



The Planning Inspectorate  
Temple Quay House  
2 The Square  
Bristol  
BS1 6PN  
Via email: awelymor@planninginspectorate.gov.uk

JNCC Reference: OIA-09028

Date: 24 October 2022

To whom it may concern,

**Awel y Môr Offshore Wind Farm – Examining Authority’s First Written Questions  
(ExQ1)**

Thank you for consulting JNCC on the Awel y Môr Offshore Wind Farm Examining Authority’s First Written Questions.

The advice contained within this minute is provided by JNCC as part of our statutory advisory role to the UK Government and devolved administrations on issues relating to nature conservation in UK offshore waters (beyond the territorial limit). As per our relevant representation JNCC’s key area of interest is the potential impact of the Awel y Môr development on North Anglesey Special Area of Conservation (SAC). We defer to Natural Resources Wales (NRW) on matters relating to other sites in Welsh waters. Natural England (NE) is authorised to exercise JNCC’s functions as a statutory consultee in respect of certain applications for offshore waters adjacent to England (0-200 nm). As such, we defer to NE to input Statutory Nature Conservation Body (SNCB) views regarding nature conservation advice relating to English offshore waters.

ExQ1	Question	JNCC Response
2.8	<p><b>Offshore – General</b></p> <p>Are you satisfied that there is no disturbance assessment available to assess other construction activities such as drilling, dredging, vessel activity? If no, please explain your reasons and provide evidence justification.</p>	<p>JNCC are satisfied with there being no quantitative assessment of underwater noise disturbance from other construction activities including drilling, dredging and vessel activity. We are content with the qualitative assessment undertaken by the applicant in the ES as potential impacts from these activities are considered to be relatively benign. The applicant's justification is broadly compatible with SNCB guidance (JNCC/CCW/NE 2010), which includes the following:</p> <p><b>Drilling:</b> In the UK, no guidelines exist for mitigating the sound from drilling activities since these are thought to be of relatively low concern for cetaceans. However, for large scale drilling operations, particularly in areas where animals could become chronically exposed, e.g. areas where small populations of coastal bottlenose dolphins or Risso's dolphins occur, an assessment of the risk of deliberate disturbance should be carried out and consideration given to whether appropriate mitigation is feasible.</p> <p><b>Dredging:</b> There are no specific good practice guidelines on how to mitigate for the potential impacts to marine EPS during this activity since the risk of injury is considered negligible. However, an assessment of the likelihood of disturbance occurring as a result of the activity should be undertaken by those responsible for dredging in areas where there is a risk that animals could be chronically exposed to the dredging noise, e.g. areas where small populations of coastal bottlenose dolphins or Risso's dolphins occur. See also section 3.3 on aggregate extraction.</p> <p><b>Vessel movements:</b> It is most unlikely that a passing vessel would cause more</p>

		<p>than trivial disturbance. It is the repeated or chronic exposure to vessel noise that could cause disturbance in the terms of the Regulations.</p> <p>JNCC/CCW/NE 2010. The protection of marine European Protected Species from injury and disturbance. Guidance for the marine area in England and Wales and the UK offshore marine area. Joint Nature Conservation Committee, Natural England and Countryside Council for Wales. June 2010 Available here: <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/850708/Draft_Guidance_on_the_Protection_of_Marine_European_Protected_Species_from_Injurt_and_Disturbance.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/850708/Draft_Guidance_on_the_Protection_of_Marine_European_Protected_Species_from_Injurt_and_Disturbance.pdf</a></p>
2.11	<p>Offshore - Baseline data and modelling</p> <p>Are you satisfied with:</p> <ul style="list-style-type: none"> <li>a) the information contained in table 22, ES Volume 4 [APP-106] with the listed species, mu size and density estimates recommended for use in the quantitative impact assessment;</li> <li>b) the two modelling locations northwest &amp; southeast of the array area represent the locations closest to important marine mammal areas;</li> <li>c) the swimming speeds per mammal assumed in the impact assessment.</li> </ul> <p>If no to any of the above points, please explain reasons and provide evidence justification.</p>	<p>a) Yes, we are satisfied with the information provided in Table 22.</p> <p>b) The model locations were chosen based on water depth rather than distance to important marine mammal areas, however we are in agreement with this approach as water depth influences how noise propagates through the water column.</p> <p>c) Yes, we agree with the swim speeds applied in the noise assessment.</p>
2.13	<p>Offshore – Marine Mammal</p> <p>Are you satisfied that as there is no threshold for temporary threshold shift (TTS) onset (that would indicate a biological significant amount of TTS), it is not possible to carry out a quantitative assessment of magnitude or significance of the impact of TTS on marine mammals? [AS-</p>	<p>We are in agreement with the assessment undertaken, that is, a quantitative assessment of PTS for injury with a qualitative assessment of TTS providing extra context.</p> <p>TTS thresholds are sometimes used to assess ranges within which disturbance could occur, however, assigning magnitude and or significance to this is very difficult as defining disturbance can be subjective and how an individual animal</p>

	026]. If no, please explain you reason and provide evidence justification	will respond to a disturbing stimuli can vary greatly depending on the importance of the area and the individuals previous experience.
2.14	Offshore – Marine Mammal  To assess potential for behaviour disturbance in marine mammals from unexploded ordnance (UXO) detonations the Applicant has presented impact assessment for 26km effective deterrence range (EDR) for high-order detonations; 5km EDR for low-order detonations; and TTS-onset thresholds for high-order detonations in [AS-026]. Are you satisfied with these assessments? If no, please explain the reasons and provide evidence justification.	We are satisfied with the assessment undertaken for UXOs given the level of information available at this time; the application of different EDRs represents the preferred and worst-case options, and the additional TTS assessment provides additional context with the combination providing a more robust assessment. We would expect this assessment to be repeated should it be confirmed UXO clearance is required, taking into account the specifics of the devices and method of clearance.
2.19	Offshore – Marine Mammals  Draft Outline Marine Mammal Mitigation Protocol - Paragraph 20 [APP-107] states “Given these levels of uncertainty and over-precaution, and given that this is an evolving field of research, the Project does not consider it necessary to commit to mitigating cumulative PTS-onset at this stage”. Please can you respond to this statement and provide evidence justification.	As communicated previously, we do not agree to not mitigating injury ranges predicted using the cumulative PTS onset metric at this stage (also known as the cumulative SEL) . JNCC are content the proposed mitigation when using the PTS onset peak SPL metric are appropriate for piling, but we consider this document to be a starting place for discussion. We are content to finalise this post-consent, at which point we will consider any new evidence in conjunction with the final design envelope. We appreciate the uncertainty inherent when estimating both metrics may result in precautionary injury ranges however, they represent current industry best practice, and no suitable alternatives are provided by the applicant. As a result, a precautionary approach must be adopted. We are particularly concerned about the distances predicted for minke whale, which range between 2.6 and 10km, as low frequency noise produced during piling has the potential to propagate further through the water column.  We also highlight this MMMP is not appropriate for UXO clearance and a separate plan will need to be developed should this be required.

2.23	<p>Offshore – Marine Mammals</p> <p>Are you satisfied with the list of projects in [AS-026] screened into the marine cumulative effects assessment (CEA) for disturbance from underwater noise? If not, please explain your reasons and provide evidence justification.</p>	<p>We are content with the list of projects screened into the cumulative effects assessment.</p>
2.26	<p>Offshore – Marine Mammals</p> <p>Are you satisfied with:</p> <ul style="list-style-type: none"> <li>a) The impact magnitude definitions given in Table 9, [AS-026]; and</li> <li>b) The description/reason in Table 10 Sensitivity/importance of the environment? [AS026].</li> </ul> <p>If not, please explain your reasons and provide evidence justification.</p>	<p>a) Yes, we are satisfied with the magnitude definitions provided in Table 9.</p> <p>b) Yes, we are satisfied with the sensitivity/importance definitions provided in Table 9. We previously questioned how these were applied, as dolphins were initially considered a low sensitivity to PTS, however this was subsequently increased to medium.</p>
2.31	<p>Offshore - mitigation</p> <p>[AS-026] (Table 3) states that “NRW agreed with the proposed approach to incorporation of ADDs [acoustic deterrent devices] into the MMMP”. The draft outline Marine Management Mitigation Protocol (MMMP) suggests some uncertainty as to whether an ADD is to be delivered – for example, paragraph 32 states “If an ADD is chosen as part of the suite of mitigation measures set out in the final MMMP...” .</p> <ul style="list-style-type: none"> <li>a) Can the Applicant explain what factors would affect the decision on whether to select an ADD as part of the suite of mitigation measures set out in the final MMMP?</li> <li>b) Can the Applicant and NRW comment on whether it is necessary to secure provision of an ADD through the DCO?</li> </ul>	<p>b) As previously stated, we do not agree with the approach to only mitigate injury ranges using the SPL metric, and advise that while the draft MMMP provided is a good starting place, it requires further discussion post-consent before being finalised. This will enable any new evidence published in the meantime to be considered and enable the plan to reflect the final design envelope. We are content with the inclusion of ADDs as a maybe in the MMMP at this stage on the assumption the MMMP is agreed with the Regulator and JNCC/NRW-A post-consent.</p> <p>As a minimum, the DCO should secure the requirement for a MMMP to be agreed with the Regulator and JNCC/NRW-A before construction commences however it is up to the Regulator whether ADDs are specifically mentioned. The condition could, for example, describe some of the measures to be considered in the plan which could include ADDs however any condition should enable flexibility, not just to account for new evidence and the final design envelope, but</p>

		<p>also to allow consideration/inclusion of any new mitigations methods which may be available at the time.</p> <p>We note the applicant does not commit to using noise abatement; this is a shame as it could reduce noise levels from piling in the marine environment and potentially negate the requirement for an ADD, or at least reduce the duration for which it is required to be active. We are however, content to discuss this with the applicant post-consent.</p> <p>We again highlight that this MMMP should be considered for piling only, and that a separate MMMP will be needed should UXO clearance be required. While there will be overlap in the methods applied, the potential injury ranges could be far larger depending on the device found and the method of clearance therefore a bespoke MMMP will be needed.</p>
2.37	<p>Offshore - monitoring</p> <p>Could NRW comment on the scope of the proposed monitoring during piling procedures, as described in Volume 4: Annex 7.2: Draft Outline Marine Mammal Mitigation Protocol [APP-107]?</p>	<p>The methods proposed in the MMMP are broadly in line with guidelines published by JNCC in 2010, with additions included to reflect current methods of mitigation. Visual monitoring is undertaken by a trained marine mammal observer and sometimes supplemented with acoustic monitoring. This is standard procedure for the mitigation described in the MMMP. We highlight however, the aim of this mitigation is to reduce the risk of injury and while it will also reduce disturbance, it is not the main purpose.</p> <p>Should additional data on marine mammal behavioural responses to piling be required, additional monitoring could be considered, for example, deployment of a PAM array to record vocalisations before, during and after the piling activity.</p> <p>While this can help validate assumptions made in the ES regarding disturbance, we consider this level of monitoring outside the remit of injury mitigation.</p>
2.39	<p>Offshore – Ornithology</p> <p>Are you satisfied with the existing baseline data and for a future baseline to be informed by extrapolation of the currently available data by reference to policy and plans, other proposal applications and expert</p>	<p>As per our relevant representation JNCC's key area of interest is the potential impact of the Awel y Mor development on North Anglesey SAC, given it is a jointly managed MPA for both JNCC and NRW. We defer to NRW on matters relating to other sites in Welsh waters. Natural England (NE) is authorised to exercise JNCC's functions as a statutory consultee in respect of certain</p>

	<p>judgement? (Paragraph 40, [APP-050]). If not, please explain your reasons and provide evidence justification.</p>	<p>applications for offshore waters adjacent to England (0-200 nm). As such, we defer to NE to input SNCC views regarding nature conservation advice relating to English offshore waters.</p>
2.41	<p>Offshore – Ornithology Are you satisfied:</p> <ul style="list-style-type: none"> <li>a) That the site-specific baseline surveys and sample sizes could not be used to accurately calculate site-specific flight heights for the four species selected for CRM, and consequently band 2 and 3 were applied and presented in the report? Paragraph 2.1 [APP-097];</li> <li>b) With the list of migratory birds screened in for modelling migropath and broad front modelling in table 1 in ES Volume 4 [APP-098];</li> <li>c) With the worked example for apportioning gannet collision mortalities to colonies during migration free breeding season (April to August) table 1 [APP-032]; and d) With the potential likely significant effects listed within the Matrixes? ES Report 5.2 [APP-033].</li> </ul> <p>If not, please explain your reasons and provide evidence justification.</p>	<p>As per our relevant representation JNCCs key area of interest is the potential impact of the Awel y Mor development on North Anglesey SAC, given it is a jointly managed MPA for both JNCC and NRW. We defer to NRW on matters relating to other sites in Welsh waters. Natural England (NE) is authorised to exercise JNCC's functions as a statutory consultee in respect of certain applications for offshore waters adjacent to England (0-200 nm). As such, we defer to NE to input SNCC views regarding nature conservation advice relating to English offshore waters.</p>
2.97	<p>RIAA Are you satisfied with:</p> <ul style="list-style-type: none"> <li>a) Table 57 and no adverse effect on integrity alone and in-combination? (ES Report to Inform Appropriate Assessment [APP-027]);</li> <li>b) Table 6 – summary of the screening conclusions for all receptors (excluding ornithology) (ES RIAA Annex 1 [APP-028]); and</li> <li>c) The minimum air gap of 21.9m referenced in table 1</li> </ul>	<p>As per our relevant representation JNCCs key area of interest is the potential impact of the Awel y Mor development on North Anglesey SAC. We defer to NRW on matters relating to other sites in Welsh waters.</p> <p>a) Yes we are satisfied with the conclusions in Table 57 in relation to underwater noise from piling. Insufficient information is known at this time on the need to clear UXOs and the potential impacts to this site however we assume this will be assessed at the time and the HRA repeated, should clearance be required. The draft MMMP provided by the applicant, which supports the assumptions in the RIAA, is appropriate for piling but a separate plan will be needed should UXO</p>

	<p>turbine and array parameters used to inform Collision Risk Models [APP-097].</p> <p>If no to any of the above points, please identify and explain your reasons and provide evidence justification.</p>	<p>clearance be required.</p> <p>b) We are satisfied with the conclusions in this table.</p> <p>c) We defer to NRW on this question as it related to birds.</p>
2.98	<p>RIAA</p> <p>Are you satisfied with the potential impacts considered at designations within Table 1.1. If no, please identify the designation(s), explain your reasons, and provide evidence justification (ES Integrity Matrices [APP-034]).</p>	<p>As per our relevant representation JNCCs key area of interest is the potential impact of the Awel y Mor development on North Anglesey SAC. Yes, we are satisfied with the potential impacts indicated in this table for this site.</p>
2.102	<p>RIAA</p> <p>Please confirm if there are any additional European/Ramsar sites or qualifying features which have not been included in [APP-027].</p>	<p>In line with our remit our response relates to sites in offshore Welsh waters only; we defer to NRW on matters relating to sites in Welsh territorial waters. We can confirm harbour porpoise is the only qualifying features of the North Anglesey Marine SAC, and that all appropriate offshore sites have been considered in the RIAA.</p>
2.103	<p>RIAA</p> <p>Please confirm if the assessment in [APP-027] refers to the correct conservation objectives for the European/Ramsar sites under consideration.</p>	<p>We confirm the correct conservation objectives have been cited for the North Anglesey SAC.</p>
13.4	<p>Benthic Ecology</p> <p>Please confirm or otherwise if you are content with the content and conclusions of [APP-051].</p>	<p>As per our relevant representation JNCCs key area of interest is the potential impact of the Awel y Mor development on North Anglesey SAC. We defer to NRW on all other matters relating to benthic ecology in Welsh inshore waters for this project. Natural England (NE) is authorised to exercise JNCC's functions as a statutory consultee in respect of certain applications for offshore waters adjacent to England (0-200 nm). As such, we defer to NE to input SNCB views regarding nature conservation advice relating to English offshore waters.</p>

13.7	<p><b>Fish and Shellfish Ecology</b></p> <p>Please confirm or otherwise if you are content with the content and conclusions of ES Volume 2 Chapter 6, Fish and Shellfish Ecology [APP-052].</p>	<p>As per our relevant representation JNCCs key area of interest is the potential impact of the Awel y Mor development on North Anglesey SAC. We defer to NRW on all other matters in Welsh waters for this project. Natural England (NE) is authorised to exercise JNCC's functions as a statutory consultee in respect of certain applications for offshore waters adjacent to England (0-200 nm). As such, we defer to NE to input SNCB views regarding nature conservation advice relating to English offshore waters.</p>
13.12	<p><b>Offshore – General</b></p> <p>Are you satisfied that there is no disturbance assessment available to assess other construction activities such as drilling, dredging, vessel activity? If no, please explain your reasons and provide evidence justification.</p>	<p>JNCC are satisfied with there being no quantitative assessment of underwater noise disturbance from other construction activities including drilling, dredging and vessel activity. We are content with the qualitative assessment undertaken by the applicant in the ES as potential impacts from these activities are considered to be relatively benign. The applicant's justification is broadly compatible with SNCB guidance (JNCC/CCW/NE 2010), which includes the following:</p> <p><b>Drilling:</b> In the UK, no guidelines exist for mitigating the sound from drilling activities since these are thought to be of relatively low concern for cetaceans. However, for large scale drilling operations, particularly in areas where animals could become chronically exposed, e.g. areas where small populations of coastal bottlenose dolphins or Risso's dolphins occur, an assessment of the risk of deliberate disturbance should be carried out and consideration given to whether appropriate mitigation is feasible.</p> <p><b>Dredging:</b> There are no specific good practice guidelines on how to mitigate for the potential impacts to marine EPS during this activity since the risk of injury is considered negligible. However, an assessment of the likelihood of disturbance occurring as a result of the activity should be undertaken by those responsible for dredging in areas where there is a risk that animals could be chronically exposed to the dredging noise, e.g. areas where small populations of coastal bottlenose dolphins or Risso's dolphins occur. See also section 3.3 on aggregate extraction.</p> <p><b>Vessel movements:</b> It is most unlikely that a passing vessel would cause more</p>

	<p>than trivial disturbance. It is the repeated or chronic exposure to vessel noise that could cause disturbance in the terms of the Regulations.</p> <p>JNCC/CCW/NE 2010. The protection of marine European Protected Species from injury and disturbance. Guidance for the marine area in England and Wales and the UK offshore marine area. Joint Nature Conservation Committee, Natural England and Countryside Council for Wales. June 2010 Available here: <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/850708/Draft_Guidance_on_the_Protection_of_Marine_European_Protected_Species_from_Injurt_and_Disturbance.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/850708/Draft_Guidance_on_the_Protection_of_Marine_European_Protected_Species_from_Injurt_and_Disturbance.pdf</a></p>
--	--

Please contact me with any questions regarding the above comments.

Yours sincerely,

**Jillian Whyte**

**Offshore Industries Adviser**

[Redacted]  
[Redacted]