Ein cyf/Our Ref: AOS-21167-0032
Eich cyf/Your ref: EN010137
Our Unique Ref: 20048445

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Dyddiad/Date: 04 November 2024

Er sylw / For the attention of: Jake Stephens

Annwyl / Dear Jake,

FFERM WYNT ALLTRAETH MONA / PROPOSED MONA OFFSHORE WINDFARM

CYFEIRNOD YR AROLYGIAETH GYNLLUNIO / PLANNING INSPECTORATE REFERECE: EN010137

EIN CYFEIRNOD / OUR REFERENCE: 20048445

RE: NATURAL RESOURCES WALES' DEADLINE 4 SUBMISSIONS

Thank you for your Rule 8 letter, dated 23 July 2024, requesting Cyfoeth Naturiol Cymru / Natural Resources Wales' (NRW) comments regarding the above.

Please find below NRW's Deadline 4 submissions which comprises advice on the submissions produced by the Applicant and received at Deadline 3 on 30 September 2024 and responses to the ExA actions arising from ISH3 and ISH4.

The documents that we have reviewed for Deadline 4 include:

- REP3-075 Deadline 3 Submission - S_PD_1 Mona Errata (F04)
- REP3-038 Deadline 3 Submission - S_D3_6 Response to Natural Resource Wales Deadline 2 Submission (F01)
- REP3-039 Deadline 3 Submission - S_D3_7 Response to Natural Resource Wales Rule 17 Letter (F01)

- REP3-044 Deadline 3 Submission - S_D3_12 Offshore Ornithology Cumulative Effects Assessment and In-combination Gap-filling Historical Projects Technical Note (F01)
- REP3-045 Deadline 3 Submission - S_D3_13 WFD Coastal Waters Assessment supporting information (F01)
- REP3-058 Deadline 3 Submission - S_D3_18 Review of Cumulative Effects Assessment and In-Combination Assessment (F01)
- REP3-059 Deadline 3 Submission - S_D3_19 Offshore Ornithology Supporting Information in line with SNCB advice (F01)
- REP3-062 Deadline 3 Submission - S_D3_25 Response to Examining Authority's Written Questions (ExQ1) (F01)
- REP3-064 Deadline 3 Submission - S_D3_25.2 Appendix to ExQ1 - Q1.5.3 Fish and Shellfish Ecology (F01)
- REP3-073 Deadline 3 Submission - S_D3_26 Offshore Ornithology Errata Clarification Note (F01)
- REP3-020 Deadline 3 Submission - J17 Measures to minimise disturbance to marine mammals and rafting birds from transiting vessels F02 (Clean)
- REP3-014 Deadline 3 Submission - J11 Relationship of offshore plans included within the DCO F02 (Clean)
- REP3-012 Deadline 3 Submission - J10 Mitigation and Monitoring Schedule F03 (Clean)
- REP3-010 Deadline 3 Submission - J1 Other Consents or Licences Required F02 (Clean)
- REP3-024: Deadline 3 Submission - S_D1_7 Statement of Commonality (F02)
- REP3-046 Mona Offshore Wind Limited Deadline 3 Submission - S_D3_15 Seascape and Visual Resources: Cumulative Wirelines (F01)
- REP3-047 Mona Offshore Wind Limited Deadline 3 Submission - S_D3_16.1 Landscape and Visual Resources – Cumulative Visualisations Part 1 (F01)
- REP3-048 Mona Offshore Wind Limited Deadline 3 Submission - S_D3_16.2 Landscape and Visual Resources – Cumulative Visualisations Part 2 (F01)

We have grouped our advice per receptor. Where we have not provided explicit advice on one or more of the documents listed above under a particular receptor, it can be taken that we have no further comments to make on that document at this stage and that the ExA should refer to our previous submissions on those matters.

These representations and attachments should be read in conjunction with advice previously provided into the examination.

NRW continues to engage extensively and proactively with the Applicant throughout the examination in order to resolve outstanding matters.

The comments provided in this submission, comprise NRW's response as a Statutory Party under the Planning Act 2008 and Infrastructure Planning (Interested Parties) Regulations2015 and as an 'Interested Party' under s102(1) of the Planning Act 2008.

For the purpose of clarity, this response only provides advice and comments from NRW's advisory (NRW (A)) function. This is because NRWs Marine Licencing Team have no submissions to provide for Deadline 4.

Our comments are made without prejudice to any further comments we may wish to make in relation to this application and examination whether in relation to the Environmental Statement (ES) and associated documents, provisions of the draft Development Consent Order ('DCO') and its Requirements, or other evidence and documents provided by bpENBW ('the Applicant'), the Examining Authority or other Interested Parties.

Should further clarity be required, we will be pleased to answer these further through the Examining Authority questions and / or a Rule 17 request(s).

Please do not hesitate to contact Emma Lowe [redacted]@cyfoethnaturiolcymru.gov.uk) Nia Phillips [redacted]@cyfoethnaturiolcymru.gov.uk) and Siôn Williams ([redacted]@cyfoethnaturiolcymru.gov.uk) should you require further advice or information regarding these representations.

Yn gywir / Yours sincerely,

[redacted]

Andrea Winterton
Marine Services Manager
Natural Resources Wales

[CONTINUED]

Contents

1 OFFSHORE

1.1 Marine Ornithology

1.1.1 REP3-020: Measures to minimise disturbance to marine mammals and rafting birds from transiting vessels F02 (Clean)

1. We welcome the amendments made by the Applicant to REP3-020 *Measures to Minimise Impacts to Marine Mammals and Rafting Birds* which attempt to clarify which specific measures apply to which element of the proposed works. Whilst we consider that the amendments made to this document help to provide clarity, we note the following comments/concerns:

    - It is currently unclear from the draft DCO [REP2-004] and measures to minimise impacts to marine mammals and rafting birds report [REP3-020] to what extent the measures to minimise disturbance to rafting birds would apply to pre-commencement activities. Paragraph 1.3.1.1 of REP3-020 states: '*cable installation activities in the Liverpool Bay/Bae Lerpwl SPA will not take place during 1st November to 31st March'*. However, we note that 'cable installation activities' are not defined in this document. The updated draft DCO [REP2-004] does not define 'cable installation activities' but defines 'commence*'* as: '*the first carrying out of any licensed marine activities authorised by the deemed marine licence, save for pre-construction surveys and monitoring, and unexploded ordnance surveys and clearance of unexploded ordnance authorised under the deemed marine licence'*. This would imply that there would be no requirement for these activities to avoid the sensitive period where they occur within the Liverpool Bay Special Protection Area (SPA). Given the disturbing nature of Unexploded Ordnance (UXO) clearance, and that there is uncertainty particularly over the number of UXO clearances that may be necessary, NRW (A) consider that the same seasonal restrictions within the SPA would need to apply in order for a conclusion of Adverse Effect on Site Integrity (AEoSI) to be ruled out for the Liverpool Bay SPA. We advise that the Applicant provides clarity on this matter.

    - Paragraph 1.3.1.3 of REP3-020 states that the commitment to the timing restriction is expected to be secured within the standalone NRW Marine Licence principles document [REP2-028]. We assume that the Applicant's position remains that the timing restriction on construction activity within the Liverpool Bay SPA is only relevant to the transmission asset Marine Licence (TA ML) which is outside the scope of the DCO deemed Marine Licence (dML). As per our Deadline 3 response [REP3-090], we note the Applicant's position with respect to the scope of the DCO dML and the TA ML. We also understand that there is a degree of separation between the works consented under the two. Whilst it may be the case that the seasonal timing restrictions on construction activity within the Liverpool Bay SPA is only relevant to the TA ML (which the Applicant notes is outside the scope of the DCO dML), we continue to consider that clarification is required from the Applicant as to whether the

overlap between the TA ML and DCO dML for the Generation Assets areas - as shown in APP-013 and APP-014 – still exists. We note that the offshore substation platforms and interconnector cables have been considered in both the recent TA ML application and within the DCO application. Our comments with respect to securing the seasonal timing restrictions measures in both the DCO dML and the TA ML relate to the wording of the conditions. We note that the DCO consents all activities and works relevant to the project, therefore as the controlling consent for the project, it should ensure that required mitigation measures are secured by specifying what the requirement is. If this overlap has been misunderstood, NRW (A) would welcome further clarity from the Applicant. For the avoidance of doubt, NRW (A) support the necessity of a seasonal timing restriction and that the details of how these would be implemented is contained in Measures to Minimise Disturbance to Marine Mammals and Rafting Birds from Transiting Vessels [APP-203] and the Offshore Environmental Management Plan (oEMP). Whilst we received written correspondence from the Applicant about this matter on 15 October 2024, we do not consider that this sufficiently addresses our queries.

- Paragraph 1.1.3.8 of REP3-020 states: '*The measures to minimise disturbance to marine mammals and rafting birds, as described within this document, will be included as an appendix to the Offshore Environmental Management Plan. The Offshore Environmental Management Plan is secured within Schedule 14 of the draft Development Consent Order (DCO) (REP2- 004) and expected to be secured within the standalone NRW marine licence, as presented within the Marine Licence Principles Document (Document Reference J9)*.' However, the updated mitigation and monitoring schedule (see reference #2 of REP3-013) has removed the text in the previous version of this document relating to measures to minimise disturbance to marine mammals and rafting birds from transiting vessels (J17) being secured within the deemed marine licence as part of the offshore environmental management plan Condition 18(1)(e)(vi) of Schedule 14 of the draft Development Consent Order (DCO). The updated means of securing the commitment in REP3-013 now states: '*Development of and adherence to a final Measures to minimise disturbance to marine mammals and rafting birds from transiting vessels is expected to be secured as a condition within the standalone Natural Resources Wales marine licence.*' This updated text in REP3-013 appears slightly at odds with the text in the paragraph 1.1.3.8 of the updated measure to minimise impacts to marine mammals and rafting birds [REP3-020]. We request that clarity is provided.

1.1.2 REP3-038: S_D3_6 Response to Natural Resource Wales Deadline 2 Submission (F01)

1.1.2.1 Response to REP2-099.5:

2. As noted in our deadline 3 response [REP3-090], we welcome that the Applicant has corrected the many errors and discrepancies identified by interested parties and the Applicant themselves in these documents and has followed these corrections through to the assessments within the Environmental Statement (ES)

Offshore Ornithology Chapter [REP2-016/REP2-017], and Habitats Regulations Assessment (HRA) related documents (screening, REP2-012/REP2-013 and ISAA Part 3, REP2-010/REP2-011). Please see our Deadline 3 response [REP3-090] for detailed comments on the updated offshore ornithology related assessment documents submitted by the Applicant at Deadline 2.

3. We welcome the work undertaken by the Applicant in REP3-059 to provide assessments from the project alone (Environmental Impact Assessment (EIA) and HRA scale) that include the additional information in accordance with the SNCB advice (i.e. to include confidence limits for predicted collision impacts and consideration of the full range of advised % displacement and % mortality rates). Following this, we are now in a position to agree that an AEoSI can be ruled out from the project alone for Welsh SPAs/Ramsars covered in REP3-059. Please see our response within Annex B for further details on our advice and conclusions following review of the information submitted by the Applicant in the 'Offshore Ornithology Supporting Information in line with SNCB advice' note [REP3-059].

1.1.2.2 Response to REP2-099.6:

4. Please see our comments on the '*Mona Offshore Ornithology CEA and Gap-Filling Historical Projects Technical Note*', submitted by the Applicant at Deadline 3 in REP3-044 in Annex A.

1.1.2.3 Response to REP2-099.7:

5. We understand that the Applicant intends to submit a revised Offshore Ornithology Assessment of Pen y Gogarth / Great Orme's Head SSSI note at Deadline 4 to address, where required, the matters raised by NRW (A). We also note that the Applicant and NRW (A) had a productive meeting on 18 October 2024 to discuss the Applicant's proposals to address the issues raised regarding the assessment of impacts on the Pen y Gogarth / Great Orme's Head SSSI. Therefore, we will provide further advice following detailed review of the Applicant's updated assessment once it is submitted into the examination.

1.1.2.4 Response to REP2-099.8-REP2-099.9:

6. NRW (A) have raised concerns with the Applicant's approach to non-breeding season apportionment to designated sites multiple times (see REP3-090 regarding our response to points REP2-080; para REP1-056.80 to REP1-056.81, paragraphs 45-48). However, as noted in our Deadline 3 response [REP3-090], the Applicant's approach of calculating the proportion of adults at the colony as a proportion of the total adults in the Biologically Defined Minimum Population Size (BDMPS) does mean that a higher apportionment value for a designated site is calculated than if the standard NRW (A) approach is taken, which can be considered precautionary and this would apply to the Great Orme approach as well. As was noted in our Deadline 2 response [REP2-099], we do note that in this case, as the numbers of birds involved are small, our preferred approach to non-breeding season age class apportionment and apportionment method to the SSSI does not result in significant differences in the adult abundances of birds (auks) or adult densities (kittiwake) apportioned to the site in terms of annual totals. However, this may not be the case

for other offshore wind development sites where higher numbers/densities of birds are recorded. Therefore, we would not advise that the approach the Applicant has taken to apportioning non-breeding season impacts to SSSI colonies is followed by other projects where assessment of impacts to SSSI breeding seabird colonies is required.

7. Given that the Applicant has made changes to the age-class apportioning in REP2-022 and is no longer using the stable age structures in Furness (2015), we welcome that the Applicant intends to update the kittiwake apportioning values to the Pen y Gogarth / Great Orme's Head SSSI assessment at Deadline 4. Therefore, we will provide further advice following detailed review of the Applicant's updated assessment once it is submitted into the examination.

1.1.2.5 Response to REP2-009.10:

8. We note the Applicant's response to our deadline 2 submission [REP3-038] with respect to breeding season apportionment for guillemot and razorbill at Pen-y-Gogarth SSSI. The Applicant's response is welcomed and we now consider this issue addressed

1.1.2.6 Response to REP2-099.11:

9. No further comment.

1.1.2.7 Response to REP2-099.12:

10. Please see our response to REP2-099.8 above at paragraph 6.

1.1.2.8 Response to REP2-099.13:

11. No further comment.

1.1.2.9 Response to REP2-099.14:

12. We welcome that the Applicant will be updating the kittiwake collision estimates based apportioned impacts to the Pen y Gogarth / Great Orme's Head SSSI to those for the 'full breeding season' and adjusted for the non-breeding season as reported in REP2-016 in the updated assessment document they intend to submit at Deadline 4. Therefore, we will provide further advice following detailed review of the applicant's updated assessment once it is submitted into the examination.

1.1.2.10 Response to REP2-099.15:

13. Please see our responses to REP2-099.8 and REP2-099.14 at paragraphs 6 and 12 above.

1.1.2.11 Response to REP2-099.16:

14. Please see our response to REP2-099.8 at paragraph 6 above.

1.1.2.12 Response to REP2-099.17:

15. As per response to REP2-099.10 at paragraph 8 above, this is welcomed and we now consider the issue addressed.

1.1.2.13 Response to REP2-099.18:

16. The Applicant is correct that the comment referred to here is actually referring to Table 1.3 in Volume 6, Annex 5.6: Offshore Ornithology Population Viability Analysis (PVA) Technical Report [APP-096 and REP2-024]. We apologise for the confusion in referring to the wrong document. We welcome the clarification provided by the Applicant and we agree that the correct mortality rates have been used in the calculations of the % of baseline mortality of the SSSI colony that the apportioned predicted impacts equate to. However, we do note that this typographic error in Table 1.3 in Volume 6, Annex 5.6: Offshore Ornithology Population Viability Analysis Technical Report [APP-096 and REP2-024] that has been acknowledged by the Applicant is listed in the Errata document submitted by the Applicant at Deadline 3 (see Errata reference #146 in REP-075). However, we would suggest that this should also be corrected in the PVA Technical Report in order to be clear.

1.1.2.14 Response to REP2-099.19:

17. We welcome that the Applicant intends to submit the information requested by NRW (A) in an updated version of the Offshore Ornithology Assessment of Pen y Gogarth / Great Orme's Head SSSI note at Deadline 4. Therefore, we will provide further advice, following detailed review of the Applicant's updated assessment once it is submitted into the examination by the Applicant. Whilst the Applicant notes that they have submitted an Offshore Ornithology Supporting Information Technical note at Deadline 3 [REP3-059], which presents an assessment of apportioned displacement and collision impacts for SPA sites using a range-based approach for the Mona Offshore Wind Project alone and in-combination, in accordance with the SNCBs' advice, we note that this does not include an assessment of apportioned impacts to the SSSI using SNCB advised approaches. Therefore, this should be included in the updated SSSI assessment to be submitted at Deadline 4.

1.1.2.15 Response to REP2-099.20:

18. No further comments.

1.1.2.16 Response to REP2-099.21:

19. This is welcomed by NRW (A).

1.1.2.17 Response to REP2-099.22:

20. We note that the Applicant states that *'updated productivity rates were used for the PVA and that these were requested from the British Trust for Ornithology and sent to the Applicant on 21 July 2023*.' Whilst this may be the case, in order for us to understand exactly what data the rates used refer to and whether they are the most appropriate to use for the Pen y Gogarth / Great Orme's Head SSSI colony, the Applicant needs to clearly state the source of the productivity values used, the colony(ies)/population (e.g. national average) the data are from/refer to and the years the data relate to. We also note that the Applicant states in the response to point REP2-099.22 that they have incorrectly used the razorbill productivity rate

instead of the guillemot rate in the Pen y Gogarth / Great Orme's Head SSSI guillemot PVA. We therefore welcome that the Applicant intends to update the PVA in the updated SSSI assessment that will be submitted at Deadline 4. Therefore, we will provide further advice following detailed review of the Applicant's updated assessment once it is submitted into the examination. We also note that the error in use of the razorbill productivity rate rather than the guillemot one has been included in the Errata document submitted at Deadline 3 (see Errata reference #150 in REP3-075).

1.1.2.18 Response to REP2-099.23:

21. Please see our response to REP2-099.8 at paragraph 6 above.

1.1.2.19 Response to REP2-099.24:

22. As per our response to REP2-099.10 at paragraph 8 above, this is welcomed and we now consider the issue addressed.

1.1.2.20 Response to REP2-099.25:

23. In response to point REP2-099.25, the Applicant states: '*The Applicant has provided a revised Offshore Ornithology Assessment of Pen y Gogarth /Great Orme's Head SSSI (S_D1_25 F02) at Deadline 3 that presents predicted impacts across the full range of advised % displacement (30-70%) and % mortality rates (1-10%) for common guillemot and razorbill. Where the predicted annual mortality equates to 1% or more the baseline mortality of the colony, PVA has been undertaken*.'

24. However, we note that no document titled '*Offshore Ornithology Assessment of Pen y Gogarth / Great Orme's Head SSSI (S_D1_25 F02)*' is available from the Examination Library and we therefore assume that this document was not submitted at Deadline 3. We assume that this is an error from the Applicant and should actually be referring to the updated assessment document the Applicant has stated (in other responses) that they intend to submit at Deadline 4. Clarification is required from the Applicant regarding this.

1.1.2.21 Response to REP2-099.26:

25. We note that the Applicant intends to submit a revised Offshore Ornithology Assessment of Pen y Gogarth / Great Orme's Head SSSI note at Deadline 4, which will include a cumulative assessment. We also note that the Applicant and NRW (A) had a productive meeting on 18 October 2024 to discuss the Applicant's proposals to address the issues raised regarding the assessment of impacts on the Pen y Gogarth / Great Orme's Head SSSI. Therefore, we will provide further advice following detailed review of the Applicant's updated assessment once it is submitted into the examination.

1.1.3 REP3-039: - S_D3_7 Response to Natural Resources Wales Rule 17 Letter (F01)

26. We welcome and acknowledge the work undertaken by the Applicant in their Deadline 3 submissions to address the issues raised by NRW (A). Following review

of the '*Offshore Ornithology Supporting Information in line with SNCB advice*' document [REP3-059] that gives apportioned predicted impacts following our advice, we are now in a position to agree that an AEoSI can be ruled out for all relevant Welsh designated sites and feature combinations with regard to impacts from the project alone (see Annex B which details our response on REP3-059).

27. However, whilst the Applicant has undertaken gap fill analysis for historical projects for cumulative effects in REP3-044, we note that whilst the historical projects have been gap-filled for the EIA scale cumulative assessments, the gap-filled projects have not been included in the in-combination assessments of the additional designated site and features combinations now taken through to in-combination assessments following consideration of SNCB advice in REP3-059, i.e. all the Welsh designated sites taken through to in-combination assessments in REP3-059. Therefore, the in-combination assessments presented in REP3-059 contain several gaps and are hence not comprehensive. We advise that these assessments are revisited, and the gaps filled by apportioning the gap filled historical project EIA scale figures. Therefore, at this point we remain unable to reach conclusions/comment on the potential level of significance of in-combination impacts for Welsh designated sites.

28. Additionally, please see our comments on REP3-058 at 1.1.5 below regarding the additional projects noted by the Applicant that have the potential to contribute to in-combination collision and/or displacement offshore ornithology impacts that now have data available and that additional work is expected on the in-combination offshore ornithology impacts at Deadline 4.

1.1.4 REP3-044: S_D3_12 Offshore Ornithology Cumulative Effects Assessment and In-combination Gap-filling Historical Projects Technical Note (F01)

29. Please see Annex A for comments on this note.

1.1.5 REP3-058: S_D3_18 Review of Cumulative Effects Assessment and In-Combination Assessment (F01)

30. We welcome the Applicant's review on cumulative effects and in-combination assessment in REP3-058. We note that in REP3-058 the Applicant has identified several additional projects that have the potential to contribute to in-combination collision and/or displacement offshore ornithology impacts that now have data available. As the Applicant has stated in REP3-058 that additional work is required to understand the potential cumulative effects of these projects for collision and displacement and has indicated that this additional work will be undertaken for Deadline 4. Therefore, as we expect that cumulative assessments will be further updated by the Applicant at Deadline 4, we consider it premature to comment on the level of in-combination impact significance at this point. We will provide further comment/advice into the examination on in-combination impacts on Welsh designated sites following full review of the documents the Applicant intends to submit at Deadline 4.

31. With respect to cumulative and in-combination assessment, NRW (A) consider it prudent to raise with the ExA that as the Report on the Implications for European Sites (RIES) is to be published by the ExA on 19 November 2024, i.e. between Deadline 4 and Deadline 5, NRW (A) notes that only submissions up to Deadline 4 on 04 November 2024 will be considered in the RIES. As a result, the RIES will not take account of updated advice on various HRA aspects /matters beyond that point. NRW (A) recommends that the RIES is updated before it is included alongside the ExA report to the Secretary of State (SoS), so that a full account of the Examination's consideration of HRA matters is presented in one place.

1.1.6 REP3-059: S_D3_19 Offshore Ornithology Supporting Information in line with SNCB advice (F01)

32. Please see Annex B for detailed comments on this note.

1.1.7 REP3-062: S_D3_25 Response to Examining Authority's Written Questions (ExQ1) (F01)

33. **Q1.10.3 Response to Applicant response:** As noted in the NRW offshore SoCG with the Applicant [REP1-025], NRW (A) consider that the Applicant's approach to identifying sites and features in the HRA Stage 1 Screening is agreed, with caveats. As noted in our Relevant Representations (RR-011), the approach taken by the Applicant in the Mona offshore ornithology assessment may be considered appropriate regarding the project alone assessment for this particular project, where there is potential connectivity to a very large number of sites, but the likelihood of substantial impacts is generally low. It should be acknowledged however (this is where the caveat should be considered), that this approach will not necessarily be appropriate for all offshore wind cases.

34. As we noted in our ornithology response to ExA Q1.10.3 (see REP3-093, we considered that there was the potential for an in-combination Likely Significant Effect (LSE) for Welsh site/feature combinations, (and that we were unable to provide further advice until revised assessments using the SNCB advised approach to displacement (i.e. to consider impacts across the full range of advised % displacement and % mortality rates) were submitted by the Applicant). The Applicant has since provided - in REP3-059 - assessments in line with SNCB approaches and this has resulted in further site/feature combinations, including Welsh SPAs, being taken through to in-combination assessments (as apportioned impacts from Mona alone equate to greater than 0.05% of baseline mortality at some point across the advised ranges). However, as the Applicant has not included the gap-filled projects in these assessments, the assessments contain several gaps and cannot be considered comprehensive. Additionally, the Applicant has identified in REP3-058 some additional projects that could contribute to in-combination impacts and that further work on this will be presented at Deadline 4. Therefore, at present our position remains that we are not in a position to provide advice on the levels of significance of in-combination impacts to Welsh SPAs.

35. **Q1.10.14 Response to Applicant response:** Regarding offshore ornithology, as noted in our response to ExA Q1.10.14 (see REP3-093), we are content with the projects included in the in-combination assessments. However, whilst the

Applicant has undertaken gap fill analysis for historical projects for cumulative effects in REP3-044, we note that whilst the historical projects have been gap-filled for the EIA scale cumulative assessments, the gap-filled projects have not been included in the in-combination assessments of the additional designated site and features combinations now taken through to in-combination assessments following consideration of SNCB advice in REP3-059, i.e. all the Welsh designated sites taken through to in-combination assessments in REP3-059. Therefore, the in-combination assessments presented in REP3-059 contain several gaps and are hence not comprehensive. We advise that these assessments are revisited, and the gaps filled by apportioning the gap filled historical project EIA scale figures. Therefore, at this point we remain unable to reach conclusions/comment on the potential level of significance of in-combination impacts for Welsh designated sites.

36. **Q1.17.11 Response to Applicant response:** We note that the Applicant intends to submit a revised Offshore Ornithology Assessment of Pen y Gogarth / Great Orme's Head SSSI note at Deadline 4, which will include a cumulative assessment. We also note that the Applicant and NRW (A) had a productive meeting on 18 October 2024 to discuss the Applicant's proposals to address the issues raised regarding the assessment of impacts on the Pen y Gogarth / Great Orme's Head SSSI. Therefore, we will provide further advice following detailed review of the Applicant's updated assessment once it is submitted into the examination.

37. **Q1.17.16 Response to Applicant response:** We note the Applicant's comments regarding some species moving to the Red List following the latest status assessment of breeding seabird species in the United Kingdom being published in September 2024 in Stanbury et al. (2024). We note the Applicant's response to ExA Q1.17.16 regarding Red List status not affecting the sensitivity of the species in their response to ExQ1 Q1.17.16 (see REP3-062). We agree that the revised status does not affect the species' sensitivity but do consider that it provides context to the potential consequences of any impact. For example, for great black-backed gull (GBBG), the revised status demonstrates a prolonged and severe decline in the species in the United Kingdom, supported by both the IUCN assessment and monitoring coordinated by JNCC. While the offshore wind farms are unlikely to be the cause of the declines experienced, the cumulative impact from offshore wind projects has the potential to worsen that decline, or to inhibit to some extent any recovery effort and we therefore do not agree with the Applicant's conclusion of a minor adverse effect at the cumulative EIA scale, i.e. no significant effect – please see our detailed comments on the Applicant's '*Offshore Ornithology CEA and Gap-Filling Historical Projects Technical Note*' [REP3-044], at Annex A, for further details.

1.1.8 REP3-073: S_D3_26 Offshore Ornithology Errata Clarification Note (F01) and REP3-075: S_PD_1 Mona Errata (F04)

38. With regard to offshore ornithology, we welcome the work the Applicant has done in listing the discrepancies in the Errata sheet (most recent version submitted in REP3-075) that have been identified throughout the Application documents and through the additional submissions. We also welcome the provision of the Offshore Ornithology Errata Clarification Note [REP3-073]. However, there is a need for the

final impact assessments, based on all the corrections that have occurred through the examination, to be clear and for it be clear as to which documents these can be found in. This will be essential for future projects to access in order to populate their cumulative and in-combination assessments. We therefore request that, once SNCB methodological concerns that remain following the Applicant's Deadline 3 submission have been addressed, that the Applicant submits a 'final position' summary document into the Examination that details or tabulates the impact estimates (alone and cumulatively/in-combination) according to the SNCB advised approach and that of the Applicant.

1.2 Marine Mammals

1.2.1 REP3-038: S_D3_6 Response to Natural Resource Wales Deadline 2 Submission

39. NRW (A) confirms that, based on the mitigation measures proposed for the project, we continue to agree with an overall conclusion of "low magnitude". We also note that this methodological discussion focuses on estimating the numbers disturbed by the impact pathway and does not materially impact our agreement with the overall conclusions - that there will be no significant effect / adverse effect on marine mammal populations.

40. In responding to our comments on the issue of using a disturbance footprint versus a static radius the Applicant makes the following argument at REP2-099.4 of REP3-38:

    "*The Applicant still considers that assessing the footprint of disturbance for a moving vessel as a continuous area from point A to B along a potential shipping route (leading to an elongated buffer) based upon a precautionary effect range would lead to an overestimate of the effect as it assumes that a disturbance effect would continue even after a vessel has passed and does not consider any rapid recovery of animals following a potential disturbance event*."

41. While pointing out that rapid recovery is not equivalent to instantaneous recovery, the fact that an animal recovers sometime after a disturbance event, does not mean the event should no longer be counted as disturbance. Thus, if the intent is to calculate the number of animals disturbed, to propose removing it from the count invites the risk of significant underestimates.

42. We posit that by discounting disturbance events from which an animal has recovered, there is a risk that impact pathways which consist of chronic, but individually relatively small (in terms of effect) disturbance events are overlooked on account of these individual disturbance events being short lived. We believe it is important to consider the overall additional stressor load introduced when making a conclusion on the magnitude of a pathway.

43. In our view, it is plausible that the cumulative impact of repeated but individually small disturbances may be greater than the impact from a single disturbance event, and modelling these potential effects is currently an active area of research. Thus,

we do not accept rapid recovery to be a valid argument for rejecting the elongated buffer approach.

44. In presenting numbers for a fixed radius, the data presented in Table 1 [please see REP2-099.4 of REP3-038] shows a running estimate of animals disturbed at one point in time (essentially, a snapshot) rather than the numbers disturbed. This is a crucial distinction. As a vessel moves this snapshot will move with it, and new animals will be disturbed while simultaneously the animals disturbed previously will be going through the recovery process. Even assuming their recovery is instantaneous, the (total) numbers disturbed over a given time period (e.g. 1 day, 1 season, the construction phase etc) would be expected to be far greater than the numbers presented in a snapshot calculation. This rule holds true independently of the size of the radius selected.

45. As presented in table 1 of [REP3-038] (and also in [APP-056]), the Applicant has concluded that small fractions of the Management Unit (MU) populations will be disturbed and that therefore the magnitude is small. However, these numbers are true for a vessel at a fixed point in time only. It therefore is inaccurate to state that e.g. "*0.02 % of the harbour porpoise MU will be disturbed*" (for a 4.08 km impact radius) without clarifying that this is a precautionary estimate for a fixed point in time for a single vessel and not a total.

46. In principle we have no concerns with the use of a fixed impact radius to provide a snapshot estimate of numbers disturbed at one point in time. However, this needs to be made abundantly clear in the assessment, otherwise it is inaccurate to state that 0.02% of the harbour porpoise MU will be disturbed.

47. We still recommend that the Applicant either: (1) calculates numbers using a method similar to those advised in REP3-090, section 1.2, paragraph 69 (an elongated buffer), or; (2) clarifying that the numbers of animals disturbed calculated using a static radius are for a single point in time only. Whilst NRW (A)'s preference would be to undertake option (1), we acknowledge that option (2) may be the more proportionate approach at this stage of the examination process. Regardless of the option chosen, we advise that the Applicant submits into the examination an explanation of the method chosen so that future projects drawing down information from the Mona Offshore Windfarm ES application have access to the correct information.

48. Our position on this matter has been previously clarified directly to the Applicant through correspondence, and in REP3-090 in response to the Applicant's submission REP2-080.

1.2.2 REP3-058: S_D3_18 Review of Cumulative Effects Assessment and In-Combination Assessment (F01)

49. We have reviewed the additional information provided in this document and considered it alongside the Applicant's assessments. We confirm that we have no concerns with the additional information presented and that we agree with the conclusions.

1.3 Fish and Shellfish

1.3.1 REP3-058: S_D3_18 Review of Cumulative Effects Assessment and In-Combination Assessment (F01)

50. We have reviewed the additional information provided in this document and considered it alongside the Applicant's assessments. We confirm that we have no comment on the additional information presented and that we agree with the conclusions.

1.3.2 REP3-062: S_D3_25 Response to Examining Authority's Written Questions (ExQ1) (F01)

51. We note that the ExA's questions relating to fish and shellfish were in relation to vessel noise and turbine noise. NRW (A) has previously agreed with the Applicant's assessment of no adverse effect for both of these pathways and therefore we have no further comments to make.

1.3.3 REP3-064: S_D3_25.2 Appendix to ExQ1 - Q1.5.3 Fish and Shellfish Ecology (F01)

52. We previously agreed with the Applicant's assessment of vessel noise and wind turbine noise impacts, and therefore have no further comments to make on the responses to these questions from the ExA or on the Applicants Appendix to ExA Q1.5.3 [REP3-064] .

1.3.4 REP3-012: J10 Mitigation and Monitoring Schedule F03 (Clean)

53. A number of mitigation measures put in place for marine mammals also apply (either in part or in whole) to fish for example (but not limited to): UXO clearance; piling hammer energy, and Underwater Sound Management Strategy (UWSMS). However, the fish and shellfish ecology chapter [APP-055], and the primary and tertiary measures noted therein (Table 3.19 within APP-055) have not been referenced within the '*Document(s) commitment included in*' column within the Mitigation and Monitoring schedule (REP3-012). For completeness and clarity, we recommend that the table within the schedule should be updated to reference the fish and shellfish ecology chapter, this will be particularly important given REP3-012 will be a certified document.

54. As a broader point, in order to ensure that the final Mitigation and Monitoring Schedule (and related documents) is as comprehensive as possible, we continue to recommend that the Applicant undertakes a full review of the documents cross-referenced therein. Please also see our comments with regards such matters e.g. at paras 252-254 in REP1-056 and para 159 in REP3-090.

1.4 Physical Processes

1.4.1 REP3-058: S_D3_18 Review of Cumulative Effects Assessment and In-Combination Assessment (F01)

55. Following review of Table 1.5, NRW (A) are in agreement that the Isle of Man – UK Interconnector 2 and Microsoft Wales-Ireland telecommunications cable which are both located within the Mona study area are not likely to impact physical features from generation of Suspended Sediment Concentration (SSC) plumes during the construction, operation and decommissioning phases.

56. NRW (A) note in Table 1.5 within REP3-058 that the Microsoft Wales-Ireland telecommunications cable crosses the Mona export cable corridor. Further consideration for Cumulative Effects will be required at a later stage, due to the possibility that cable protection may be required at the cable crossing site. The presence of infrastructure on the seabed has the potential to have direct impacts on the tidal, wave and sediment transport regime, with direct impacts on the physical features and bathymetry, and indirect impacts on adjacent shorelines. It has currently been assumed that, for both projects, the cables are expected to be buried to a sufficient depth that leads to no permanent raised feature on the seabed. However, the current sequencing of consents means that it is our view that more detailed consideration for these Cumulative Effects should be given by Microsoft rather than Mona at this point in time, due to a lack of information in the public domain and the early stages of the Microsoft cable project. NRW (A) would welcome the Applicant's view on this matter and if there is any further information that the Applicant can provide at this stage.

1.4.2 REP3-062: S_D3_25 Response to Examining Authority's Written Questions (ExQ1) (F01)

1.4.2.1 Q1.14.1 NRW (A) Response

57. As advised in REP3-090 at para 102, NRW (A) note and welcome the intention of the Applicant to try and avoid cable protection in shallow water. The Applicant's commitment is confirmed again in REP3-062. As per our advice in REP3-090, we advise that providing the proposed mitigation measure is strictly adhered to - i.e. no more than a 5% reduction in water depth at any point where cable protection is placed - we are satisfied that there should be no significant impacts to the physical processes in the shallow nearshore environment. Again, we advise that this commitment should be captured in both the DCO deemed Marine Licence and the Transmission Asset Marine Licence via the offshore Construction Method Statement (oCMS) and the Cable Specification Installation Plan (CSIP). We advise that NRW (A) are consulted in writing on these documents. We continue to advise (as per para 102 of REP3-090) that should the 5% threshold be breached, then NRW (A) would require that the Applicant conduct a further physical processes assessment in the shallow nearshore environment just seawards of Mean Low Water Springs over the exit pits.

1.4.2.2 Q1.14.4 Sandwave Recovery Monitoring

58. NRW (A) welcomes the commitment confirmed by the Applicant in response to ExA Q1.14.4 that, for information purposes, the hydrographic and side scan sonar surveys already committed to, and the relevant data gathered, will be considered in the context of sandwave recovery, particularly in relation to the Constable Bank. We welcome that the Applicant has no objections to sharing this information with the relevant licensing authorities as part of the post-consent offshore monitoring plan. NRW (A) acknowledge that the commitment to develop a monitoring plan in accordance with the Offshore in-principle monitoring plan [APP-201] is secured under condition 18(1)(c) in Schedule 14 of the draft development consent order (DCO) [REP2-004]. NRW (A) welcome the Applicant's acknowledgement that the surveys committed to will highlight any morphological changes to the seabed, which will improve the evidence base for future mitigation.

1.4.3 REP3-012: J10 Mitigation and Monitoring Schedule F03 (Clean)

59. NRW (A) request that the decision to monitor sand wave clearance recovery is documented in the Mitigation and Monitoring Schedule and captured in both the DCO dML and the TA ML via the offshore Construction Method Statement (oCMS) and the Cable Specification Installation Plan (CSIP).

1.5 Benthic Subtidal and Intertidal Ecology

1.5.1 REP3-058: S_D3_18 Review of Cumulative Effects Assessment and In-Combination Assessment (F01)

60. NRW (A) note the conclusions presented in Table 1.5 of REP3-058. We confirm that we are in agreement with the updated assessment of cumulative effects from the Mona Offshore Wind Project with other projects and confirm that we are satisfied that there will be no significant adverse effects on benthic intertidal and subtidal ecology.

61. We have no further comments to raise at this time.

1.6 Marine Water and Sediment Quality

62. We can confirm we have no further comments to raise for this submission regarding Marine Water and Sediment Quality.

1.7 Water Framework Directive (WFD): Coastal and Transitional Water Bodies – Offshore works

63. NRW (A) agrees with the Applicant's conclusions as stated at para 1.2.4.5 in REP3-045 that the assessment out to 12 nm of the impact of chemical contamination mobilisation shows no likely deterioration of WFD waterbodies as a result of the activities associated with the Mona offshore wind project.

64. NRW (A) agrees with the Applicant's conclusions stated at para 1.3.3.6 in REP3-045 that activities associated with the Mona offshore wind project would not

prevent any waterbodies scoped in for assessment from achieving good status. We acknowledge that the Zone of Influence (ZoI) used by the Applicant (based on physical processes numerical modelling) is appropriate and sufficient. Additionally, we advise that based on the Applicant's assessment, the activities associated with the Mona offshore wind project are unlikely to cause any deterioration of the waterbodies scoped in and assessed for impact.

65. NRW (A) agrees with the overall conclusion at para 1.4.1.3 within REP3-045that the project has been adequately assessed as compliant with The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. We have no further concerns or queries regarding assessment of WFD compliance.

1.8 Biodiversity Benefit

66. We note that Action Point 3 arising from Issue Specific Hearing 3 on Wednesday 16 October 2024 is directed to NRW, and requests *"NRW and Welsh Government to provide opinion on ecosystem resilience and enhancement opportunities provided by the Proposed Development*."

67. NRW (A) refer the Examining Authority to the advice provided with regard to biodiversity benefit measures for Mona Offshore Wind Farm in our Written Representations, at point 2.8 within REP1-056 and REP3-090 paragraphs 156-157.

2 ONSHORE

2.1 Designated Landscapes

2.1.1 REP3-062: S_D3_25 Response to Examining Authority's Written Questions (ExQ1) (F01)

2.1.1.1 Q1.20.3 NRW (A) Response

68. The Applicant's Response to Q1.20.3 refers to the 'White Consultants Study'. We understand this to be the report which forms part of the guidance[1] referred to in the ExA's question, the full title of which is: *Seascape and Visual Sensitivity To Offshore Wind Farms In Wales: Strategic Assessment and Guidance Stage 1- Ready Reckoner Of Visual Effects Related To Turbine Size Simon White, Simon Michaels And Helen King, White Consultants Report No 315* (White Consultants Study)

69. The Applicant's assertion that the White Consultants Study '*is based purely on analysis of wirelines'* is incorrect because:

[1] Which comprises the 3 reports submitted to the ExA by NRW at Deadline 4.

- This Study is based on a review of the findings of 23 SLVIAs for offshore wind farms, and examinations and inquiries relating to offshore windfarms intervisible with National Parks or AONBs[2].
- Additional wireline analysis was only required in relation to 350m tall turbines because of the limited number of suitable SLVIAs relating to this height of turbine at the time of writing[3]. The Study clearly explains that no judgements were reached based on these wirelines[4]. The wirelines were only used to calibrate the likely impact of 350m tall turbines against smaller turbines for which robust evidence exists[5]. The guidance is based on the SLVIA derived analysis.

70. The Applicant's Response to Q1.20.3 refers to the Report tilted UK Offshore Energy Strategic Environmental Assessment Future Leasing/Licensing for Offshore Renewable Energy, Offshore Oil & Gas and Gas Storage and Associated Infrastructure, prepared by the Department for Business, Energy and Industrial Strategy, March 2022. (OESEA4 Environmental Report)

71. The Applicant states that by taking account of atmospheric conditions (e.g. air clarity, background cloud cover, degree of sunlight etc) when reaching judgments on the magnitude of impact, its SLVIA was prepared in line with the OESEA4 Environmental Report. However, the OESEA4 Environmental Report explicitly discourages this approach. It states:

> *'Beyond the limitations imposed by viewable distance due to the curvature of the earth,* ***the effects of haze, meteorological and other conditions that limit the distance at which activities could be seen, or at the least the duration at which visibility would be limited, should be taken as context only****.* ***Project level assessments are required to take a precautionary approach, and therefore base conclusions on the maximum possibly visibility'****.*[6] (Our Emphasis)

72. Elsewhere, the OESEA4 Environmental Report states that 'impact assessments relating to visibility must assume conditions free from meteorological factors that could limit visibility, even if these are on the majority of days per year, to reflect a worst-case impact'.[7]

73. It is understood from the Applicant's response that (unspecific) atmospheric conditions which can alter the degree of visibility have been factored into SLVIA judgements for magnitude of change. This will inevitably have led to a reduction in the magnitude of change compared with a maximum visibility scenario, which is required by the OESEA4 Environmental Report and other guidance. This departure from best practice is one of a number of methodological flaws in the

[2] White Consultants Study Page 18 Section 4.1.
[3] White Consultants Study Page 38 Section 8.1 First Paragraph
[4] White Consultants Study Page 39 First paragraph.
[5] White Consultants Study Page 38, Section 8.2 First paragraph
[6] OESEA4 Environmental Report Page 361 Paragraph 5.8.2
[7] OESEA4 Environmental Report Page 407 Paragraph 5.8.5 First Bullet.

SLVIA which has directly led to its underestimation of the effects on receptors in the IoA NL.

2.1.2 REP3-046: S_D3_15 Seascape and Visual Resources: Cumulative Wirelines (F01)

74. Additional cumulative wirelines showing the proposed offshore development from viewpoints within the Isle of Anglesey National Landscape (IoA NL) have been submitted in response to our request for these[8]. They are provided in Volume 6, Annex 8.6: Seascape visualisations [**REP3-046**]. The wirelines are presented as two separate images each with a 90 degree horizontal field of view (HFoV), providing a 180 degree HFoV in combination.

75. The cumulative wirelines for the offshore development illustrate two key impacts:

- The impact on views as a result of the visibility of the Awel-y-Môr Array and Mona Array in combination.
- The sequential impact as a result of the visibility of offshore wind turbines from different viewpoints along the north coast of Anglesey.

76. As a general comment, we advise that because the wirelines are not presented alongside baseline photographs, it is necessary to cross refer to the original viewpoint photographs presented in **APP-106 to APP-112**. With reference to these, we note at least one of the cumulative wirelines does not appear to match the location stated. The cumulative wireline for Viewpoint 28 (PDF Page 15) does not appear to be from Penmon Point.

77. We also advise that in some instances the split between the 180 degree HFoV (into two separate 90 degree images) occurs in the gap between the Awel-y-Môr Array and Mona Array (e.g. Viewpoint 4 [**REP3-046**]). In such instances, this gives the false impression that a greater amount of separation exists between the two Arrays than would be seen at the corresponding viewpoint.

Combined Impact

78. At several SLVIA viewpoints within the IoA NL, the horizontal field of view occupied by the Mona Array would be significantly greater, typically more than double, that which would be occupied by the Awel-y-Môr Array. This is illustrated, for example, in the cumulative wirelines at the following viewpoints. For ease of navigation, we have included the relevant PDF page.

- Viewpoint 1: Mynydd y Garn trig point, Isle of Anglesey National Landscape (90° Cumulative Wirelines) (**PDF Page 6**)
- Viewpoint 2: Llanlleiana Head, Isle of Anglesey National Landscape (90° Cumulative Wirelines) (**PDF Page 7**)
- Viewpoint 24: Bull Bay, Amlwch, Isle of Anglesey National Landscape (90° Cumulative Wirelines) (**PDF Page 12**)
- Viewpoint 25: Moelfre Headland, Isle of Anglesey National Landscape (90° Cumulative Wirelines) (**PDF Page 13**)

[8] Paragraph 268 of our written reps [**REP1-056**].

- Viewpoint 55: Trwyn Eilian (Point Lynas), Isle of Anglesey National Landscape (90° Cumulative Wirelines) (**PDF Page 25**)

79. At these locations and others, for example Viewpoint 4: Bwrdd Arthur trig point, the Mona Array and the Awel-y-Môr Array would be seen in the same views with each extending the horizontal field of view affected by the other. In combination, and with the gap between these developments, the HFoV that would be affected by offshore wind turbines would extend beyond 50 degrees, and this would be noticeable throughout at least the 90 degree field of view, when looking offshore. In a single field of view looking towards the Mona and Awel-y-Môr Arrays, for example in Cumulative Wireline 2 of 2 for Viewpoint 2 (PDF Page 7), the majority of the horizon would be occupied by wind turbines, and people would have to turn and change direction in order to avoid views of wind turbine development. We advise that at locations such as the viewpoints listed above, the combined cumulative effect would be greater than the effect of either the Mona Array or Awel-y-Môr in isolation, and would be significant.

Sequential Impact

80. Taken together, the cumulative wirelines illustrate the sequential impact on, for example people visiting different parts of the IoA NL, and using routes such as the Isle of Anglesey Coastal Path. These people would experience both combined and sequential cumulative impacts as a result of the Mona Array and the consented Awel-y-Môr development. As a result of the construction of both the Mona Array and the Awel-y-Môr Array, people would have to travel ever further west along the north coast of Wales – and in effect to the western side of Anglesey - to be afforded coastal views unaffected by large scale offshore wind turbine development. This is illustrated in the cumulative zone of theoretical visibility (ZTV) analysis, which shows cumulative visibility across a large geographical area (Figure A.10 [**APP-060**]). In this context, it is also relevant to note the consenting of the Morlais Demonstration Zone, which will generate significant adverse effects on the National Landscape at Holyhead Mountain and coastline between South Stack and Penrhyn Maw; further reducing the availability of coastal views, within a coastal designation, which are not adversely impacted by large scale offshore development.

2.1.3 REP3-048: S_D3_16.2 Landscape and Visual Resources – Cumulative Visualisations Part 2 (F01) and

81. Cumulative visualisations of the proposed onshore substation in combination with the Awel-y-Môr and National Grid substations have been submitted in response to our request for these[9]. The viewpoints listed below are located within the Clwydian Range and Dee Valley National Landscape (CRDV NL). The cumulative visualisations for these viewpoints are provided in Landscape and Visual Resources – Cumulative Visualisations Part 2 [**REP3-048**] and Part 3 [**AS-027**]. The visualisations are presented as a single image with a 90 degree HFoV.

[9] Paragraph 268 of NRW (A)s written reps [**REP1-056**].

- Viewpoint 11: View west-southwest from Offa's Dyke Path, to the south of Moel Maenefa [**REP3-048**]
- Viewpoint 12: View west-southwest from Offa's Dyke Path, to the south of Pen-y-Mynydd [**AS-027**]
- Viewpoint 18: View southwest from Graig Fawr summit [**AS-027**]
- Viewpoint 19: View southwest from Offa's Dyke Path / public footpath 405/12, Prestatyn hillside [**AS-027**]

82. The visualisations confirm that people visiting the CRDV NL, such as those walking the Offa's Dyke Path National Trail, would experience combined and sequential visibility of the Tier 1 onshore substations in views. As stated in our written representations, mitigation measures are expected to reduce the impact of the proposed substation on receptors within the CRDV NL such that these impacts would not be significant [**REP1-056**]. Whilst the cumulative effect of the three substations in combination would be greater than any one in isolation, and would be adverse, it is considered that with mitigation aforementioned, and with consideration for the distances between the viewer and the substations, that the cumulative effect is unlikely to be considered to be significant.

2.2 WFD Compliance Assessment: Onshore Works

83. No further comments to make at this time and our previous comments remain valid (REP3-090 section 2.2). To note, in particular reference to geomorphology, we have been in discussions with the Applicant and further information is to be submitted by them at Deadline 4. We will await the submission of this information before providing comments on this point.

2.3 Air Quality

84. No further comments to make at this time and our previous comments remain valid (REP3-090 section 2.3).

2.4 Ecology (Terrestrial)

85. No further comments to make at this time and our previous comments remain valid (REP3-090 section 2.4).

2.5 Water Quality (Surface and Groundwater)

86. No further comments to make at this time and our previous comments remain valid (REP3-090 section 2.5).

2.6 Flood Risk

87. No further comments to make at this time and our previous comments remain valid (REP3-090 section 2.6).

2.7 Materials and Waste

88. No further comments to make at this time and our previous comments remain valid (REP3-090 section 2.7).

3 REFERENCES

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Stanbury, A.J., Burns, F., Aebischer, N.J., Baker, H., Balmer, D.E., Brown, A., Dunn, T., Lindley, P., Murphy, M., Noble, D.G., Owens, R. & Quinn, L. (2024) The status of the UK's breeding seabirds: an addendum to the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds*, **117**: 471-487.

Annex A – Comments on REP3-044 Offshore Ornithology Cumulative Effects Assessment and In-combination Gap-filling Historical Projects Technical Note

1. Overall Comments

89. We welcome the gap filling work for historical projects that has been undertaken by the Applicant in REP3-044. We broadly consider that the approach taken by the Applicant provides the information requested by SNCBs and consider that the approach of using MERP data rather than a proxy approach represents a more repeatable and defensible approach. We welcome that in REP3-044 the Applicant has considered the advice provided by the SNCBs during the meeting held with the Applicant on 29 August regarding undertaking a comparison of proportions of birds in flight from more coastal projects with data (such as Awel-y-Môr) with the combined data from the Round 4 Irish Sea projects. We note that the Applicant states in REP3-044 that it was not possible to include a seasonal and monthly breakdown of the proportions of flying birds within the Round 4 Irish Sea project digital arial survey data in REP3-044 for submission at Deadline 3, but a commitment is made to undertaking this analysis and submitting it at Deadline 4. We will therefore consider this aspect once we have fully reviewed the additional information the Applicant submits at Deadline 4.

90. We note that the standard approach to cumulative and in-combination assessments is to use the consented parameters of each project and to refer to the worst-case scenario (WCS) assessed within the relevant Environmental Statement, taking account of any updated assessments provided throughout the examination process. Additionally, NRW advise the use of the species-group avoidance rates. Therefore, any advice we provide will be based on the outputs using the species-group avoidance rates and the consented wind farm parameters where these are available and the as-built parameters where consented information is unavailable.

91. We note that the results presented for the gap-fill analysis in REP3-044 suggests that some of the historic projects do contribute to the cumulative effects. The lesser black-backed gull indicative cumulative collision total as presented in REP3-044 is now approaching 1% of baseline mortality of the largest BDMPS (0.98% of baseline mortality, see Table 1.20 of REP3-044). It should be noted that as further projects that could contribute to the cumulative collision total have been identified by the Applicant in REP3-058, there is the potential for this cumulative collision indicative impact to increase further following the work to be submitted at Deadline 4. It should also be noted that the herring gull indicative cumulative collision figure for the species-group avoidance rate and including consented wind farm parameters when gap filling has been undertaken has approximately doubled from that presented for without the gap filling in the Errata clarification note in REP3-

073: 127 collisions without gap filling compared to 258 following the gap filling exercise (see Table A.41 of Appendix A of REP3-044). This reinforces the need for the gap-fill analysis to have been carried out and we maintain our position that this quantification was, and is, necessary.

92. In their Review of Cumulative Effects Assessment and In-Combination Assessment [REP3-058], the Applicant has identified several additional projects that have the potential to contribute to cumulative collision and/or displacement offshore ornithology impacts that now have data available and that were not included in the CEA, including that presented in REP3-044. These are: The Arklow Bank 2, Codling Wind Park, Hynet, Llŷr, Morgan Generation Assets, Morecambe Generation Assets, North Irish Sea Array and Oriel projects. Additionally, updated figures for the Morgan Generation Assets and Morecambe Generation Assets project are now available following the submission of applications for these projects, and the figures included by Mona in the CEA have not yet been updated to account for the submission figures in REP3-044. The Applicant has noted in REP3-058 that additional work is required to understand the potential cumulative effects of these projects for collision and displacement and has indicated that this will be undertaken for Deadline 4. Therefore, as we expect that cumulative assessments will be further updated by the Applicant at Deadline 4, we consider it premature to comment on the level of cumulative impact significance at this point. We will provide further comment/advice into the examination on cumulative effects following full review of the documents the Applicant intends to submit at Deadline 4. We note that this aspect will also be relevant for in-combination assessments.

93. Whilst we do not consider it appropriate to comment on the level of significance of cumulative (or in-combination) impacts at this stage, given the further work to be submitted by the Applicant at Deadline 4, we do note that the Applicant's current indicative cumulative collision totals for great black-backed gull (GBBG) including the gap filled projects, but excluding the contributions from the additional projects identified in REP3-058, exceeds 1% of baseline mortality of the south-west and Channel BDMPS scale population (Furness 2015) – the current indicative figure using the SNCB advised species-group avoidance rate and including all gap filled projects, using consented parameters where available and as-built where consented information is not available, equates to 9.67% % of baseline mortality of the BDMPS population (see Table 1.18 of REP3-044). This is not insignificant, and we welcome that the Applicant has undertaken a revised PVA using the advised BDMPS population in Appendix D of REP3-044. We note that GBBG moved to the Red list in UK BoCC5a owing to a severe population decline of 56% since Operation Seafarer (1969–70). The species was Green-listed in the first two BoCC assessments and Amber-listed in BoCC3 and BoCC4 (Stanbury et al. 2024). In the GB IUCN2a assessment the species moved from 'Least Concern' in IUCN1 to 'Critically Endangered' (Stanbury et al. 2024). Seabirds Count (Burnell et al. 2023) reported a 43% decline since Seabird 2000. Based on consideration of the PVA metrics presented in Appendix D of REP3-044 (which suggest a reduced growth rate as a result of the cumulative impact of the Mona project with other

offshore wind projects than would be experienced by an unimpacted population), the included conservation assessment, and particularly that the GBBG population is declining and that we are not aware of any evidence to suggest that the population is likely to increase during the project lifetime, we consider that the predicted cumulative collision impacts at the south-west and Channel population scale (relevant BDMPS considered for the Mona cumulative assessment) have the potential to give rise to a moderate adverse impact. Additionally, the uncertainties around demographic rates for the species, with juvenile and immature survival rates unknown (Horswill & Robinson 2015), require a more precautionary approach to interpreting modelling results. Therefore, even without the addition of impacts from the additional projects identified in REP3-058, **we are unable to rule out a moderate adverse, i.e. significant adverse impact, on GBBG from cumulative collision mortality at an EIA scale**.

94. As noted above, following the inclusion of the gap-filled historical projects, the predicted level of cumulative impacts to GBBG in the UK south-west and Channel BDMPS are at level of concern. In the case of the Mona OWF project, we recognise and welcome the commitment already made to raise turbine draught height to 30m above Mean Sea Level (Environmental Statement - Volume 6, Annex 5.3: Offshore ornithology collision risk modelling technical report Table 1.5, APP-093).

2. Detailed Comments

95. Whilst in the ES Chapter (updated version in REP2-016) the Applicant also included the addition of underwater collision mortality for relevant displacement assessed species (e.g. auks, Manx shearwater, gannet) to the cumulative collision mortality totals, the Applicant has not included this in the results of the indicative cumulative totals presented in the CEA and gap filling document [REP3-044]. Although we do note that these additional mortalities from underwater were included in the morality totals considered in the updated guillemot PVA undertaken in REP3-044.

96. We note that there is an apparent error in the Manx shearwater breeding season total abundance presented for the Offshore Ornithology Errata Clarification note row in Table A.14 of CEA and gap filling of historical projects document [REP3-044]. Based on Table 1.13 of the Ornithology Errata Clarification note [REP3-073] this figure should be 14,779 rather than the 13,778 included in Table A.14 of REP3-044. However, we note that the summed annual abundance of 28,777 in Table A.14 of REP-033 appears correct.

2.1 In-combination Assessments

97. We recommend that the results of the gap-filling exercise undertaken in REP3-044 are subsequently used within the in-combination assessments, noting our comments below. The gap-filled results provide the most comprehensive estimate of mortalities at each project that was previously not quantified. We note that the

gap-filled results have been used within the four SPA/feature in-combination assessments (all non-Welsh sites) carried out in Section 1.5 of the gap-fill document [REP3-044], but have not been used within the additional site/feature in-combination assessments (which include assessments for several Welsh sites) included within the 'Supporting Information in line with SNCB Advice' technical report, REP3-059. Therefore, the in-combination assessments presented in REP3-059 contain a number of gaps and are not considered comprehensive – see our separate comments on REP3-059 for further details.

98. Paragraph 1.5.1.3 of REP3-044 states: '*Following this gap-filling exercise the number of SPAs included within the assessment has not changed…*' However, we note that in the 'Supporting Information in line with SNCB Advice' technical report [REP3-059] contains 37 in-combination assessments. We assume this statement has been made before consideration was given to accounting for using the full range of SNCB advised assessment approaches and that when this is considered, the trigger for in-combination assessments (i.e. predicted impacts from project alone exceeds 0.05% baseline mortality of the colony population in question) for further site/feature combinations is met.

99. Whilst the in-combination assessments for the four sites covered in REP3-044 are not Welsh designated sites and hence fall outside NRW (A)'s remit, we note the following regarding the information presented. These points should be considered for including gap-filled projects in the additional in-combination assessments, including for Welsh designated sites, included within the 'Supporting Information in line with SNCB Advice' technical report, REP3-059:

- From paragraphs 1.5.3.3, 1.5.4.3, and 1.5.5.3 of REP3-044 it would appear that the age-class apportioning undertaken on the gap-filled project abundance estimates and collision estimates used Furness (2015) due to the lack of site-specific data available for each of the plans or projects. We assume this to mean that the stable-age structures from Furness (2015) have been used. As was raised in our Relevant Representations [RR-011] and Written Representations [REP1-056], we do advise the use of stable age structures from Furness (2015) to apportion to age-classes. We note that the Applicant has revised their apportionment report [REP2-025] to no longer use this approach for the project alone assessments. As there will be no site-specific age-class data available for gap-filled projects, we advise that the precautionary approach of assuming all birds are adults should be taken.

- We suggest the Applicant checks the seasonal definitions that have been used in Tables A.33 and A.37 of Appendix A of REP3-044 and that the seasonal mortalities for the gap filled projects are recalculated where necessary. This is because it would appear that the incorrect seasonal definitions have been used to calculate seasonal gap-filled OWF estimates:

  - For kittiwake (Table A.33) it appears that a breeding season of April-August has been used rather than the SNCB advised definition of March-August, and a pre-breeding season of January to March has been used rather than the

advised January-February definition (see Section 2.1.1.1.1of our Written Representations, REP1-056, for our previous advice).

- For great black-backed gull (Table A.37) it appears that a breeding season of April-August and non-breeding season of September-March has been used rather than the SNCB advised approach of using the full breeding season as defined in Furness (2015) and then adjust the non-breeding season(s) accordingly to ensure no overlapping months (see our Written Representations, REP1-056). Taking the SNCB advised approach results in a breeding season definition of March-August and non-breeding season of September-February.

We understand the Applicant corrected these errors for the Mona alone assessments in their Deadline 2 updated assessment documents [REP2-025] and therefore, this should follow through to the definitions used in the in-combination assessments, including for gap-filed projects.

100. We note that the Applicant, NRW (A) and JNCC had a productive meeting on 29th October 2024 where the issues noted above regarding the in-combination assessments were discussed. We understand that the Applicant will be undertaking updates to the assessments to address these issues. Therefore, we will provide further advice following detailed review of the Applicant's updates once they are submitted into the examination.

Annex B – Comments on REP3-059 Offshore Ornithology Supporting Information in line with SNCB Advice

1. Summary Comments

101. We note the Examining Authority's comments made in Issue Specific Hearing 3 regarding documents submitted so far containing errors, discrepancies, and lack of clarity, resulting in doubts regarding the credibility of the evidence and the confidence that we can have in the assessment [see EV5-002/EV5-002a]. With this in mind, it is disappointing that in the Deadline 3 submissions, particularly the in-combination assessments contained within 'Supporting information in line with SNCB advice' document [REP3-059] and the 'CEA and Gap-Filling Historical Projects Technical Note' [REP3-044], are lacking in the clarity previously requested (i.e. providing all values which go into the calculation of in-combination apportioned mortality estimates, Section 2.1.2.1 of REP1-056) and appear to go against SNCB advice previously given (use of stable age structure age-classes: see Section 2.1.2.3.3 of REP1-056, and seasonal definitions: see Section 2.1.1.1.1 of REP1-056). We consider that some of this may be the result of the Applicant not carrying over the correcting of previously identified errata into these assessments.

102. We also note that the Applicant, NRW (A) and JNCC had a productive meeting on 29 October 2024 where the issues regarding clarity and approaches to the apportionment of impacts in the in-combination assessments and need to include the gap-filled projects in the in-combination assessments (set out in **Sections 1.2.2 to 1.2.4** below) were discussed. We understand that the Applicant will be undertaking updates to the assessments to address these issues. Therefore, we will provide further advice following detailed review of the Applicant's updates once they are submitted into the examination.

1.1 Project Alone Impacts

1.1.1 EIA Scale

103. We welcome that in Tables 1.3 and 1.6 of REP3-059 the Applicant has provided the EIA scale project alone impacts broken down by season and annually for the range of advised % displacement and % mortality rates for displacement and the mean collision predictions plus including the mean and confidence intervals for the SNCB advised species-group avoidance rates. These predicted impacts are in line with those considered by NRW in our Deadline 3 response [REP3-090]. Therefore, our advice/conclusions regarding EIA scale project alone impacts remains as submitted in our Deadline 3 response REP3-090 (see Appendix 1 of Annex A) and summarised in **Table 1** below.

1.1.2 HRA Scale

104. We also welcome that in Section 1.5.2 of REP3-059 the Applicant has now provided for each relevant designated site and feature the apportioned project alone impacts broken down by season and annually for the range of advised % displacement and % mortality rates for displacement and the mean collision

predictions plus including the mean and confidence intervals for the SNCB advised species-group avoidance rates.

105. We note that the Applicant has not made any updates to their approach to calculating non-breeding season apportionment rates in light of the repeated comments made by NRW on the Applicant's approach to this in our Relevant Representations [RR-011], Written Representations [REP1-056] and again in our response to the Applicant's response to our Written Representations (see response to points REP1-056.80-81 in REP3-090).

106. However, as we noted in our comments on this in REP3-090, the Applicant's approach of calculating the proportion of adults at the colony as a proportion of the total adults in the BDMPS does mean that a higher apportionment value for a designated site is calculated than if the standard NRW approach is taken, which can be considered precautionary. Given the very small, predicted impacts from the Mona project alone following the Applicant's approach, we note that if the standard advised approach to age classes and apportioning to designated sites in the non-breeding season was used instead of the Applicant's approach it would not alter the conclusions regarding levels of significance of impact from the project alone in this instance. However, for other projects with larger predicted impacts, taking the Applicant's potentially overly precautionary approach may result in different conclusions. Therefore, we would not advise the Applicant's approach is followed for other projects and maintain that our preferred approach is to follow the standard approach taken by other projects, such as Morgan Generation for apportioning impacts in the non-breeding season.

107. Following the Applicant's updated assessments for project alone impacts in REP3-059, we are now in a position to confirm that the HRA scale impacts from the Mona project alone are predicted to be small and hence an adverse effect on site integrity (AEoSI) can be ruled out for the features of the respective Welsh SPAs assessed (see **Table 1**). Whilst the information required to reach these conclusions is now available in one document, i.e. REP3-059, the information is spread around a number of tables within various sections of the document. Therefore, detail on the justification for how we have reached our conclusions regarding levels of significance from predicted impacts from collision, displacement and collision plus displacement from the project alone is provided in Appendix 1 below.

Table 1 Summary of conclusions for assessments of Mona project alone at EIA and HRA scale as detailed in NRW Deadline 3 response in REP3-090.

EIA species	**Mona Project Alone**
Gannet: collision	No significant adverse impact
Gannet: displacement	No significant adverse impact

Gannet: collision + displacement	No significant adverse impact
Kittiwake: collision	No significant adverse impact
Lesser black-backed gull: collision	No significant adverse impact
Herring gull: collision	No significant adverse impact
Great black-backed gull: collision	No significant adverse impact
Guillemot: displacement	No significant adverse impact
Razorbill: displacement	No significant adverse impact
HRA species & site	**Mona Project Alone**
Skomer, Skokholm & seas off Pembrokeshire (SSSP) SPA, Manx shearwater: displacement	No AEoSI
SSSP SPA, Puffin: displacement	No AEoSI
SSSP SPA, Lesser black-backed gull: collision	No AEoSI
SSSP SPA, guillemot (named component of seabird assemblage): displacement	No AEoSI
SSSP SPA, razorbill (named component of seabird assemblage): displacement	No AEoSI
SSSP SPA, kittiwake (named component of seabird assemblage): collision	No AEoSI
Grassholm SPA, gannet: collision	No AEoSI
Grassholm SPA, gannet: displacement	No AEoSI
Grassholm SPA, gannet: collision + displacement	No AEoSI
Aberdaron Coast & Bardsey Island SPA, Manx shearwater: displacement	No AEoSI

1.2 Impacts from project acting cumulatively with other plans and projects

1.2.1 EIA Scale Cumulative

108. Please see our Deadline 4 comments on the Applicant's CEA and gap-filling historical projects technical note [REP3-044] for detail and advice regarding EIA scale cumulative impacts.

1.2.2 HRA Scale In-combination

109. The Applicant has again taken an approach where if the predicted impact from the project alone equates to less than 0.05% of baseline mortality of a designated site then it is deemed non-material and within natural fluctuations of the population and is therefore screened out of in-combination assessment. However, we welcome that in Section 1.5.3 of REP3-059, the Applicant has taken through to in-combination all site and feature combinations where the predicted impact from the Mona project alone for any scenario across the range of SNCB advised approaches has exceeded 0.05% of baseline mortality of the respective site

population. We note that this has now led to the Applicant considering the following Welsh SPA and feature combinations for in-combination assessments:

- SSSP SPA: Manx shearwater, seabird assemblage named components: guillemot, razorbill and kittiwake
- Grassholm SPA: gannet
- Aberdaron Coast and Bardsey Island SPA: Manx shearwater

110. The gap-filled results in REP3-044 provide the most comprehensive estimate of mortalities at each project that was previously not quantified. Whilst in the CEA and gap filling of historical projects technical note [REP3-044] the Applicant has produced updated in-combination assessments for the four SPA and feature combinations (none of which were Welsh sites) originally assessed for in-combination in REP2-010 to include gap-filled projects, we note that the in-combination assessments for the Welsh SPAs included in REP3-059 have not included the gap-filled projects. Therefore, the in-combination assessments for the additional site and feature combinations presented in Section 1.5.3 of REP3-059 contain a number of gaps and are not considered comprehensive. In order for us to have confidence in the in-combination assessments, we consider that the gap-filled historical project impacts should also be included and apportioned to each designated site for each relevant feature. Therefore, given the current gaps in the in-combination assessments for the Welsh designated sites assessed in REP3-059, we consider it inappropriate to comment on the potential significance of in-combination impacts presented at this stage for relevant Welsh designated sites.

1.2.3 Lack of clarity in apportioning of impacts from other projects in the in-combination assessments

Non-breeding season:

111. We note that in the in-combination tables presented in Section 1.5.3 of REP3-059 for apportioning impacts from other projects with data available, the Applicant has used the same approach to calculating the non-breeding season(s) apportionment values to the designated site in question as they have used for the Mona project alone, i.e. taking the proportion of adults at the colony from the relevant tables in Appendix A of Furness (2015) as a proportion of the BDMPS adult only totals. We have previously noted (in our Relevant Representations [RR-011], Written Representations [REP1-056] and again in our response to the Applicant's response to our Written Representations [REP3-090]) that this is not the standard approach to non-breeding season apportionment and would again recommend that apportioning to colonies in the non-breeding season(s) is undertaken 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 using the information in the tables in Appendix A of Furness (2015) – we recommend that this approach is applied to all wind farms located within the relevant BDMPS for the non-breeding season in-combination apportionment.

112. We also note that for the Mona project alone assessments, the Applicant also applied age-class apportionment in the non-breeding season using site-specific

age-class proportions for large gulls and gannet. It is unclear whether this approach has been taken in the apportioned impacts from the other projects with data and we would hence request clarification be provided by the Applicant as to the approach taken here. We note that it would not be appropriate to apply the Mona specific age-class information to other projects and hence, unless specific non-breeding season age-class information was available for each of the other projects, we consider that the most appropriate approach would be to be precautionary and assume all birds were adults.

Breeding season:

113. It is not clear from the information provided on the in-combination assessments presented in REP3-059 where the breeding season apportionment rates for the other projects included in the in-combination assessments have been taken from. For example, are they based on:

- The breeding season apportionment rates used by the specific projects in their assessments?
- Are these calculated using the NatureScot apportionment approach, as was used for the Mona alone breeding season apportionment calculations?
- Or, are they based on a proxy approach of using the breeding season apportionment rate used by the closest project with information available?

114. It is also unclear as to whether the Applicant has applied age-class apportionment to the breeding season figures for the other projects included in the in-combination assessments in REP3-059 and if this has been done, what methods have been applied. We note our comments above that it would not be appropriate to apply the same age-class apportionment rates as used in the Mona alone assessment to other projects and unless specific breeding season age-class information was available for each of the other projects, we consider that the most appropriate approach would be to be precautionary and assume all birds were adults. Clarification is required from the Applicant on the approaches taken.

1.2.4 Overall in-combination impacts

115. As a result of the lack of clarity, we have been unable to replicate the in-combination impacts for Welsh SPAs presented in Section 1.5.3 of REP3-059. For example, for guillemot at Skomer, Skokholm and seas off Pembrokeshire SPA, the only way we have been able to replicate (within rounding errors) the in-combination impacts predicted in Table 1.48 of REP3-058 has been to apply the non-breeding season stable age-structure proportions of adults from Furness (2015) (which is the approach indicated was used in the in-combination assessments presented in REP3-044) to both the breeding and non-breeding season abundances of guillemots at each offshore wind project included. As noted above, we do not consider this to be an appropriate approach for either season and suggest that the Applicant reviews the approach taken and either provides clarity on this or considers updating the approach taken in light of our comments above.

116. We also note that the in-combination total SSSP SPA guillemot total of 82.59 birds/annum for the 70% displacement and 2% mortality scenario as presented by the Applicant in Table 1.48 of REP3-059 is different from the 129.2 birds/annum presented by the Morgan Generation Applicant for the same parameters and other projects included in the assessment (see paragraph 3.4.2.6 of the Morgan Generation Applicant's Deadline 1 submission[10]. As we noted in our Written Representations (see paragraph 107 of REP1-056), given that the Mona project and the Morgan Generation Assets project are in examination (albeit at different stages) at the same time, and both projects are located within the Irish Sea, we again note the need for both projects to be assessing the same cumulative and hence in-combination total impacts.

2. Detailed Comments on REP3-059

2.1 Great black-backed gull (GBBG) PVA

117. We note that the Applicant has undertaken a PVA for EIA scale project alone collision impacts for great black-backed gull (GBBG) in the breeding season (Section 1.4.2 of REP3-059). This is because the Applicant has used a regional breeding season reference population of 1,496 individuals. Using the weighted mean mortality rate of 9.5% used by the Applicant in the ES Chapter assessment [REP2-016] and the reference population of 1,496, the breeding season GBBG collision prediction of 1.67 (CIs: 0.59-3.48) equates to 1.18% (CIs: 0.42-2.45%) of baseline mortality of this seasonal population, and hence has triggered further consideration by PVA. It should be noted that if the SNCB advised breeding season BDMPS/reference population of 13,424 individuals was used, then using the Applicant's mortality rate of 9.5% would mean that the breeding season GBBG collision predictions equate to 0.13% (CIs: 0.05-0.27%) of baseline mortality. This would be undetectable against background mortality in the breeding season and hence would not result in a significant adverse effect from the project alone in the breeding season at EIA scale.

2.1 Errors in REP3-059

118. In Table 1.2 of REP3-059, the Applicant has incorrectly stated that '*NRW's advised displacement rate range and basis of the Applicant's EIA at application for gannet was 1-10%'*. We note that NRW have never advised the Applicant to use a % displacement rate range of 1-10% for gannet and we therefore suggest the Applicant corrects this, so that this incorrect range is not picked up on by future projects – we have consistently advised the Applicant to consider a range of 60-80% displacement for gannet. We also note that the text in the 'NRW specific

[10] Morgan Offshore Wind Project: Generation Assets (2024) Displacement Rates Clarification Note. Deadline 1. Application Reference: EN010136, Document Number: MRCNS-J3303-RPS-10146, Document Reference:S_D1_4.6, F01. Available from : https://infrastructure.planninginspectorate.gov.uk/wpcontent/ipc/uploads/projects/EN010136/EN010136000403S_D1_4.6_Morgan%20Gen_Response%20to%20Hearing%20Action%20Point%2015_Displacement%20rates_F01.pdf

request' column for gannet is incorrectly suggesting the advice relates to auks rather than gannet.

Appendix 1: NRW detailed comments/conclusions on Mona project alone HRA scale impacts following Applicant's updated assessments submitted at Deadline 3 in REP3-059

This document is a technical document submitted into the Mona project Examination to provide scientific justification for NRW (A)'s advice provided on the significance of the potential impacts at the Environmental Impact Assessment (EIA) scale from the project alone, as summarised within each section. Our advice is based on best available evidence at the time of writing and is subject to change in the future should further evidence be presented.

1. SKOMER, SKOKHOLM & SEAS OFF PEMBROKESHIRE (SSSP) SPA

1.1 Manx shearwater: displacement

We are content with the Applicant's approach to breeding season apportionment to the SSSP SPA. However, we note that the predicted impacts are potentially precautionary due to NRW's consideration that the Applicant's approach to calculating non-breeding season apportionment values is precautionary (see REP3-090 regarding our response to points REP2-080; para REP1-056.80 to REP1-056.81).

Table A.1 Percentage of baseline mortality for range of apportioned displacement impact scenarios for the Mona project alone for Manx shearwater for SSSP SPA. Apportioned impacts based on use of Applicant's precautionary non-breeding season apportionment rates. Baseline mortality calculated using adult only colony size and adult mortality rate (13.0% from Horswill & Robinson 2015).

% displacement and % mortality scenario	Annual mortality prediction from displacement (from Table 1.11 of REP3-059)	% of baseline mortality of SSSP SPA population as used by Applicant in REP3-059)*
30% displacement, 1% mortality	3.7	0.003
50% displacement, 1% mortality	4.8	0.004
70% displacement, 10% mortality	66.6**	0.06

* 910,312 breeding adults, 1% baseline mortality = 1,183 birds (rounded to whole birds)

** We suggest that the Applicant checks the apportioned figures presented for the 70% displacement and 10% mortality scenario presented in Table 1.11 as the combined annual predicted impact of 74.4 from this table (65.2+0.0+ 9.2 = 74.4) has not been replicated by NRW based on the seasonal abundance figures and apportionment rates presented by the Applicant. However, we note that this does not change the overall conclusion of the assessment, as if the predicted annual mortality at this worst-case scenario was 74.4, then this would equate to 0.06% of baseline mortality of the colony.

Considering the whole range of % displacement and % mortality rate scenarios considered by the Applicant, which are likely to be precautionary due to their approach to non-breeding season apportionment, the predicted mortalities from all scenarios equate to well below 1% of baseline mortality for the Manx shearwater SSSP SPA colony (see **Table A.1**). This level of impact can be considered undetectable against background mortality and the

Conservation Objective target population of 300,000 adults (150,000 pairs)[11] would be achieved. On the basis of these figures, **NRW advises that an adverse effect on site integrity (AEoSI) can be ruled out for predicted displacement impacts on the Manx shearwater feature from the Mona project alone for the SSSP SPA**.

1.2 Puffin: displacement

We agree with the Applicant that as the seasonal EIA scale predicted puffin mortalities are so low (breeding season: 0-1; non-breeding season: 0-2), then apportioning these predicted impacts across the screened in SPAs with puffin as a feature would result in very small impacts apportioned to each site. In the case of the SSSP SPA, we calculate that between 0.002-0.04 puffin mortalities per annum would be apportioned to the SPA across the range of SNCB advised displacement and mortality rates, which would equate to <0.001-0.001% of baseline mortality of the SPA puffin colony. This would be undetectable against background mortality and the Conservation Objective target population of 19,000 adults (9,500 pairs)[11] would be achieved. On this basis, **NRW advises that an AEoSI can be ruled out for predicted displacement impacts on the puffin feature from the Mona project alone for the SSSP SPA.**

1.3 Lesser black-backed gull: collision

We are content with the Applicant's approach to breeding season apportionment to the SSSP SPA. However, we note that the predicted impacts are potentially precautionary due to NRW's consideration that the Applicant's approach to calculating non-breeding season apportionment values is precautionary (see REP3-090 regarding our response to points REP2-080; para REP1-056.80 to REP1-056.81).

It appears there is an error in Table 1.16 of REP3-059 regarding the post-breeding/autumn migration apportioning value used by the Applicant – this is presented as 11.92% in Table 1.13 of REP3-059 but is presented as being 12.19% in Table 1.22 of the updated apportioning technical report [REP2-022]. However, we note that this does not affect the overall annual apportioned impacts or the conclusions of significance as zero LBBG collisions were predicted for the autumn migration season even at EIA scale and hence zero collisions are apportioned in this season to the SSSP SPA colony.

Based on the Applicant's apportionment values, the predicted collision impacts for the LBBG feature of the SSSP SPA are shown in **Table A.2** below.

Table A.2 Percentage of baseline mortality for range of apportioned predicted collision impacts for Mona project alone for lesser black-backed gull for SSSP SPA. Apportioned impacts based on use of Applicant's precautionary non-breeding season apportionment rates. Baseline mortality calculated using adult only colony size and adult mortality rate (11.5% from Horswill & Robinson 2015).

Apportioned collision mortality (LCL-UCL) (from Table 1.16 of REP3-059)	% of baseline mortality of SSSP SPA population as used by Applicant in REP3-059)*
0.16 (0.05-0.38**)	0.01 (0.003-0.02)

* 16,214 breeding adults, 1% baseline mortality = 19 birds (rounded to whole birds)

Based on the above, the predicted mortalities (which are likely to be precautionary due to their approach to non-breeding season apportionment) from all scenarios equate to below

[11] Currently available conservation objective target populations for SSSP SPA available from: https://naturalresources.wales/media/673958/Skomer.Skokholm%20management%20plan%2007.pdf

1% of baseline mortality for the LBBG SSSP SPA colony (see **Table A.2**). This level of impact can be considered to be undetectable against background mortality and the Conservation Objective target population of 40,600 individuals (20,300 pairs)[11] would be achieved. On the basis of these figures, **NRW advises that an AEoSI can be ruled out for predicted collision impacts on the LBBG feature from the Mona project alone for the SSSP SPA**.

1.3 Seabird Assemblage

1.3.1 Guillemot: displacement (note named component of seabird assemblage feature)

We note that in Table 1.9 of REP3-059, the Applicant has used a colony count of 32,600 that is from 2013. We note that this count is now over 10 years old and note that more recent data that is more contemporaneous with the Mona site-specific digital aerial survey (DAS) data are available from the results of the recent seabird census, Seabird Count (data collected between 2015 and 2021: Burnell et al. 2023). Results for each SPA colony from the Seabird Count census can be downloaded from JNCC's website: Seabirds Count Datasets | JNCC Resource Hub. The SSSP SPA guillemot result from the Seabird Count census was 32,424 individuals (Burnell al. 2023), which when the correction factor of 1.34 as applied by the Applicant is applied, results in 43,448 breeding adults.

We agree with the Applicant that as the Mona project is located at a distance from the SPA that is outside of foraging range of guillemot that no guillemot mortalities are apportioned to the SPA in the breeding season. However, we note that the predicted impacts are potentially precautionary due to NRW's consideration that the Applicant's approach to calculating non-breeding season apportionment values is precautionary (see REP3-090 regarding our response to points REP2-080; para REP1-056.80 to REP1-056.81).

Table A.3 Percentage of baseline mortality for range of apportioned displacement impact scenarios for the Mona project alone for guillemot for SSSP SPA. Apportioned impacts based on use of Applicant's precautionary non-breeding season apportionment rates. Baseline mortality calculated using adult only colony size and adult mortality rate (6.1% from Horswill & Robinson 2015).

% displacement and % mortality scenario	Annual mortality prediction from displacement (from Table 1.9 of REP3-059)	% of baseline mortality of SSSP SPA population as used by Applicant in REP3-059)*	% of baseline mortality of SSSP SPA population using Seabird Count population**
30% displacement, 1% mortality	0.5	0.03	0.02
50% displacement, 1% mortality	0.8	0.04	0.03
70% displacement, 2% mortality	2.37	0.12	0.09
70% displacement, 10% mortality	11.8	0.59	0.45

* 32,600 breeding adults, 1% baseline mortality = 20 birds (rounded to whole birds)
** 43,448 breeding adults, 1% baseline mortality = 27 birds (rounded to whole birds)

Considering the whole range of % displacement and % mortality rate scenarios considered by the Applicant, the predicted mortalities (which are likely to be precautionary due to their approach to non-breeding season apportionment) from all scenarios equate to below 1% of baseline mortality for the guillemot SSSP SPA colony using either the 2013 colony count or

the more recent Seabird Count census colony count (see **Table A.3**). This level of impact can be considered to be undetectable against background mortality and the Conservation Objective target population for the seabird assemblage feature (guillemot is a named component of the assemblage feature) of 67,000 individuals[11] would be achieved. On the basis of these figures, **NRW advises that an AEoSI of the assemblage feature of the SSSP SPA can be ruled out for predicted displacement impacts from the Mona project alone on the guillemot component of the assemblage**.

1.3.2 Razorbill: displacement (note named component of seabird assemblage feature)
We note that in Table 1.12 of REP3-059, the Applicant has used a colony count of 12,002 that is from 2013. We note that this count is now over 10 years old and note that more recent data that is more contemporaneous with the Mona site-specific digital aerial survey (DAS) data are available from the results of the recent seabird census, Seabird Count (data collected between 2015 and 2021: Burnell et al. 2023). Results for each SPA colony from the Seabird Count census can be downloaded from JNCC's website: Seabirds Count Datasets | JNCC Resource Hub. The SSSP SPA razorbill colony size from the Seabird Count census was 11,922 individuals (Burnell et al. 2023), which when the correction factor of 1.34 as applied by the Applicant is applied, results in 15,975 breeding adults.

We agree with the Applicant that as the Mona project is located at a distance from the SPA that is outside of foraging range of razorbill that no razorbill mortalities are apportioned to the SPA in the breeding season. However, we note that the predicted impacts are potentially precautionary due to NRW's consideration that the Applicant's approach to calculating non-breeding season apportionment values is precautionary (see REP3-090 regarding our response to points REP2-080; para REP1-056.80 to REP1-056.81).

Table A.4 Percentage of baseline mortality for range of apportioned displacement impact scenarios for Mona project alone for razorbill for SSSP SPA. Apportioned impacts based on use of Applicant's precautionary non-breeding season apportionment rates. Baseline mortality calculated using adult only colony size and adult mortality rate (10.5% from Horswill & Robinson 2015).

% displacement and % mortality scenario	Annual mortality prediction from displacement (from Table 1.12 of REP3-059)	% of baseline mortality of SSSP SPA population as used by Applicant in REP3-059)*	% of baseline mortality of SSSP SPA population using Seabird Count population**
30% displacement, 1% mortality	0.2	0.02	0.01
50% displacement, 1% mortality	0.4	0.03	0.02
70% displacement, 2% mortality	0.8	0.06	0.05
70% displacement, 10% mortality	5.8	0.46	0.35

* 12,002 breeding adults, 1% baseline mortality = 13 birds (rounded to whole birds)
** 15,975 breeding adults, 1% baseline mortality = 17 birds (rounded to whole birds)

Considering the whole range of % displacement and % mortality rate scenarios considered by the Applicant, the predicted mortalities (which are likely to be precautionary due to their approach to non-breeding season apportionment) from all scenarios equate to below 1% of baseline mortality for the razorbill SSSP SPA colony using either the 2013 colony count or the more recent Seabird Count census colony count (see **Table A.4**). This level of impact

can be considered to be undetectable against background mortality and the Conservation Objective target population for the seabird assemblage feature (razorbill is a named component of the assemblage feature) of 67,000 individuals[11] would be achieved. On the basis of these figures, **NRW advises that an AEoSI of the assemblage feature of the SSSP SPA can be ruled out for predicted displacement impacts from the Mona project alone on the razorbill component of the assemblage**.

1.3.3 Kittiwake: collision (note named component of seabird assemblage feature)

We again note that NRW (A) does not recommend that displacement is assessed for kittiwake as we currently consider the evidence base to be insufficient (as advised to the Applicant at Preliminary Environmental Information Report (PEIR) stage and in our Relevant and Written Representations). Hence, we have not provided advice/comment on the SSSP SPA project alone kittiwake displacement assessment.

We are content with the Applicant's approach to breeding season apportionment to the SSSP SPA. However, we note that the predicted impacts are potentially precautionary due to NRW's consideration that the Applicant's approach to calculating non-breeding season apportionment values is precautionary (see REP3-090 regarding our response to points REP2-080; para REP1-056.80 to REP1-056.81).

It appears there is an error in Table 1.13 of REP3-059 for the Applicant's UCL breeding season apportioned collision figure for this SPA, as using the age class apportionment rates and colony apportionment rates as used by the Applicant, we calculate this figure to be 0.09, which shown at 1 decimal place would be rounded to 0.1 rather than 0 as presented by the Applicant in Table 1.13. Based on this, the predicted collision impacts for the kittiwake component of the seabird assemblage feature of the SSSP SPA are as shown in **Table A.5** below.

Table A.5 Percentage of baseline mortality for range of apportioned predicted collision impacts for Mona project alone for kittiwake for SSSP SPA. Apportioned impacts based on use of Applicant's precautionary non-breeding season apportionment rates. Baseline mortality calculated using adult only colony size and adult mortality rate (14.6% from Horswill & Robinson 2015).

Apportioned collision mortality (LCL-UCL)	% of baseline mortality of SSSP SPA population as used by Applicant in REP3-059)*
0.1 (0.04-0.21**)	0.03 (0.01-0.07)

* 2,014 breeding adults, 1% baseline mortality = 3 birds (rounded to whole birds)
** UCL figure based on using corrected 0.09 breeding season figure

Based on the above, the predicted mortalities (which are likely to be precautionary due to their approach to non-breeding season apportionment) from all scenarios equate to below 1% of baseline mortality for the kittiwake SSSP SPA colony (see **Table A.5**). This level of impact can be considered to be undetectable against background mortality and the Conservation Objective target population for the seabird assemblage feature (kittiwake is a named component of the assemblage feature) of 67,000 individuals[11] would be achieved. On the basis of these figures, **NRW advises that an AEoSI of the assemblage feature of the SSSP SPA can be ruled out for predicted collision impacts from the Mona project alone on the kittiwake component of the assemblage**.

2. GRASSHOLM SPA

2.1 Gannet: collision, displacement, collision + displacement

We note that the predicted impacts are potentially precautionary due to NRW's consideration that the Applicant's approach to calculating non-breeding season apportionment values is precautionary (see REP3-090 regarding our response to points REP2-080; para REP1-056.80 to REP1-056.81). We also note that tracking data (e.g. from Votier et al. 2010) and utilisation distributions (e.g. Wakefield et al. 2013) suggest that gannets have been shown to display spatial segregation between colonies and that it is unlikely that gannets from Grassholm SPA will forage in the Mona project area. Therefore, it is likely that the breeding season apportionment value calculated by the Applicant and hence the apportioned collision and displacement impacts to the colony in the Applicant's assessment are precautionary.

Table A.6 Percentage of baseline mortality for predicted apportioned impact levels for the Mona project alone for gannet for Grassholm SPA. Apportioned impacts based on use of Applicant's precautionary apportionment rates. Baseline mortality calculated using adult only colony size and adult mortality rate (8.1% from Horswill & Robinson 2015).

	Annual mortality prediction	% of baseline mortality of Grassholm SPA population* (as used by Applicant)
Collision risk (LCL-UCL), based on CRM figures in Table 1.17 of REP3-059	0.3 (0.1 – 0.8)	0.005 (0.002 – 0.01)
Displacement (60-80% D, 1-10% M), based on figures in Table 1.10 of REP3-059	0.4 – 4.8	0.01 – 0.08
Collision + displacement** alone	0.5 – 5.6	0.01 – 0.10

* 72,022 breeding adults, 1% baseline mortality = 58 birds (rounded to whole birds)

** based on LCL collision figure + 60% displacement, 1% mortality scenario to UCL collision figure + 80% displacement, 10% mortality scenario

Considering the range of predicted collision, displacement and collision plus displacement impacts considered in **Table A.6** the predicted mortalities (which are likely to be precautionary due to their approach to non-breeding season apportionment) from all scenarios equate to below 1% of baseline mortality for the gannet Grassholm SPA colony. This level of impact can be considered undetectable against background mortality and the Conservation Objective target population of 60,000 adults (30,000 pairs)[12] would be achieved. On the basis of these figures, **NRW advises that an adverse effect on site integrity (AEoSI) can be ruled out for predicted collision, displacement and collision plus displacement impacts on the gannet feature from the Mona project alone for the Grassholm SPA**.

[12] Currently available conservation objective target populations for Grassholm SPA available from: https://naturalresources.wales/media/674134/grassholm-spa-management-plan-21-1-408-english.pdf

3. ABERDARON COAST AND BARDSEY ISLAND (AC & BI) SPA

3.1 Manx shearwater: displacement

We note that in Table 1.11 of REP3-059, the Applicant has used a colony count of 32,366 that is from 2001. We note that this count is now over 20 years old and note that more recent count data for the site are available from the results of the recent seabird census, Seabird Count (data collected between 2015 and 2021: Burnell et al. 2023). Results for each SPA colony from the Seabird Count census can be downloaded from JNCC's website: Seabirds Count Datasets | JNCC Resource Hub. The AC & BI SPA Manx shearwater result from the Seabird Count census was 20,675 Apparently Occupied Sites (AOS), or 41,350 adults, counted between 2014-16 2015 (Burnell al. 2023).

We are content with the Applicant's approach to breeding season apportionment to the AC & BI SPA. However, we note that the predicted impacts are potentially precautionary due to NRW's consideration that the Applicant's approach to calculating non-breeding season apportionment values is precautionary (see REP3-090 regarding our response to points REP2-080; para REP1-056.80 to REP1-056.81).

We note that the Applicant has not included any apportioned impacts in the pre-breeding season for this SPA in Table 1.11. However, we note that impacts during this season are very small (0.001-0.01 of a bird across the 30-70% displacement and 1-10% mortality range) and hence would not alter the overall conclusions.

Table A.7 Percentage of baseline mortality for range of apportioned displacement impact scenarios for the Mona project alone for Manx shearwater for AC & BI SPA. Apportioned impacts based on use of Applicant's precautionary non-breeding season apportionment rates. Baseline mortality calculated using adult only colony size and adult mortality rate (13.0% from Horswill & Robinson 2015).

% displacement and % mortality scenario	Annual mortality prediction from displacement (from Table 1.11 of REP3-059)	% of baseline mortality of AC & BI SPA population as used by Applicant in REP3-059)*	% of baseline mortality of AC & BI SPA population using Seabird Count population**
30% displacement, 1% mortality	0.5	0.01	0.01
50% displacement, 1% mortality	0.7	0.02	0.01
70% displacement, 10% mortality	9.9***	0.24	0.18

* 32,366 breeding adults, 1% baseline mortality = 42 birds (rounded to whole birds)
** 41,350 breeding adults, 1% baseline mortality = 54 birds (rounded to whole birds)
*** We suggest that the Applicant checks the apportioned figures presented for the 70% displacement and 10% mortality scenario presented in Table 1.11 as the combined annual predicted impact of 10.3 from this table (9.9+0.4 = 10.3) has not been replicated by NRW based on the seasonal abundance figures and apportionment rates presented by the Applicant. However, we note that this minor discrepancy does not change the overall conclusion of the assessment, as if the predicted annual mortality at this worst-case scenario was 10.3, then this would equate to 0.24% of baseline mortality of the colony using the SPA population as used by the Applicant, or 0.19% of baseline mortality of the colony using the Seabird Count population.

Considering the whole range of % displacement and % mortality rate scenarios considered by the Applicant, which are likely to be precautionary due to their approach to non-breeding season apportionment, the predicted mortalities from all scenarios equate to well below 1% of baseline mortality for the Manx shearwater AC & BI SPA colony (see **Table A.7**). This

level of impact can be considered undetectable against background mortality and the Conservation Objective target population of 20,000 adults (10,000 pairs)[13] would be achieved. On the basis of these figures, **NRW advises that an adverse effect on site integrity (AEoSI) can be ruled out for predicted displacement impacts on the Manx shearwater feature from the Mona project alone for the SSSP SPA**.

[13] Currently available conservation objective target populations for Aberdaron Coast and Bardsey Island SPA available from: https://naturalresources.wales/media/672092/glannau-aberdaron-plan-english.pdf