

**Application by Mona Offshore Wind Limited for an
Order Granting Development Consent for the Mona
Offshore Wind Farm (Ref. EN01037)**

Submission for Examination

Deadline 4

4 November 2024

**Joint Nature Conservation Committee
(JNCC):**

**REP3-059 Offshore
ornithology supporting
information in line with
SNCB advice**

Overarching comments

We wish to make the Examining Authority aware that the issues raised in this response were discussed with the Applicant at a Mona offshore wind project offshore ornithology meeting on 29th October 2024 at which NRW were also present. Good progress was made in understanding of the remaining issues and how they may be addressed to our satisfaction, and therefore we are hopeful that the outstanding issues will be addressed over the coming deadlines to produce robust assessments of the impacts of the project. We will of course provide our advice as updated assessments are submitted to Examination.

We note the Examining Authority's comments made in Issue Specific Hearing 3 regarding documents submitted thus 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. With this in mind, we are disappointed that the submissions made at Deadline 3, particularly the in-combination assessments within [REP3-059](#) and [REP3-044](#), are lacking in the clarity previously requested (providing all values which go into the calculation of in-combination apportioned mortality estimates, [REP1-066](#) paragraph 13) and input parameters to this assessment are instead only available across several documents as illustrated by the footnotes to our tables below giving the Applicant's document where we have sourced each input parameter. Elements of these assessments also still appear to go against SNCB advice previously given (use of stable age structure age-classes, [REP1-066](#) paragraph 18, and seasonal definitions, [REP2-097](#) JNCC response to RR-033.25). Some of this may be the result of not carrying over the correcting of previously identified errata, potentially as a result of input parameters being located across several documents.

We note that there are several projects which may affect cumulative effects assessment and in-combination assessment for offshore ornithology, and that additional work will be undertaken for Deadline 4 to understand the potential cumulative effects of these projects ([REP3-058](#)). We recommend that our comments on the in-combination assessment contained within our response to [REP3-059](#) Offshore ornithology supporting information in line with SNCB advice and [REP3-044](#) Offshore Ornithology Cumulative Effects Assessment and In-combination Gap-filling Historical Projects Technical Note are taken into account when undertaking this additional work.

Specific comments

Paragraph 1.2.1.8 Page 12

“As requested by the JNCC, a displacement assessment for black-legged kittiwake is included in this technical note. The evidence that was presented alongside the request for

30-70% displacement and 1-10% mortality (specifically, Peschko et al., 2020; Vanermen et al., 2016; Leopold et al., 2013 within D.3.14 of Technical Engagement Plan Appendices - Part 1 (A to E) ([APP-042](#))) does not support the displacement and mortality rates suggested, with very high variability around the impacts (even some positive effects).”

There is indeed variability around the behavioural response of black-legged kittiwake, with evidence of both attraction and displacement, hence the need for both a collision and displacement assessment.

Peschko *et al.* (2020) showed that, in the breeding season, there was a significant 45% displacement rate within the offshore wind farm (OWF) plus 3km buffer, and a significant 29% displacement rate within the OWF plus 20km buffer. Vanermen *et al.* (2016) showed that there was a significant 86% displacement rate within the OWF plus 0.5km buffer. Therefore, the evidence that does exist quantifying a displacement rate for black-legged kittiwake does align with the recommended displacement rates of 30% to 70%.

It is disappointing that, despite JNCC providing recommended displacement rates for kittiwake on 24th June 2022 ([APP-042](#), D.3.14), these still not have been incorporated into the impact assessment.

Paragraph 1.5.1.3 Page 27

We note the Applicant’s point that apportioning a small number of Atlantic puffin mortalities across SPAs would result in very small impact numbers. However, as a matter of process and by the Applicant’s own methodology for determining LSE (where the predicted effect is more than 0.0 annual mortalities then that SPA has been screened into the Appropriate Assessment. Any apportioning impact less than 0.0 annual mortalities has not been screened into the Appropriate Assessment, [APP-034](#), paragraph 1.4.6.30), these values should be presented to show the results of the assessment. This will also ensure that values are available for other project’s in-combination assessments.

Table 1.12 Page 36

This table is missing a column of the apportioning values (%).

Tables 1.53 to 1.56

Gannet in-combination tables (tables 1.53 to 1.56) have columns titled “Pre-breeding”, “Post-breeding”, and “Non-breeding”. As there is no non-breeding season for gannet, we would be grateful if the Applicant would clarify if these columns are mis-labelled and which of them should be “Breeding” season?

Section 1.5.3 – gap-filling results

We note that the results of the gap-filling exercise ([REP3-044](#)) have not been included in the in-combination assessment presented here. Therefore, the in-combination assessments 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, noting our detailed comments below. Given the current gaps in the in-combination assessments assessed in [REP3-059](#), we consider it inappropriate to comment on the potential significance of in-combination impacts presented at this stage.

Section 1.5.3 – apportioning of seasonal or annual estimates

We would be grateful for clarification from the Applicant how annual abundance or collision values have been used in the in-combination HRA when only annual estimates are available from another OWF, as opposed to seasonal values (e.g. Tables 1.18 to 1.34)? For example, [REP3-073](#) Table 1.3 has 9.90 annual kittiwake collisions from TwinHub (Wave Hub Floating Wind Farm) with no seasonal values. Could the Applicant clarify whether in the in-combination HRA ([REP3-059](#) and [REP3-044](#)), is this assumed to represent a breeding season value, a non-breeding season value, split between the two seasons, or not used? And for a particular wind farm, where one seasonal value has been not available, but another season has been available, has the unavailable value been gap-filled?

Section 1.5.3 – age class apportioning

In the in-combination assessment, could the Applicant confirm what age-class apportioning value has been used for each project. In the absence of site-specific information for each OWF, we advise that all birds are assumed to be adult. We do not advise that stable age structure age-classes are used.

Section 1.5.3 – SPA apportioning

It was previously suggested by the Applicant that SPA-apportioned impacts would be taken and used from publicly available, project-specific, documents or the Round 4 plan level HRA documentation, but where an apportioned impact was not presented, the apportioning value (e.g. the proportion of the species which is likely to have come from a specific colony) from a nearby OWF which has presented an apportioned value, would be used as a proxy for the breeding season ([APP-042](#), D.8.5, paragraphs 1.3.3.1 to 1.3.3.2). Could the Applicant confirm that this approach has been used for the in-combination HRA? If so, please provide this detail, including which other wind farm the proxy apportioning value has been taken from.

Section 1.5.3 – Mona contribution to in-combination assessment

We note that the results of the Mona alone HRA are not the same as the Mona contribution to the in-combination HRA and request an explanation. For example, the Mona non-breeding season guillemot displacement mortalities at Cape Wrath SPA is 0.9 to 20.8 (using the range of displacement and mortality, as per example given in paragraph 1.5.1.1). However, the Mona contribution to non-breeding season guillemot displacement mortalities at Cape Wrath SPA in-combination with all other projects (given in table 1.38) is 0.51 to 11.97 (again using the range of displacement and mortality). The non-breeding season apportioning value is the same in both the alone assessment, therefore could the Applicant explain what different number(s) is being used to generate a different result in the in-combination assessment?

Section 1.5.3 – clarity of the in-combination assessment

In the in-combination assessment, please include the other OWF project mortalities in the tables (table 1.18 to table 1.63), or provide a reference to the document and table where these values have come from? Mortalities from other projects have been updated several times, at Deadlines 2 and 3, and the most up to date values are in different versions depending on the species, so having a list of all the most up to date values would be helpful for clarity.

We are struggling to replicate the values in the in-combination assessment, which impacts our confidence in the results and conclusions presented. The only way we can replicate the in-combination values is to use stable age structure age classes and apply the non-breeding season age class to every season in question. That's either a very odd coincidence, or stable age structures have been applied, and incorrectly at that. This applies to all but great black-backed gull, those numbers we can't replicate regardless of the project mortalities and age-class value, and northern gannet due to the columns being potentially mis-labelled.

The below tables give an example of our calculations, and also the level of detail which is required to be able to track the calculation and have confidence in the results, which we recommend is provided.

For example, for Manx shearwater, the only age-class apportioning mentioned has been in [APP-095](#), Offshore ornithology apportioning technical report, Table 1.6 where stable age structure age-classes are listed (100% in the breeding season and 54% in the non-breeding season) and in Offshore ornithology supporting information in line with SNCB advice, Table 1.4 where DAS age-classes or otherwise 100% adult are listed (100% in the breeding season and 100% in the non-breeding season).

If 100% adult in the breeding season is used, replicating the results on the in-combination assessment for Glannau Aberdaron ac Ynys Enlli/Aberdaron Coast and Bardsey Island SPA (Offshore ornithology supporting information in line with SNCB advice, Table 1.50), the Manx

shearwater in-combination HRA (displacement) breeding season gives the below results (where the JNCC-calculated mortalities are around twice those in Table 1.50):

OWF	Abundance ¹	Displacement ²	Adult apportioning ³	SPA apportioning ⁴	Apportioned displacement ⁵	Mona results ⁶	Difference (JNCC-Mona)
Awel Y Mor	26	1.82	1	0.0421	0.08	0.04	0.04
Burbo Bank extension	443	31.01	1	0.0421	1.31	0.71	0.60
Erebus	1540	107.8	1	0.003	0.32	0.18	0.14
TwinHub	1270	88.9	1	0.003	0.27	0.15	0.12
Mona	1249	87.43	1	0.1134	9.91	5.39	4.52
Morecambe	7577	530.39	1	0.0863	45.77	24.88	20.89
Morgan	467	32.69	1	0.085	2.78	1.51	1.27
Walney 3 & 4	588	41.16	1	0.0863	3.55	1.93	1.62
Ormonde	1001	70.07	1	0.0863	6.05	3.29	2.76
West of Duddon Sands	544	38.08	1	0.0863	3.29	1.79	1.50
White Cross	33	2.31	1	0.0028	0.01	0	0.01

¹ [REP3-073](#) Offshore Ornithology Errata Clarification Note, Table 1.13

² 70% displacement, 10% mortality

³ [REP3-059](#) Offshore ornithology supporting information in line with SNCB advice, Table 1.4

⁴ [REP3-059](#) Offshore ornithology supporting information in line with SNCB advice, Table 1.50

⁵ Displacement * Adult apportioning * SPA apportioning

⁶ [REP3-059](#) Offshore ornithology supporting information in line with SNCB advice, Table 1.50

However, if stable age structure non-breeding season age-class is used, the below results are obtained, where the results are about the same:

OWF	Abundance ¹	Displacement ²	Adult apportioning ³	SPA apportioning ⁴	Apportioned displacement ⁵	Mona results ⁶	Difference (JNCC-Mona)
Awel Y Mor	26	1.82	0.54	0.0421	0.04	0.04	0.00
Burbo Bank extension	443	31.01	0.54	0.0421	0.70	0.71	-0.01
Erebus	1540	107.8	0.54	0.003	0.17	0.18	-0.01
TwinHub	1270	88.9	0.54	0.003	0.14	0.15	-0.01
Mona	1249	87.43	0.54	0.1134	5.35	5.39	-0.04
Morecambe	7577	530.39	0.54	0.0863	24.72	24.88	-0.16
Morgan	467	32.69	0.54	0.085	1.50	1.51	-0.01
Walney 3 & 4	588	41.16	0.54	0.0863	1.92	1.93	-0.01
Ormonde	1001	70.07	0.54	0.0863	3.27	3.29	-0.02

OWF	Abundance ¹	Displacement ²	Adult apportioning ³	SPA apportioning ⁴	Apportioned displacement ⁵	Mona results ⁶	Difference (JNCC-Mona)
West of Duddon Sands	544	38.08	0.54	0.0863	1.77	1.79	-0.02
White Cross	33	2.31	0.54	0.0028	0.00	0	0.00

¹ [REP3-073](#) Offshore Ornithology Errata Clarification Note, Table 1.13

² 70% displacement, 10% mortality

³ [APP-095](#), Offshore ornithology apportioning technical report, Table 1.6

⁴ [REP3-059](#) Offshore ornithology supporting information in line with SNCB advice, Table 1.50

⁵ Displacement * Adult apportioning * SPA apportioning

⁶ [REP3-059](#) Offshore ornithology supporting information in line with SNCB advice, Table 1.50

The same trend is seen in all SPA in-combination assessment for all species, except for the Isles of Scilly GBBG in-combination HRA. For this, using either 100% adults, stable age structure age-class adults, or DAS-based adults, the results are not the same using JNCC calculations as those in Table 1.49.

Isles of Scilly GBBG in-combination HRA (collision) non-breeding season using 100% adults:

OWF	Collisions ¹	Adult apportioning ²	SPA apportioning ³	Apportioned collisions ⁴	Mona results ⁵	Difference (JNCC - Mona)
Awel Y Mor	0.62	1	0.2885	0.18	0.06	0.12
Erebus	0.82	1	0.2885	0.24	0.07	0.17
TwinHub	7.21	1	0.2885	2.08	1.91	0.17
Mona	3.16	0.7049	0.2885	0.64	0.64	0.00
Morecambe	0.45	1	0.2885	0.13	0.04	0.09
Morgan	0.71	1	0.2885	0.20	0.42	-0.22
Ormonde	0.29	1	0.2885	0.08	0.02	0.06
Rampion	33.31	1	0.2885	9.61	2.44	7.17
Rampion 2	13.59	1	0.2885	3.92	1.26	2.66
Walney 3 & 4	20.07	1	0.2885	5.79	2.72	3.07
White Cross	0.00	1	0.2885	0.00	0	0.00

¹ [REP2-016](#) ES Vol 2, Chp 5: Offshore ornithology, Table 5.119

² [REP3-059](#) Offshore ornithology supporting information in line with SNCB advice, Table 1.4 for Mona, all else is 100% adults

³ [REP3-059](#) Offshore ornithology supporting information in line with SNCB advice, Table 1.49

⁴ Collisions * Adult apportioning * SPA apportioning

⁵ [REP3-059](#) Offshore ornithology supporting information in line with SNCB advice, Table 1.49

Using stable age structure age-class adults:

OWF	Collisions ¹	Adult apportioning ²	SPA apportioning ³	Apportioned collisions ⁴	Mona results ⁵	Difference (JNCC - Mona)
Awel Y Mor	0.62	0.44	0.2885	0.08	0.06	0.02
Erebus	0.82	0.44	0.2885	0.10	0.07	0.03
TwinHub	7.21	0.44	0.2885	0.92	1.91	-0.99
Mona	3.16	0.7049	0.2885	0.64	0.64	0.00
Morecambe	0.45	0.44	0.2885	0.06	0.04	0.02
Morgan	0.71	0.44	0.2885	0.09	0.42	-0.33
Ormonde	0.29	0.44	0.2885	0.04	0.02	0.02
Rampion	33.31	0.44	0.2885	4.23	2.44	1.79
Rampion 2	13.59	0.44	0.2885	1.73	1.26	0.47
Walney 3 & 4	20.07	0.44	0.2885	2.55	2.72	-0.17
White Cross	0.00	0.44	0.2885	0.00	0	0.00

¹ [REP2-016](#) ES Vol 2, Chp 5: Offshore ornithology, Table 5.119

² [APP-095](#) Offshore ornithology apportioning technical report, Table 1.6

³ [REP3-059](#) Offshore ornithology supporting information in line with SNCB advice, Table 1.49

⁴ Collisions * Adult apportioning * SPA apportioning

⁵ [REP3-059](#) Offshore ornithology supporting information in line with SNCB advice, Table 1.49

Using DAS-based age-classes:

OWF	Collisions ¹	Adult apportioning ²	SPA apportioning ³	Apportioned collisions ⁴	Mona results ⁵	Difference (JNCC - Mona)
Awel Y Mor	0.62	0.7049	0.2885	0.13	0.06	0.07
Erebus	0.82	0.7049	0.2885	0.17	0.07	0.10
TwinHub	7.21	0.7049	0.2885	1.47	1.91	-0.44
Mona	3.16	0.7049	0.2885	0.64	0.64	0.00
Morecambe	0.45	0.7049	0.2885	0.09	0.04	0.05
Morgan	0.71	0.7049	0.2885	0.14	0.42	-0.28
Ormonde	0.29	0.7049	0.2885	0.06	0.02	0.04
Rampion	33.31	0.7049	0.2885	6.77	2.44	4.33
Rampion 2	13.59	0.7049	0.2885	2.76	1.26	1.50
Walney 3 & 4	20.07	0.7049	0.2885	4.08	2.72	1.36
White Cross	0.00	0.7049	0.2885	0.00	0	0.00

¹ [REP2-016](#) ES Vol 2, Chp 5: Offshore ornithology, Table 5.119

² [REP3-059](#) Offshore ornithology supporting information in line with SNCB advice, Table 1.4

³ [REP3-059](#) Offshore ornithology supporting information in line with SNCB advice, Table 1.49

⁴ Collisions * Adult apportioning * SPA apportioning

⁵ [REP3-059](#) Offshore ornithology supporting information in line with SNCB advice, Table 1.49

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