



# **Awel y Môr Offshore Wind Farm**

## **Statement of Common Ground 16 – North Wales Wildlife Trust**

### **Deadline 7**

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# 1 Introduction

## 1.1 Background

- 1 This Statement of Common Ground (SoCG) has been prepared between Awel y Môr Offshore Wind Farm Limited (hereafter referred to as 'the Applicant') and North Wales Wildlife Trust (NWWT) to set out the areas of agreement and disagreement between the two parties in relation to the proposed Development Consent Order (DCO) application for the Awel y Môr Offshore Wind Farm (hereafter referred to as 'AyM').
- 2 This SoCG covers the topics of marine ecology.
- 3 The need for a SoCG between the Applicant and NWWT was set out within Rule 6 letter issued by the Planning Inspectorate (PINS) on 23 August 2022.
- 4 Following detailed discussions undertaken through pre-application consultation, the Applicant and NWWT have sought to progress a SoCG. It is the intention that this document provides PINS with a clear overview of the level of common ground between both parties. This document will facilitate further discussions between the Applicant and NWWT and will be updated as discussions progress prior to and during the Examination.

## 1.2 Approach to SoCG

- 5 This SoCG has been developed during the pre-examination phase of AyM. In accordance with discussions between the Applicant and NWWT, the SoCG is focused on marine ecology.
- 6 The SoCG is structured as follows:
  - ▲ **Introduction:** Outlining the background to the development of the SoCG;
  - ▲ **NWWT's remit:** Describing the remit of NWWT, the relevance of their interest in the Application, the main areas of discussion within the SoCG and a summary of consultation to date; and
  - ▲ **Agreements Log:** A record of the positions of the Applicant alongside those of NWWT as related to the topics of discussion and the status of agreement on those positions.

## 1.3 The Development

- 7 The Application is for development consent for the Applicant to construct and operate the proposed Awel y Môr project under the Planning Act 2008.
- 8 AyM will comprise up to 50 Wind Turbine Generators (WTGs) and will include infrastructure that is required to transmit the power generated by the turbines to the offshore substation via inter-array cables, before being transmitted via export cables to the proposed onshore substation located to the west of St Asaph Business Park (SABP) and then to the existing National Grid Bodelwyddan substation.
- 9 The key offshore components of AyM will include:
  - ▲ WTGs with associated foundations and scour protection;
  - ▲ Inter-array cables and associated cable protection;
  - ▲ Up to two Offshore Substation Platforms (OSPs) with associated foundations and scour protection;
  - ▲ Up to two offshore export cable circuits and associated cable protection;
  - ▲ A meteorological mast (met mast); and
  - ▲ Permanent Vessel Moorings (PVMs).
- 10 More details on the offshore aspects of the proposed development are described in the Environmental Statement (ES) Volume 2, Chapter 1: Offshore Project Description (APP-047).

## 2 NWWT's remit

### 2.1 Introduction

11 NWWT are a non-statutory nature conservation body that form part of the wider group of Wildlife Trusts across the UK. The elements of AyM which may affect the interests of NWWT are related to offshore ecology, covering topics of the DCO application of relevance to NWWT, comprising:

- ▲ Benthic subtidal and intertidal ecology;
- ▲ Fish and shellfish ecology; and
- ▲ Marine mammals.

### 2.2 Consultation Summary

12 Table 1 briefly summarises the consultation that the Applicant has undertaken with NWWT including both statutory and non-statutory engagement during the pre-application and post-application phases.

Table 1: Consultation undertaken with NWWT pre-application.

DATE AND TYPE	DESCRIPTION OF CONSULTATION
June-July 2020	Scoping Opinion.
21/09/2020	Post-scoping follow-up meeting to discuss the outcomes of feedback received through the Scoping Opinion. Key areas discussed included: <ul style="list-style-type: none"><li>▲ The data sources and modelling used to inform the baseline and assessments;</li><li>▲ The key areas of focus for the assessment stage; and</li><li>▲ The next steps, including the provision of technical notes and position papers to give further detail.</li></ul>
31/03/2021	Project update meeting including:

DATE AND TYPE	DESCRIPTION OF CONSULTATION
	<ul style="list-style-type: none"> <li>▲ An update on the site selection and route refinement processes;</li> <li>▲ An outline of the design envelope approach and how the Maximum Design Scenario (MDS) had been defined for each technical EIA topic;</li> <li>▲ An overview of the EIA-wide Cumulative Effects Assessment (CEA) process and updates to it following Expert Topic Group (ETG) feedback on the CEA methodology and long list circulated to the ETG prior to the meeting; and</li> <li>▲ Scope of the Water Framework Directive (WFD) Assessment</li> </ul>
10/11/2020 (TWT)	<p>Post-scoping meeting on non-ornithological HRA matters regarding marine ecology. This meeting was focused on discussing key points from feedback on the HRA screening and to agree on changes to the HRA screening conclusions where appropriate. Following this meeting, an updated screening conclusions note was circulated to ETG members.</p>
August-October 2021	<p>Statutory consultation on the PEIR under Section 42 of the Planning Act 2008.</p>
25/01/2023	<p>Meeting to discuss updates to the draft SoCG.</p>
06/03/2023	<p>Email exchange confirming the approach to remove reference to the onshore biodiversity and nature conservation section of the SoCG on the basis that no representations had been received during the examination on this topic. See also the Applicant's response to ExQ3.2.7.</p>

### 3 Agreements Log

- 13 The following sections of this SoCG set out the level of agreement between the Applicant and NWWT for each relevant component of the Application identified in paragraph 11. The tables below detail the positions of the Applicant alongside those of NWWT and whether the matter is agreed or not agreed.
- 14 In order to easily identify whether a matter is 'agreed', 'not agreed' or an 'ongoing point of discussion, the agreements logs in the tables below are colour coded to represent the status of the position according to the criteria in Table 2 below.

Table 2: Position status key.

POSITION STATUS	COLOUR CODE
The matter is considered to be agreed between the parties	Agreed
The matter is neither 'agreed' or 'not agreed' and is a matter where further discussion is required between the parties, for example where relevant documents are being prepared or reviewed.	Ongoing point of discussion
The matter is not agreed between the parties, however the outcome of the approach taken by either the Applicant or NWWT is not considered to result in a material outcome on the assessment conclusions.	Not agreed – No material impact
The matter is not agreed between the parties and the outcome of the approach taken by either the Applicant or NWWT is considered to result in a materially different outcome on the assessment conclusions.	Not agreed – material impact

Table 3: Status of discussions relating to benthic subtidal and intertidal ecology.

DISCUSSION POINT	APPLICANT'S POSITION	NWWT POSITION	POSITION STATUS
Environmental Impact Assessment			
Planning and policy	The EIA has identified and given due regard to all appropriate plans and policies relevant to benthic subtidal and intertidal ecology, insofar as relevant to NWWT's remit.	It is agreed by both parties that appropriate policy and legislation has been considered.	Agreed
Consultation	The EIA has had regard to matters raised by NWWT via non-statutory consultation activities in relation to benthic subtidal and intertidal ecology.	It is agreed by both parties that the EIA has had regard to matters raised by NWWT in accordance with section 42 of the Planning Act 2008 and suggestions have been incorporated. For example, the inclusion of targeted video and sample dredge deployments based on SSS and MBES to improve grab sampling and subsequent data interpolation when producing benthic maps. It is noted that uncertainty remains in accurately classifying biotope extents within the Benthic Ecology Zol.  MDS habitat effect has been tabulated in order to better permit scrutiny of habitat loss throughout all stages of the AyM project life cycle within the array area and offshore ECC.	Agreed
Assessment scope and methodology	The EIA has identified and assessed all likely significant effects relevant to benthic subtidal and intertidal ecology as identified within the Scoping Report and Scoping Opinion.	It is agreed by both parties that the EIA has addressed impacts to benthic and intertidal ecology as identified. However, EMF generated by cables effect on benthic receptors, and noise pollution remain scoped out. Mitigation of accidental pollution will be included in the PEMP.  An approach to cable and scour protection will be addressed in the decommissioning plan. Benthic habitat disturbance during the decommissioning phase has been addressed against MDS.  Ecologically important bathymetric features, for example Constable Bank, have been include in the assessment and their significance afforded due care with ECC route selection.	Agreed
	The study area defined for the assessment is appropriate for the impacts, pathways and receptors considered.	It is a greed by both parties that the benthic ecology Zol; approximating a MHWS tidal excursion, is appropriate for the required assessment.	Agreed

DISCUSSION POINT	APPLICANT'S POSITION	NWWT POSITION	POSITION STATUS
	The assessment has appropriately defined the Maximum Design Scenario (MDS) for the purposes of assessment.	It is agreed by both parties that the assessment has appropriately defined the MDS for the purposes of the EIA.	Agreed
Baseline characterisation	Sufficient primary and secondary data (including site-specific surveys) have been collated to appropriately characterise the baseline environment for the purposes of EIA.	It is agreed by both parties that primary and secondary data has been collated to appropriately characterize the baseline environment for the purposes of EIA as portrayed in ES, Volume 2, Chapter 5, figure 2 (APP-051). DDV, grab and dredge sampling based on SSS and MBES has been undertaken as well as the inclusion of existing data; this includes peer reviewed articles, GyM baseline, construction and monitoring surveys, UK Sea Map, to improve characterization of benthic biotopes. It is noted that uncertainty still exists in precise mapping.	Agreed
	<p>The sensitivity and importance of benthic subtidal and intertidal ecology receptors has been appropriately and adequately described within the EIA.</p> <p>An MDS (worst-case) approach has been adopted for all assessments in the benthic ecology chapter (Table 11 of APP-051).</p>	<p>MDS for the MarESA sensitivity assessments overall confidence score should be applied. EIA uncertainty would be accommodated in the design envelope and not introduce risk of under-weighting a species response by inferring habitat nuances.</p> <p>It is agreed the ES Chapter 5 has taken account of designated sites and ecological receptors value (CIEEM 2018) with respect to an assessment of AyM spatial overlap; of which there is none, and potential secondary impact on sites which are not in the Zol when considered through the lens of MDS.</p>	Agreed

DISCUSSION POINT	APPLICANT'S POSITION	NWWT POSITION	POSITION STATUS
Mitigation measures	The mitigation measures identified within the EIA are considered appropriate and adequate in relation to benthic subtidal and intertidal ecology.	<p>It is agreed that the mitigation measures are considered appropriate and adequate as presented in relation to benthic and intertidal ecology.</p> <p>The physical environment and physical processes assessment as detailed in ES, Volume 2, Chapter 2 (APP-048) provides further detail with respect to benthic environment, hydrodynamic interaction brought about by direct interaction with AyM infrastructure.</p> <p>Embedded mitigation measures such as scour protection, cable armouring and the production of a PEMP and O&amp;M monitoring strategies have been adopted into the project design.</p> <p>A programme and plan with respect to decommissioning of benthic mitigation measures has not been agreed. This will be developed as required under Chapter 3 of the Energy Act 2004.</p> <p>Consideration has been given to the extent of habitat loss, should the mitigation measures be removed, and the effect of EMF.</p>	Agreed
	The Applicant is committed to developing a Cable Specification and Installation Plan (CSIP) which will include a Cable Burial Risk Assessment (CBRA) to determine appropriate burial depths. This is proposed to be secured in any Marine Licence granted by NRW by Condition 20 of the Marine Licence Principles (Document 7.7 of the Applicant's Deadline 7 submission). Based on non-significant outcomes of the impact assessment and the evidence presented within the benthic ecology chapter (APP-051), the Applicant does not consider an EMF monitoring strategy necessary.	<p>However, it is noted that EMF mitigation measures are theoretical. Inter array and export cable burying depth range will possibly vary widely from 0.5 to 4m and where not possible armouring/ mattresses will be employed. The unknowns relating to EMF effect on benthic receptors are admittedly still an ongoing area of research. As such NWWT encourages a monitoring strategy be adopted to assess attenuation methods of EMF from cabling on benthic receptors in order to better understand the impact.</p>	Not agreed – no material impact
Outcomes of the EIA	The conclusions of the assessment appropriately reflect the potential effects on benthic subtidal and intertidal ecology within the study area during the construction, operation and decommissioning phases of AyM.	It is agreed by both parties that the assessment conclusions reflect the potential effects presented in the ES during the AyM full life cycle, acknowledging remarks made by NWWT with respect to uncertainty and scoping out of certain impacts previously in this document.	Agreed
	The cumulative effects have been adequately described and the conclusions of the cumulative effects assessment are appropriate in relation to benthic subtidal and intertidal ecology.	It is agreed by both parties that the cumulative effects have been adequately described and the conclusions of the CEA are appropriate.	Agreed

DISCUSSION POINT	APPLICANT'S POSITION	NWWT POSITION	POSITION STATUS
	<p>The Project Environmental Management Plan will include a marine project-specific biosecurity plan (Condition 12 of the Marine Licence Principles (Document 7.7 of the Applicant's Deadline 7 submission) that will be required to be agreed with NRW post-consent, prior to the commencement of offshore works. This would be expected to be cognisant of the biosecurity measures in place for other regional schemes in the context of cumulative effects.</p>	<p>The cumulative increase in vessel movement and hard substrate are to be addressed by biosecurity measures. These measures would benefit from being mutually inclusive of adjacent and neighboring developments and other sea users in order to achieve best effect. Reefing on hard substrate may encourage INNS.</p>	
	<p>No significant adverse effects (in EIA terms) on benthic subtidal and intertidal ecology are predicted to arise from the development of AyM.</p>	<p>Several uncertainties have been identified in the ES and impacts of which have been scoped out.</p> <p>The baseline characterization should only be considered a 'snapshot' of the present benthic ecosystem.</p> <p>The effects of climate and associated weather change will introduce variability. The ES may underplay the impact of AyM in the wider marine environment context.</p> <p>The understanding of the sites impacts and the cumulative impact of adjacent and neighboring projects; as portrayed in ES Volume 2, Chapter 5, figure 11 (APP-051), and as OWF energy generation is scaled up as we industrialize the seascape to meet Welsh Government net zero target must be considered. A more collaborative, information sharing renewable energy industry strategy developed.</p>	Agreed
	<p>As noted above, the Applicant is committed to developing a Cable Specification and Installation Plan (CSIP) which will include a Cable Burial Risk Assessment (CBRA) to determine appropriate burial depths. This is proposed to be secured in any Marine Licence granted by NRW by Condition 20 of the Marine Licence Principles (Document 7.7 of the Applicant's Deadline 7 submission). Based on non-significant outcomes of the impact assessment and the evidence presented within the benthic ecology chapter (APP-051), the Applicant does not consider an EMF monitoring strategy necessary.</p>	<p>EMF, and construction, operational and decommissioning noise are a matter of ongoing research and as such should be incorporated into the monitoring strategy.</p>	Not agreed – no material impact

DISCUSSION POINT	APPLICANT'S POSITION	NWWT POSITION	POSITION STATUS
	<p>In accordance with the Scoping Opinion (APP-295), assessment of accidental pollution on benthic ecological receptors was scoped out. The Applicant is committed to developing a Project Environmental Management Plan (PEMP) which will contain a Marine Pollution Contingency Plan (MPCP) which will incorporate plans to cover accidental spills, potential contaminant release and include key emergency contact details. This is secured under Condition 12 of the Marine Licence Principles (Document 7.7 of the Applicant's Deadline 7 submission) and will be agreed with NRW prior to the commencement of construction as a condition of any Marine Licence granted.</p>	<p>Accidental pollution can be mitigated for but not ruled out as such measures detailing clean up and reconstitution of potential incidents and pollution sources should be addressed.</p> <p>NWWT is content that whilst accidental pollution cannot be ruled out entirely, the measures secured by the PEMP (and MPCP) would be appropriate in mitigating these potential effects.</p>	<p>Agreed</p>

Table 4: Status of discussions relating to fish and shellfish ecology.

DISCUSSION POINT	APPLICANT'S POSITION	NWWT POSITION	POSITION STATUS
Environmental Impact Assessment			
Planning and policy	The EIA has identified and given due regard to all appropriate plans and policies relevant to fish and shellfish ecology, insofar as relevant to NWWT's remit.	It is agreed by both parties that appropriate policy and legislation has been considered	Agreed
Consultation	The EIA has had regard to matters raised by NWWT non-statutory consultation activities in relation to fish and shellfish ecology.	It is agreed by both parties that the EIA has had regard to matters raised by NWWT in accordance with section 42 of the Planning Act 2008.	Agreed
Assessment scope and methodology	The EIA has identified and assessed all likely significant effects relevant to fish and shellfish ecology as identified within the Scoping Report and Scoping Opinion.	It is agreed by both parties that the EIA has identified and assessed all likely significant effects relevant to fish and shellfish ecology. Of note the commitment by the applicant for soft start piling is welcomed and an example of the applicant exercising the precautionary principle.	Agreed
	<p>The study area defined for the assessment is appropriate for the impacts, pathways and receptors considered.</p> <p>In response to consultation at Scoping from the Isle of Man Government, the Applicant considered a wider study area consisting of the Northern Irish Sea (see paragraph 21 of the Fish and Shellfish Ecology chapter of the ES (APP-052).</p> <p>Whilst the fish and shellfish assessment considers the effects of the proposed development on individuals, populations and habitats, effects on commercial fishery stocks are considered separately within the Commercial Fisheries chapter of the ES (APP-054).</p>	<p>It is agreed by both parties that the study area defined for the assessment, as portrayed in ES Volume 2, Chapter 6, figure 1, is appropriate (APP-052).</p> <p>In response to consultation the inclusion of a wider contextual area improves the EIA given the mobile nature of fish species. It should be viewed as providing boundary conditions when considering the AyM Zol.</p> <p>Some reference material particularly that referring to spawning and nursery grounds are old data sets which brings the information they contain into dispute given the change of the seascape in the AyM Order Limits and more specifically the Zol since they were published.</p> <p>The decline in fish recruitment and collapse of stocks in the Irish Sea is beyond the scope of this assessment. However, the spatial and temporal extent of AyM Order Limits and OWF life cycle respectively does mean the Applicant has a use-use interaction with the fishing industry to deconflict cumulative effects particularly in light of the</p>	Agreed

DISCUSSION POINT	APPLICANT'S POSITION	NWWT POSITION	POSITION STATUS
		AyM overlap with herring nursery grounds which are therefore subject to noise and vibration disturbance.	
	The assessment has appropriately defined the Maximum Design Scenario (MDS) for the purposes of assessment.	It is agreed by both parties that the MDS has been appropriately defined for the purposes of the assessment for the construction, operational and decommissioning phases of AyM.	Agreed
	<p>The noise modelling and metrics applied are appropriate in relation to assessing impacts on fish species.</p> <p>The noise modelling undertaken (as described in APP-105) has applied a worst-case MDS in terms of the piling parameters and locations modelled. The approach to noise modelling was agreed with the Marine Ecology Expert Topic Group (ETG) of the Evidence Plan, of which NRW and NWWT were members (see the Evidence Plan report and its supporting appendices (APP-301, APP-302 and APP-303, respectively).</p>	<p>It is agreed by both parties that the noise modelling and metrics applied are appropriate in relation to assessing the impacts on fleeing and stationary fish species, and to physiological differences i.e. presence of a swim bladder and increased sensitivity and risk of barotrauma.</p> <p>Marine impact piling is a significant low-frequency high amplitude impulsive sound that can travel considerable distance in the water column. The attenuation of which is governed by the inverse square law with respect to energy intensity and distance from source.</p> <p>Consideration of its impact on fish has been modelled and the project plan adapted to reduce noise impact i.e. sequential rather than concurrent piling. It is accepted that underwater noise and vibration is an ongoing area of research and that uncertainty exists in its impact on demersal and pelagic fish and shellfish. As such the MDS should be applied when considering receptor impact and an ongoing construction and O&amp;M monitoring strategy developed.</p>	Agreed
Baseline characterisation	The baseline environment has been characterised adequately for the purposes of EIA.	<p>It is agreed that the information and practices used to adequately characterise the baseline environment was from a broad combination of datasets, and made use of existing data from neighboring and adjacent operational OWF, and that this was fit for the purposes of EIA.</p> <p>Some data is considered not sufficiently current to be representative of the changing seascape since its publication and as such should not be considered a good source or reliable.</p>	Agreed
	The sensitivity and importance of fish and shellfish Valued Ecological Receptors (VERs) has been appropriately and adequately described within the EIA.	It is agreed by both parties that VER's have been appropriately and adequately described within the EIA. UKBAP species have been	Agreed

DISCUSSION POINT	APPLICANT'S POSITION	NWWT POSITION	POSITION STATUS
		considered in the assessment. The baseline characterization of which was agreed with the statutory body.	
Mitigation measures	The mitigation measures identified within the EIA are considered appropriate and adequate in relation to fish and shellfish ecology. The Applicant is committed to developing a Project Environmental Management Plan (PEMP) which will contain a Marine Pollution Contingency Plan (MPCP) which will incorporate plans to cover accidental spills, potential contaminant release and include key emergency contact details. This is secured under Condition 12 of the Marine Licence Principles (Document 7.7 of the Applicant's Deadline 7 submission) and will be agreed with NRW prior to the commencement of construction as a condition of any Marine Licence granted.	It is agreed by both parties that the composite of embedded and applied mitigation measures have been considered in respect of AyM OWF life cycle stages and are adequate in relation to fish and shellfish ecology.  Direct damage and disturbance of receptors has been accounted for, as has the development of a PEMP which will include a MPCP with respect to accidental pollution events.	Agreed
	the Applicant is committed to developing a Cable Specification and Installation Plan (CSIP) which will include a Cable Burial Risk Assessment (CBRA) to determine appropriate burial depths. This is proposed to be secured in any Marine Licence granted by NRW by Condition 20 of the Marine Licence Principles (Document 7.7 of the Applicant's Deadline 7 submission).	The CBRA contained within the CSIP should afford consideration of burial depth or protection measures i.e. rock armor, mattresses, and EMF attenuation.	Agreed
Outcomes of the EIA	The conclusions of the assessment appropriately reflect the potential effects on fish and shellfish ecology within the study area during the construction, operation and decommissioning phases of AyM.	It is agreed by both parties that the assessment conclusions reflect the potential effects presented in the ES during the AyM life cycle. O&M monitoring strategy when developed will continue to inform this position.	Agreed
	The cumulative effects have been adequately described and the conclusions of the cumulative effects assessment are appropriate in relation to fish and shellfish ecology.	It is agreed by both parties that the cumulative effects have been adequately described and the conclusions of CEA are appropriate in this instance.  The CEA has considered an extensive list of use-use interactions and future scenarios should projects in current and subsequent development rounds be advanced.  Existing seascape users have been used as a proxy to discern CEA, as portrayed in ES Volume 2, Chapter 6, figure 12 (APP-052). These users should be considered from a cross domain perspective. The	Agreed

DISCUSSION POINT	APPLICANT'S POSITION	NWWT POSITION	POSITION STATUS
		affects been additive; sum of individual effects, masking; one stressor dominates, synergistic; interaction of multiple stressors greater than the additive effect, and antagonistic; interaction of multiple stressors is less than the additive effect.	
	No significant adverse effects (in EIA terms) on fish and shellfish ecology are predicted to arise from the development of AyM.	It is agreed that the ES has shown that no adverse effects in EIA terms are predicted to arise from the development.	Agreed
	It is agreed that the baseline characterisation provides a snapshot in time. This is reflected in the limitations of the Fish and Shellfish chapter of the ES (Section 6.6 of APP-052). However, The baseline was agreed with the Marine Ecology Expert Topic Group (ETG) of the Evidence Plan, of which NRW and NWWT were members (see the Evidence Plan report and its supporting appendices (APP-301, APP-302 and APP-303, respectively) and no project-specific monitoring strategy is deemed to be appropriate or necessary in respect of fish and shellfish ecology.	As per the remarks on Benthic ecology the EIA provides a snapshot. Ongoing trends in the Irish Sea and the AyM Order Limits with respect to fish and shellfish ecology will only be discerned by a monitoring strategy as suggested by NRW Guidance Note GN041 (2020).	Not agreed – no material impact

Table 5: Status of discussions relating to marine mammals.

DISCUSSION POINT	APPLICANT'S POSITION	NWWT POSITION	POSITION STATUS
Environmental Impact Assessment			
Planning and policy	The EIA has identified and given due regard to all appropriate plans and policies relevant to marine mammal ecology, insofar as relevant to NWWT's remit.	It is agreed by both parties that appropriate policy and legislation has been considered. Key provisions of legislation pertinent to the project have been addressed.  AyM does not occupy or overlap any designated marine mammal areas. It may introduce barrier effects. Mitigation measures for this are addressed in the ES which also includes a more robust means of estimating species density.	Agreed
Consultation	The EIA has had regard to matters raised by NWWT via non-statutory consultation activities in relation to marine mammal ecology.	It is agreed by both parties that the EIA has had regard to matters raised by NWWT in accordance with section 42 of the Planning Act 2008.	Agreed
Assessment scope and methodology	The EIA has identified and assessed all likely significant effects relevant to marine mammal ecology as identified within the Scoping Report and Scoping Opinion.	It is agreed by both parties that the EIA has identified and assessed likely significant effects relevant to marine mammal ecology as identified in the scoping report and scoping opinion.	Agreed
	The study area defined for the assessment is appropriate for the impacts, pathways and receptors considered.	The study area has considered both the spatial extent of the AyM Order Limit in the study area, and accounted for the migratory and transitory behavior of relevant marine mammal species in the regional study area.  It is agreed by both parties that this is appropriate to assess the near and far field impact, pathways and receptors considered.	Agreed
	The assessment has appropriately defined the Maximum Design Scenario (MDS) for the purposes of assessment.  The Applicant confirms that in agreement with NRW, the final Marine Mammal Mitigation Protocol (Condition 35 of the Marine Licence Principles (Document 7.7 of the Applicant's Deadline 7 submission) will mitigate cumulative PTS unless guidance and advice at the time suggests otherwise (see also paragraphs 9 and 10 of REP1-002).	MDS for piling/ pinning has been considered relative to species specific PTS and TTS and swimming speed to flee noise and vibration effects to escape and prevent receiving a dose higher than the threshold for impulsive noise. The magnitude of the consequence related to the duration of the exposure at TTS and PTS.  It is appreciated that this is an ongoing area of research and debate and that the SEL threshold are subject to uncertainty.  ES Volume 2, Chapter 7, table 18 (AS-026) describes the MDS defined by the project envelope and maximum adverse scenario and	Agreed

DISCUSSION POINT	APPLICANT'S POSITION	NWWT POSITION	POSITION STATUS
	<p>The noise modelling and metrics applied are appropriate in relation to assessing impacts on marine mammals.</p> <p>The Applicant confirms that the noise modelling undertaken (as described in APP-105) has applied a worst-case MDS in terms of the piling parameters and locations modelled. The approach to noise modelling was agreed with the Marine Ecology Expert Topic Group (ETG) of the Evidence Plan, of which NRW and NWWT were members (see the Evidence Plan report and its supporting appendices (APP-301, APP-302 and APP-303, respectively). The Applicant has presented a variety of methods for assessing underwater noise impacts in agreement with NRW, including the dose-response, EDRs and TTS as a proxy for disturbance (in the case of UXO impacts) to illustrate the range of predicted impacts on a worst-case basis.</p>	<p>projections. It is noted that design changes have been adopted as a result of consultation.</p> <p>It is agreed that the noise modelling and metrics applied are appropriate and where uncertainty exists best MDS practice has been applied.</p> <p>Dose response curve allows for more realistic assumptions than other methods for quantifying animal response with varying dose/ received noise and/or pressure level. As expected the proximity to the source is the significant factor. Uncertainty does exist around the CEA of dose exposure over time and assumes that an animal once dosed will be displaced and the animal only be subject to TTS. The assumption scopes out the possibility of repeat dosing as an animal returns to or transits through the Zol and therefore could be subject to PTS.</p> <p>EDR standards will be applied for UXO clearance. These represent best practice standard available but have inherent uncertainty as they are recommendations for piling since there is no equivalent data for UXO and do not account for abatement measures such as bubble curtain.</p>	Agreed
Baseline characterisation	Sufficient primary and secondary data has been collated to appropriately characterise the baseline environment for the purposes of EIA.	It is agreed by both parties that the information and practices used to adequately characterise the baseline environment in accordance with the Infrastructure Planning (EIA) Regulations 2017 requirements was from a broad combination of datasets, and made use of existing scientific knowledge from neighboring and adjacent OWF. It is agreed this was fit for the purposes of EIA and endure for the AYM life cycle accepting identified limitations and uncertainties and encouraging the adoption of a comprehensive monitoring strategy.	Agreed
	<p>The sensitivity and importance of marine mammal receptors has been appropriately and adequately described within the EIA.</p> <p>The baseline characterisation was agreed with the Marine Ecology Expert Topic Group (ETG) of the Evidence Plan, of which NRW and NWWT were members (see the Evidence Plan report and its</p>	It is agreed that the sensitivity and importance of marine mammal receptors has been appropriately and adequately described within the EIA. It is accepted and admonished in the ES that uncertainty exists at all life cycle stages of the project with regard to the impact assessment following exposure to underwater noise and vibration,	Agreed

DISCUSSION POINT	APPLICANT'S POSITION	NWWT POSITION	POSITION STATUS
	<p>supporting appendices (APP-301, APP-302 and APP-303, respectively) following further data acquisition relating to bottlenose dolphin density estimates via the Sea Watch Foundation (see APP-106).</p> <p>Impacts to prey species have been assessed (see Section 1.10.9 of AS-026) in the marine mammals chapter with reference to the assessments for fish ecology and benthic ecology.</p>	<p>increased strike occurrences with fixed and mobile platforms/ physical barriers and predicting the response of animals.</p> <p>As such an ongoing monitoring strategy at the appropriate spatial and temporal scale is required to advance the working knowledge on this matter and develop best practice to ensure marine mammal densities estimates in the Zol are not diminished. A consequence of which may have an effect on neighboring designated sites i.e. North Anglesey Marine SAC, Pen Llyn a'r Sarnau SAC.</p> <p>Changes in SSC, plumes and associated changes in water quality due to construction activity leading to benthic disturbance has been assessed as presenting a negligible impact. Primary and secondary production may be impacted albeit temporarily and this may have an associated impact on marine mammal prey species.</p>	
Mitigation measures	The mitigation measures identified within the EIA are considered appropriate and adequate in relation to marine mammal ecology.	<p>It is agreed by both parties that the mitigation measures identified in the EIA are considered appropriate and adequate.</p> <p>An agile management approach has been employed to adaption and augmentation of project design as part of the project evolution and are enduring measures for the AyM life cycle.</p> <p>Where screening has permitted measures have been scoped out, for example noise pollution from the operation of this installation justified by monitoring strategies adopted and observations collected at existing OWF's. It is noted that although a more prescribed approach to planning is being sought for OWF developments as a whole in order to streamline the application and consenting process; BESS 2022. Individual site nuances should always be paramount when conducting an EIA, and global/ blanket assumptions based on legacy projects should be avoided to ensure appropriate environment duty of care and sustainable development.</p>	Agreed
	The mitigation measures proposed in the Outline Marine Mammal Mitigation Protocol (MMMP) are appropriate and sufficient given the conclusions of the EIA.	It is agreed that the mitigation measures proposed in the <i>draft</i> version of the MMMP will provide AyM life cycle monitoring of marine mammals and that the published version will be subject to statutory	Agreed

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	<p>The Marine Mammal Mitigation Protocol is secured by Condition 35 of the Marine Licence Principles (Document 7.7 of the Applicant's Deadline 7 submission) and will be agreed with NRW prior to the commencement of construction.</p> <p>The PEMP (and its MPCP) is secured by Condition 12 of the Marine Licence Principles (Document 7.7 of the Applicant's Deadline 7 submission) and will be agreed with NRW prior to the commencement of construction.</p>	<p>oversight as it will be agreed as a function of the Marine License process.</p> <p>It is noted that the plan continues to be adapted in response to due scrutiny i.e. the use of PAS to mitigate observations in adverse weather conditions.</p> <p>The PEMP and response planning to pollution incidents is yet to be published and as such cannot at this time be assessed as fit for purpose. However, NWWT understands and is content that that these mitigation plans will be secured as conditions of any Marine Licence granted and as such will be required to be agreed by the SNCB before construction can begin.</p>	
Outcomes of the EIA	<p>The conclusions of the assessment appropriately reflect the potential effects on marine mammals within the study area during the construction, operation and decommissioning phases of AyM.</p>	<p>It is agreed by both parties that the assessment conclusions reflect the potential effects presented in the ES during the AyM life cycle. O&amp;M monitoring strategy when developed will continue to inform this position.</p>	Agreed
	<p>The cumulative effects have been adequately described and the conclusions of the cumulative effect's assessment are appropriate in relation to marine mammal ecology.</p> <p>Section 4 of the marine mammal baseline characterisation (APP-106) describes the process of understanding the bottlenose dolphin density estimate. This characterisation has been agreed as adequate for the purposes of EIA by the Marine Mammal ETG of the Evidence Plan, of which NRW and NWWT were members (see the Evidence Plan report and its supporting appendices (APP-301, APP-302 and APP-303, respectively).</p>	<p>CEA has been undertaken within the MDS of AyM and a consideration of uncertainty in the assessment has been factored in as a consequence of the design envelopes of associated projects. It is agreed by both parties that the CEA is appropriate in relation to Marine Ecology.</p>	Agreed
	<p>No significant adverse effects (in EIA terms) on marine mammals are predicted to arise from the development of AyM.</p> <p>It is agreed that the baseline characterisation provides a snapshot in time. This is reflected in the limitations of the marine mammals chapter of the ES (APP-053). However, The baseline was agreed with the Marine Mammals Expert Topic Group (ETG) of the Evidence Plan, of which NRW and NWWT were members (see the</p>	<p>It is agreed that the ES has shown that no adverse effects in EIA terms are predicted to arise from the development.</p> <p>As per the remarks on benthic, and fish and shell fish ecology the EIA provides a snapshot. Ongoing trends in the Irish Sea and the AyM Order Limits with respect to marine mammals will only be better understood by the development and undertaking of a monitoring strategy as suggested by NRW Guidance Note GN041 (2020).</p>	Not agreed – no material impact

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	Evidence Plan report and its supporting appendices (APP-301, APP-302 and APP-303, respectively) and no project-specific monitoring strategy is deemed to be appropriate or necessary for marine mammals.	"Ecological monitoring is likely to be appropriate during the construction and operational phases to identify the actual impact so that, where appropriate, adverse effects can then be mitigated and to enable further useful information to be published relevant to future projects." (paragraph 2.6.71 of NPS EN-3). It is noted that this has been addressed in the EIA.	



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