

NatureScot

Marine Directorate
Scottish Government
Marine Laboratory
Aberdeen
AB11 9DB

18 November 2025

Our ref: CNS – REN – OWSF – E2 –
Application

Dear Marine Directorate Licensing Operations Team,

MUIR MHÒR OFFSHORE WIND FARM – ADDITIONAL INFORMATION

APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 AND MARINE LICENCES UNDER THE MARINE (SCOTLAND) ACT AND PART 4 OF THE MARINE AND COASTAL ACCESS ACT 2009 TO CONSTRUCT AND OPERATE THE MUIR MHÒR OFFSHORE WIND FARM

Thank you for consulting us on the Additional Information submitted for the proposed Muir Mhòr Offshore Wind Farm. This follows on from the original Application, submitted 05 December 2024 and our advice submitted 31st January, and 3rd March 2025, requesting clarification and additional information to supplement the supporting information accompanying the application.

The proposal, located approximately 63km east of Peterhead, includes a project design envelope approach comprising up to 67 floating wind turbines, the associated infrastructure, with an installation capacity of 1 GW and a proposed 35-year lease.

The Additional Information includes Addendums to the Environmental Impact Assessment (EIA) Report, Report to Inform an Appropriate Assessment (RIAA) and Derogation case.

We have reviewed the Additional Information, along with the relevant documents submitted with the original EIA Report (EIAR) and provide advice below.

Background

In our advice sent to Marine Directorate on the 31 January 2025 and 03 March 2025, we requested additional information for ornithology and fish ecology topics, which we advise on below. Revisions and clarifications to the marine mammal chapter have also been provided by the Applicant and we provide further advice on this below.

NatureScot advice

To inform this Additional Information, we attended several post-application meetings with the Applicant and their consultants with the aim of reaching consensus on ornithology assessment methods and information to be included in this Additional Information. However, meeting minutes were only circulated by the Applicant after the first of three meetings. As a consequence, this Additional Information submission does not include some information that we advised was necessary, and in some cases the methods used are not aligned with our advice.

We highlight the importance of meeting minutes for the purpose of a clear audit trail, and also to enable further clarification in writing as required.

Offshore and intertidal ornithology – EIA

Our detailed advice on impacts to ornithology receptors under EIA is presented in Section A.9 below. We advise that this proposal has **significant adverse impacts** on:

- Project-alone: guillemot; and
- Cumulative: kittiwake, guillemot, razorbill, great black-backed gull.

In line with established EIA practice, we expect mitigation to be identified where a significant adverse effect is identified.

Without prejudging the outcome of this application and any subsequent Appropriate Assessment, we anticipate that compensation measures will need to be secured for kittiwake, guillemot, razorbill, puffin and gannet (noting that EIA impacts are not significant for the latter two species). We consider that such compensation measures, agreed by all relevant parties, would also be sufficient to address impacts predicted under EIA for the relevant species.

For great black-backed gull, no adverse effect on site integrity (AEOSI) was concluded within the RIAA or Additional Information RIAA. We agree with this conclusion and so impacts on this species will need to be addressed solely through the EIA. We request to be involved in any required discussions on mitigation measures for great black-backed gull.

Offshore and intertidal ornithology – RIAA – project-alone

Our detailed advice on impacts to ornithology receptors under HRA is presented in Section A.10 below.

The Applicant concludes no AEOSI for all species from project-alone impacts. We support these conclusions with the following exceptions:

- we advise we conclude **AEOSI for guillemot at Buchan Ness to Collieston Coast SPA**; and
- we advise we are **unable to conclude no AEOSI for guillemot at Troup, Pennan and Lion's Heads SPA**.

See Section A.2.1 below for more detailed summary of the above points, and Section A.10.3 for full advice on project-alone impacts.

Offshore and intertidal ornithology – RIAA – in-combination

In our previous advice on the RIAA supporting the application, we were unable to reach conclusions on AEOSI for in-combination impacts to many sites and species. Following the

submission of this Additional Information we are now able to reach conclusions for all sites and species.

However, we highlight important omissions from the Additional Information which, in our view, are likely to be required by Marine Directorate to carry out an Appropriate Assessment, and for future in-combination assessments:

- **We strongly recommend that mean collision mortality estimates are sought from the Applicant.** From a preliminary assessment of our own, we advise there may be minor numerical differences between the use of median collision mortality estimate rates compared to our preferred use of monthly mean collision mortality estimates. This difference in approach when taken through to the Appropriate Assessment, could have implications for compensation requirements in terms of predicted mortalities. In addition, the use of mean collision estimate rates will enable future applicants conducting cumulative/in-combination impact assessments to derive seasonal/annual estimates directly from monthly estimates, improving certainty and consistency between projects.
- **We strongly recommend that the Applicant presents full apportioned impacts to all SPA and non-SPA populations for species which have had any updates in the Additional Information RIAA.** This will aid future cumulative/ in-combination assessments.

In addition, we highlight that the Applicant has only presented an in-combination scenario which includes full, uncompensated impacts from Berwick Bank (and Green Volt), as agreed based on the position at the time. However, other projects currently at the Additional Information stage, such as Caledonia and Ossian, have independently opted to remove Berwick Bank (and Green Volt) compensated impacts from their assessments. **We highlight this difference in approach to Scottish Ministers for consideration as, if this is no longer the recommended approach, this may affect our conclusions for certain sites and species.**

Moreover, we are aware of an issue with the in-combination assessment, stemming from Muir Mhòr, Caledonia and Ossian submitting Additional Information at a similar time to each other. Assessments within the respective Additional Information submissions are based on the latest publicly available information, however, this information is now out of date given all three projects have submitted revised ornithology assessments within their Additional Information. As such, individual project numbers used within the current in-combination assessments may differ and additional/ updated PVAs may need to be conducted for certain sites and species.

We are aware of the work being led by Muir Mhòr to develop a collective approach across these three developments to this issue, subject to agreement with Marine Directorate and NatureScot. Depending on the outcome of this work, our final advice on in-combination impacts may change.

Therefore, our advice below is based on the current assessment presented in the Additional Information submission.

For the qualifying species and sites listed below, we have concluded **AEOSI in-combination** with all other offshore wind farm projects as advised by MD-LOT:

- Guillemot at Buchan Ness to Collieston Coast SPA
- Kittiwake at Buchan Ness to Collieston Coast SPA
- Kittiwake at East Caithness Cliffs SPA

- Gannet at Forth Islands SPA
- Kittiwake at Forth Islands SPA
- Kittiwake at Fowlsheugh SPA
- Razorbill at Fowlsheugh SPA
- Kittiwake at North Caithness Cliffs SPA
- Puffin at North Caithness Cliffs SPA
- Kittiwake at St Abb's Head to Fast Castle SPA
- Guillemot at Troup, Pennan and Lion's Heads SPA
- Kittiwake at Troup, Pennan and Lion's Heads SPA
- Kittiwake at West Westray SPA

For the qualifying species and sites listed below, we are unable to conclude no AEOSI in-combination with other offshore wind farm projects:

- Gannet at Sule Skerry and Sule Stack SPA
- Razorbill at Troup, Pennan and Lion's Heads SPA

Based on our assessment and conclusions reached above, we advise that Marine Directorate will be required to undertake an Appropriate Assessment.

Offshore and intertidal ornithology – Marine SPAs

For the Outer Firth of Forth and St Andrews Bay Complex (OFFSABC) SPA, we conclude:

- Project-alone: **AEOSI for guillemot**; and
- In-combination: **AEOSI for gannet, guillemot and kittiwake.**

Further advice on marine SPAs is presented below in Section A.10.6.

If this proposal is consented, impacts to the Moray Firth SPA and any other marine SPAs may need to be re-assessed at the post-consent stage, once further detail is known around the location of port(s) and potential vessel transit routes.

We reiterate our previous advice that further monitoring of the qualifying species of relevant marine SPAs is required. This will help to better understand species distributions, populations and locations of moulting birds, and therefore to inform requirements for spatial and/ or seasonal mitigation depending on selection of ports and vessel transit routes.

Marine mammals – EIA and RIAA

We provided final advice in relation to marine mammals in our response dated 31 January 2025. However, we raised various points in our EIAR advice, and the Applicant has provided revisions and clarifications through the Additional Information submission. Our previous advice remains valid, and we provide further commentary on the revisions and clarifications below.

Assessment approach – bottlenose dolphin – density estimates

The Applicant has acknowledged that the incorrect SCANS III block density was presented in Table 7-5 (Appendix 12.1) of the original Marine Mammal EIA chapter (0.0023 dolphins/km² instead of 0.0298/km²). Paragraph 7.3.4 explains why the Greater North Sea Management Unit (GNS MU) density figure was used, and we are content with this explanation.

Assessment approach – bottlenose dolphin – magnitude criteria

The project-alone assessment has been revised, and the magnitude increased to Medium, resulting in the overall significance increasing from Negligible to Minor. Whilst the Cumulative assessment has been revised, and the magnitude increased from Medium to High. However, this has not changed the overall significance. These revisions reflect the increased number of animals predicted to be disturbed, and we welcome these changes.

Assessment approach – bottlenose dolphin – sensitivity criteria

In our previous advice, we recommend that sensitivity to disturbance is scored as Medium, reflecting the importance of underwater noise to cetaceans for a range of key behaviours. This raised the significance of disturbance on some species to Moderate, and therefore significant in EIA terms. We continue to recognise the high uncertainty around the parameters used in the assessments, and advise these can be considered further through the Piling Strategy, MMMP, EPS risk assessment and PEMP, and validated through monitoring, as previously advised.

Impact assessment – bottlenose dolphin – auditory injury from piling

The assessment of disturbance from piling on bottlenose dolphin (BND) has been revised, for the project alone and cumulatively, using the higher density figures from SCANS III. We are content with the approach that has been used for revising this assessment.

Fish and shellfish ecology – EIA

Further consideration of sandeel and herring spawning has been provided by the Applicant, and an approach has been laid out to define the peak herring spawning window, which was a key aspect of our previous advice. Our previous advice, which relies upon the production of a post-consent Fisheries Management Plan, remains valid, and we provide further commentary in Appendix B.

We advise that a post-consent/ pre-construction sandeel survey is carried out to ascertain the distribution of sandeel across the array area and provide additional baseline information.

Ornithology derogation

Further consideration of the proposed compensation measures has been provided by the Applicant, which is welcomed. Our advice is focussed on ecological feasibility of compensation measures, and at present we advise there is insufficient information to have confidence that the proposed measures are likely to compensate for the predicted impacts of the proposal to seabirds. Further advice on the proposed compensation measures within the derogation case is provided in Appendix C.

We hope this advice is helpful. Please contact Caitlin Cunningham (caitlin.cunningham@nature.scot) or Harriet Sperrin (harriet.sperrin@nature.scot) in the first instance for any further advice, copying in our marine energy mailbox – marineenergy@nature.scot.

Yours sincerely,

Erica Knott

Head of Marine Energy – Sustainable Coasts and Seas.

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NATURESCOT ADVICE ON MUIR MHÒR OFFSHORE WIND FARM – ADDITIONAL INFORMATION

Appendix A – Marine and intertidal ornithology

A.1 EIA summary

Our detailed conclusions are presented in Section A.9 below, and summarised here:

- Kittiwake project-alone: agree magnitude is negligible (negligible significance overall)
- Kittiwake cumulative: agree magnitude has not changed from EIAR, however we advised high magnitude of impact, not negligible (**moderate** significance overall)
- Guillemot project-alone: disagree magnitude is low, it has increased to medium magnitude (**moderate** significance overall)
- Guillemot cumulative: disagree magnitude is low, it has increased to high magnitude (**moderate** significance overall)
- Razorbill project-alone: agree magnitude remains negligible (negligible significance overall)
- Razorbill cumulative: agree magnitude has not changed from EIAR, however we advised high magnitude of impact, not negligible (**moderate** significance overall)
- Puffin project-alone: agree magnitude has not changed from EIAR and remains negligible (negligible significance overall)
- Puffin cumulative: agree magnitude has not changed from EIAR and remains low (minor significance overall)
- Great black-backed gull project-alone: our previous advice (03 March 2025) remains valid (not significant), however we disagree that the magnitude is negligible and should be low magnitude instead
- Great black-backed gull cumulative: disagree magnitude is moderate, it should be high magnitude (**major** significance overall)

For great black-backed gull, no adverse effect on site integrity (AEOSI) was concluded within the RIAA or Additional Information RIAA. We agree with this conclusion and so impacts on this species will need to be addressed solely through the EIA. We request to be involved in any required discussions on mitigation measures for great black-backed gull.

A.2 RIAA summary

A.2.1 Project-alone assessment of AEOSI

Our detailed conclusions are presented in Section A.10.3 below, Table 1 summarises the conclusions of the project-alone impacts on qualifying features at SPAs with connectivity to the project.

Table 1. Summary of project-alone conclusions of AEOSI and comparison with previous advice. Note, only species and SPAs presented in the Additional Information RIAA are included – all other project-alone impacts we advise remain as no AEOSI.

| Site | Species | CPS - original application | NatureScot conclusion of AEOSI project alone - original application | CPS – Additional Information | NatureScot conclusion of AEOSI project alone – Additional Information |
|-------------------------------------|-----------|----------------------------|---|------------------------------|---|
| Buchan Ness to Collieston Coast SPA | Guillemot | 0.939 - 0.979 | No AEOSI | 0.835 - 0.913 | AEOSI |
| | Kittiwake | 0.973 | No AEOSI | 0.973 | No AEOSI |

| Site | Species | CPS - original application | NatureScot conclusion of AEOSI project alone - original application | CPS – Additional Information | NatureScot conclusion of AEOSI project alone – Additional Information |
|------------------------------------|-----------|----------------------------|---|------------------------------|---|
| Fowlsheugh SPA | Kittiwake | N/A | No AEOSI | 0.990 - 0.992 | No AEOSI |
| | Razorbill | N/A | No AEOSI | 0.979 - 0.987 | No AEOSI |
| Troup, Pennan and Lion's Heads SPA | Guillemot | 0.968 - 0.989 | No AEOSI | 0.911 - 0.954 | Unable to conclude no AEOSI |
| | Kittiwake | 0.983 | No AEOSI | 0.990 - 0.992 | No AEOSI |
| | Razorbill | N/A | No AEOSI | 0.980 - 0.987 | No AEOSI |

A.2.2 In-combination assessment of AEOSI

Our detailed conclusions are presented in Section A.10.4 below. In our previous advice on the Application RIAA we were unable to reach conclusions on AEOSI for in-combination impacts to many sites and species. Following the submission of this Additional Information we are now able to reach conclusions for all sites and species.

However, we highlight important omissions from this Additional Information which, in our view, are likely to be required by Marine Directorate to carry out their Appropriate Assessment, and for future in-combination assessments:

- **We strongly recommend that mean collision mortality estimates are sought from the Applicant.**
- From a preliminary assessment of our own, we advise there may be minor numerical differences between the use of median collision mortality estimate rates compared to our preferred use of monthly mean collision mortality estimates. This difference in approach when taken through to the Appropriate Assessment, could have implications for compensation requirements in terms of predicted mortalities. In addition, the use of mean collision estimate rates will enable future applicants conducting cumulative/in-combination impact assessments to derive seasonal/annual estimates directly from monthly estimates, improving certainty and consistency between projects.
- **We strongly advise that the Applicant presents full apportioned impacts to all SPA and non-SPA populations for species which have had any updates in the Additional Information RIAA.** This will aid future cumulative/ in-combination assessments.

In addition, we highlight that the Applicant has only presented an in-combination scenario which includes full, uncompensated impacts from Berwick Bank (and Green Volt), as agreed based on the position at the time. However, other projects currently at the Additional Information stage, such as Caledonia and Ossian, have independently opted to remove Berwick Bank (and Green Volt) compensated impacts from their assessments. **We highlight this difference in approach to Scottish Ministers for consideration as, if this is no longer the recommended approach, this may affect our conclusions for certain sites and species.**

Moreover, we are aware of an issue with the in-combination assessment, stemming from Muir Mhòr, Caledonia and Ossian submitting Additional Information at a similar time to each other. Assessments within the respective Additional Information submissions are based on the latest publicly available information, however, this information is now out of date given all three projects have submitted revised ornithology assessments within their Additional Information. As

such, individual project numbers used within the current in-combination assessments may differ and additional/ updated PVAs may need to be conducted for certain sites and species.

We are aware of the work being led by Muir Mhòr to develop a collective approach across these three developments to this issue, subject to agreement with Marine Directorate and NatureScot. Depending on the outcome of this work, our final advice on in-combination impacts may change.

Therefore, our advice below is based on the current assessment presented in the Additional Information submission.

Table 3.4 in the Additional Information RIAA is taken from Table A5 of NatureScot’s advice in response to the original RIAA and summarises the conclusions reached for in-combination assessments only. Table 2 below is an update to the conclusions in Table A5 of NatureScot’s advice, with comparisons of original and Additional Information conclusions. Our detailed conclusions are presented in Section A.10.4 below.

Table 2. Summary of in-combination conclusions of AEOSI and comparison with previous advice. Note, only species and SPAs presented in Table A5 of the original RIAA advice are included in this table.

| SPA | Species | CPS - original application | NatureScot conclusion of AEOSI in-combination - original application | CPS – Additional Information | NatureScot conclusion of AEOSI in-combination – Additional Information |
|--|--------------|------------------------------|--|------------------------------|--|
| Buchan Ness to Collieston Coast SPA | Guillemot | Unable to reach a conclusion | | 0.747 - 0.869 | AEOSI |
| | Herring gull | 0.973 | No AEOSI | | |
| | Kittiwake | Unable to reach a conclusion | | 0.866 - 0.901 | AEOSI |
| Cape Wrath SPA | Kittiwake | 0.971 - 0.978 | Provisional no AEOSI | | No AEOSI |
| East Caithness Cliffs SPA | Kittiwake | Unable to reach a conclusion | | 0.734 - 0.826 | AEOSI |
| Fair Isle SPA | Gannet | 0.936 - 0.961 | No AEOSI | | |
| Forth Islands SPA | Gannet | 0.807 - 0.86 | Provisional AEOSI | - | AEOSI |
| | Kittiwake | Unable to reach a conclusion | | 0.804 - 0.869 | AEOSI |
| | Puffin | Unable to reach a conclusion | | 0.913 - 0.996 | No AEOSI |
| Fowlsheugh SPA | Kittiwake | Unable to reach a conclusion | | 0.804 - 0.859 | AEOSI |
| | Razorbill | Unable to reach a conclusion | | 0.646 - 0.791 | AEOSI |
| Hermaness, Saxa Vord and Valla Field SPA | Gannet | 0.932 - 0.958 | Provisional no AEOSI | - | No AEOSI |
| North Caithness Cliffs SPA | Kittiwake | 0.817 - 0.867 | Provisional AEOSI | 0.850 - 0.893 | AEOSI |
| | Puffin | 0.660 - 0.778 | Provisional AEOSI | 0.687 - 0.797 | AEOSI |
| North Rona and Sula Sgeir SPA | Gannet | 0.984 - 0.991 | No AEOSI | | |
| Noss SPA | Gannet | 0.922 - 0.953 | No AEOSI | | |
| St Abb's Head to Fast Castle SPA | Kittiwake | Unable to reach a conclusion | | 0.287 - 0.413 | AEOSI |
| Sule Skerry and Sule Stack SPA | Gannet | 0.909 - 0.935 | Unable to conclude no AEOSI | | |
| | Guillemot | Unable to reach a conclusion | | 0.861 - 0.929 | AEOSI |

| SPA | Species | CPS - original application | NatureScot conclusion of AEOSI in-combination - original application | CPS – Additional Information | NatureScot conclusion of AEOSI in-combination – Additional Information |
|------------------------------------|-----------|------------------------------|--|------------------------------|--|
| Troup, Pennan and Lion's Heads SPA | Kittiwake | Unable to reach a conclusion | | 0.859 - 0.904 | AEOSI |
| | Razorbill | Unable to reach a conclusion | | 0.860 - 0.938 | Unable to conclude no AEOSI |
| West Westray SPA | Kittiwake | 0.644 - 0.740 | Provisional AEOSI | 0.602 - 0.708 | AEOSI |

A.2.3 Marine SPAs

For the Outer Firth of Forth and St Andrews Bay Complex (OFFSABC) SPA, we conclude:

- Project-alone: AEOSI for guillemot; and
- In-combination: AEOSI for gannet, guillemot and kittiwake.

Further advice on marine SPAs is presented below in Section A.10.6.

If this proposal is consented, impacts to the Moray Firth SPA and any other marine SPAs may need to be re-assessed at the post-consent stage, once further detail is known around the location of port(s) and potential vessel transit routes.

We reiterate our previous advice that further monitoring of the qualifying species of relevant marine SPAs is required. This will help to better understand species distributions, populations and locations of moulting birds, and therefore to inform requirements for spatial and/ or seasonal mitigation depending on selection of ports and vessel transit routes.

A.3 Updated regional population size

NatureScot advice on the original Muir Mhòr application queried some colony counts as they appeared to be out of date or superseded by more recent colony count data. Updating colony counts to the most recent data would affect both regional impact assessments in EIA and apportioned impacts in RIAA.

A.3.1 Gannet

NatureScot queried the use of colony counts for Forth Islands SPA and Hermaness, Saxa Vord and Valla Field SPA from the years 2014 and 2021, respectively, as counts from 2023 were available for both colonies. The 2023 colony counts were lower than the 2014 and 2021 counts used, and the use of the updated counts would affect both regional impacts and apportioned impacts.

During the discussions between the Applicant and NatureScot prior to submission of the Additional Information, the Applicant presented justification for the use of the colony counts in the original EIAR. The key justification from the Applicant was around the timing of the DAS from 2021-2023 and the timing of the HPAI outbreak affecting gannet colonies in Scotland from 2022. It was our understanding that the Applicant would present the impacts of the proposed Muir Mhòr Offshore Wind Farm relative to the regional and SPA-level populations both pre-HPAI (prior to 2022) and post first HPAI outbreak (2022 onwards). Presenting the comparison of the overall predicted impacts relative to the two populations would help inform our assessment by allowing us to interpret the implications of using either population.

Whilst we largely agree with the justification presented by the Applicant, we note that the comparison of populations pre- and post-HPAI outbreak are not as we had expected and have not provided us with the information required to give us confidence in the population used in the assessment. We note there is no record of an agreement on approach prior to the submission of the Additional Information.

We also note that counts from 2023 were used for Fair Isle SPA, North Rona and Sula Sgeir SPA, and Noss SPA in the original application and also in the Additional Information. We query why counts from the same year were not used for other SPAs when they were available. However, the change in population counts at gannet colonies across Scotland after the HPAI outbreak does highlight that baseline population counts at Forth Islands SPA and Hermaness, Saxa Vord and Valla Field SPA (those used by the Applicant in the original EIAR) are likely to be more representative of populations at the time the DAS began (Tremlett et al., 2024). Having provided further background, and justification which we welcome, we accept the use of the gannet colony counts presented in the original EIAR.

A.3.2 Puffin

We acknowledge that the Applicant has accepted our advised colony counts for puffin and implemented changes accordingly.

A.3.3 Kittiwake

The Applicant has accepted and implemented our advised counts.

A.4 Updated distributional responses

A.4.1 SeabORD

It was agreed with the Applicant that due to issues with the SeabORD outputs, this tool would not be used, and the displacement matrix approach would be used instead.

A.4.2 Project-alone results

Table 2.9 presents the project-alone impacts to regional populations of species vulnerable to distributional response impacts, assessed using the displacement matrix approach.

From the resulting percentage point reduction in annual adult survival rate, guillemot and razorbill are identified as requiring project-alone PVA – in both upper and lower displacement mortality scenarios as this reduction exceeds 0.02 percentage points.

Puffin and kittiwake do not require project-alone PVAs as impacts do not exceed the same threshold in either upper or lower displacement mortality scenarios.

A.4.3 Cumulative results

Table 2.10 presents the cumulative impacts to regional populations of species vulnerable to distributional response impacts, assessed using the displacement matrix approach.

All four species assessed for distributional response impacts exceed the 0.02 percentage point threshold decrease in adult annual survival rate in both upper and lower displacement mortality scenarios and are identified as requiring cumulative impact PVA.

A.5 Updated CRM assessment

There has been confusion in the post-application advice meetings held between the Applicant and NatureScot around the presentation of results of the collision risk modelling (CRM) assessment, particularly whether to present mean or median collision mortality estimates. It was our understanding after these meetings that the Additional Information would present mean collision mortality estimates, echoed in Paragraph 2.5.1 of the Additional Information Report: Offshore Ornithology EIA (Chapter 2), which states that overall mean values were calculated for seasonal and annual totals, however Paragraph 2.5.3 describes seasonal and annual values as distribution medians.

Our original advice highlighted issues around the presentation of seasonal and annual collision mortality estimates, which did not equal the sum of their component monthly collision mortality estimates. We requested justification or reworking with the correct collision mortality estimates, with relevant apportioning of impacts and PVA using updated collision impacts. The Applicant has maintained that the approach taken in the original EIAR is appropriate and has not presented updated collision mortality estimates. The presentation of median collision mortality estimates does not follow NatureScot Guidance Note 7¹ or the joint advice note from SNCBs regarding bird collision risk modelling for offshore wind developments², both stating that seasonal collision mortality totals should be derived from summing monthly estimates (which must be mean values to enable summing of estimates).

The Applicant's approach is also not in line with other Scottish applications to date, raising concerns of comparability in future cumulative impact assessments which collate mean collision mortality estimates from other projects. The use of mean values also allows future applicants conducting cumulative/ in-combination impact assessments to derive seasonal/ annual estimates directly from monthly estimates, improving certainty and consistency between projects. Unless mean collision mortality estimates are provided at a later date, future applicants should be made aware that the monthly collision mortality estimates from the Muir Mhòr Offshore Wind Farm EIA should not be summed to determine seasonal or annual totals.

We also requested the provision of raw model outputs from the CRM assessment to further understand the choice to use median collision mortality values over mean values, and to provide an audit trail of the calculation of these values. These have not been provided and without sight of the full model outputs, we have not been able to verify the calculation of median values.

It is important to note that, despite the issues highlighted above, we have been able to make conclusions based on the impacts presented, as we do not believe the difference in collision mortality between median and mean values would affect our conclusions.

However, we highlight to Marine Directorate that there may be minor numerical differences between median and mean collision mortality estimates which, if taken through to the Appropriate Assessment, will have implications for compensation requirements. Marine Directorate should also be aware of the implications for future cumulative/ in-combination

¹ <https://www.nature.scot/doc/guidance-note-7-guidance-support-offshore-wind-applications-marine-ornithology-advice-assessing>

² [Joint advice note from the Statutory Nature Conservation Bodies \(SNCBs\) regarding bird collision risk modelling for offshore wind developments](#)

assessments. **As such, we strongly recommend that mean collision mortality estimates are sought from the Applicant.**

A.6 Updated magnitude and sensitivity classification

A.6.1 Magnitude

We noted in post-application meetings that we could accept the use of percentage point change in adult annual mortality/ survival rate as part of the magnitude classification criteria if this was used with appropriate thresholds. We noted in our original EIA advice, in a consultation meeting with the Applicant in June 2025, and in the corresponding meeting minutes that the thresholds should be reconsidered.

We present our conclusions based on thresholds which we believe to be more appropriate, as well as using PVA outputs (counterfactuals), population status, local/national population trends, protected feature status and other relevant information.

We do not only make assessments based on percentage point change in survival as the Applicant suggests, although this provides a useful numerical benchmark to help inform decisions. We also note that the Applicant did not present information on population status/trends etc, or assess the other aspects of their magnitude classification criteria, e.g. *“The impact is localised and/or short-term, with recovery from the change occurring within the short-term after the cessation of the impact (i.e. less than one year)”* when making many of their conclusions in the original EIA.

A.6.2 Sensitivity

We are content that the Applicant has accepted and implemented our advised approach.

A.7 Updated cumulative effects assessment for additional species

A.7.1 Arctic tern

It was agreed with the Applicant in post-application advice meetings that Arctic tern would not need to be assessed cumulatively as the predicted impacts and percentage point decrease in adult annual survival rate from project alone impacts is suitably low (0.00012 percentage point change in adult annual survival rate).

This does not address our request to present the percentage point change in survival from cumulative impacts, however we agreed that in the absence of sufficient data of impacts to Arctic tern from other project applications, a cumulative impact assessment would not be feasible.

A.7.2 Great black-backed gull

Population viability analysis of the cumulative impacts to great black-backed gull were excluded from the original EIA as project-alone impacts (17.4 birds/annum, 0.019 percentage point decrease in annual adult survival) do not exceed the threshold for project-alone PVA. However, we requested that the percentage point change in adult survival as a result of cumulative impacts to great black-backed gull should be presented to determine whether a PVA is required.

The Applicant derived cumulative project impacts to great black-backed gull in the UK North Sea BDMPS from the Caledonia Offshore Wind Farm EIA which was agreed in post-application advice meetings. The total predicted mortality in the non-breeding season from Muir Mhòr and other projects is 1,162.28 birds per annum. The Applicant has corrected the project and cumulative

mortalities from all individuals to adults only using the proportion of adults in the population from the BDMPS (Furness, 2015).

We note that the proportion of adult birds (32,070/91,399) has been rounded to 0.35 which has had a minor impact to the Applicant's subsequent calculations. The Applicant considered 406.8 cumulative adult mortalities including Muir Mhòr, resulting in a 1.268 percentage point decrease in annual adult survival of the non-breeding season population of 32,070 adult birds. Without rounding the proportion of adults in the population, the impact is 407.82 cumulative mortalities, resulting in a 1.272 percentage point decrease in adult survival of the non-breeding season population of 32,070 adult birds. We do not believe there are further implications of this rounding, considering the threshold for carrying out a cumulative PVA is already exceeded and given the scale of predicted cumulative impact to the regional population as detailed below.

In the PVA modelling of cumulative impacts to the non-breeding population of great-black backed gull, herring gull demographic rates from Horswill and Robinson (2015) were used as proxy values for great black-backed gull due to a lack of species-specific data (specifically immature survival rates for all age classes and standard deviation of adult survival rate). This is an acceptable approach in the absence of data for great black-backed gull, and is the recommended proxy referred to in Horswill and Robinson (2015) and in Furness (2015) due to similarities in life history characteristics. The Applicant states concerns that the use of proxy demographic values means that the PVA would not reflect true population projections for great black-backed gull. Given that the assessment process is based on the best available information at every stage and that herring gull is the advised proxy species for great black-backed gull and used in recommended literature, we consider this the best option available to use in PVA.

We agree with the Applicant that project-alone impacts to great black-backed gull are not significant, although we classify this impact as low magnitude rather than negligible. However, we disagree with the Applicant's conclusion of moderate magnitude of impact as a result of cumulative impacts to great black-backed gull. We advise a high magnitude of impact instead. Considering a high magnitude of impact and a high sensitivity of the receptor to collision risk impacts, **we conclude a major significant impact**. As no AEOSI was concluded within the RIAA or Additional Information RIAA, which we agree with, impacts on this species will need to be addressed through the EIA and we request to be involved in any required discussions on mitigation measures for great black-backed gull.

We acknowledge the points made in Paragraph 2.7.18 of the Additional Information Report: Offshore Ornithology EIA (Chapter 2) where the Applicant states that standard collision risk modelling is not appropriate for this species and that migratory collision risk modelling should be used to reflect the movement of birds from overseas to UK waters in the non-breeding season. The migratory collision risk model assumes a twice annual movement of birds across a migration front as birds move to and from wintering/breeding ranges. However, the DAS from the Muir Mhòr survey area shows great black-backed gull present in the survey area in January, August, November and December (1-47 birds recorded per month). Design-based estimates of abundance predict a range of 10.25 to 576.47 birds present in the survey area per month, with model-based density estimates predicting similar abundance. The recorded presence of the species across multiple months indicates a consistent time of year when the species is present in the array area over a prolonged period in the non-breeding season, therefore we believe standard collision risk modelling remains the most appropriate method.

In Paragraph 2.7.18, the Applicant states that “*Based on this, it is expected that the magnitude of impacts from both the project alone and cumulatively is likely to be negligible or minor and therefore not significant*”. We do not accept this position, as the Applicant’s approach does not follow NatureScot guidance, was not discussed between the Applicant and NatureScot as a possible approach, and is based on speculation as the modelling has not been presented.

A.7.3 Fulmar and Manx shearwater

It was agreed with the Applicant in post-application advice meetings that fulmar and Manx shearwater did not need to be included in the cumulative assessment. The Applicant states in the Additional Information that this decision was made due to low sensitivity of the receptors to collision and distributional response impacts. However, these species were assessed quantitatively in the technical appendices of the original EIA at the request of NatureScot. We do agree however that cumulative impacts do not need to be considered by the Applicant due to a lack of sufficient quantitative data of impacts on these species from other project applications, meaning a cumulative impacts assessment would not be feasible. It is valuable to present project-alone impacts as the Applicant have done in order for other projects to include the species in cumulative assessments whenever possible.

A.7.4 Red-throated diver

It was agreed with the Applicant in post-application meetings that red-throated diver would not need to be assessed cumulatively as the recorded numbers of the species in the DAS was very low. We welcome that red-throated diver was included in the project-alone distributional response assessment as the species is sensitive to disturbance and displacement, and this will allow future cumulative/ in-combination assessments to take account of Muir Mhòr if required.

A.8 Updated information on apportioning impacts

A.8.1 Proportion of foraging area at sea

We acknowledge the provision of ‘proportion of foraging area at sea’ values in the Additional Information Report Appendix 1 Updated Apportioning Tables, which allows apportioning weighting values to be recreated. We also acknowledge that the updated apportioning tables now include updated colony count changes where relevant. However, gannet and herring gull are not included in this appendix, therefore we still do not have the proportion of foraging area at sea values used to calculate apportioning weights for these species. Further comments on the updated information on apportioning impacts are provided in the RIAA Section A.10.1 below.

A.8.2 Errors in original application apportioned impacts spreadsheet

The Applicant provided an updated version of the apportioned impacts spreadsheet provided with the original EIA/ RIAA. NatureScot commented on minor errors in the spreadsheet for kittiwake in the breeding season. We acknowledge that this spreadsheet has been amended to correct these errors, however due to updated impacts, colony counts and apportioning values, this spreadsheet does not provide relevant information for the Additional Information submission.

A.9 NatureScot appraisal – EIA

In our letter dated 03 March 2025, we provided advice on EIA conclusions for some species, including gannet and herring gull, which remains valid, such that impacts are **not significant** under EIA terms, either alone or cumulatively. For other species, including Arctic tern, great black-backed

gull, fulmar, Manx shearwater, and red-throated diver, we concluded project-alone impacts were **not significant** in our previous advice, and have provided further commentary on the cumulative impacts in Sections A.7 and A.9.2.5 to this advice. For those species which we were unable to advise on in our previous letter (i.e. guillemot, kittiwake, puffin, razorbill), advice is provided in Sections A.9.1 and A.9.2 below.

A.9.1 *Project-alone impact assessment*

A.9.1.1 *Guillemot*

We conclude a **moderate significance** of impact for the regional population of guillemot based on the project-alone assessment. This impact is significant in EIA terms and is based on the following:

- Medium vulnerability to distributional response impacts.
- Medium magnitude of impact based on:
 - Median Counterfactual of Final Population Size (CPS) values of 0.876 to 0.935, representing a 6.5 to 12.4% reduction in population size relative to the unimpacted baseline scenario after 35 years of impacts
 - Median Counterfactual of Population Growth-Rate (CGR) values of 0.996 to 0.998, representing a 0.2 to 0.4% reduction in population growth rate relative to the baseline scenario after 35 years of impacts
- A decrease in the Scottish breeding population between Seabird 2000 and Seabirds Count censuses of 30.9% (Burnell et al., 2023).

A.9.1.2 *Kittiwake*

We conclude a negligible significance of impact for the regional population of kittiwake based on the project-alone assessment, which is **not significant** in EIA terms. Our conclusion is based on:

- The low percentage point reduction in annual adult survival rate, and no requirement for a PVA.

A.9.1.3 *Razorbill*

We conclude a negligible significance of impact for the regional population of razorbill based on the project-alone assessment, which is **not significant** in EIA terms. Our conclusion is based on:

- Medium vulnerability to distributional response impacts.
- Negligible magnitude of impact based on:
 - Median CPS values of 0.976 to 0.985 and median CGR values of 0.999 to 1.000
- A decrease in the Scottish breeding population between Seabird 2000 and Seabirds Count censuses of 2.4% (Burnell et al., 2023).

A.9.1.4 *Puffin*

We conclude a negligible significance of impact for the regional population of puffin based on the project-alone assessment, which is **not significant** in EIA terms. Our conclusion is based on:

- The low percentage point reduction in annual adult survival rate, and no requirement for a PVA.

A.9.2 Cumulative impact assessment

A.9.2.1 Guillemot

We conclude a **moderate significance** of impact for the regional population of guillemot based on the cumulative assessment. This impact is significant in EIA terms and is based on the following:

- Medium vulnerability to distributional response impacts.
- Medium to high magnitude of impact based on:
 - Median CPS values of 0.808 to 0.902, representing a 9.8 to 19.2% reduction in population size relative to the unimpacted baseline scenario after 35 years of impacts.
 - Median CGR values of 0.994 to 0.997, representing a 0.3 to 0.6% reduction in population growth rate relative to the baseline scenario after 35 years of impacts.
- The project's contribution of 147.51 to 291.40 mortalities per annum or 58.7 to 61.8% of the cumulative annual mortality total.
- A decrease in the Scottish breeding population between Seabird 2000 and Seabirds Count censuses of 30.9% (Burnell et al., 2023).

A.9.2.2 Kittiwake

We conclude a **moderate significance** of impact for the regional population of kittiwake based on the cumulative assessment. This impact is significant in EIA terms and is based on the following:

- Medium vulnerability to distributional response impacts.
- Medium to high magnitude of impact based on:
 - Median CPS values of 0.796 to 0.857, representing a 14.3 to 20.4% reduction in population size relative to the unimpacted baseline scenario after 35 years of impacts.
 - Median CGR values of 0.994 to 0.996, representing a 0.4 to 0.6% reduction in population growth rate relative to the baseline scenario after 35 years of impacts.
- The project's contribution of 33.41 to 43.15 mortalities per annum or 2.4 to 2.6% of the cumulative annual mortality total.
- A decrease in the Scottish breeding population between Seabird 2000 and Seabirds Count censuses of 57.2% (Burnell et al., 2023).

A.9.2.3 Razorbill

We conclude a **moderate significance** of impact for the regional population of razorbill based on the cumulative assessment. This impact is significant in EIA terms and is based on the following:

- Medium vulnerability to distributional response impacts.
- Medium to high magnitude of impact based on:
 - Median CPS values of 0.780 to 0.877, representing a 12.3 to 22.0% reduction in population size relative to the unimpacted baseline scenario after 35 years of impacts.
 - Median CGR values of 0.993 to 0.996, representing a 0.4 to 0.7% reduction in population growth rate relative to the baseline scenario after 35 years of impacts.
- The project's contribution of 14.93 to 25.49 mortalities per annum or 9.8 to 11.1% of the cumulative annual mortality total.

- A decrease in the Scottish breeding population between Seabird 2000 and Seabirds Count censuses of 2.4% (Burnell et al., 2023).

A.9.2.4 *Puffin*

We conclude a negligible to minor significance of impact for the regional population of puffin based on the cumulative assessment. This impact is **not significant** in EIA terms and is based on the following:

- Medium vulnerability to distributional response impacts.
- Negligible to low magnitude of impact based on:
 - Median CPS values of 0.922 to 0.953, representing a 4.7 to 7.8% reduction in population size relative to the unimpacted baseline scenario after 35 years of impacts.
 - Median CGR values of 0.998 to 0.999, representing a 0.1 to 0.2% reduction in population growth rate relative to the baseline scenario after 35 years of impacts.
- The project's contribution of 16.95 to 28.25 mortalities per annum or 6.4% of the cumulative annual mortality total.
- A decrease in the Scottish breeding population between Seabird 2000 and Seabirds Count censuses of 20.8% (Burnell et al., 2023).

A.9.2.5 *Great black-backed gull*

We conclude a **major significance** of impact for the regional population of great black-backed gull based on the cumulative assessment. This impact is significant in EIA terms and is based on the following:

- High vulnerability to collision impacts.
- High magnitude of impact based on:
 - Median CPS value of 0.577 and median CGR value of 0.985, representing a 42.3% reduction in population size and 1.5% reduction in population growth rate relative to the baseline scenario after 35 years of impacts.
- The project's contribution of 17.4 mortalities per annum or 1.5% of the cumulative mortality total.
- A decrease in the Scottish breeding population between Seabird 2000 and Seabirds Count censuses of 63.3% (Burnell et al., 2023).
- Post-HPAI colony population decreases reported at Scottish SPA colonies:
 - 27% decrease at Copinsay SPA.
 - 44% decrease at Hoy SPA (Tremlett, 2023).

A.10 NatureScot appraisal – RIAA

A.10.1 *Updated apportioning*

As described in Section A.8 above, we acknowledge that the updated apportioning tables now include proportion of foraging area at sea and updated colony counts where relevant. However, we note that there is no presentation of full updated apportioned impacts as a result of updated distributional response impacts and colony counts, where relevant.

In Sections 3.6.1 and 3.6.2 of the Additional Information Report: Offshore and Intertidal Ornithology RIAA (Chapter 3), the Applicant has presented project-alone and in-combination

assessment PVA inputs, including the predicted mortality estimates. However, not all SPAs are presented in these tables, and it is our understanding that SPAs have only been included where the apportioned impacts result in a decrease in annual adult survival of >0.02 percentage points (except for puffin, where all SPAs were included but no impacts exceeded this threshold). For example, Table 3.10 presents the project-alone PVA inputs for kittiwake but only includes impacts for three SPAs. The remaining SPAs are included in Appendix 1 Updated Apportioning Tables, but this does not provide apportioned impact mortalities or impacted adult annual survival rates. Similarly, additional impacted kittiwake SPAs are included in Table 3.18, which presents in-combination PVA inputs, but the apportioned impact from the project alone is not presented for those SPAs which were not included in Table 3.10. The project-alone apportioned impacts are mentioned in the conclusion column in Table 3.19, but only in conclusion statements with no working presented.

Without the full updated apportioned impacts, we do not have an audit trail of the updated predicted impacts to each feature of each SPA. We acknowledge that the impacts and colony counts for several SPAs and species have not been updated in the Additional Information, however where any colony counts have been updated, apportioning should be recalculated for all SPAs, due to changes in impact weighting resulting from colony count changes.

It would also provide clarity to present the full apportioned impacts for guillemot and razorbill as a result of updated distributional response impacts, including apportioned impacts to populations which were not assessed using SeabORD in the original EIAR, to enable comparison of all results. Without an audit trail of predicted impacts, we cannot assess whether updated impacts result in additional SPAs requiring PVA, and future cumulative/ in-combination assessments by other projects cannot obtain the full predicted impacts from the Muir Mhòr Offshore Wind Farm. The missing information resulting from changes to updated apportioning for each species are listed in Table 3.

Table 3. Information not provided as a result of the updated apportioning.

| Species | Scenario | Updated apportioning information not provided |
|-------------------------|----------------------------------|--|
| Puffin | Project-alone | Impacts to non-SPA colonies |
| Puffin | In-combination | Impacts to Hoy SPA and Fair Isle SPA Impacts to non-SPA colonies |
| Kittiwake | Project-alone | Impacts to 16 SPA colonies (note: project-alone numbers for 9 SPAs are stated in Table 3.18: kittiwake in-combination PVA inputs) Impacts to non-SPA colonies |
| Kittiwake | In-combination | Impacts to 10 SPA colonies Impacts to non-SPA colonies |
| Gannet | Project-alone and in-combination | Proportion of foraging range at sea |
| Herring gull | Project-alone and in-combination | Proportion of foraging range at sea |
| Great black-backed gull | Project-alone and in-combination | Proportion of foraging range at sea |

We have been able to draw conclusions from the Additional Information RIAA based on the information provided. **However, we strongly recommend that the Applicant presents full apportioned impacts to all SPA and non-SPA populations for species which have had any updates in the Additional Information RIAA to aid future cumulative/ in-combination assessments.**

A.10.2 Additional information on great black-backed gull

As mentioned in Section A.7.2 above, the cumulative/ in-combination impacts to great black-backed gull populations were not assessed in the original application, and we advised this should be presented in order to determine if a PVA was required for any regional or SPA population. The apportioned impacts to all great black-backed gull SPA colonies with non-breeding season connectivity was <0.2 birds per annum, which was the advised threshold for tangible impacts from the project and the requirement for PVA at the time of the Applicant's assessment. We accept that no cumulative impact PVAs are required for great black-backed gull for the Additional Information in this case. However, our advice has since been updated, and future projects should assess impacts to any population which exceeds a decrease in annual adult survival of 0.02 percentage points, regardless of the predicted apportioned mortality per annum.

A.10.3 Project-alone assessment of AEOSI

A.10.3.1 Guillemot

Impacts to guillemot are greater in the Additional Information than the EIA due to the agreed use of the displacement matrix approach instead of SeabORD, as discussed and agreed between NatureScot and the Applicant in consultation prior to submission of the Additional Information.

In Paragraph 3.6.9 of the Additional Information RIAA, the Applicant states that impacts to guillemot at Buchan Ness to Collieston Coast SPA is unlikely to be ecologically significant due to the use of the displacement matrix being a more conservative modelling approach than SeabORD, despite this being the agreed approach to assessment. We provide more narrative in the individual SPA assessments below to support our conclusions.

A.10.3.2 Puffin

We agree with the Applicant's conclusion that none of the apportioned project-alone impacts result in a decrease in annual adult survival of >0.02 percentage points and therefore PVA is not required for any SPA with puffin as a qualifying feature. However, we note that it was unclear whether the values presented in the column 'change in adult survival' should be multiplied by 100 to get percentage point change in survival, which was the case for the equivalent tables for guillemot, razorbill and kittiwake. If these values had not already been converted to percentage point change, then impacts to all SPAs would exceed the threshold for PVA. After recalculating the impacts $((\text{impact}/\text{population}) * 100)$ it was apparent that the values had already been multiplied by 100.

We note this in our advice so that other projects are aware for future use of these numbers.

A.10.3.3 Project-alone assessment – individual SPA assessments

Buchan Ness to Collieston Coast SPA

| Species | Median CPS after 35 years of impact (high to low displacement mortality) | Median CGR after 35 years of impact (high to low displacement mortality) | Mortality from project alone (low to high displacement mortality) | NatureScot conclusion of AEOSI |
|-----------|--|--|---|--------------------------------|
| Guillemot | 0.835 to 0.913 | 0.995 to 0.997 | 89.59 to 176.98 | AEOSI |
| Kittiwake | 0.973 | 0.999 | 9.36 to 11.95 | No AEOSI |

We conclude **AEOSI** for guillemot based on the project-alone impacts of distributional responses at Buchan Ness to Collieston Coast SPA. This conclusion was reached on the basis of:

- Low median CPS value, representing an 8.7 to 16.5% reduction in population size relative to the unimpacted baseline scenario after 35 years of impact,
- Relatively low median CGR value, representing a 0.3 to 0.5% reduction in population growth rate relative to the unimpacted baseline scenario after 35 years of impact,
- 30.9% decrease in the national population of guillemot in Scotland between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023).

We conclude **no AEOSI** for kittiwake based on the project-alone combined impacts of collision and distributional responses at Buchan Ness to Collieston Coast SPA. This conclusion was reached on the basis of the CPS and CGR values remaining sufficiently high after 35 years of impacts, despite unfavourable condition at the SPA and declines in population at the SPA and national level.

Fowlsheugh SPA

| Species | Median CPS after 35 years of impact (high to low displacement mortality) | Median CGR after 35 years of impact (high to low displacement mortality) | Mortality from project alone (low to high displacement mortality) | NatureScot conclusion of AEOSI |
|-----------|--|--|---|--------------------------------|
| Kittiwake | 0.990 to 0.992 | 1.000 | 6.81 to 8.70 | No AEOSI |
| Razorbill | 0.979 to 0.987 | 0.999 to 1.000 | 6.22 to 10.51 | No AEOSI |

We conclude **no AEOSI** for kittiwake based on the project-alone combined impacts of collision and distributional responses at Fowlsheugh SPA. This conclusion was reached on the basis of the CPS and CGR values remaining sufficiently high after 35 years of impacts, despite unfavourable declining condition at the SPA and declines in population at the SPA and national level.

We conclude **no AEOSI** for razorbill based on the project-alone impacts of distributional responses at Fowlsheugh SPA. This conclusion was reached on the basis of the CPS and CGR values remaining sufficiently high after 35 years of impacts, a substantial population increase at the SPA between Seabird 2000 and Seabirds Count, and favourable condition at the SPA.

Outer Firth of Forth and St Andrews Bay Complex SPA

We conclude **AEOSI** for guillemot based on the project-alone impacts of distributional responses at Outer Firth of Forth and St Andrews Bay Complex SPA as a result of AEOSI being concluded at the functionally linked Buchan Ness to Collieston Coast SPA. See above for the justification of the conclusion at Buchan Ness to Collieston Coast SPA.

Troup Pennan and Lion's Heads SPA

| Species | Median CPS after 35 years of impact (high to low displacement mortality) | Median CGR after 35 years of impact (high to low displacement mortality) | Mortality from project alone (low to high displacement mortality) | NatureScot conclusion of AEOSI |
|-----------|--|--|---|--------------------------------|
| Guillemot | 0.911 to 0.954 | 0.997 to 0.999 | 54.26 to 107.19 | Unable to conclude no AEOSI |
| Kittiwake | 0.990 to 0.992 | 1.000 | 2.58 to 4.37 | No AEOSI |
| Razorbill | 0.980 to 0.987 | 0.999 to 1.000 | 4.81 to 6.16 | No AEOSI |

We are **unable to conclude no AEOSI** for guillemot based on the project-alone impacts of distributional responses at Troup, Pennan and Lion's Heads SPA. This conclusion was reached on the basis of:

- Relatively low median CPS value, representing a 4.6 to 8.9% reduction in population size relative to the unimpacted baseline scenario after 35 years of impact,
- Relatively low median CGR value, representing a 0.1 to 0.3% reduction in population growth rate relative to the unimpacted baseline scenario after 35 years of impact,
- 50.4% decrease in the population of guillemot at the SPA between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023),
- 30.9% decrease in the national population of guillemot in Scotland between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023).

We conclude **no AEOSI** for kittiwake based on the project-alone combined impacts of collision and distributional responses at Troup, Pennan and Lion's Heads SPA. This conclusion was reached on the basis of the CPS and CGR values remaining sufficiently high after 35 years of impacts, despite unfavourable declining condition at the SPA and declining populations at the SPA and national level.

We conclude **no AEOSI** for razorbill based on the project-alone impacts of distributional responses at Troup, Pennan and Lion's Heads SPA. This conclusion was reached on the basis of the CPS and CGR values remaining sufficiently high after 35 years of impacts, despite declining populations at the SPA and national level.

A.10.4 In-combination assessment of AEOSI

The Applicant has only presented an in-combination scenario which includes full, uncompensated impacts from Berwick Bank (and Green Volt), as agreed, based on the position at the time. However, other projects currently at the Additional Information stage, such as Caledonia and Ossian, have independently opted to remove Berwick Bank (and Green Volt) compensated impacts from their assessments. **We highlight this difference in approach to Scottish Ministers for consideration as, if this is no longer the recommended approach, this may affect conclusions for certain sites and species.**

Moreover, we are aware of an issue with the in-combination assessment, stemming from Muir Mhòr, Caledonia and Ossian submitting Additional Information at a similar time to each other. Assessments within the respective Additional Information submissions are based on the latest publicly available information, however, this is now out of date given all three projects submitted revised ornithology assessments within their Additional Information. As such, individual project numbers used within the current in-combination assessments may differ and additional / updated

PVAs may need to be conducted for certain sites and species. **We are aware of and support the work being led by Muir Mhòr to develop an approach to this issue, subject to agreement with Marine Directorate and NatureScot. Depending on the outcome of this work, our final advice may change.**

Therefore, our advice below is based on the current assessment presented in the Additional Information submission.

A.10.4.1 Puffin

A PVA is required to assess the population-level effects of in-combination impacts to puffin at four SPAs with connectivity to the Muir Mhòr Offshore Wind Farm in both upper and lower displacement mortality scenarios due to annual adult decrease in survival being >0.02 percentage points. Fair Isle SPA and Hoy SPA are not included in RIAA Table 3.16 as the apportioned cumulative impact on adult annual survival did not exceed the 0.02% threshold for in-combination PVA, though this has not been stated in the Additional Information. This was confirmed by cross-referencing the cumulative mortality in the original application cumulative mortality spreadsheet, with impacts in the Additional Information either staying the same or decreasing.

A.10.4.2 Kittiwake

A PVA is required to assess the population-level effects of in-combination impacts to kittiwake at nine SPAs with connectivity to the Muir Mhòr Offshore Wind Farm in both upper and lower displacement mortality scenarios due to annual adult decrease in survival >0.02 percentage points. Cape Wrath SPA has not been updated. We believe this is due to the original application conclusion being no AEOSI and updates in the Additional Information leading to a decreased apportioning weight, therefore the conclusion for this SPA would still be no AEOSI, however this is not presented in the Additional Information.

A.10.4.3 In-combination assessment – individual SPA assessments

Buchan Ness to Collieston Coast SPA

| Species | Median CPS after 35 years of impact (high to low displacement mortality) | Median CGR after 35 years of impact (high to low displacement mortality) | Mortality from project alone (low to high displacement mortality) | NatureScot conclusion of AEOSI in-combination |
|-----------|--|--|---|---|
| Guillemot | 0.747 to 0.869 | 0.992 to 0.996 | 89.59 to 176.98 | AEOSI |
| Kittiwake | 0.866 to 0.901 | 0.996 to 0.997 | 9.36 to 11.95 | AEOSI |

We conclude **AEOSI** for guillemot based on the in-combination impacts of distributional responses at Buchan Ness to Collieston Coast SPA. This conclusion was reached on the basis of:

- Low median CPS values, representing a reduction in population size of 13.1 to 25.3% relative to the baseline unimpacted scenario after 35 years of impact,
- Low median CGR values, representing a reduction in population growth rate of 0.4 to 0.8% relative to the baseline unimpacted scenario after 35 years of impact,
- High project contribution to total in-combination mortality of 57.8 to 61.3%,
- 30.9% decrease in the national population of guillemot in Scotland between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023).

We conclude **AEOSI** for kittiwake based on the in-combination, combined impacts of collision and distributional responses at Buchan Ness to Collieston Coast SPA. This conclusion was reached on the basis of:

- Low median CPS values, representing a reduction in population size of 9.9 to 13.4% relative to the baseline unimpacted scenario after 35 years of impact,
- Relatively low median CGR values, representing a reduction in population growth rate of 0.3 to 0.4% relative to the baseline unimpacted scenario after 35 years of impact,
- Moderate project contribution to total in-combination mortality of 9.5 to 10.1%,
- Unfavourable condition and 19% decrease in the population at the SPA between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023),
- 57.2% decrease in the national population of kittiwake in Scotland between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023).

East Caithness Cliffs SPA

| Species | Median CPS after 35 years of impact (high to low displacement mortality) | Median CGR after 35 years of impact (high to low displacement mortality) | Mortality from project alone (low to high displacement mortality) | NatureScot conclusion of AEOSI in-combination |
|-----------|--|--|---|---|
| Kittiwake | 0.734 to 0.826 | 0.991 to 0.995 | 3.30 to 4.31 | AEOSI |

We conclude **AEOSI** for kittiwake based on the in-combination, combined impacts of collision and distributional responses at East Caithness Cliffs SPA. This conclusion was reached on the basis of:

- Low median CPS values, representing a reduction in population size of 17.4 to 26.6% relative to the baseline unimpacted scenario after 35 years of impact,
- Relatively low median CGR values, representing a reduction in population growth rate of 0.5 to 0.9% relative to the baseline unimpacted scenario after 35 years of impact,
- 39% decrease in the kittiwake population at the SPA between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023),
- 57.2% decrease in the national population of kittiwake in Scotland between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023).

These conclusions are made despite the low project contribution to the total in-combination mortality (0.9 to 1.1%). Our conclusions are made based on the evidence presented to us in the additional information report.

Forth Islands SPA

| Species | Median CPS after 35 years of impact (high to low displacement mortality) | Median CGR after 35 years of impact (high to low displacement mortality) | Mortality from project alone (low to high displacement mortality) | NatureScot conclusion of AEOSI in-combination |
|-----------|--|--|---|---|
| Kittiwake | 0.804 to 0.869 | 0.994 to 0.996 | 0.87 to 1.12 | AEOSI |
| Puffin | 0.913 to 0.996 | 0.996 to 0.997 | 6.58 to 10.97 | No AEOSI |

We conclude **AEOSI** for kittiwake based on the in-combination, combined impacts of collision and distributional responses at Forth Islands SPA. This conclusion was reached on the basis of:

- Low median CPS values, representing a reduction in population size of 13.1 to 19.6% relative to the baseline unimpacted scenario after 35 years of impact,

- Relatively low median CGR values, representing a reduction in population growth rate of 0.4 to 0.6% relative to the baseline unimpacted scenario after 35 years of impact,
- Moderate project contribution to total in-combination mortality of 1.2 to 1.3%,
- Unfavourable condition and 22% decrease in the population at the SPA between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023),
- 29% decrease in colony population after HPAI (Tremlett et al., 2023),
- 57.2% decrease in the national population of kittiwake in Scotland between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023).

We conclude **no AEOSI** for puffin based on the in-combination impacts of distributional responses at Forth Islands SPA. This conclusion was reached on the basis of the CPS and CGR values remaining sufficiently high after 35 years of impacts and favourable maintained condition at the SPA, despite moderately declining populations at the SPA and national level.

Fowlsheugh SPA

| Species | Median CPS after 35 years of impact (high to low displacement mortality) | Median CGR after 35 years of impact (high to low displacement mortality) | Mortality from project alone (low to high displacement mortality) | NatureScot conclusion of AEOSI in-combination |
|-----------|--|--|---|---|
| Kittiwake | 0.804 to 0.859 | 0.994 to 0.996 | 6.81 to 8.70 | AEOSI |
| Razorbill | 0.646 to 0.791 | 0.988 to 0.994 | 6.22 to 10.51 | AEOSI |

We conclude **AEOSI** for kittiwake based on the in-combination, combined impacts of collision and distributional responses at Fowlsheugh SPA. This conclusion was reached on the basis of:

- Low median CPS values, representing a reduction in population size of 14.1 to 19.6% relative to the baseline unimpacted scenario after 35 years of impact,
- Relatively low median CGR values, representing a reduction in population growth rate of 0.4 to 0.6% relative to the baseline unimpacted scenario after 35 years of impact,
- Moderate project contribution to total in-combination mortality of 3.0 to 3.1%,
- Unfavourable, declining condition and 51% decrease in the population at the SPA between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023),
- 57.2% decrease in the national population of kittiwake in Scotland between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023).

We conclude **AEOSI** for razorbill based on the in-combination impacts of distributional responses at Fowlsheugh SPA. This conclusion was reached on the basis of:

- Very low median CPS values, representing a reduction in population size of 20.9 to 35.4% relative to the baseline unimpacted scenario after 35 years of impact,
- Low median CGR values, representing a reduction in population growth rate of 0.6 to 1.2% relative to the baseline unimpacted scenario after 35 years of impact,
- Moderate project contribution to total in-combination mortality of 4.9 to 5.4%,
- 2.4% decrease in the national population of puffin in Scotland between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023).

North Caithness Cliffs SPA

| Species | Median CPS after 35 years of impact (high to low displacement mortality) | Median CGR after 35 years of impact (high to low displacement mortality) | Mortality from project alone (low to high displacement mortality) | NatureScot conclusion of AEOSI in-combination |
|---------|--|--|---|---|
| | | | | |

| | | | | |
|-----------|----------------|----------------|--------------|-------|
| Kittiwake | 0.850 to 0.893 | 0.996 to 0.997 | 0.79 to 1.04 | AEOSI |
| Puffin | 0.687 to 0.797 | 0.990 to 0.994 | 0.26 to 0.43 | AEOSI |

We conclude **AEOSI** for kittiwake based on the in-combination, combined impacts of collision and distributional responses at North Caithness Cliffs SPA. This conclusion was reached on the basis of:

- Low median CPS values, representing a reduction in population size of 10.7 to 15.0% relative to the baseline unimpacted scenario after 35 years of impact,
- Relatively low median CGR values, representing a reduction in population growth rate of 0.3 to 0.4% relative to the baseline unimpacted scenario after 35 years of impact,
- Moderate project contribution to total in-combination mortality of 1.2 to 1.3%,
- Unfavourable condition and 45% decrease in the population at the SPA between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023),
- 57.2% decrease in the national population of kittiwake in Scotland between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023).

We conclude **AEOSI** for puffin based on the in-combination impacts of distributional responses at North Caithness Cliffs SPA. This conclusion was reached on the basis of:

- Very low median CPS values, representing a reduction in population size of 20.3 to 31.3% relative to the baseline unimpacted scenario after 35 years of impact,
- Relatively low CGR values, representing a reduction in population growth rate of 0.6 to 1.0% relative to the baseline unimpacted scenario after 35 years of impact,
- Unfavourable, declining condition and 56% decrease in the population at the SPA between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023),
- 20.8% decrease in the national population of puffin in Scotland between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023).

These conclusions are made despite the low project contribution to the total in-combination mortality (0.8 to 0.9%). Our conclusions are made based on the evidence presented to us in the additional information report.

Outer Firth of Forth and St Andrews Bay Complex SPA

We conclude **AEOSI** in-combination at Outer Firth of Forth and St Andrews Bay Complex SPA for gannet, guillemot and kittiwake. We reach these conclusions as a result of AEOSI being concluded at the functionally linked breeding colony SPAs, as per Table 4.

St Abb's Head to Fast Castle SPA

| Species | Median CPS after 35 years of impact (high to low displacement mortality) | Median CGR after 35 years of impact (high to low displacement mortality) | Mortality from project alone (low to high displacement mortality) | NatureScot conclusion of AEOSI in-combination |
|-----------|--|--|---|---|
| Kittiwake | 0.287 to 0.413 | 0.966 to 0.976 | 0.64 to 0.82 | AEOSI |

We conclude **AEOSI** for kittiwake based on the in-combination, combined impacts of collision and distributional responses at St Abb's Head to Fast Castle SPA. This conclusion was reached on the basis of:

- Very low median CPS values, representing a reduction in population size of 58.7 to 71.3% relative to the baseline unimpacted scenario after 35 years of impact,

- Low median CGR values, representing a reduction in population growth rate of 2.4 to 3.4% relative to the baseline unimpacted scenario after 35 years of impact,
- Unfavourable condition and 68% decrease in the population at the SPA between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023),
- 57.2% decrease in the national population of kittiwake in Scotland between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023).

These conclusions are made despite the low project contribution to the total in-combination mortality (0.2 to 0.3%). Our conclusions are made based on the evidence presented to us in the additional information report.

Troup, Pennan and Lion's Heads SPA

| Species | Median CPS after 35 years of impact (high to low displacement mortality) | Median CGR after 35 years of impact (high to low displacement mortality) | Mortality from project alone (low to high displacement mortality) | NatureScot conclusion of AEOSI in-combination |
|-----------|--|--|---|---|
| Guillemot | 0.861 to 0.929 | 0.996 to 0.998 | 54.26 to 107.19 | AEOSI |
| Kittiwake | 0.859 to 0.904 | 0.996 to 0.997 | 4.81 to 6.16 | AEOSI |
| Razorbill | 0.860 to 0.938 | 0.996 to 0.998 | 2.58 to 4.37 | Unable to conclude no AEOSI |

We conclude **AEOSI** for guillemot based on the in-combination impacts of distributional responses at Troup, Pennan and Lion's Heads SPA. This conclusion was reached on the basis of:

- Low median CPS values, representing a 7.1 to 13.9% reduction in population size relative to the unimpacted baseline scenario after 35 years of impact,
- Relatively low median CGR values, representing a 0.2 to 0.4% reduction in population growth rate relative to the unimpacted baseline scenario after 35 years of impact,
- High project contribution to total in-combination mortality of 58.7 to 61.1%,
- Unfavourable condition and 50.4% decrease in the population at the SPA between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023),
- 30.9% decrease in the national population of guillemot in Scotland between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023).

We conclude **AEOSI** for kittiwake based on the in-combination, combined impacts of collision and distributional responses at Troup, Pennan and Lion's Heads SPA. This conclusion was reached on the basis of:

- Low median CPS values, representing a reduction in population size of 9.6 to 14.1% relative to the baseline unimpacted scenario after 35 years of impact,
- Relatively low median CGR values, representing a reduction in population growth rate of 0.3 to 0.4% relative to the baseline unimpacted scenario after 35 years of impact,
- Moderate project contribution to total in-combination mortality of 4.8 to 5.5%,
- Unfavourable, declining condition and 44% decrease in the population at the SPA between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023),
- 57.2% decrease in the national population of kittiwake in Scotland between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023).

We are **unable to conclude no AEOSI** for razorbill based on the in-combination impacts of distributional responses at Troup, Pennan and Lion's Heads SPA. This conclusion was reached on the basis of:

- Low median CPS value, representing a 6.2 to 14.0% reduction in population size relative to the unimpacted baseline scenario after 35 years of impact,
- Relatively low median CGR value, representing a 0.2 to 0.4% reduction in population growth rate relative to the unimpacted baseline scenario after 35 years of impact,
- Relatively high project contribution to total in-combination mortality of 13.4 to 19.0%,
- 8.9% decrease in the population of razorbill at the SPA between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023),
- 2.4% decrease in the national population of guillemot in Scotland between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023).

West Westray SPA

| Species | Median CPS after 35 years of impact (high to low displacement mortality) | Median CGR after 35 years of impact (high to low displacement mortality) | Mortality from project alone (low to high displacement mortality) | NatureScot conclusion of AEOSI in-combination |
|-----------|--|--|---|---|
| Kittiwake | 0.602 to 0.708 | 0.986 to 0.990 | 0.36 to 0.49 | AEOSI |

We conclude **AEOSI** for kittiwake based on the in-combination, combined impacts of collision and distributional responses at West Westray SPA. This conclusion was reached on the basis of:

- Low median CPS values, representing a reduction in population size of 29.2 to 39.8% relative to the baseline unimpacted scenario after 35 years of impact,
- Low median CGR values, representing a reduction in population growth rate of 1.0 to 1.4% relative to the baseline unimpacted scenario after 35 years of impact,
- Unfavourable, declining condition and 92% decrease in the population at the SPA between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023),
- 18% colony population decrease after HPAI (Tremlett et al., 2023),
- 57.2% decrease in the national population of kittiwake in Scotland between Seabird 2000 and Seabirds Count censuses (Burnell et al., 2023).

These conclusions are made despite the low project contribution to the total in-combination mortality (0.6 to 0.7%). Our conclusions are made based on the evidence presented to us in the additional information report.

A.10.5 Seabird assemblage features

For SPAs which have a seabird assemblage qualifying feature, where we have concluded AEOSI for at least one named species of the seabird assemblage, then the same conclusion is reached for the assemblage feature. Any named qualifying species of an assemblage feature in an SPA is protected in their own right. The SPA conservation objectives are set for individual species rather than the assemblage and therefore the features should be assessed and any impacts concluded at the individual species level. This has been the established position in Scotland for quite some time, although we understand that this differs from the approach taken in England.

For the seabird assemblage feature (and named species) we therefore conclude **AEOSI** from the project-alone at:

- Buchan Ness to Collieston Coast SPA (guillemot).

For the seabird assemblage feature (and named species) we are **unable to conclude no AEOSI** in-combination at:

- Troup, Pennan and Lion's Heads SPA (razorbill).

For the seabird assemblage feature (and named species) we therefore conclude **AEOSI in-combination** at:

- Buchan Ness to Collieston Coast SPA (guillemot, kittiwake),
- East Caithness Cliffs SPA (kittiwake),
- Forth Islands SPA (kittiwake),
- Fowlsheugh SPA (kittiwake, razorbill),
- North Caithness Cliffs SPA (kittiwake, puffin),
- St Abb's Head to Fast Castle SPA (kittiwake),
- Troup, Pennan and Lion's Heads SPA (guillemot, kittiwake),
- West Westray SPA (kittiwake).

A.10.6 Marine SPAs

A.10.6.1 Outer Firth of Forth and St Andrews Bay Complex SPA

Table 3.2 of the Additional Information RIAA lists the breeding colonies functionally linked to the Outer Firth of Forth and St Andrews Bay Complex (OFFSABC) SPA. The conclusions for these functionally linked breeding colony SPAs will determine whether adverse effect on site integrity is concluded for each feature at OFFSABC SPA, as we advised in response to the original EIAR. The Applicant has not presented conclusions for the functionally linked breeding colony SPAs here, or the OFFSABC SPA overall, instead advising that NatureScot should make the conclusions. We conclude AEOSI from the project-alone for guillemot, AEOSI in-combination for gannet, guillemot and kittiwake, as detailed in Table 4, below. Full conclusions and justifications for each functionally linked breeding colony SPA are provided in Sections A.10.3 and A.10.4 above.

Table 4. NatureScot (NS) conclusions of AEOSI for each feature of the functionally linked breeding colonies of the OFFSABC SPA. Conclusions from NatureScot original application advice presented alongside conclusions from Additional Information advice.

| SPA | Species | Original NS conclusion | Additional Information NS conclusion |
|---------------------------------|-----------|----------------------------|--------------------------------------|
| Buchan Ness to Collieston Coast | Guillemot | Unable to reach conclusion | AEOSI alone and in-combination |
| | Kittiwake | Unable to reach conclusion | AEOSI in-combination |
| East Caithness Cliffs | Kittiwake | Unable to reach conclusion | AEOSI in-combination |

| SPA | Species | Original NS conclusion | Additional Information NS conclusion |
|--------------------------------|-----------|----------------------------------|--------------------------------------|
| Forth Islands | Gannet | Provisional AEOSI in-combination | AEOSI in-combination |
| | Kittiwake | Unable to reach conclusion | AEOSI in-combination |
| Fowlsheugh | Kittiwake | Unable to reach conclusion | AEOSI in-combination |
| North Caithness Cliffs | Kittiwake | Provisional AEOSI in-combination | AEOSI in-combination |
| St Abb's Head to Fast Castle | Kittiwake | Unable to reach conclusion | AEOSI in-combination |
| Troup, Pennan and Lion's Heads | Kittiwake | Unable to reach conclusion | AEOSI in-combination |
| West Westray | Kittiwake | Provisional AEOSI in-combination | AEOSI in-combination |

A.10.6.2 Moray Firth SPA

Moray Firth SPA was not included in the original RIAA. The Applicant states that impacts to the waterbird qualifying features are not significant as the only impact pathway for these species is migratory collision risk and as the mCRM tool was not available at the time of writing the original application, impacts were considered not significant because <1% of the passage population of each species is expected to pass through the array area. Vessel disturbance impacts to shag will be considered in the future vessel management plan. However, we highlight our previous advice dated 03 March 2025, which remains valid, **once further detail is known post-consent around the location of port(s) and potential vessel transit routes, impacts to the Moray Firth SPA and any other marine SPAs may need to be re-assessed**, with consideration given to all relevant Conservation Objectives, at that stage.

A.10.6.1 Consideration of vessel activity

The Applicant does not present new information on the consideration of vessel activity in relation to marine SPAs. We note there is considerable uncertainty regarding vessel transit routes / frequency at this stage, but without this information a full understanding of the proposed vessel movement on protected species of any marine SPAs that the vessels may transverse through cannot be understood.

As per our advice dated 03 March 2025, we would ordinarily have expected to see an outline plan within the Application documentation, however we are aware that the location of the port(s) / assembly yard(s) /etc. has yet to be determined. **Therefore, we are content, that this can be**

finalised through the discharge of consent conditions, as part of a vessel management plan, should consent be awarded.

We reiterate our previous advice that **further monitoring of the qualifying species to better understand species distributions, populations and locations of moulting birds to inform requirements for spatial and / or seasonal mitigation depending on selection of ports and vessel transit routes may be helpful.**

NATURESCOT ADVICE ON MUIR MHÒR OFFSHORE WIND FARM – ADDITIONAL INFORMATION

Appendix B – Fish and shellfish ecology

We note that the information provided in the Additional Information, Chapter 5: Fish Ecology was not formally requested by the Scottish Government and has been provided to reassure consultees on key issues raised in responses.

We welcome both the approach laid out to define a clear evidence-based methodology for the peak spawning period for herring, and the clear evidence-based methodology for defining the buffer surrounding a peak spawning period, which will be provided within the Post Consent Fisheries Management Plan (FMP), in line with section 5.3.10.

Chapter 5 of the Additional Information presents a new method for calculating spawning potential (S(pot)) for herring and sandeel. Our concerns around the use of S(pot) are based on:

- The Additional Information stating that the conclusion of no significant effect for underwater noise (UWN) impacts on sandeel was based on the preferred piling period of April to September (Section 5.4.80);
- Affected S(pot) % for Temporary Threshold Shift (TTS) is 13.59% of the Buchan stock. This is high when considering the unknown effects of TTS on sandeel (Table 5.14 in Additional Information);
- ICES stock assessments concluding zero catch due to low stock productivity, giving little flexibility in the system; and
- The location of the development being adjacent to Turbot Bank NC MPA – which has sandeel as a qualifying feature of interest.

The results of the S(pot) calculations do not alter or supersede the conclusions presented in the EIAR.

B.1 Impact assessment

We note that the additional information provided within Chapter 5 is not derived from site specific surveys but relies upon data sources from external parties.

B.1.1 ICES Stock Assessment

The report provides ICES stock assessment for herring and sandeel for 2025. Table 5.6 provides an overview of ICES herring catch advice for Buchan stock, which concludes that herring stock is under pressure from low recruitment and spawning stock biomass (SSB) and high fishing mortality. ICES have reduced total allowable catch (TAC) by 30% to allow herring stocks to recover.

For sandeel, ICES advise zero catch due to low stock productivity, and consequently Total Allowable Catch (TAC) is at zero to allow stocks to recover. NatureScot concludes that any additional pressure on the stock should be no higher than negligible, to allow the stock to recover.

B.1.2 Heat maps

Heat maps within Chapter 5 have been updated since the EIAR, using Kyle-Henney *et al.*, 2024 (adapted from Reach *et al.*, 2013), with the new methodology incorporating data from Vessel Movement Systems (VMS). The addition of VMS data provides an indicator for herring spawning grounds by mapping the intensity of fishing efforts. Heat maps have been presented for both

sandeel and herring (Figures 5.5 and 5.13), and multiple data sources (Table 5.3 and 5.4) have been layered to give a confidence score to habitats potentially supporting spawning.

The application of heat maps to generate a broad scale map feels superfluous when benthic data has been gathered during the pre-application survey and particle size analysis (PSA) shows that there is prime, sub-prime and suitable herring spawning habitat in the Southwest of the Array Area and West of the Export Cable Corridor. This is supported by the broadscale seabed substrate map (Figure 5.6) and eDNA survey results. As a precautionary measure, this area (prime, sub-prime and suitable) should be considered as spawning habitat, as it is within the larger Buchan Spawning area and mitigation measures should be considered for significant effects.

The inclusion of VMS for dredge fishing vessels should not be included due to the low number of UK vessels fishing for sandeel (most sandeel fishing vessels are registered outside of UK). Models used to predict sandeel habitat should be used with caution, especially if using Langton *et al.*, 2021, as the data for the model was taken from the Firth of Forth sandeel fishery at depths of 30-55m, and many of the offshore sites are considerably deeper and consequently show no sandeel to present. This is the case for the Turbot Bank NC MPA, which is ~80-90m deep.

B.1.3 Herring

Overall, we are content with the approach used to define a clear evidence-based methodology for the Peak Spawning period. Section 4.2 of Appendix 10 (In Principle Fish Mitigation Plan) states that the peak spawning period will be defined post-consent through the analysis of the most recent ten years of International Herring Larval Survey (IHLS) data, alongside a back-calculation to identify the most likely date for when spawning commenced. A clear, evidence-based methodology to determine peak spawning will be provided in the Post-Consent FMP, which we welcome.

B.1.4 Sandeel

In our previous advice, we expressed concerns regarding the impact of UWN on sandeel and did not agree with the sensitivity scoring of 'low'. We advised that potential impacts to sandeel from UWN should be further considered through the post-consent FMP.

Section 5.4 of the Additional Information, Chapter 5: Fish Ecology, further contextualises the stock and potential impacts on sandeel, using ICES stock assessments, potential supporting spawning habitat and S(pot) calculations. S(pot) is not a method that we are familiar with, and the underlying calculations provided in Section 5.4.8 have not helped our understanding how the final figure was reached. It would have been beneficial to see how the affected S(pot) was reached.

B.2 Mitigation and monitoring

B.2.1 Herring

Section 5.3.10 of the Additional Information states that the defined peak spawning period will incorporate a suitable buffer period for adult herring to migrate to and from the spawning ground. This is not detailed in the In Principle Fish Mitigation Plan but will be detailed in the post-consent plan.

The commitment to a buffer period around the defined peak spawning period will allow for the migration of adults to and from the spawning ground. This buffer will be applied for both the application of mitigating UWN within the Array Area, and increased Suspended Sediment

Concentration (SSC) and deposition in the offshore ECC. We support this additional measure, and we welcome a clear evidence-based methodology for defining the buffer in the Post Consent FMP.

In our previous advice, we advised that mitigation Option 2 should be undertaken, and that installation without drilling should be avoided in the southwest of the array from August to September to avoid possible smothering of eggs. A meeting was held between NatureScot and Muir Mhor on the 28th of July 2025, and a commitment was made to avoid the installation of drag embedded anchors in the southwest of the Array Area from August to September, to avoid possible smothering of herring eggs.

B.2.2 Sandeel

The EIAR concluded no significant impacts for sandeel as a result of the proposed development, and consequently no secondary mitigation has been proposed. Whilst we do not agree with the sensitivity scoring of sandeel as low, we agree that increasing the sensitivity to Medium does not result in a significant effect.

Section 5.4 of the Additional Information, Chapter 5, provides further contextualisation of sandeel stock and potential impacts. The developer has concluded that for all impact pathways, the conclusions from the EIAR remain valid for sandeel. Whilst we are content to accept that the likely impact on the Turbot Bank NC MPA and wider region is not significant, **we advise that a post-consent/ pre-construction sandeel survey is carried out to ascertain the distribution of sandeel across the array area and provide additional baseline information.** This could then be used in conjunction with a post-construction survey to validate the EIAR assessments for sandeel. We are requesting this additional monitoring due to the importance of and proximity to the Turbot Bank NC MPA.

Section 5.4.80 of the Additional Information states that the conclusion of low sensitivity for sandeel to UWN was influenced partly by the preferred piling period being April – September, inclusive. If the decision to make sandeel sensitivity low, was partially based on this variable then this should be brought through into the FMP. However, we note that piling within April – September, whilst avoiding the winter sensitivity of sandeel, would likely overlap with the undefined peak herring spawning season. If piling occurs outside of this window (April – September), then the sensitivity scoring for sandeel may no longer be correct and this could have implications on the impact assessment for sandeel.

NATURESCOT ADVICE ON MUIR MHÒR OFFSHORE WIND FARM – ADDITIONAL INFORMATION

Appendix C – Ornithology Derogation

As part of the Additional Information submission, the Applicant has submitted an Addendum to the previously submitted derogation case (November 2024).

The Additional Information comprises:

- Additional Information Report: Offshore and Intertidal Ornithology Compensation (Chapter 4).

We provided initial advice on the derogation case in our response dated 03 March 2025. Further information has been provided through the Additional Information; however, this remains broadly high level and our previous advice remains valid. We welcome the refinements which have been made, specifically removal of previously proposed compensation measures: artificial nesting structures for kittiwake, predator control at Inchcolm and support for mink control through the Scottish Invasive Species Initiative (SISI) Project.

Our advice below focusses on the ecological feasibility of the proposed compensation measures, acknowledging that at this point in time, the Appropriate Assessment has yet to be finalised and as such it remains uncertain as to which SPAs and qualifying species may require compensation.

C.1 Summary of NatureScot advice

The Additional Information on compensation outlines two proposed compensation measures:

- Disturbance reduction in partnership with the Scottish Seabird Centre (SSC)
- Predator control in partnership with National Trust for Scotland (NTS)

Whilst we welcome that some of our previous advice is reflected in this Additional Information, further detail on evidencing the existing pressures, methodologies and specific locations is largely absent. We support the partnerships between Muir Mhòr and the SSC and NTS to deliver these measures, and acknowledge the commitment to baseline monitoring. **However, at present we advise there is still insufficient information to have confidence that the proposed measures are likely to compensate for the predicted impacts of the proposal to seabirds. Nor are we able to confirm without further site-specific information whether SSSI consent is likely to be required or granted.**

C.2 Reduction of disturbance

The Applicant has proposed a partnership with the SSC to develop a tailored campaign to raise awareness of seabird conservation, including the development of educational resources, signage, and partnering with the Wildlife Safe (WiSe) scheme to engage with recreational organisations. Additionally, a study is proposed to investigate the effects of human disturbance on breeding seabirds in the Firth of Forth.

It is useful to see the commitment for SSC to collect baseline disturbance monitoring at several locations, e.g. Bass Rock, Craigleith and the Lamb. In principle, we agree that human disturbance impacts seabirds in the Firth of Forth and the activities proposed to reduce this disturbance seem reasonable. However, in the absence of site-specific monitoring evidencing disturbance impacting seabirds, it is difficult to advise further whether the proposed activities would be effective. In our

view, monitoring of disturbance is key and would help fill some of the existing evidence gaps associated with this proposed measure.

C.3 Predator control

In the original derogation case, various measures were proposed under predator control, including continuing the funding of the Scottish Invasive Species Initiative (SISI) for their Mink Control Programme and predator control on Inchcolm and Inchkeith. These measures are no longer being considered by the Applicant, and instead the measure will focus on the partnership with NTS to deliver predator control and expansion of biosecurity measures at their seabird islands.

In principle, we recognise the broad evidence that exists highlighting the impact of predation at certain seabird colonies and we agree that predator control has the potential to compensate for impacts from offshore wind. However, we reiterate that further site-specific evidence is required to demonstrate the impact and extent of the pressure on the local seabird populations at any proposed site.

Scottish Fisherman's Federation

Our Ref: OB- Muir Mhor OWF Additional Information /0025/001

Your Ref: Muir Mhor Offshore Wind Farm Limited – Muir Mhor Offshore Wind Farm
– Additional Information Consultation

3rd December 2025

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Response to Muir Mhor Offshore Wind Farm Limited – Muir Mhor Offshore Wind Farm – Additional Information Consultation

The SFF represents over 450 fishing vessels through its constituent associations, including the Anglo Scottish Fishermen's Association, Fife Fishermen's Association, Fishing Vessel Agents and Owners Association, Mallaig & North West Fishermen's Association, Orkney Fisheries Association, Scottish Pelagic Fishermen's Association, the Scottish White Fish Producers Association and Shetland Fishermen's Association. The Chair of the North East Coast Regional Inshore Fisheries Group (NECRIFG) has been consulted and is in agreement with the content of this response.

On behalf of the Scottish Fishermen's Federation (SFF), I write in response to the statutory consultation on the additional information submitted by Muir Mhor Offshore Wind Farm Limited in relation to the applications for consent under Section 36 of the Electricity Act 1989 and associated marine licences for the Muir Mhor Offshore Wind Farm. Following a review of the additional information report (AIR) documentation, we wish to raise the following points of concern on behalf of our members.

1. Commercial Fisheries

We acknowledge confirmation that Nephrops directed activity is included in the demersal otter trawl assessment¹. However, inconsistencies flagged by MD-SEDD are described as “typographical or summary errors” without publishing corrected tables or confirming whether sensitivity and magnitude ratings were revised². Transparency is required on how discrepancies between sections and tables (e.g., Impacts 3, 4, 5, 12) were resolved and whether any substantive changes were made. Corrected tables should be provided.

¹ Muir Mhòr OWF AIR Chapter 6 Commercial Fisheries Sections 6.3.1–6.3.4; AIR Chapter 8 Conclusions Section 8.4.2; AIR Non-Technical Summary Section 3.3

² Muir Mhòr OWF AIR Chapter 6 Commercial Fisheries Sections 6.3.8–6.3.13; Table 6.3

Members:

Anglo Scottish Fishermen's Association · Fife Fishermen's Association · Fishing Vessel Agents & Owners Association (Scotland) Ltd ·
Mallaig & North-West Fishermen's Association Ltd · Orkney Fisheries Association · Scottish Pelagic Fishermen's Association Ltd ·
The Scottish White Fish Producers' Association Ltd · Shetland Fishermen's Association

VAT Reg No: 605 096 748

The residual impacts remain moderate adverse during construction and minor adverse during operation, which is significant for fleets reliant on these grounds³.

While mitigation measures such as the Fisheries Fund, Disruption Agreements, and Offshore Fisheries Zones (OFZ) are noted⁴, these measures are not sufficient to offset the development impacts due to OFZ limited size, short-term nature of Fisheries Fund and Disruption Agreement being limited to construction phase. Further clarity is needed on governance and eligibility criteria for the Fisheries Fund⁵, including applicability of the long-term operational and decommissioning impacts, and whether proposed gear adaptation to are suitable for affected demersal otter trawl, demersal seine, and pelagic fleet.

The proposed Obstacle-Free Zone (13 km²) represents only 6.5% of the array area. This is insufficient to mitigate the displacement of demersal and pelagic trawlers from historically productive grounds. Therefore, our long-term displacement concerns still remain.

We seek clarification on the basis for OFZ location selection and whether optimisation (e.g., splitting zones for demersal and pelagic fleets) will be implemented⁶. While the FMMS mentions possible optimisation within strict limits and subject to engineering constraints, this remains discretionary. We therefore request enforceable conditions to secure any optimisation commitments.

Enforcement and adaptive management of mitigation measures must also be defined, including triggers for action if monitoring indicates impacts exceed predictions⁷.

The proposed fisheries monitoring is short-term. The SFF cannot agree with it as the new guidance⁸ (Offshore windfarms - monitoring impacts on the commercial fishing industry: good practice guidance) brought out by the Scottish Government states a requirement to monitor for every five years after completion until decommissioning of the development. This needs to be adjusted in light to the new guidance. We are concerned that the new guidance has not been properly adhered to.

Additional concerns from FMMS review:

The OFZ is proposed to cover 6.5% of the Array Area but may still contain buried inter-array cables, with the possibility of cable projections that impede scallop dredging, and allow temporary vessel use for construction and maintenance, undermining its purpose as a genuine fishing refuge⁹. We request confirmation that the OFZ will remain free of all infrastructure and anchoring throughout the project life.

The OFZ optimisation is described as discretionary and subject to engineering constraints¹⁰. This must be secured by enforceable conditions, not left to developer discretion.

Disruption agreements are limited to the Offshore Export Cable Corridor during construction only¹¹. We question why fleets affected in the Array Area are excluded despite moderate adverse impacts.

³ Muir Mhòr OWF AIR Chapter 6 Commercial Fisheries Section 6.7.3; AIR Chapter 8 Conclusions Section 8.4.3

⁴ Muir Mhòr OWF AIR Chapter 6 Commercial Fisheries Sections 6.4.2–6.4.15; Figures 6.1 & 6.2; AIR Chapter 8 Conclusions Sections 8.4.4–8.4.6

⁵ Muir Mhòr OWF AIR Chapter 6 Commercial Fisheries Sections 6.4.4–6.4.9

⁶ Muir Mhòr OWF AIR Chapter 6 Commercial Fisheries Sections 6.4.11–6.4.15; 6.6.10; AIR Chapter 8 Conclusions Section 8.4.6

⁷ Muir Mhòr OWF AIR Chapter 6 Commercial Fisheries Sections 6.4.21–6.4.26; AIR Chapter 8 Conclusions Section 8.4.6

⁸ Offshore windfarms – monitoring impacts on the commercial fishing industry: good practice guidance Published by the Scottish Government, August 2025 Section 3.9 “Step 7: Reporting” (p.40)

⁹ Muir Mhòr OWF AIR Appendix 4: Updated Outline Fisheries Management and Mitigation Strategy (Tracked Changes) Section 4.4.6 – 4.4.15

¹⁰ Muir Mhòr OWF AIR Appendix 4: Updated Outline Fisheries Management and Mitigation Strategy (Tracked Changes) Section 4.4.15

¹¹ Muir Mhòr OWF AIR Appendix 4: Updated Outline Fisheries Management and Mitigation Strategy (Tracked Changes) Sections 4.4.19 – 4.4.24

Although the FMMS suggests “coexistence” may be explored post-construction¹², we strongly believe that coexistence with floating offshore wind is not feasible due to floating foundations, mooring lines, and anchors will effectively exclude mobile gear (trawling, dredging) from the Array Area for the lifetime of the project. Static gear may only be possible in limited areas and would require gear adaptation research, which currently lacks timelines and enforceability. Therefore, long-term displacement for key mobile fleets is unavoidable unless robust mitigation and adaptation funding are secured.

2. Fish Ecology

The AIR confirms potential for Likely Significant Effect (LSE) on North Sea herring spawning grounds during construction due to underwater noise and sediment disturbance¹³. Worst case reductions of 65.55% for herring and 13.59% for sandeel under piling scenarios are acknowledged¹⁴. ICES advice highlights low recruitment and high fishing mortality for herring, requiring precautionary management¹⁵. We request full details of mitigation measures, including timing restrictions for noisy activities and monitoring of sediment deposition and underwater noise thresholds¹⁶ and evidence of compliance with ICES advice (“no activities on spawning habitats unless shown not to be detrimental”¹⁷). We note NatureScot’s disagreement with sensitivity classifications for herring and sandeel¹⁸ and would like confirmation on whether these classifications have been revised or remain unchanged.

3. Socio-Economic Impacts

The AIR concludes “no significant socio-economic effects” despite acknowledging moderate adverse impacts on fisheries during construction¹⁹. The updated socio-economic assessment estimates a net reduction in catch value of £43,100/year, equivalent to 0.1% of Peterhead landings and 0.3 fisher jobs²⁰. We seek clarification on how socio-economic modelling accounts for cumulative displacement, gear adaptation costs, and recent haddock price volatility²¹. Justification for the assumption of 75% displacement success is required alongside sensitivity analysis for lower displacement rates with evidence for floating wind contexts²². Indirect costs such as gear adaptation, increased steaming time, insurance implications²³, and cumulative displacement across multiple ScotWind projects must be considered given regional fleet dependency on ICES rectangles 43E9 and adjacent grounds²⁴. Additionally, ICES advice for a 30% TAC reduction for herring and persistently low recruitment trends compound displacement impacts²⁵, particularly for pelagic fleets operating from Peterhead. These ecological constraints, combined with spatial exclusion from traditional grounds, could have disproportionate effects on high-value supply chains and fleet viability. Given Peterhead’s role as Europe’s largest fishing port (£192.7m landings; 850 processing jobs), even small percentage losses could disproportionately affect high-value pelagic and demersal supply chains²⁶.

¹² Muir Mhòr OWF AIR Appendix 4: Updated Outline Fisheries Management and Mitigation Strategy (Tracked Changes) Section 4.5.2

¹³ Muir Mhòr OWF AIR Chapter 5 Fish Ecology Sections 5.3.3–5.3.10; Table 5.2; AIR Chapter 8 Conclusions Section 8.3.2; AIR Non-Technical Summary Section 3.2

¹⁴ Muir Mhòr OWF AIR Chapter 5 Fish Ecology Sections 5.4.39; Tables 5.8 and 5.14

¹⁵ Muir Mhòr OWF AIR Chapter 8 Conclusions Section 8.3.3

¹⁶ Muir Mhòr OWF AIR Chapter 5 Fish Ecology Sections 5.4.66–5.4.73; AIR Chapter 8 Conclusions Sections 8.3.3–8.3.7

¹⁷ Muir Mhòr OWF AIR Chapter 5 Fish Ecology Section 5.4.77

¹⁸ Muir Mhòr OWF AIR Chapter 5 Fish Ecology Sections 5.5.9–5.5.14; Tables 5.19–5.22

¹⁹ Muir Mhòr OWF AIR Chapter 7 Revisions Following Consultee Input Section 7.2.27; AIR Chapter 8 Conclusions Section 8.5.3; AIR Non-Technical Summary Section 3.4

²⁰ Muir Mhòr OWF AIR Chapter 7 Revisions Following Consultee Input Sections 7.2.20–7.2.24; Table 7.7

²¹ Muir Mhòr OWF AIR Chapter 6 Commercial Fisheries Sections 6.6.32–6.6.35; Figures 6.20 & 6.21

²² Muir Mhòr OWF AIR Chapter 7 Revisions Following Consultee Input Section 7.2.22

²³ Muir Mhòr OWF AIR Chapter 7 Revisions Following Consultee Input Sections 7.2.18–7.2.24

²⁴ Muir Mhòr OWF AIR Chapter 7 Revisions Following Consultee Input Section 7.2.26; AIR Chapter 8 Conclusions Sections 8.5.2–8.5.3

²⁵ Muir Mhòr OWF AIR Chapter 7 Revisions Following Consultee Input Section 7.2.19; AIR Chapter 8 Conclusions Section 8.3.3

²⁶ Muir Mhòr OWF AIR Chapter 7 Revisions Following Consultee Input Sections 7.2.9–7.2.13; Table 7.4

FMMS-related concerns:

The Fisheries Fund is short-term positioned as strategic rather than compensatory, focusing on research and gear innovation rather than direct mitigation for individual losses²⁷. We request clarity on governance, eligibility, and prioritisation, and insist on industry representation in fund administration.

Adaptive mitigation measures (e.g., gear adaptation research) lack timelines and enforceability. FMMS language such as “explore” and “if demonstrated to be appropriate”²⁸ indicates these commitments are aspirational. In other words, they are non-binding leaving fishermen exposed to long-term exclusion without enforceable remedies. Therefore, these should be secured by licence conditions to ensure delivery.

Given that SFF including Constituent Associations have not signed up to FLOWW guidance as it does not sufficiently reflect the operational and regulatory environment of Scottish fisheries, we recommend that Marine Directorate consider whether continued reference to FLOWW is suitable, or whether more regionally tailored guidance should be developed in future revisions. While this falls beyond the scope of this specific consultation, it is critical for ensuring effective and equitable mitigation/best practice guidelines in Scotland’s waters.

4. Data Transparency

The AIR references FiSMaDiM fishing effort data, ICES stock assessments, and SPFA plotter data underpinning OFZ design²⁹. While we do not require access to raw datasets, we are concerned about how FiSMaDiM data has been interpreted and used to support conclusions on effort and impact. The methodology and assumptions applied in deriving these inferences must be clearly explained and justified. We request transparency on how FiSMaDiM outputs were applied, and evidence that the developer understands the data limitations and context. Any conclusions drawn from these datasets must be robust, proportionate and supported by clear reasoning.

Conclusion

The SFF remains deeply concerned that the additional information provided does not resolve key uncertainties around fisheries impacts, mitigation enforceability, and socio-economic consequences. While we acknowledge the developer’s commitments within the FMMS, many measures remain aspirational, lack clear timelines, and fail to provide direct relief for fleets facing displacement. The additional information provided does not fully resolve inconsistencies in the fisheries impact assessment, nor does it demonstrate that mitigation measures will be robust, transparent, and developed in genuine collaboration with affected fleets. Monitoring commitments remain vague and lack enforceable triggers for action, and precautionary principles such as those set out in ICES guidance on Herring have not been demonstrably applied.

We therefore urge Scottish Ministers to ensure that all inconsistencies are addressed, that mitigation and monitoring measures are secured through licence conditions, and that adaptive strategies are strengthened to reflect the realities of Scottish fisheries rather than aspirational UK-wide guidance. We reserve the right to provide further comment should additional clarification be provided.

This response should be read alongside our previous representations, which remain valid. For completeness, we have enclosed our recent response to the applicant’s comments on our initial representation in Annex 1.

²⁷ Muir Mhòr OWF AIR Appendix 4: Updated Outline Fisheries Management and Mitigation Strategy (Tracked Changes) Sections 4.4.28–4.4.33

²⁸ Muir Mhòr OWF AIR Appendix 4: Updated Outline Fisheries Management and Mitigation Strategy (Tracked Changes) Sections 4.5.1–4.5.3

²⁹ Muir Mhòr OWF AIR Chapter 5 Fish Ecology Sections 5.4.31–5.4.33; Tables 5.7–5.18; AIR Chapter 6 Commercial Fisheries Sections 6.6.2–6.6.10; Table 6.4

For and on behalf of the Scottish Fishermen's Federation
[Redacted]

[Redacted]
Offshore Consents Assessments Manager
Scottish Fishermen's Federation



Our Ref: FH-MuirMhorOWF Lapp Comments/0025/002

Your Ref: Muir Mhòr - Response to Comments on Section 36 Consent and Marine Licence Applications

Email dated: 17 September 2025

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[Redacted]

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E-mail: [Redacted]

21 November 2025

Dear [Redacted]

SFF's Response to Muir Mhor OWF Project comments on SFF's initial response to Muir Mhor Section 36 Consent and Marine Licence Applications

The Scottish Fishermen's Federation (SFF) thank Muir Mhòr Offshore Wind Farm Limited (the Developer), for your detailed response dated 4th September 2025 to our objection regarding the Muir Mhòr Offshore Wind Farm (OWF) Section 36 and Marine Licence application. We appreciate the developer's engagement and willingness to address the concerns raised by the SFF on behalf of our member associations and the wider fishing community.

The SFF make this representation on behalf of the 450 plus fishing vessels in membership of its constituent associations, the Anglo Scottish Fishermen's Association, Fife Fishermen's Association, Fishing Vessel Agents and Owners Association, Mallaig & North West Fishermen's Association, Orkney Fisheries Association, Scottish Pelagic Fishermen's Association, the Scottish White Fish Producer's Association and Shetland Fishermen's Association. The chair of NECRIFG was consulted and agrees.

This response should be read in conjunction with SFF's initial response to Muir Mhor Proposed Offshore Windfarm License Application.

Members:

Anglo Scottish Fishermen's Association · Fife Fishermen's Association · Fishing Vessel Agents & Owners Association (Scotland) Ltd · Mallaig & North-West Fishermen's Association Ltd · Orkney Fisheries Association · Scottish Pelagic Fishermen's Association Ltd · The Scottish White Fish Producers' Association Ltd · Shetland Fishermen's Association

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After reviewing your responses, we wish to provide the following feedback and highlight areas where concerns remain unresolved or require further clarification.

1. Herring Migration and ICES Advice

While we acknowledge your reference to herring migration plasticity and mitigation measures during peak spawning, we remain concerned that:

- The **ICES advice** is not fully embedded in the EIA's conclusions or mitigation strategy. SFF still question the depth and application of this advice.
- The **cumulative impact** on herring stocks from adjacent developments is not adequately assessed.
- The **plotter data** provided by the Scottish Pelagic Fishermen's Association, indicating high herring activity in the southern array, has not been incorporated into habitat classification.
- Developers' response to SFF comments on ICES advice (SFF3) and impacts on herring migratory routes (SFF9) which concludes that "there are not anticipated to be any significant impacts from the long-term presence of the floating foundations on herring migration" is based on assumptions and limited sources (only 2 research) therefore not acceptable. SFF is of the view that given the lack of evidence, it cannot be concluded that there are not anticipated to be any significant effects. More accurately, the effects cannot be known.
- Developer's statement in relation to adoption of Fish Mitigation Plan (as referred in SFF4 & SFF5) is not acceptable as the outline FMP is not comprehensive and does not include pre-spawning presence of herring in spawning grounds. SPFA comments on the FMP from the meeting of 14 August 2025 should be considered.
- Additionally, the meaning of the following part of para 2 of Developer's response to SFF3 is not clear and requires clarification/re-writing: *"Notwithstanding this, the EIA has concluded the potential for population level effects from the impacts of increased suspended sediment concentration (SSC) and deposition from proposed works in the export cable corridor (ECC), and recoverable injury, temporary threshold shift (TTS) and behavioural effects from underwater noise from piling operations in the Array Area."*

We request that the **Fish and Shellfish Ecology Addendum** explicitly addresses these points and includes a commitment to avoid construction during pre-spawning, spawning and migratory periods, with a robust fallback mechanism if impacts are observed.

2. Loss of Access and Displacement

The proposed **Obstacle-Free Zone** (13 km²) is appreciated but represents only 6.5% of the array area (SFF6). This is insufficient to mitigate the displacement of demersal and pelagic trawlers from historically productive grounds. Therefore, our long-term displacement concerns still remain.

We urge the developer to:

- Expand the Obstacle-Free Zone to avoid development impacts on prime fishing and spawning grounds.
- Provide clear criteria and governance for the Fisheries Fund, including eligibility for long-term operational and decommissioning works impacts.

- Disruption agreements for construction, operational and maintenance and decommissioning phases should be considered both for static and mobile gears.

These are important to ensure the Development impacts on commercial fisheries are meaningfully mitigated.

3. Gear Conflict and Safety: Strengthening Protections for Scottish Fishers

While we appreciate the Developer's efforts to establish liaison roles and operational protocols, we urge the developers and regulatory bodies to address two unresolved safety and livelihood issues:

1. Formal Commitment to Gear Loss Compensation

- **Why it matters:** Fishing gear represents a significant capital investment for Scottish fishers. Loss or damage due to wind farm operations—whether from vessel exclusion zones, seabed disturbance, or accidental entanglement—can result in substantial financial hardship.
- **What we request:** A binding agreement that guarantees timely and transparent compensation for verified gear loss incidents. This should include:
 - A streamlined claims process with clear evidentiary standards.
 - Independent arbitration mechanisms to resolve disputes.

2. Real-Time Spatial Data Sharing

- **Why it matters:** Avoiding gear conflict and vessel accidents requires up-to-date awareness of wind farm infrastructure, vessel movements, and exclusion zones.
- **What we request:** Integration of real-time spatial data systems accessible to fishers, including:
 - Alerts for temporary closures or high-risk areas.
 - Compatibility with onboard navigation systems used by Scottish fleets.

These measures are essential for safeguarding fishermen's livelihoods. We believe that proactive engagement and transparent mitigation strategies will help ensure that Scotland's transition to renewable energy does not come at the expense of its historic fishing communities.

4. Cumulative Impacts

The developer's participation in the East Commercial Fisheries Regional Working Group is noted. However, it does not substitute for the urgent need to address cumulative impacts at both the project and regional levels. Therefore, the absence of project-level mitigation and regional-scale compensation mechanisms remains a gap.

- **Project-Level Mitigation:** There is currently no clear strategy for how Muir Mhòr will mitigate its specific effects on local fisheries, including spatial displacement, gear conflict, and ecological disruption.
- **Regional-Scale Compensation:** As multiple offshore wind developments progress simultaneously, the aggregated pressure on Scottish fisheries is intensifying. Without coordinated compensation mechanisms, individual projects may evade accountability while the fishing sector absorbs the full burden.

We recommend:

- Establishment of a joint industry-developer-regulator framework for **cumulative impact monitoring and mitigation**. This framework should:
 - Monitor cumulative impacts across all offshore wind projects in the region.
 - Develop shared mitigation strategies that reflect the interconnected nature of marine ecosystems and fishing grounds.
 - Ensure transparency and fisher representation in decision-making.
- Inclusion of **adaptive compensation** if cumulative effects exceed predefined ecological or economic thresholds. These should include:
 - Dynamic assessments of stock displacement, gear loss, and income reduction.
 - Scalable financial support tied to verified impact metrics.
 - Integration with existing marine spatial planning tools to forecast and prevent future harm.

Embedding these recommendations into the planning and operational phases of Muir Mhòr and other offshore wind projects, can better balance sustainability of fishing communities in Scotland where renewable energy ambitions is at its highest.

5. Financial Compensation

The current focus on construction-phase support and gear adaptation (primarily for scallop dredgers) does not reflect the full spectrum of affected fisheries by Muir Mhor OWF, especially demersal otter trawlers and pelagic mid-water trawlers that face distinct challenges and remain unaddressed under the existing framework. Developer's rejection of long-term compensation, short-term disruption agreements and a flexible Fisheries Fund offer is not acceptable.

Gaps in Current Compensation Strategy

- **Narrow scope of support:** The emphasis on gear modification for scallop dredgers overlooks the operational disruptions faced by other fleet types, including:
 - Demersal otter trawlers, which rely on access to seabed habitats now subject to exclusion zones and ecological disturbance.
 - Pelagic mid-water trawlers, which may experience stock displacement and altered migration patterns due to underwater noise and infrastructure presence.

Phase-limited compensation: Current provisions are largely confined to the construction phase, ignoring long-term impacts during the operational and decommissioning lifespan of the Project.

We propose:

- **Develop a transparent comprehensive strategic compensation model.** We call for the development of a clear and accountable compensation framework (strategic compensation) that:
 - Covers all phases of the wind farm project lifecycle: surveys, construction, operation and maintenance, and decommissioning.
 - Includes metrics for assessing ongoing economic loss, reduced catch volumes, and spatial displacement.
 - Offers direct financial support based on verified impact data, with independent oversight and fisher representation.
 - Further management mechanism to be developed.

- **Expanded Fisheries Fund for Business Resilience** To future-proof affected communities, we recommend that the Fisheries Fund be broadened to include:
 - **Business resilience grants** for vessel upgrades and cooperative initiatives.
 - **Community development support** to sustain local economies and preserve cultural heritage tied to fishing.

These measures are essential to ensure that all segments of Scotland's fishing industry are equitably supported as offshore wind development accelerates. Therefore, we urge the developer and policymakers to adopt a more inclusive and forward-looking compensation strategy.

6. Seabed Damage and Mooring Lines

The assessment of mooring line impact as "not significant" contradicts industry experience with FPSOs and current catenary mooring systems for floating offshore wind platforms. Therefore, developer's response (SFF13) cannot be acceptable as a single mooring in floating platform has the potential to create massive depression.

We urge:

- A **precautionary approach** to seabed disturbance.
- Commitment to **remediation standards** aligned with oil and gas decommissioning practices.

7. Nature Compensation Measures

We welcome the removal of the **Artificial Nesting Structures for Kittiwake** from the compensation programme. SFF reiterate our position on nature compensation, objecting to any measures that impact commercial fisheries.

8. Last Resort Compensation

We reiterate the need for a **last resort compensation mechanism**, similar to discussions around the Scallop Mitigation Zone in English waters (to clarify our reference was related to Morgan OWF). Monitoring alone is insufficient without a contingency plan should mitigation fail.

9. FLOWW Best Practice Guidance (BPG)

Based on the decision of our Constituent Associations, the SFF has withdrawn from the FLOWW Group and opted not to sign up to the draft FLOWW Best Practice Guidance (BPG). Consequently, we recommend that any reference to the FLOWW BPG be removed from the Environmental Impact Assessment (EIA) and other relevant documentation.

The SFF is actively lobbying for the development of a devolved Scottish FLOWW BPG, which we believe should replace the existing FLOWW guidance. This approach will ensure that best practices reflect Scotland's unique regulatory framework, fishing industry priorities, and marine environment considerations.

Conclusion

While we acknowledge the developer's efforts to engage and propose mitigation, the **residual impacts on commercial fisheries remain significant**. We urge that fishing industry's concerns should seriously be listened to and meaningfully addressed.. Therefore, SFF reiterates that our objection to this development remains valid as developer's response to SFF's initial comments cannot address our concerns.

The SFF stresses that our primary concern is protecting the marine environment which has supported the fishers and the wider communities which depend upon them for decades. If fishers are denied the right to earn their living, SFF will not support the proposal of any windfarm development therefore I reiterate that we strongly object to this application.

We look forward to continued dialogue and propose that these concerns be addressed in the forthcoming **Additional Information Report (AIR)** and **Fish Mitigation Plan**.

Sincerely yours

[Redacted]

**Offshore Energy Policy Manager
Scottish Fishermen's Federation**

Transport Scotland

From: [Redacted]
To: [MD Marine Renewables](#)
Cc: [Redacted]
Subject: A90 - Aberdeenshire - Muir Mhor Offshore Wind Farm – Additional Information Consultation – Transport Scotland Comments - 19-Nov-25
Date: 19 November 2025 14:14:56
Attachments: [image001.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image002.png](#)

FAO Marine Directorate

Good afternoon,

Thank you for the opportunity for Transport Scotland to comment on the Additional Information submitted in support of the Muir Mhor Offshore Wind Farm.

We were previously consulted on the Offshore Environmental Impact Assessment Report (EIAR) for this application and provided comments in our letter dated 2nd February 2025. In that correspondence, we concluded that the offshore elements of the project are unlikely to have any discernible impact on the trunk road network. We also indicated that we would await consultation regarding the Onshore EIAR.

Upon review, I note that the Additional Information consists of a revised ornithological assessment, as well as clarifications relating to the fisheries assessment and associated mitigation. As these updates have no bearing on the operation of the trunk road network, I can confirm that Transport Scotland has no further comments to provide at this time and that our conclusions from the previous response remain valid.

I hope this helps.

Kind regards,

[Redacted]
[Redacted]

Development Management
Network Operations
Roads Delivery Directorate

transport.gov.scot

Transport Scotland, 177 Bothwell Street, Blythswood New Town, Glasgow, G2 7ER



Transport Scotland, the national transport agency
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Historic Environment Scotland



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Longmore House
Salisbury Place
Edinburgh
EH9 1SH

Enquiry Line: 0131 668 8716
HMConsultations@hes.scot

Our case ID: 300064023

14 October 2025

Dear Marine Directorate

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017

The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2007 & 2017

Muir Mhor Wind Farm – Additional Information

Thank you for consulting us on the Additional Information submitted in relation to the above EIA application. We understand that the consultation regards further information relating to the ornithological and fisheries assessments. We received the consultation on 08 October 2025.

We have reviewed the report and considered the proposed development in terms of our historic environment interests. This covers World Heritage Sites, scheduled monuments and their settings, category A-listed buildings and their settings, inventory gardens and designed landscapes, inventory battlefields and Historic Marine Protected Areas.

The relevant archaeological and cultural heritage advisors will also be able to offer advice on impacts on the historic environment. This may include topics covered by [our advice-giving role](#), and also other topics such as unscheduled archaeology, category B and C listed buildings, and conservation areas. In this instance you should contact the Aberdeenshire Council Archaeology Service (archaeology@aberdeenshire.gov.uk).

As of 1 January 2025, we no longer provide advice on undesignated underwater cultural heritage. This includes the preparation of documents for post-consent activities including Written Schemes of Investigation or Protocols for Archaeological Discoveries. For EIA projects, the relevant competent authority must ensure that they have access to sufficient expertise to examine the EIA Report in accordance with the relevant regulations.

Our advice

We responded to the EIA application in February 2025 and we did not object to the proposals. We have considered the additional information received and we do not have any

Historic Environment Scotland – Longmore House, Salisbury Place, Edinburgh, EH9 1SH

Scottish Charity No. **SC045925**

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comments to make on the proposals. Our decision not to provide comments should not be taken as our support for the proposals. This application should be determined in accordance with national and local policy on development affecting the historic environment, together with related policy guidance.

Further information

We hope this is helpful. If you would like to submit more information about this or any other proposed development to us for comment, please send it to our consultations mailbox, hmconsultations@hes.scot. If you have questions about this response, please contact [Redacted]

Yours sincerely

Historic Environment Scotland

MD-SEDD



E: MD-SEDD-RE_Advice@gov.scot

[Redacted]

**MARINE LICENSING AND CONSENTING CASEWORK OFFICER
LICENSING OPERATIONS TEAM
MARINE DIRECTORATE
SCOTTISH GOVERNMENT**

21 November 2025

RE: Muir Mhor Offshore Wind Farm Limited – Muir Mhor Offshore Wind Farm – Section 36 consent and Marine Licence Application – Additional Information

Advisors from the SEDD Marine Renewables & Ecology Team have reviewed the above request and provide the following advice.

MD-SEDD acknowledge the developers commitment to define the Obstacle Free Zone (OFZ) as an area unsuitable for vessel shelter areas, and advise MD-LOT that this improves the reliability of the OFZ's effectiveness to mitigate potential significant impacts. MD-SEDD advise that the assumption fishing will return to the OFZ is currently relied upon for the effectiveness of the mitigation, however if for any reason fishing cannot return then this mitigation method would be ineffective. MD-SEDD therefore advise careful monitoring of the fishing activity within the OFZ during both the construction and operation phases of the development.

MD-SEDD note that in 'Appendix 3. Updated Outline FMMS' in Table 2.1 *Nephrops* are not listed as a target species for the UK demersal otter trawl fleet. MD-SEDD advise that this is amended to include the otter trawl fleet targeting *Nephrops*. Given that the financial mitigation is only being offered for receptors/fleets with potential significant impacts identified



in the EIA (such as the UK demersal otter trawl fleet) it is important that the *Nephrops* fleet is not excluded from the UK demersal otter trawl receptor definition.

Yours sincerely,

Renewables and Ecology Team

Marine Directorate – Science, Evidence, Data and Digital

Ministry of Defence



Defence Infrastructure Organisation

[Redacted]

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WS14 9PY
United Kingdom

Application Ref: 00011025 - 00011026

Our Reference: DIO10059508

E-mail: DIO-Safeguarding-Wind@mod.gov.uk

Marine Directorate
Licensing Operations Team
Scottish Government
Marine Laboratory
ABERDEEN
AB11 9DB

10 November 2025

Dear Sir / Madam

ELECTRICITY ACT 1989

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017
The Electricity (Applications for Consent) Regulations 1990

MARINE (SCOTLAND) ACT 2010

The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017

MARINE AND COASTAL ACCESS ACT 2009

The Marine Works (Environmental Impact Assessment) Regulations 2007

Thank you for your communication dated 8 October 2025 within which the Scottish Government have consulted the Ministry of Defence (MOD) on Additional Information submitted by the developer.

The MOD have reviewed the information provided and published on the Muir Mhor Offshore Wind Farm Project Page of the marine.gov.scot website. We note that as there are no changes with regard to the proposed Muir Mhor Wind Farm project, the MOD's position previously communicated by letter dated 4 February 2025 remains extant.

I trust this is clear, however, should you have any questions please do not hesitate to contact me.

Yours faithfully

[Redacted]

Aberdeenshire Council

Our Ref: ENQ/2025/1515

Your Ref:

Ask for: [Redacted]

Tel: [Redacted]

Email: [Redacted]

Scottish Government
Marine Laboratory
Aberdeen
AB11 9DB

23 October 2025

Dear Sirs

The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017

Proposal: Screening under Section 36 The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, The Marine Works (Environmental Impact Assessment)(Scotland) Regulations 2017 and The Marine Works (Environmental Impact Assessment) Regulations 2007 for the Erection of Offshore Wind Farm and Associated Infrastructure

Site: Muir Mhòr Offshore Wind Farm, Peterhead

Consultation on additional information relative to EIA

I refer to you consultation on the additional information that has been submitted relative to the EIA supporting both the applications under Section 36 of the Electricity Act 1989 and Marine Licence under section 20 of the Marine (Scotland) Act 2010 and section 65 of the Marine and Coastal Access Act 2009 for Erection of Offshore Wind Farm and Associated Infrastructure.

Please find below responses from relevant internal consultees:

Natural Environment Interests

It is noted that the additional information concerns technical issues raised by Nature Scot in relation to the Marine Licence application. The issues raised concern populations of seabirds at a regional scale i.e. beyond Aberdeenshire as well as the effectiveness of proposed mitigation measures that are proposed elsewhere in Scotland. These are not issues that the Council's Natural Environment Team can comment on.

Archaeology

The additional information does not appear to impact archaeological interests. However, the comments from the Archaeological service to the Marine Licence Consultation (MS ref:

00011025 and 00011026 & AC ref: ENQ/2024/1800) contained within our formal response dated 15 January 2025 still apply.

In light of the above, I confirm that Aberdeenshire Council has no objection to the additional information.

Yours faithfully

[Redacted]

[Redacted]

Natural England

Date: 20th October 2025
Our ref: 529701
Your ref: Not provided



Tyneside House,
Skinnerburn Road,
Newcastle-upon-Tyne,
NE4 7RA

0300 – 060 3900

Licensing Operations Team
Marine Directorate
Scottish Government
Marine Laboratory
Aberdeen
AB11 9DB

Via email only

Dear Sir/Madam,

Muir Mhor Offshore Wind Farm Limited – Muir Mhòr Offshore Wind Farm – Additional Information Consultation

Thank you for seeking our advice on Muir Mhòr Offshore Wind Farm's additional information submission in your consultation which we received on 8th October 2025.

ELECTRICITY ACT 1989

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017
The Electricity (Applications for Consent) Regulations 1990

MARINE (SCOTLAND) ACT 2010

The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017

MARINE AND COASTAL ACCESS ACT 2009

The Marine Works (Environmental Impact Assessment) Regulations 2007

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

The advice contained within this letter is provided by Natural England, which is the statutory nature conservation body within English territorial waters (0-12 nautical miles). As the application is located outside English territorial waters then the advice from NatureScot, the statutory nature conservation body in offshore Scottish waters should be sought.

Due to our remit, our advice on this consultation is restricted to species within England and to protected species from English designated sites which may be impacted by the proposed wind farm.

We provide our advice based on the following documents:

- Muir mhor offshore wind farm – additional information submission – chapter 2 offshore ornithology eia.
- Muir mhor offshore wind farm - additional information submission - chapter 3 ornithology riaa

Summary of advice

Natural England are content that the additional information provided to does not fundamentally alter the conclusions of the Report to Inform Appropriate Assessment (RIAA) for English designated sites and their qualifying features.

The Conservation of Habitats and Species Regulations 2017 (as amended) and The Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended)

We have considered the documents provided with the consultation request in our review, and the measures proposed to mitigate for all identified adverse effects that could potentially occur as a result of the proposal. We advise that, providing there are no substantial changes to the project design envelope, this project alone will not have an Adverse Effect on Site Integrity (AEoSI) on any English SPA or SAC. We also agree that any addition to in combination impacts with other projects will be minor and as such are unlikely to significantly contribute to AEoSI for any English SPA or SAC in combination with the other Plans or Projects assessed.

Additional Information

Should the proposal be amended in a way which significantly affects its impact on the natural environment then, in accordance with Section 4 of the Natural Environment and Rural Communities Act 2006, Natural England should be consulted again.

For any queries relating to the content of this letter please contact me using the details provided below. To provide the further information requested in this advice and for subsequent consultations, please email consultations@naturalengland.org.uk

Yours sincerely

[Redacted]

Higher Officer
Northumbria Marine Team
Email: [Redacted]

Maritime and Coastguard Agency

From: [Redacted]
To: [MD Marine Renewables](#)
Cc: [Redacted]
Subject: RE: Muir Mhor Offshore Wind Farm Limited – Muir Mhor Offshore Wind Farm – Additional Information Consultation – Response Required by 19 November 2025
Date: 10 October 2025 15:40:11
Attachments: [image002.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)
[image010.png](#)

Good afternoon,

Since the additional information concerns ornithology and fisheries, MCA does not have any comments to make.

Kind regards,

[Redacted]

[Redacted]

Offshore Renewables Lead
**UK Technical Services
Navigation**



[Redacted]

[Redacted]

Maritime and Coastguard Agency
Spring Place
105 Commercial Road,
Southampton, SO15 1EG



Safer Lives, Safer Ships, Cleaner Seas
www.gov.uk/mca

Maritime and Coastguard Agency (2)

From: [Redacted]
To: [MD Marine Renewables](#)
Cc: [Redacted]
Subject: RE: Muir Mhor Offshore Wind Farm Limited – Muir Mhor Offshore Wind Farm – Additional Information Consultation – Response Required by 19 November 2025
Date: 31 October 2025 11:11:39
Attachments: [image002.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)
[image001.png](#)

Good morning,

Thank you for your correspondence regarding the updated information for the Muir Mhor Offshore Wind Farm.

We note that the additional information submitted by the developer is in regard to ornithological assessment and clarification for fisheries assessment and mitigation. As this is not in regard to shipping and navigation, we will not be providing a response on this occasion. Please take this as a 'nil response' from us.

Kind regards,

[Redacted]

Offshore Renewables Project Lead
UK Technical Services Navigation

[Redacted]

[Redacted]



Maritime &
Coastguard
Agency

Maritime & Coastguard Agency

Bay 2/25, Spring Place
105 Commercial Road,
Southampton SO15 1EG



Safer Lives, Safer Ships, Cleaner Seas

www.gov.uk/mca

SEPA

From: [Planning.North](#)
To: [MD Marine Renewables](#)
Subject: PCS-20006948 SEPA Response to Muir Mhor
Date: 08 October 2025 12:36:26
Attachments: [image.png](#)

To Whom It May Concern

Muir Mhor Offshore Wind Farm
Approximately 63 km east of Peterhead

Thank you for the above consultation. The additional information provided is outwith SEPA's remit and we therefore have no further comment.

Kind regards

[Redacted]

Senior Planning Officer



For the future of our environment

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Dh'fhaodadh gum bi am fiosrachadh sa phost-d seo agus ceanglachan sam bith a tha na chois dìomhair, agus cha bu chòir am fiosrachadh a bhith air a chleachdadh le neach sam bith ach an luchd-faighinn a bha còir am fiosrachadh fhaighinn. Chan fhaod neach sam bith eile cothrom fhaighinn air an fhiosrachadh a tha sa phost-d no a tha an cois a' phuist-d, chan fhaod iad lethbhreac a dhèanamh dheth no a chleachdadh arithist. Mura h-ann dhuibhse a tha am post-d seo, feuch gun inns sibh dhuinn sa bhàd le bhith cur post-d gu postmaster@sepa.org.uk. Togalach Aonghais Mhic a' Ghobhainn, 6 Craobhraid Parklands, Eurocentral, Baile a' Chuilinn, Siorrachd Lannraig a Tuath, ML1 4WQ. Faodar conaltradh còmhla ri SEPA a sgrùdadh no a chlàradh no a sgaoileadh gus obrachadh èifeachdach an t-siostaim a ghlèidheadh agus airson adhbharan laghail eile.

Northern Lighthouse Board

From: [Redacted] on behalf of [navigation](#)
To: [MD Marine Renewables](#)
Cc: [Redacted]
Subject: RE: [EXT] Muir Mhor Offshore Wind Farm Limited – Muir Mhor Offshore Wind Farm – Additional Information Consultation – Response Required by 19 November 2025
Date: 08 October 2025 11:53:39
Attachments: [image001.png](#)
[image003.png](#)

Good morning,

NLB have no comment to provide regarding the Additional Information Report provided for the Muir Mhor OWF project.

Regards

[Redacted]

Coastal Inspector
Northern Lighthouse Board

T: 0131 473 3197

M: [Redacted]

E: [Redacted]

Aberdeen City Council

From: [Redacted]
To: [MD Marine Renewables](#)
Cc: [PI](#)
Subject: RE: Muir Mhor Offshore Wind Farm Limited – Muir Mhor Offshore Wind Farm – Additional Information Consultation – Response Required by 19 November 2025 - Mail ID no. 50580
Date: 18 November 2025 15:02:15
Attachments: [image001.png](#)
[image002.png](#)

Good afternoon

I refer to your consultation in relation to submission of additional information relative to the above proposal.

Given the site location 63km east of Peterhead I can confirm that Aberdeen City Council Planning Authority have no comments in this instance. Thanks

Yours sincerely

[Redacted]

Senior Planner

Development Management
Strategic Place Planning | City Regeneration & Environment
Aberdeen City Council
Business Hub 4
Marischal College
Broad Street
Aberdeen
AB10 1AB

T: 01224 067942

M: [Redacted]

E: [Redacted]

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DAERA

From: [DAERA Marine Information Requests](#)
To: [MD Marine Renewables](#)
Subject: RE: Muir Mhor Offshore Wind Farm Limited – Muir Mhor Offshore Wind Farm – Additional Information Consultation – Response Required by 19 November 2025
Date: 19 November 2025 15:10:28
Attachments: [image001.png](#)
[image002.png](#)
[image004.png](#)

Hi

NI MFD have no further comment to make. Our previous input remains relevant. Thanks
[Redacted]

[Redacted] | **Marine Plan Team** | Department for Agriculture, Environment and Rural Affairs
Ground Floor | Clare House | 303 Airport Road West | Belfast | BT3 9ED
Contact: [Redacted]



Department of
**Agriculture, Environment
and Rural Affairs**

www.daera-ni.gov.uk

***Sustainability** at the heart of a
living, working, active landscape
valued by everyone.*

RYA

From: [Redacted]
To: [MD Marine Renewables](#)
Subject: RE: Muir Mhor Offshore Wind Farm Limited – Muir Mhor Offshore Wind Farm – Additional Information Consultation – Response Required by 19 November 2025
Date: 15 October 2025 12:24:48
Attachments: [image002.png](#)
[image004.png](#)
[image001.png](#)

Hi,

Many thanks for your email. I write to inform you that RYA Scotland has no comment that they wish to make.

Kind Regards

[Redacted]
d]

Royal Yachting Association Scotland

T: [Redacted]

E: [Redacted]



Protecting your personal information is important to us, view our full Privacy Statement [here](#)

Fisheries Management Scotland

From: [Redacted]
To: [MD Marine Renewables](#)
Cc: [Redacted]
Subject: RE: Muir Mhor Offshore Wind Farm Limited – Muir Mhor Offshore Wind Farm – Additional Information Consultation – Response Required by 19 November 2025
Date: 18 November 2025 11:47:35
Attachments: [image001.png](#)
[image002.png](#)

Dear Licensing Operations Team,

I have quickly reviewed the additional information, and it doesn't appear to relate to diadromous fish. Assuming that this is the case, Fisheries Management Scotland have no further comments at this stage.

Kind regards,

[Redacted]

[Redacted]

Fisheries Management Scotland
11 Rutland Square, Edinburgh, EH1 2AS
Tel: 0131 221 6567 | [Redacted]
www.fms.scot

BT

From: radionetworkprotection@bt.com
To: [MD Marine Renewables](#)
Cc: [Redacted]
Subject: WID14077- Muir Mhor Offshore Wind Farm Limited – Muir Mhor Offshore Wind Farm – Additional Information Consultation – Response Required by 19 November 2025
Date: 29 October 2025 15:44:26
Attachments: [image004.png](#)
[image003.png](#)
[image005.png](#)

General



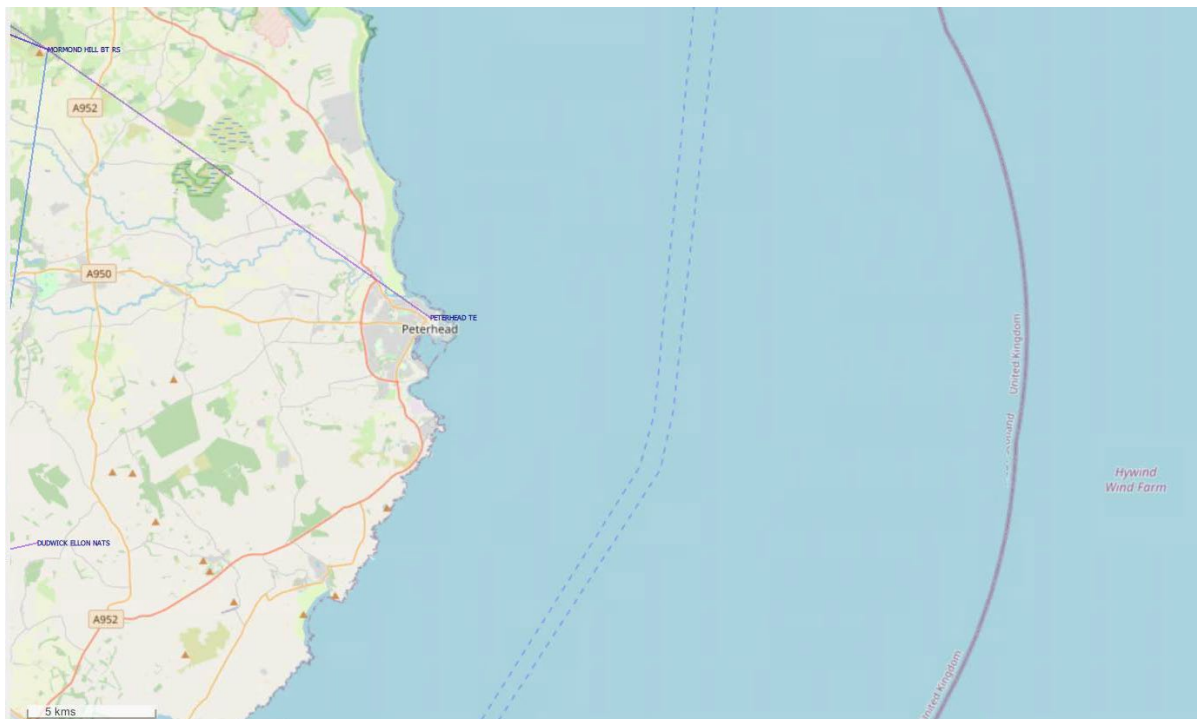
OUR REF: WID14077

Thank you for your email dated 08/10/25.

We have studied this Wind Farm scoping proposal with respect to EMC and related problems to BT point-to-point microwave radio links.

The conclusion is that the proposed location of Muir Mhór Offshore Wind Farm should not cause interference to BT's current and presently planned radio network.

The scoping report states that the Developer plans to submit a separate application for the onshore element which we will access separately once submitted and received by BT.



BT requires 100m minimum clearance from any structure to the radio link path. It should be noted that this decision is for the date of its issue as the use of the spectrum is dynamic and can change on an ongoing basis. Therefore, please reconsult us if there are any changes during the planning process with heights and locations of any structures, and its finalisation, as we may have new links assigned by Ofcom over its duration.

Please note this refers to BT Radio Links only, you will need to contact other providers separately for information relating to other supplier links / equipment.

Please direct all queries to radionetworkprotection@bt.com

Kind regards

[Redacted]

Radio & Satellite Platforms