

Ein cyf/Our ref: ORML1938

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2 March 2020

## **REQUEST FOR FURTHER INFORMATION - THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2007 (AS AMENDED)**

Dear Graham Morley,

Marine Licence Application ORML1938 – Morlais Tidal Array

Menter Môn Morlais Ltd has applied to Natural Resources Wales (NRW) for a Marine Licence under the Marine and Coastal Access Act 2009 for the proposed Morlais Tidal Array (MTA) project to develop 240MW of tidal generating capacity within the Morlais Demonstration Zone.

NRW is required to consider such requests in accordance with the Marine Works (Environmental Impact Assessment) (EIA) Regulations 2007 (as amended) (“the Regulations”).

### **Request for further information**

In accordance with Regulation 14 of the Regulations, NRW considers that further information is required to properly consider, or come to a conclusion on, the likely significant environmental effects of the project. NRW will not proceed with the consideration of the environmental impact or the determination of the marine licence until this information is provided.

The consultation responses received during determination have been shared with you and you will note a number of concerns which should be addressed and/or clarified. It is strongly recommended that you review and look to respond accordingly to the points raised by the various consultees.

Specific attention is given to a number of clarification points, of which many will need to be addressed before the marine licence process progresses further. However, please note that this list is not exhaustive and reference should be made to all the consultee comments.

## 1. General Comments

A recurring comment made by the consultees relates to the clarity around the worst-case scenarios, the Project Design Envelope (PDE) and proposed phasing of development. Further detail and clarity must be provided to address these comments. These should include further detail surrounding the proposed phasing of the project, acknowledging the likely reduced scale required for the first phase (specifically to avoid adverse effects on marine mammals) but also for subsequent phases.

Further detail is required surrounding the content of the Adaptive Environmental Monitoring Plan (AEMP) and suitable monitoring programme if these are to be relied upon as sufficient mitigation measures. We strongly recommend further engagement with NRW Advisory as you develop the AEMP and monitoring programme.

NRW Advisory have noted that the assessment has incorrectly considered the impact on designated seacliff habitat as a 'temporary' loss. NRW Advisory have strongly advised that this impact is considered as a 'permanent' loss to the feature. Consequently, early engagement with NRW Advisory is recommended in relation to this loss and derogation under article 6(4) of the Habitats Directive.

It is essential that, where appropriate, changes made to the ES and supporting marine licence application documents are reflected in the Non-Technical Summary (NTS) and the ES summary chapter (Chapter 27). These changes should reflect the recommendations made by NRW and other consultees, as appropriate.

The NTS must ensure that the assessment conclusions are clearly defined and along with the key mechanisms attributable to reducing environmental impacts. Acknowledging the importance of phased deployment and the essential implementation of a 'yet to be' agreed AEMP and monitoring programme, the detail of such activities, mitigation and management measures should be clearly outlined within the NTS and other summary documentation.

The Welsh National Marine Plan (WNMP) was published on 12 November 2019 (see the Welsh Government website [here](#)). While we acknowledge that the original application predates this period, as there is now a requirement to revisit the ES (and supporting documentation), a suitable opportunity has arisen to update and align the ES with the content and policies of the published WNMP. In particular, attention is drawn to the general policies, sector supporting policies (i.e. ELC\_03a) and sector safeguarding policies (i.e. SAF\_01b) outlined in the WNMP. It should be clearly demonstrated how and where the application has considered the relevant policies of the WNMP. To assist with this process a template document is attached with our corresponding email. Please complete and insert within the ES to demonstrate consideration of the WNMP and its policies.

## 2. Coastal Processes

At this time there is not enough information on the potential changes to coastal process and metocean conditions which may occur as a result of the proposal. Further information is required for an adequate understanding of sediment transport and dispersion. The hydrodynamic modelling is currently considered inadequate to understand the potential changes from the proposal and NRW Advisory recommend that wave modelling be carried out.

Concerns have also been raised by NRW Advisory regarding the low number of sediment samples. Additional sampling is recommended along with a fuller description of sediment to adequately characterise the baseline environment, including those areas encompassed by the project's zone of influence.

More detail is required on sedimentary bedforms in the vicinity of the proposal, in particular the large sand ridge to the north of the MDZ. This information should acknowledge the outputs from the sediment transport assessment to understand the potential changes that may occur.

To understand the assessment(s) a clear definition of 'near' and 'far' field should be provided, acknowledging the outputs of any additional modelling. Strong justification is required to alleviate the concerns surrounding the quality of the data gathered through the Acoustic Doppler Current Profiler (ADCP), including the location of their deployment.

Tidal levels at Holyhead are derived from Admiralty Tide Tables and not real data. NRW Advisory is concerned that no real data have been used in the assessment, consequently, we require further clarification that the model is fit-for-purpose.

We require clarification as to whether the side-scan sonar was ground-truthed using the grab sample survey. The Partrac (2018) Hydrographic and Geophysical report has been requested by NRW Advisory and we require that this report is submitted as part of the supporting documentation.

NRW Advisory were unable to find any assessment of the pre-lay grapnel run, which is 30m wide for the cable laying. Due to the scale of the application this needs considering.

It is not possible for NRW Advisory to agree with a number of the assessment conclusions and it is strongly recommended that these assessments are revisited and where suggested, additional information provided. This includes but is not limited to: information on proposed activities that may occur on or be adjacent to the sand ridge; information on sediment displacement during cable installation; information on depth of cable burial; information on proposed activities for inter-array cable installation including protection measures; greater information on baseline sediment environment

All relevant projects/plans within the sediment sub-cell must be considered, including Holyhead Port Expansion and Wylfa Newydd. Several inconsistencies in relation to plans and projects encompassed by the in-combination and cumulative effects assessments are noted and these should be clarified throughout (see Cumulative Impacts below).

More generally, the coastal processes modelling and assessment conclusions underpin many of the other topic assessments. Therefore, until coastal processes have been adequately assessed no robust assessment can be made on those features that are inter-linked. While many of these are features of the marine ecosystem, attention should also be given to the potential impacts from changes in coastal processes on navigation, seascape and socio-economics, tourism and recreation.

**We recommend that the NRW Advisory response for Coastal Processes is carefully referred to and all points clarified, as appropriate.**

### **3. Marine Water and Sediment Quality**

Consideration should be given to the potential water quality impacts to the east of Holy Island. Detail should be provided on the Holyhead Strait and Holyhead Bay coastal waterbodies and it is strongly recommended that the assessment includes consideration of the potential impacts on water quality from land based sources.

NRW Advisory considers that the information presented is outdated and should refer to the Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015. Accordingly, the tables included within this section of the ES require updating and all relevant assessments should be revisited to ensure they are valid against the WFD Directions 2015.

Clarification should be provided on the cable contents and the potential risk to the marine environment.

Clarification should also be provided in relation to suspended sediment concentrations and why an assessment for the potential change to suspended sediment concentrations has not been carried out.

**We recommend that the NRW Advisory response for Marine Water and Sediment Quality is carefully referred to and all points clarified, as appropriate.**

### **4. Benthic and Intertidal Ecology**

NRW Advisory are concerned that a number of Annex I and Section 7 habitats have not been adequately assessed. The assessment should be revisited with

consideration of loss and/or changes to these features and the viability of suggested mitigation. As previously mentioned, there is a lack of adequate coastal process modelling (see above). This modelling is required to understand the potential effects on Section 7 features beyond the direct footprint.

More generally, a fuller assessment of the subtidal habitats should be carried out to adequately assess the potential impacts on sensitive features. This should include more detail on the Sabellaria worm biogenic reef feature, such as percentage cover and 'reefiness'.

Further clarification should be provided on how the Valued Ecological Receptors were produced and whether all infrastructure will be micro-sited or just the cable. It is strongly recommended that the assessment in relation to physical disturbance on intertidal features is revisited assuming that trenching will occur.

Further information on INNS present in the area of the proposal would aid understanding. Engagement should be sought with NRW Advisory on the early development of an INNS Biosecurity Risk Assessment, with particular consideration of the proposal being used as a 'stepping stone' for the spread of species known to be present in the wider area, such as *Didemnum vexillum* at Holyhead Marina.

Further clarification is required to alleviate concerns regarding the adequacy and effectiveness of mitigation proposed to avoid sensitive features within the MDZ. NRW Advisory have suggested that, in the absence of physical process modelling, a precautionary buffer is placed around the infrastructure to account for indirect effects on benthic features. We recommend that this is considered and that the relevant assessments are revisited taking account of the increased area affected.

All relevant projects/plans must be considered including Holyhead Port Expansion and Wylfa Newydd. A number of inconsistencies in relation to plans and projects encompassed by the in-combination and cumulative effects assessments are noted and these should be clarified throughout (see Cumulative Impacts below).

**We recommend that the NRW Advisory response for Benthic and Intertidal Ecology is carefully referred to and all points clarified, as appropriate.**

## **5. Fish and Shellfish Ecology**

The potential effects of particle motion on fish and shellfish should be assessed. Furthermore, careful consideration should be given to the potential for the structures to act as Fish Aggregating Devices (FADs)

Further information should be provided on fish migration routes, this information is notably absent at this time. Consequently, relevant impact pathways should be revisited and consideration given to the migration routes of diadromous fish.

Freshwater pearl mussel should be scoped in to the assessment.

## **6. Marine Ornithology**

Further engagement with NRW and RSPB is required to consider the predicted loss of auks. As previously discussed, further detail is required surrounding the AEMP and monitoring programme, and we would strongly encourage you to engage with NRW Advisory and the RSPB in developing these plans, ensuring that they consider the phased approach and all relevant impacts from the proposal upon guillemot and razorbill populations.

Consideration should be given to the suggestion by RSPB that further collision modelling be carried out to understand the predicted impacts at a smaller scale of deployment than 40MW.

## **7. Marine Mammals**

It is strongly recommended that the sensitivity categorisation for marine mammal species is revisited due to failure to incorporate location importance and value judgements into the impact assessment methodology.

Clarity should be provided on worst-case scenarios used across impact pathways. These should either be consistent or clearly justified to facilitate understanding of the approach used.

There are concerns regarding underwater noise assessments. These assessments are currently based on impact ranges for other developments, where conditions are different and calculations based on information that has now been superseded. It is therefore strongly recommended that the assessments for potential underwater noise impacts from construction, operation or Acoustic Deterrent Device (ADD) noise are revisited as currently NRW Advisory are unable to agree with the conclusions. It is advised that noise propagation is modelled using the conditions at the MDZ with a subsequent revisit of the relevant impact pathways (e.g. disturbance effects from noise).

NRW Advisory have serious concerns regarding the potential impacts of collision risk on marine mammals. Due to uncertainties on CRM/ERM, avoidance rates and other parameters there is not enough information to conclude that even the proposed initial phase (~16MW) would not have population level effects on marine mammal species. It is strongly recommended that detailed engagement is sought with NRW Advisory regarding collision risk to marine mammals. Discussions on

the development of an AEMP which, among other things, encompasses marine mammals should be held with NRW to allow such a plan to be developed pre-determination. Development of this plan, along with the Environmental Mitigation and Monitoring Plan, will provide assurances that the potential effects from the development can be minimised or avoided. Uncertainties regarding potential mitigation and monitoring strategies require urgent discussion, such as the use of ADDs, where significant evidence is required to provide confidence in the effectiveness of ADDs on various marine mammal species.

All relevant projects/plans must be considered, including but not limited to Holyhead Port Expansion, Wylfa Newydd and Minesto Holyhead Deep. Consideration of these is notably absent from several relevant impact pathways. A number of inconsistencies are noted within the in-combination and cumulative effects topics (see Cumulative Impacts).

A number of clarification requests are made throughout the NRW Advisory consultation response on marine mammals. These should be carefully considered and the relevant justification and/or additional information provided. For example, much greater clarity is required on the use of ADDs, the physical barrier effects from the proposal and prey availability. The latter requires consideration in terms of potential prey loss (collision risk to fish) and also fish aggregation around devices and the increased risk of collision.

## **8. Onshore Ecology**

To provide confidence in the assessments, further clarification is required on the proposal activities and methodologies which will overlap or are adjacent to the Holy Island Coast SAC/SPA/SSSI.

Based on the evidence currently provided, NRW Advisory cannot agree that there would be no impact on the integrity of the Holy Island Coast SAC/SPA/SSSI. This requires important reconsideration for the ES and HRA. As does the interpretation of 'temporary' effects (see General Comments above)

Early engagement with NRW Advisory is strongly advised in relation to the 'permanent' habitat loss and derogation under article 6(4) of the Habitats Directive.

It is strongly recommended that further evidence is provided to support the conclusions in relation to chough, in particular the potential loss of foraging habitat.

A number of clarification requests are made throughout the consultation response on onshore ecology from NRW Advisory. These should be carefully considered and the relevant justification and/or additional information provided.

## **9. Seascape and Landscape**

Concerns remain on the effects to seascape, in particular, from the surface emergent devices. It is strongly recommended that discussions are held to communicate the requirements for navigational safety and yet understand how visual effects can still be minimised. Although we recognise that device type and deployment location is largely unknown with only indicative layouts provided at this stage, further consideration is strongly recommended whether to limit surface emergent devices to particular areas of the MDZ.

It would be useful if consideration is also given to the seascape viewpoint from the perspective of small recreational craft.

A number of clarification requests are made throughout the consultation response on Seascape and Landscape from NRW Advisory. These should be carefully considered and the relevant justification and/or additional information provided.

## **10. Socio-economics, Tourism and Recreation**

The popularity and international recognition of Anglesey for kayaking appears to be under acknowledged. Greater consideration should be given to this recreational activity in terms of potential impacts from the proposal.

It is considered that the omission of any GIS tracks/routes for small recreational craft (see Navigation comments) has led to an underrepresentation of water sports, namely kayaking, in and around the proposed MDZ. This issue is highlighted by the number of concerns received from the public in relation to the potential impacts on kayaking. Consequently, the ES (and relevant supporting documentation) should be updated with greater recognition to this activity and removing the 'out of context' reference used in paragraph 142 of Chapter 25.

We strongly recommend that engagement with these local recreational groups, and associated stakeholders, is initiated at the earliest opportunity while due recognition is given to the public representations received.

## **11. Cumulative Impacts**

A number of inconsistencies and gaps have been identified in relation to the cumulative and in-combination effects. These require revisiting, consideration and inclusion, as relevant, before a robust conclusion can be made on the potential effects.

Where inadequacies and/or deficiencies in the assessment and information provided have not allowed a robust assessment of an individual receptor topic (e.g. Metocean and Coastal Processes), then recommendations and requirements

must first be fulfilled before the potential cumulative and in-combination effects can be revisited.

The list of plans/projects considered within the assessments is not comprehensive e.g. Holyhead Breakwater, Holyhead Port Expansion and the Crown Estate's Offshore Wind extension plan are not considered. It is therefore not possible to determine the full scale of potential cumulative/in-combination effects arising from this project alongside other plans/projects. Similarly, it is unclear why some projects considered within the shadow HRA have not been included within the cumulative impact assessment presented within the ES for the same receptor. Consequently, the cumulative impact assessment must be revisited once a complete assessment of all the relevant potential effects on each topic receptor is has been carried out, with the consideration of all relevant plans and projects.

## 12. Underwater Noise Assessment

It is recommended that the impact methodology used for underwater noise assessment is revisited as this methodology is currently considered to be inadequate.

As previously noted (see Marine Mammals), concerns surround the use of other project assessments for underwater noise as a proxy for this proposal, especially since some of these other projects have applied acoustic thresholds which are no longer relevant. We therefore strongly recommend that a site specific noise assessment is considered.

As previously noted (see fish and shellfish ecology), the potential effects of particle motion on fish and benthic invertebrates should be considered. In addition, the potential effects on basking shark should be acknowledged.

**We recommend that the response for Underwater Noise Advice is carefully referred to and all points clarified, as appropriate.**

## 13. HRA

Until further evidence is provided on the potential changes to coastal processes (i.e. through recommended coastal process modelling – see above) it is not possible to rule out effects on a number of marine SACs or the Traeth Lafan SPA (see NRW consultation response paragraphs 264 and 265). Therefore, these sites should be screened in to the HRA. Consequently, the HRA in its current form does not sufficiently encompass all relevant designated sites and their associated qualifying features.

In relation to marine mammals, the comments for this topic of the ES are relevant to the HRA; specifically, in relation to collision risk, disturbance and injury from

underwater noise, barrier effects and prey availability. Further evidence is therefore required to demonstrate the absence of an adverse effect, as currently NRW Advisory are unable to agree that there would be no adverse effect on site integrity (AEOSI) as a result of the impacts on bottlenose dolphin, harbour porpoise and grey seal.

Particular focus should be given to the uncertainties surrounding the collision risk assessments and how an agreed monitoring programme and AEMP will be developed. As detailed in section 1, further detail regarding the content of the monitoring programme and AEMP is essential to understand whether these would provide sufficiently robust mitigation and management measures.

Further engagement with NRW will also be required to consider the implications of qualifying feature habitat loss within the Holy Coast SAC, with an agreed approach in relation to Article 6(4) of the Habitats Directive. On this issue we would highlight the requirements to carry out the three tests (Alternative Solutions; IROPI; Compensatory Measures) with consideration of Alternative Solutions and IROPI being carried out before Compensatory Measures.

We request that a workable definition of functional linkage is presented between the onshore development area and the Holy Island Coast SPA with evidence presented as three tests to determine functional linkage of breeding and non-breeding chough between Holy Island Coast SPA and the MDZ (see NRW consultation response, paragraph 310).

Where further information/clarity/assessment has been requested (see NRW consultation response) then the outcomes of these will be needed to inform the in-combination assessment. Currently NRW Advisory do not agree with the conclusions of all the assessments and thus cannot agree with the conclusions of the in-combination assessment.

**A number of clarification requests are made throughout the consultation response on the HRA from NRW Advisory. These should be carefully considered and the relevant justification and/or additional information provided**

#### **14. WFD Compliance Assessment**

As noted by NRW Advisory, serious deficiencies exist within the submitted document pertaining to the WFD compliance assessment. At this stage NRW Advisory are not able to conclude that the works would not cause deterioration to a waterbody. If deterioration cannot be ruled out this may lead to the requirement for derogation. The WFD assessment must be resubmitted once it is produced in the required context and addresses the serious issues raised by NRW Advisory (see NRW consultation response). This should include clear definition of the zone of influence and acknowledge all relevant water bodies.

Further evidence is required to understand the scale and nature of non-temporary impacts. Information on the construction phase impacts arising from onshore works and decommissioning effects should be provided in the WFD compliance assessment, as should consideration of cumulative effects and the potential for sediment runoff from the construction works to impact upon Holyhead Strait waterbody.

We also strongly recommend that the scoping exercise is revisited. NRW Advisory do not agree that all potential aspects of the project with pathways for effect to the WFD have been scoped.

As previously noted, a more detailed baseline characterisation survey is required to allow micro-siting to adequately avoid or reduce effects on features.

**A number of clarification requests are made throughout the consultation response on the WFD Compliance Assessment from NRW Advisory. These should be carefully considered and the relevant justification and/or additional information provided.**

## 15. Navigation

It is strongly recommended that further engagement with MCA, Trinity House and RYA is sought, at the earliest opportunity, to discuss navigation risk and their respective concerns.

It is advised that the Navigation Risk Assessment (NRA) is revisited and consideration given to the points raised by RYA, MCA and Trinity House. Further information and/or consideration should include but not be limited to, incorporation of all AIS data (including that available on recreational small craft) to support the NRA; consideration of the sea room from the shore to the MDZ for boats to navigate in safety; the under keel clearance of the arrays; procedures in place to provide adequate warning if an array anchorage fails with a resulting hazard to navigation.

Further clarification and justification should be provided in relation to the exclusion of fishing and navigation of other marine vessels within the Morlais Zone.

It is strongly recommended that the NRA be revised to account for the implication of the MDZ on recreational small craft use within the proposed MDZ and along the western offshore route. Detailed justification must be provided to support the reasons why the ES has rejected the findings of the NRA and has not included any form of redesign to the eastern boundary of the MDZ as a mitigation measure to protect human life.

Consideration and clarification is required on the potential for embedded mitigation measures. Currently, it is not possible to assess which safety measures will be applied. Furthermore, as Trinity House note, greater clarity is required to understand which additional mitigation measures will be taken forward.

The deployment of floating/emergent technology poses a significant risk to navigation; however, RYA are not satisfied that floating/emergent technology has been appropriately assessed. Consequently, we consider that further consideration is required on this issue.

Although we recognise that device type and deployment location is largely unknown with only indicative layouts provided at this stage, further consideration is recommended whether to limit surface emergent devices to particular areas of the MDZ. We strongly encourage engagement with the RYA, Trinity House and MCA as you look to review this assessment

On the point of under keel clearance, we require consideration of the comment made by the UK Chamber of Shipping that clearance be at least 20m to ensure safety of navigation.

A number of comments have been made that relate to concerns over navigation for small recreational craft including kayaks. Consideration of the routes of these vessels and general usage of the waters in and around the proposed MDZ appears to be missing from the NRA and Navigation chapter of the ES. Although it is acknowledged that these types of vessels do not have AIS, GIS track data is available and should be used during a review of these assessments.

In November 2018, as part of the NRA consultation process, the activity of kayakers in the general vicinity of the MDZ was commented upon. There is a concern that the level of safety risk to kayakers has not been fully acknowledged within the NRA, in particular as a consequence of surface emergent devices. We therefore require clarity on this issue.

**We recommend that the consultee responses in relation to Navigation are carefully referred to and all points clarified, as appropriate. A completed MGN 543 checklist must be provided with the application.**

## 16. Archaeology

We recommend that the relevant chapters of the ES are revisited to address the concerns raised by Welsh Archaeological Trust, in particular, this must include an assessment of visual impact on settings. There are several other updates within the ES which could also be made to clarify and/or address concerns from Welsh Archaeological Trust. These include but are not limited to, the inclusion of maps indicating Archaeological Exclusion Zones, the importance and/or significance of specific sites and buildings, the consideration of other proposals/plans within the

cumulative impact assessment on offshore archaeology. Referral to the consultation response is recommended for further detail on these points and to ensure consideration of all comments has been made.

It is also suggested that while revisiting the assessment, consideration is given to updating the relevant sections of the ES to encompass the findings of the geophysical survey, as appropriate.

Please provide the information requested above by 2 May 2020. If NRW has not received this information by this date, application ORML1938 will be treated as having been withdrawn. Please can you contact me as soon as possible if additional time will be required to collate this information.

Please note that further information must be publicised in accordance with the requirements stipulated in Regulation 16 of the Regulations. Therefore, once this information is received by NRW, you will be provided with a public notice to publish in the same newspaper as the project was previously publicised at your own expense.

### **Further engagement**

In response to the application a number of consultees have urged Menter Môn Morlais Ltd to engage at the earliest opportunity. These include but are not limited to:

**BEIS** – regarding decommissioning arrangements

**IACC** – regarding potential compensation measures for landscape, seascape and visual effects; regarding consideration of Environmental Light Management Plan

**NRW** – regarding coastal process modelling and validation; INNS Biosecurity RA; AEMP and in particular the development of this to manage the potential effects on birds and mammals; assumptions regarding compensatory habitat; seascape effects from surface emergent devices

**RSPB** – AEMP

**MCA** – particularly in relation to emergency response requirements and turbine layout plan

**RYA** – in relation to NRA, consideration of small crafts and impact of surface emergent devices

**Trinity House** – exclusion zones for fishing and marine vessels

**Welsh Archaeological Trust** – including consideration of EMMP

Continued public engagement is essential and we recommend that demonstrable communication with local and regional stakeholders is clearly evidenced, including with such groups as the Snowdonia Canoe Club but also relevant national bodies (e.g. Canoe Wales). Concerns have been raised regarding the transparency of the consultation process, specifically in relation to the proposed deployment of surface emergent devices.

We would strongly recommend that steps are made to engage with relevant consultees at your earliest convenience.

In the meantime, should you have any queries please do not hesitate to contact me.

Yours sincerely

A handwritten signature in black ink that reads "Peter Morrison". The signature is written in a cursive style with a small flourish at the end.

**Peter Morrison**  
Marine Licensing Team  
Natural Resources Wales