole and has not divided the assessment of potential impacts by stakeholder remit or geography. The 12 nm limit, in particular, does not correspond to a natural boundary for the Mona Offshore Wind Project, as, for example, this would split the offshore cable route. The NRW Marine Licencing team have responsibility for discharging the marine licence conditions which are attached to the standalone and deemed marine licences and will consult with the appropriate bodies through that process. The 12 nm limit for inshore waters is marked on figures in a number of chapters including figure 2.1 of Volume 2, Chapter 2: Benthic, subtidal and intertidal ecology (APP-054) as well as figure 1.1 Volume 1, Chapter 1: Introduction and overarching glossary (APP-048), figure 3.2 Volume 1, Chapter 3: Project description (APP-050), figure 4.1 of Volume 1, Chapter 4: Site selection and consideration of alternatives (APP-051), figure 1.1 of Volume 2, Chapter 1: Physical processes (APP-053) and the Location Plan (APP-006). Considering the aforementioned reasons, no further delineation of plans is proposed.
REP1-066.142	Comments on specific elements Decommissioning 130. JNCC have concerns around the expected decommissioning of the infrastructure, in particular around the decommissioning of gravity-based infrastructure and the full removal of all cables. Lessons learnt from the oil and gas industry have shown that the decommissioning of gravity-based infrastructure is not always feasible, or possible, leading to permanent habitat change. The impacts of this scenario should be considered.	As set out in the Applicant's response to JNCC's RRs (RR-033.73), section 3.13 of Volume 1, Chapter 3: Project description (APP-050) states that no offshore decommissioning works will take place until a written decommissioning programme has been approved by the Secretary of State for the Department for Energy Security and Net Zero, a draft of which will be submitted prior to the construction of the Mona Offshore Wind Project. The scope of the decommissioning works would be determined by the relevant legislation and guidance at the time of decommissioning (i.e. including latest guidance on best practice for the decommissioning of cables).

Reference	Written Submission Comment	Applicant's response
		Gravity based infrastructures will all be removed upon decommissioning of the Mona Offshore Wind Project. At the end of the operational lifetime of the Mona Offshore Wind Project, the maximum design scenario for hard substrate removal includes the removal of all structures above the seabed or ground level including wind turbine foundations (including gravity based foundations), OSP foundations, scour protection, cable protection and protection for cable crossing. However, the maximum design scenario for long term habitat loss however has assumed that cable protection and scour protection may be left *in situ* and the wind turbine foundations will be removed, including gravity based foundations. These are the scenarios that have been assessed in the Environmental Statement. Any deviation from this would be considered and assessed as part of the decommissioning programme at the time of decommissioning.
REP1-066.143	131. JNCC welcomes the proposal to remove all cabling from the Array Area and Cable Corridor. However, we note this is not covered in the draft Development Consent Order (AS-010). Based on our current experience, this is not always possible, especially when the cable is buried. Leaving buried cables in situ and removing unburied sections would normally include protection of the cut end with rock dump increasing the final footprint of the project. Although JNCC acknowledge future advancement of decommissioning technology may solve this issue, this scenario has not been considered.	As set out in the Applicant's response to JNCC's RRs (RR-033.74), the maximum design scenario for temporary habitat disturbance has assessed the removal of all cables, which could require the use of similar equipment as used to install the cables as set out in Section 3.13.2 of Volume 1, Chapter 3: Project description (APP-050). However, the Applicant has not committed to the removal of cables in the decommissioning phase and the decision on whether to remove offshore cables will be taken at the time of decommissioning in consultation with the relevant stakeholders. The project design assessed in the Environmental Statement does not include for additional cable protection to be installed at the point of decommissioning. Given the uncertainty regarding the relevant legislation and guidance at the time of decommissioning, deviation from this would be considered and assessed as part of the decommissioning programme at the time of decommissioning. Should rock bags be required to ensure that decommissioned cable ends do not become a hazard to navigation or fishing, a new Marine Licence would be required as part of the decommissioning plan (as stated in APP-050).
REP1-066.144	Volume 1, Chapter 3: Project description (APP-050) Section 3.5.4.3, page 10 (APP-050) 132. "If Mona infrastructure crosses any out of service cables, these will be removed where feasible." It is not clear if any remediation (i.e. rock dump for protection) will be carried out on the cut ends of the out of service cables left on the seabed.	The Applicant can confirm that in relation to Section 3.5.4.3 of Volume 1, Chapter 3: Project Description (APP-050), any cable removal will be undertaken in consultation with the asset owner and in accordance with the International Cable Protection Committee (ICPC) guidelines (2011). Where feasible, cables will be retrieved to a vessel deck, where one end will be cut, the cable will be pulled past the crossing point, and then cut again before being pulled to the surface where it will be removed from site by the vessel.
REP1-066.145	Table 3.4, page 12 (APP-050) 133. As the cable corridor includes both the inshore and offshore	The Applicant has considered the Mona Offshore Wind Project as a whole and has not divided the assessment of potential impacts by stakeholder remit or

Reference	Written Submission Comment	Applicant's response
	(outside 12nm) waters, it is not possible to determine the maximum design parameters for sandwave clearance in the offshore. We assume that the majority of sandwave clearance within this area will be inshore. However, this assumption may underestimate the actual impact on sandwaves located outside the 12nm territorial limit. Detailed information on the impact of activities on the offshore environment (occurring outside 12nm) is essential to allow for a full assessment of those impacts.	geography. The 12 nm limit, in particular, does not correspond to a natural boundary for the Mona Offshore Wind Project, as, for example, this would split the offshore cable route. The maximum design scenario for sandwave clearance along the offshore export cable has not been sub-divided to offshore and inshore waters as the final requirements for sandwave clearance will be based on pre-construction surveys and final detailed design. This is set out in the construction method statement required to be approved by the licencing authority as secured under Schedule 14, Condition 18(1)(d) of the draft development consent order (C1 Draft Development Consent Order F03) and anticipated to be secured in the standalone marine licence (see the Marine licence principles document – J9 F03). Where potential impacts or parameters have been delineated, they have been divided by the applicable consenting process (i.e. by parameters to be secured under the draft DCO Requirements and deemed marine licence and those to be secured under the standalone marine licence). For example, the MDS presented in Table 2.18 of Volume 2, Chapter 2: Benthic, subtidal and intertidal ecology (APP-054) presents a breakdown of the MDS for temporary habitat disturbance/loss (which includes activities associated with sandwave clearance) relevant to activities within the Mona Array Area and the Mona Offshore Cable Corridor. All aspects of the Mona Offshore Wind Project, in both inshore and offshore waters, have however been assessed together in section 2.9.3 of Volume 2, Chapter 2: Benthic, subtidal and intertidal ecology (APP-054). The Applicant considers that this presents the SNCBs with transparency in how the MDS has been calculated from the project design for each impact to enable a full understanding of the impacts from the Mona Offshore Wind Project. The NRW Marine Licencing team have responsibility for discharging the marine licence conditions which are attached to the standalone and deemed marine licences and will consult with the appropriate bodies through that process.
REP1-066.146	Table 3.11 and 3.12, page 22, and Tables 3.14 to 3.17, pages 25 to 28 (APP-050) 134. Values for the maximum seabed area (total foundations and scour protection for all foundations) were found to be incorrect in all six of the above listed tables and Table 4, page 154, of the draft Development Consent Order (AS-010). Assuming the values for the maximum seabed area per foundation and scour protection per foundation are correct, the total foundations and scour protection for all foundations	The Mona Offshore Wind Project has adopted a maximum design scenario approach as detailed in section 5.3.4 of Volume 1, Chapter 5: Environmental Impact Assessment Methodology (APP-052). For each of the impacts assessed within the topic chapters, the maximum design scenario has been identified from the range of potential options for each parameter provided within Volume 1, Chapter 3: Project description (APP-050). The maximum design scenario assessed is therefore the scenario which would give rise to the greatest potential impact, and therefore effect.

Reference	Written Submission Comment	Applicant's response
	values were found to be significantly underestimated (see table below). By our calculations, the following totals should be:	Volume 1, Chapter 3: Project description (APP-050) presents the maximum physical dimensions for each individual project design parameter (e.g. number of turbines or area of turbine footprint). These maximums have been selected from different design and construction options, not all of which have been presented in Volume 1, Chapter 3: Project description (APP-050). The values for maximum seabed area as specified in Table 3.11, 3.12, 3.14, 3.15 and 3.16 of Volume 1, Chapter 3: Project description (APP-050) for each of the foundation types are correct and accurate and will not be exceeded. The individual parameters for maximum number of foundations and maximum foundation/scour footprint per foundation presented in Volume 1, Chapter 3: Project description (APP-050) have not necessarily been multiplied together to generate the maximum design scenario for maximum seabed area. This is because not all of these parameters would occur in one option as it would represent an option that was not viable for the Mona Offshore Wind Project. For example, the foundation footprint associated with the smallest turbine option for a suction bucket jacket foundation (which equates to the largest number of turbines that may be installed to achieve the proposed capacity of the Mona Offshore Wind Project of over 350 MW) is smaller than that associated with the largest turbine option for the same foundation type (fewer of which will be required to achieve the proposed capacity). The maximum total seabed footprint for wind turbine generators (including scour protection) using jacket foundations with suction buckets of 735,488 m^2 (as outlined in Table 3.14 of Volume 1, Chapter 3: Project description (APP-050)) is correct. This value is the result of a maximum scour protection area of 10,012 m^2 plus a maximum foundation area of 804 m^2 multiplied by 68 wind turbines (the maximum number of wind turbines with suction-bucket jacket foundations associated with this foundation size option). The 'corrected total' of 1,038,336 m^2 quoted by JNCC in REP1-066.146 for the suction-bucket jacket foundation type is incorrect as it multiples the scour protection area of 10,012 m^2 plus a foundation area of 804 m^2 by the maximum 96 wind turbines (not the correct maximum 68 turbines for this particular foundation size option). The scenario quoted by JNCC in this example is therefore not a viable project design option for the Mona Offshore Wind Project. The same reasoning applies for the other scenarios outlined by JNCC. The maximum footprints quoted for each of the foundation types presented in Volume 1, Chapter 3: Project description (APP-050) are correct and have therefore not been underestimated. As such, the maximum seabed areas for

Reference	Written Submission Comment	Applicant's response
		wind turbine and OSP foundations as stated in the DCO (i.e. 735,488 m^2 for wind turbines and 24,964 m^2 for OSPs) are also correct.
REP1-066.147	135. An underestimation of the maximum footprint area will result in an underestimation of the total impact of the project on the benthic marine environment.	As noted in the response to REP1-066.146 above, the Applicant has explained that the maximum seabed footprints for wind turbine generators and OSPs has not been underestimated and is accurately represented in the maximum design scenario assessment in Table 2.18 of Volume 2, Chapter 2: Benthic, subtidal and intertidal ecology (APP-054).
REP1-066.148	Section 3.5.8.7, page 23 (APP-050) 136. Drill arisings from drilling of pin piles will create cuttings piles. A maximum seabed impact area should be calculated for these as cutting piles will impact the local environment and should be considered in more detail. Cuttings piles can be considered as temporary or permanent impacts depending on local conditions and drill arisings themselves. Dispersion modelling of the drill arisings will detail the extent of potential impact on the benthic environment and provide more detailed information on the quantity and extent of smothering impact.	The Mona Offshore Wind Project has adopted a maximum design scenario approach which allows the EIA process to be conducted on the basis on a realistic 'worst case' scenario (i.e. the maximum project design parameters) which is selected from different design and construction scenarios. Seabed preparation works prior to suction bucket jacket installation represents the maximum design scenario, with respect to spatial extent for temporary habitat loss accounting for 16,833,242 m^2 of disturbance (as a result of 8,416,621 m^3 of sediment deposited at a depth of 0.5 m). The temporary habitat loss associated with drill arisings resulting from jacket foundation installation is considered to fall within the area of disturbance described for seabed preparation for the suction bucket jacket foundations. Additionally paragraph 1.9.2.8 of Volume 2, Chapter 1: Physical Processes (APP-053) highlights that sedimentation beyond the immediate drilling location will be indiscernible. The Mona Offshore Wind Project has committed to depositing material arising from drilling in close proximity to the works (Table 2.19 of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054)).
REP1-066.149	Section 3.13.2.3, page 80 (APP-050) 137. Wording in relation to cable decommissioning was found to be inconsistent between documents. This section suggests cables "may be retrieved" at decommissioning while Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054) (Table 2.18, page 79) states all cables "will be removed" at decommissioning. JNCC assume all cables will be removed at decommissioning, but this needs to be clarified by the Applicant.	As outlined in section 3.13 of Volume 1, Chapter 3: Project description (APP-050), it is anticipated that all structures above the seabed or ground level will be completely removed where feasible and practical and this has been assessed as the maximum design scenario in Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054). The project position is that cable and scour protection will preferably be left *in situ* and that all inter-array and interconnector cables may be retrieved. In addition to this, offshore export cables may be retrieved up to the exit pits (below MHWS) for cables installed under the intertidal area. The Applicant has not committed to the removal of cables in the decommissioning phase and the decision on whether to remove offshore cables

Reference	Written Submission Comment	Applicant's response
		will be taken at the time of decommissioning in consultation with the relevant stakeholders. The Applicant has, however, adopted a maximum design scenario approach and given that there is the possibility that all cables may be removed, as outlined in Volume 1, Chapter 3: Project description (APP-050), this has been assessed as the maximum design scenario for relevant impacts such as temporary habitat disturbance in Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054). As outlined in section 3.13 of Volume 1, Chapter 3: Project description (APP-050), no offshore decommissioning works will take place until a written decommissioning programme has been approved by the Secretary of State for the Department for Energy Security and Net Zero (formerly the Department for BEIS). This will be submitted for approval prior to the commencement of the offshore works. The scope of the decommissioning works would be determined by the relevant legislation and guidance at the time of decommissioning (i.e. including latest guidance on best practice for the decommissioning of cables).
REP1-066.150	Section 3.13.2.4, page 80 (APP-050) 138. JNCC would expect all mattresses (concrete and frond) and rock bags used for cable protection to be removed at decommissioning. Not removing these will constitute a permanent habitat loss. The permanent introduction of hard substrates into a soft sediment environment would be a permanent habitat loss that leads to a regime shift of that habitat.	As outlined in section 3.13 of Volume 1, Chapter 3: Project description (APP-050), and in response to REP1-066.149, the project position is that cable protection will preferably be left *in situ*, but removal has been assessed where this represents the maximum design scenario for relevant impacts for benthic receptors (e.g. removal of hard substrates). Conversely, where leaving cable protection *in situ* represents the maximum design scenario this has been assessed for relevant impacts (e.g. long term habitat loss in the decommissioning phase where it is considered permanent habitat loss, section 2.9.5 of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054)). The scope of the decommissioning works would be determined by the relevant legislation and guidance at the time of decommissioning (i.e. including latest guidance on best practice for the decommissioning of cable protection).
REP1-066.151	Section 3.13.2.5, page 81 (APP-050) 139. We would agree that the cable installation and removal impacts would have the same temporary impact. However, if cables were left in situ and required protection through rock dump (for example through cut ends or free spans), this would increase the permanent impact to the seabed and should be considered further. These impacts are part of the development, albeit during decommissioning. If the impacts are not considered prior to installation, then the final impact to the marine benthic environment will be significantly underestimated.	The installation of rock protection over cables and around foundations during the construction and operation and maintenance phases is fully considered and the assumptions are set out in each chapter's section on the maximum design scenario, e.g. see section 2.7.1 and Table 2.18 in Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054). The initial assessment deemed that no cable free spans would be undertaken and is secured through the detailed cable specification and installation plan, incorporating a cable burial risk assessment, in adherence to the Applicant's commitments secured under Schedule 14, Condition 18(1)(d) of the Draft DCO (C1 Draft Development Consent Order F04).

Reference	Written Submission Comment	Applicant's response
		The project design assessed in the Environmental Statement does not include for additional cable protection to be installed at the point of decommissioning (e.g. for cut cable ends). The scope of the decommissioning works would be determined by the relevant legislation and guidance at the time of decommissioning (i.e. including latest guidance on best practice for the decommissioning of subsea cables).
REP1-066.152	Volume 2, Chapter 1: Physical processes (APP-053) Section 1.9.5.10, page 83 (APP-053) 140. We believe that the total Offshore Substation Platforms (OSP) footprint should be 20,180m2 and not 19,500m2 as detailed in comments above regarding the tables in Volume 1, Chapter 3: Project description (APP-050). Note, the calculations detailed here are based on our interpretation of the data within the ES, notwithstanding our comments above from Volume 1, Chapter 3: Project description (APP-050) on the numerous numerical errors throughout the ES. An underestimation of the maximum footprint area will result in an underestimation of the total impact of the project on the benthic marine environment.	As discussed in the Applicant's response to REP1-066.134 above, the Mona Offshore Wind Project has adopted a maximum design scenario approach and Volume 1, Chapter 3: Project description (APP-050) sets out the design assumptions and parameters for the Mona Offshore Wind Project from which the realistic maximum design scenarios are drawn for each topic specific chapter. This approach is detailed in section 5.3.4 of Volume 1, Chapter 5: Environmental Impact Assessment methodology (APP-052). As explained in Table 1.15 of Volume 2, Chapter 1: Physical processes (APP-053), the greatest overall in-water column blockage to influence tidal flow and wave climate from the OSPs has been assessed with a maximum design scenario of the maximum number of OSPs (four) with gravity base foundations. These parameters also present the largest overall footprints to affect changes in bathymetry and sediment transport pathways. However, the greatest single site influence in terms of OSP structures is the rectangular gravity base structure, which is larger than other foundation options. This was demonstrated in the modelling of this single foundation under sensitivity testing presented in Section 1.4.4 in Volume 6, Annex 1.1: Physical processes technical report (APP-86).
REP1-066.153	Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054) Table 2.8, page 31 (APP-054) 141. We agree that Jack up vessel events on their own would be a temporary habitat loss/disturbance. However, jack up events regularly require extra stabilisation through rock dumping, particularly in softer seabed environments and/or within high dynamic environments. The extra rock dump required for jack up events has not been accounted for and should be considered a permanent impact and be included within the long term habitat loss/habitat alteration impact during construction, operation and maintenance, and also during decommissioning.	See the Applicant's response to REP1-066.149 for clarification on the maximum design scenarios assessed for decommissioning. Further to this, the Applicant can confirm that it does not anticipate a requirement for rock dumping to stabilise jack-up operations and this has therefore not been assessed within Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054). As outlined in section 3.13 of Volume 1, Chapter 3: Project description (Document Reference APP-050), no offshore decommissioning works will take place until a written decommissioning programme has been approved by the Secretary of State for the Department for Energy Security and Net Zero (formerly the Department for BEIS). Any deviation from the maximum design scenarios assessed in Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054) would be considered and assessed as part of the decommissioning programme at the time of decommissioning taking into

Reference	Written Submission Comment	Applicant's response
		account latest guidance and best practice on decommissioning. The scope of the decommissioning works would be determined by the relevant legislation at the time of decommissioning.
REP1-066.154	142. Foundation removal does not address gravity-based structures for turbines or OSPs. If these are not possible to decommission (see comments above), they should be treated as a permanent habitat change.	As noted in the response to REP1-066.142 above, and as outlined in section 3.13 of Volume 1, Chapter 3: Project description (APP-050), it is anticipated that all structures above the seabed or ground level, including gravity based foundations, will be completely removed where feasible and practical and this has been assessed as the maximum design scenario in Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054) for all impact pathways. As outlined in section 3.13 of Volume 1, Chapter 3: Project description (APP-050), no offshore decommissioning works will take place until a written decommissioning programme has been approved by the Secretary of State for the Department for Energy Security and Net Zero. This will be submitted for approval prior to the commencement of the offshore works. The scope of the decommissioning works would be determined by the relevant legislation and guidance at the time of decommissioning (i.e. including latest guidance on best practice for the decommissioning of cables). Any deviation from the assessment presented in the Environmental Statement would be considered and assessed as part of the decommissioning programme at the time of decommissioning.
REP1-066.155	143. Introduction of additional rock protection has not been considered. For example, at cable cut ends if not fully removed, at cable free spans, jack up vessel stabilisation (as discussed above), cable crossings and protection, or scour protection.	See the Applicant's response to REP1-066.151 confirming that the project design assessed in the Environmental Statement does not include for additional cable protection to be installed at the point of decommissioning (e.g. for cut cable ends). In addition to this, and as outlined in the Applicant's response to REP1-066.153, the Applicant can confirm that it does not anticipate a requirement for rock dumping to stabilise jack-up operations.
REP1-066.156	Table 2.18, page 84 (APP-054) 144. We welcome the suggested removal of all scour protection, cable protection, and crossing protection. However, the detail provided within this table contradicts details provided in Volume1, Chapter 3: Project description (APP-050), Section 3.13.2.4, page 80 (see previous comment relating to Table 2.8, page 31 of APP-050). Furthermore, if rock dump were to be used for protection, it is highly unlikely that the rock will be able to be removed and would therefore remain a permanent impact.	As outlined in section 3.13 of Volume 1, Chapter 3: Project description (APP-050) and the Applicant's response to REP1-066.149, the project position is that cable protection and scour protection will preferably be left *in situ*, but removal has been assessed where this represents the maximum design scenario for relevant impacts for benthic receptors (e.g. removal of hard substrates). Conversely, where leaving cable and scour protection *in situ* represents the maximum design scenario this has been assessed for relevant impacts (e.g. long term habitat loss). The scope of the decommissioning works would be determined by the relevant legislation and guidance at the time of decommissioning (i.e. including latest guidance on best practice for the decommissioning of cable protection).

Reference	Written Submission Comment	Applicant's response
REP1-066.157	Table 2.18, page 85 (APP-054) 145. Changes in physical processes will occur at all three phases, not just the operation and maintenance phase. Decommissioning will affect physical processes, although at a much smaller scale, with the addition of rock dump and infrastructure that will be permanently left in situ.	As explained in section 1.9.4. of Volume 2, Chapter 1: Physical processes (APP-053), during the construction phase there will be gradual changes to physical processes as infrastructure is introduced into the environment. This would result in changes and therefore potential impacts ranging from the baseline environment (no presence of infrastructure) to the operational phase maximum design scenario, which are therefore fully assessed in the operation and maintenance phase assessment in section 2.9.9 of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054). Changes to physical processes during the decommissioning phase is fully assessed in paragraph 2.9.9.60 et seq. of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054).
REP1-066.158	Section 2.9.2.27, page 103 (APP-054) 146. We would not agree with a reduction in the sensitivity of the sea pens and burrowing megafauna communities from 'High' to 'Medium'. We acknowledge that sea pens have not been recorded within the site-specific surveys to date but sea pens do not have to be present to define this OSPAR Threatened and Declining habitat, as also acknowledged within this section. For this reasoning, it would not be appropriate to reduce the sensitivity to 'Medium' and it should remain as 'High'. This would also apply to all subsequent sections (e.g. Section 2.9.2.32).	As outlined in section 1.7.6 of Volume 6, Annex 2 1: Benthic subtidal and intertidal ecology technical report (APP-087) and in the response to REP1-066.140 above, the site-specific benthic surveys identified very few burrows at stations where soft sediment was dominant. In combination with an absence of seapens and the predominantly gravelly sediment, it was concluded that these areas only had a negligible resemblance to the 'seapens and burrowing megafauna communities' habitat. Therefore a precautionary approach was adopted for stations where burrows were observed at an average SACFOR of 'frequent', and these stations were, for the purposes of the assessment, assumed to represent the 'seapens and burrowing megafauna communities' habitat. The sensitivity allocated to the seapens and burrowing megafauna communities IEF was based on the high sensitivity allocated in the MarESA to the relevant impacts. This sensitivity rating is primarily driven by the fragile nature of seapens as an epifaunal species. As previously noted site specific surveys identified no seapens within the Mona Offshore Wind Project therefore the sensitivity associated with this habitat was reduced to medium. Therefore, the Applicant considers that the assessment of the 'seapens and burrowing megafauna communities' habitat is sufficiently precautionary in this regard. Furthermore, to have adopted the full MarESA sensitivities, without amending for the particular sensitivity of seapens, would have over-estimated the impact to the specific habitat present in the Mona Offshore Wind Project. The Applicant is confident that the impacts to the seapens and burrowing megafauna communities Important Ecological Features will be no greater than minor adverse significance and are therefore not significant in EIA terms.

Reference	Written Submission Comment	Applicant's response
REP1-066.159	Section 2.9.2.51, page 110 (APP-054) 147. We agree that the seabed will recover after the removal of the jack-up vessel's spud cans but only when no rock dump has been used for stabilisation or scour protection of the spud cans (see comment on Table 2.8 above).	The Applicant can confirm that it does not anticipate requirements for rock dumping to stabilise jack-up operations.
REP1-066.160	Section 2.9.5.10, page 146 (APP-054) 148. JNCC do not agree with an assessment of a low magnitude of impact, considering over two million square meters (Section 2.9.5.7) of seabed will be permanently impacted/changed. Section 2.9.5.7 highlights the impact area and gives a percentage of that compared with the Mona benthic subtidal and intertidal ecology study area (0.17%). This is not helpful as those areas include large portions that will not be directly impacted by the operations. A more useful area comparison for calculating the impact percentage would be of the total direct and indirect (temporary) impact areas. Combining the Long-term habitat loss and Temporary habitat loss areas would provide a more meaningful impact percentage and subsequent meaningful magnitude.	The assessments of magnitude have been based on the total areas of habitat disturbance/loss (in m^2/km^2) and the Applicant considers that presenting the percentages of the study area affected is useful in providing wider context to the values of long term habitat loss. Furthermore, the Applicant does not consider it appropriate to sum the values predicted for long term habitat loss and temporary habitat disturbance as the nature of the impacts (e.g. duration and recovery) are very different. The maximum design scenario for long term habitat loss is considered to be consistent with the definition of a low magnitude of impact (i.e. some measurable change in attributes, quality or vulnerability, minor loss or, or alteration to, one (maybe more) key characteristics, features or elements (Adverse)).
REP1-066.161	Section 2.9.5.22, page 150 (APP-054) 149. JNCC do not agree with the suggestion that the permanent presence of cable and scour protection should be considered as permanent habitat alteration rather than permanent habitat loss. The permanent introduction of hard substrates into a soft sediment environment would be a permanent habitat loss that leads to a regime shift of that habitat (i.e. a permanent habitat alteration). It should therefore be considered as permanent habitat loss. This should be taken into account when re-assessing the magnitude of impact (Section 2.9.5.23, page 151).	The assessment of the potential for cable and scour protection to remain *in situ* post-decommissioning has been assessed as permanent long term habitat loss/habitat alteration (paragraphs 2.9.5.22 to 2.9.5.32 of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054)), so considers both the loss of the sedimentary environment and the localised change/alteration to a hard substrate. The assessment concludes the effect will be of minor adverse significance.
REP1-066.162	Section 2.9.6.6, page 153 (APP-054) 150. JNCC recognise that settlement and subsequent recruitment on clean artificial structures is very complex. It should not be expected that colonisation will consist entirely of already present flora and fauna. Opportunistic colonisation will occur from flora and fauna that would not normally be recorded in the area due to the clean artificial surfaces allowing for opportunistic settlement. This has the potential to alter	The assessment of the effects associated with the introduction of artificial structures, presented in section 2.9.6 of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054), has drawn upon the latest published studies and research papers. The assessment considers the complexities of this impact, addressing both the potential impacts of the introduction of infrastructure on biodiversity and also the potential for adverse effects on the wider soft sediment environment. The Applicant is confident that the effects associated with this

Reference	Written Submission Comment	Applicant's response
	subsequent settlement and recruitment that can lead to a different final community composition.	impact pathway will be no greater than minor adverse significance and are therefore not significant in EIA terms.
REP1-066.163	151. Additionally, temporal variation will also determine the final community composition (e.g. studies have shown different community composition depending on the time of year when the artificial structure was introduced).	Please see the Applicant's response to REP1-066.162 above. The assessment of the effects associated with the introduction of artificial structures, presented in section 2.9.6 of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054) has drawn on the latest research. The assessment discusses the communities which may colonise artificial structures and acknowledges that it is likely to differ from the current soft sediment environment. This will be true regardless of the time of year the infrastructure is installed.
REP1-066.164	Benthic Ecology Conclusion 152. The Applicant has provided a substantial quantity of information relating to the possible impacts which the development may have on the marine benthic environment. JNCC do not believe that the Applicant has assessed all impacts fully, in particular with regard to total infrastructure footprints, ancillary works requiring additional rock dump, and decommissioning operations.	The Applicant notes this concluding response and has addressed the specific concerns expressed by JNCC in the above responses.
REP1-066.165	153. Decommissioning operations have not been fully considered. JNCC appreciate that decommissioning will occur after a number of decades, however, it is important to consider all the impacts associated with decommissioning prior to construction and installation to ensure that all installations will be capable of being fully removed from the marine environment. It should also be noted that impacts should be considered permanent where infrastructure cannot be removed. JNCC have concerns around gravity-based foundations in this regard with further concerns around the need for additional rock dump to account for cable free spans, cable cut ends, and scour protection. Additional rock dump needs to be fully considered.	The Applicant notes this concluding response from JNCC and has addressed each of the specific concerns raised by JNCC in their responses to REP1-066.142, REP1-066.143, REP1-066.144, REP1-066.149, REP1-066.150 and REP1-066.151.
REP1-066.166	154. JNCC are concerned that the Applicant has reduced the sensitivity of the 'sea pen and burrowing megafauna community' Important Ecological Features (IEF), and an OSPAR Threatened and Declining habitat, from 'High' to 'Medium'. We also believe that the magnitude of impact has been assessed too low and the subsequent adverse significance has been under-represented.	The Applicant notes this concluding response from JNCC and has addressed each of the specific concerns raised by JNCC in their responses to REP1-066.140 and REP1-066.158.
REP1-066.167	155. To allow JNCC to accurately assess all impacts to the benthic environment from a development that spans terrestrial, inshore, and offshore waters, the offshore elements (those extending out from the	The Applicant notes this concluding response from JNCC and has addressed the specific concerns raised by JNCC in their responses to REP1-066.141 and

Reference	Written Submission Comment	Applicant's response
	12nm territorial limit) need to be distinguished from the inshore (within 12nm). This is currently not addressed fully and without this level of detail, JNCC will not be able to adequately assess all the impacts.	REP1-066.145. The Applicant notes that JNCC did not raise this point in their s42 feedback on the PEIR.
REP1-067.1	The following provides a summary of the Mona Offshore Wind Project Development Consent Order (DCO) Application – Environmental Statement and Management Plans (EN010137) Written Representation submitted by JNCC on 7 August 2024. JNCC's remit and concerns cover ornithological, marine mammal and benthic receptors within UK offshore waters (beyond the territorial limit).	The Applicant notes JNCC's comment.
REP1-067.2	**Ornithology** We disagree with several approaches the Applicant has taken to the assessment of offshore ornithology within the Environmental Statement and the Habitat Regulations Assessment (HRA). In addition, there are multiple errors within the tables and text of the application documentation and errors when using values in subsequent stages of the assessment, and many aspects of the assessment have been difficult to follow in terms of what has been done or where parameters used have come from. Therefore, JNCC currently does not have confidence in the results, nor are we able to agree with the overall conclusions, either within the EIA or the HRA, particularly with regards to Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro Special Protected Area (SPA). Further, elements of JNCC advice appear to have been either misinterpreted, or our advice has been taken on board in some circumstances but not in others despite agreement during pre-application consultation. We highlight these disagreements, errors, and unclear aspects in detail in our Written Representations, but note that while we have endeavoured to identify errors to the best of our ability with the time available, these may not be an exhaustive list of all errors. We note that it is stated in several places in the Applicant's Response to Relevant Representations (PDO-008) that various elements of the application have been checked and are either correct or will be included in the Errata document to be submitted at Deadline 1, which we look forward to providing our comments on in due course. In our Written Representations, we provide comments on the following thematic areas of concern: 1. Presenting SNCB recommended approaches to assessments in Application documentation 2. Updating Application	The Applicant notes JNCC's comment. Please see the Applicant's response in rows REP1-066.6 to REP1-066.9. The Applicant would also like to highlight it's Response to the Examining Authority's Rule 17 Letter (S_D2_2) which sets out the overall approach proposed by the Applicant to addressing inconsistencies in the application material, requests for clarification and the submission of additional information in accordance with the advice provided by NRW and the JNCC within their Relevant Representations (RR-011 and RR-033, respectively) and Written Representations (REP1-056 and REP1-066/REP1-067, respectively).

Reference	Written Submission Comment	Applicant's response
	Documentation (ES, HRA, and associated documents and appendices) 3. Multiple, potentially compounding errors 4. Workings out needing to be shown throughout 5. Misrepresented SNCB advice 6. Deviating from previously agreed approaches 7. Measures to mitigate displacement by vessels of red-throated diver and common scoter in the Liverpool Bay/Bae Lerpwl SPA 8. Cumulative and in-combination assessments We also provide comments on specific areas of concern • Seasonal definitions • Foraging ranges • Displacement assessments • Collision risk modelling • Assigning age-class to individuals • Apportioning individuals to SPAs • Reference populations • Population Viability Analysis • Cumulative and in-combination assessments • SPA features • HRA Please note that JNCC can only comment on sites for which we have jurisdiction (UK marine sites wholly or partly in waters beyond 12nm). We note that NRW and Natural England (NE) have been involved in pre-application discussions and defer to those agencies on their respective sites. We also note that a number of SPAs in Irish and Scottish waters are screened in at Likely Significant Effect (LSE), and recommend consultation with the relevant nature conservation advisers. There is a risk of not receiving advice on specific SPAs within other nations, or on the UK Marine Protected Area (MPA) network if the relevant SNCBs are not consulted.	
REP1-067.3	**Marine Mammals** We disagree with a number of approaches being taken by the Applicant within the Environmental Statement and the HRA. The main point regarding the clearance on unexploded ordnance (UXO) has been raised previously with the Applicant. We have stated previously that we do not agree with UXO clearance being included within the Development Consent Order (DCO) and draft Marine Licence (dML). Within our Written Representations, we have provided comments on the following areas of concern: 1. The inclusion of unexploded ordnance (UXO) clearance within the assessment (paragraphs 88-94) 2. The use of 'scare charges' (paragraph 95) 3. Due consideration of noise abatement (paragraphs 103-111) 4. Marine mammal collision risk (paragraphs 118-123) 5. Conclusions regarding the North Anglesey Marine SAC (paragraphs 124-126) We also provide comment on missing links and references within documents.	The Applicant notes JNCC's comment. Please see the Applicant's response in rows REP1-066.083 through to REP1-066.137.

Reference	Written Submission Comment	Applicant's response
REP1-067.4	**Benthic Ecology** JNCC do not believe that the Applicant has assessed all impacts fully, particularly with regard to total infrastructure footprints, ancillary works requiring additional rock dump, and decommissioning operations. In conjunction with the matters raised in our Relevant Representation, we have the following concerns: Decommissioning operations have not been fully considered. JNCC appreciate that decommissioning will occur after a number of decades, however, it is important to consider all the impacts associated with decommissioning prior to construction and installation to ensure that all installations will be capable of being fully removed from the marine environment. It should also be noted that impacts should be considered permanent where infrastructure cannot be removed. JNCC have concerns around gravity-based foundations in this regard with further concerns around the need for additional rock dump to account for cable free spans, cable cut ends, and scour protection. Additional rock dump needs to be fully considered. JNCC are concerned that the Applicant has reduced the sensitivity of the 'seapen and burrowing megafauna community' Important Ecological Features (IEF), and an OSPAR Threatened and Declining habitat, from 'High' to 'Medium'. We also believe that the magnitude of impact has been assessed as too low and the subsequent adverse significance has been under-represented. To allow JNCC to accurately assess all impacts to the benthic environment from a development that spans terrestrial, inshore, and offshore waters, the offshore elements (those extending out from the 12nm territorial limit) need to be distinguished from those inshore (within 12nm). This is currently not addressed fully and without this level of detail, JNCC will not be able to adequately assess all the impacts.	The Applicant notes JNCC's comment. Please see the Applicant's response in rows REP1-066.138 through to REP1-066.141.

3 REFERENCES

Cook, S., Banda, N., Birch, C., Stephenson, S.J. (2021). Seagreen UXO clearance noise monitoring. Seiche Underwater Noise Analysis Final Report. Report No. P1516-REPT-01-R3, November 2011. https://marine.gov.scot/sites/default/files/uxo-control-final-report_-_noise_monitoring_1.pdf

Lee, R., Stephenson, S., Jervis, D., Birch, C. (2023a). Moray West UXO Clearance Noise Monitoring - Underwater Noise Analysis Final Report. Report No. P1729-REPT-02-R0, July 2023.

Lee, R., Stephenson, S., Walton, M., Birch, C., Smith, J. (2023b). Moray West UXO Clearance Noise Monitoring – LMB Mine Underwater Noise Analysis Final Report. Report No. P1833-REPT-02-R1, September 2023.

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