



Meeting Title:	Morlais Navigational Stakeholder Meeting		
Meeting Objective:	Navigation Stakeholder Consultation		
Location:	Trearddur Bay Hotel		
Date:	19/04/2023	Time	18:00
Attendees:	<p>James Orme – Morlais Consenting Lead (JO) Sarah Livett – Energy Environmental and Compliance Lead (SL) Clare Llywelyn – Chair / Project Manager (CL) Helen Roberts – Morlais Project Support Officer (HR) Llinos Iorwerth – Ateb (LI)</p> <p>Ryan Horrocks (RH)- Marico Consultant Andre Cocuccio (AC)- Marico UK Director</p> <p>Trevor Sturrock – NCI Station Manager (TS) Caro Wilson – NCI Deputy Station Manager (CW) David Bangor Jones – Trearddur Bay Sailing Club (DJ) Aubrey Diggle – SBS Charter vessel (AD) Roger Rawlinson – Red Wharf Bay Sailing Club (RR) Ruth Iliffe – RYA Wales (RI) Alister Pattullo – Canoe Wales (AP) Sea Kayak Alliance Chris Gaskin – RNLI (CG) Paul Jones – Holyhead Towing (PJ) Malcolm Campbell – Trearddur Bay Boat Yard (MC) Mirco Goldausen – Sea State Coaching (MG) Sea Kayak Alliance Jenny Wong – Wild Resources (JW) Sea Kayak Alliance</p> <p>Apologies Gethin Roberts – Sea Kayaking Wales Nick Goodall – Snowdonia Canoe Club</p>		



Summary of Discussions

- CL opened the meeting and thanked the delegates for attending, acknowledging and welcoming stakeholders that had not attended the last meeting.
- CL introduced the presenters in attendance, and gave brief overview of the agenda including that Marico would be sharing Navigation Risk Assessment (NRA) progress to date and Winter Vessel Traffic Survey (VTS) outcomes.
- All delegates introduced themselves (as listed above) and were asked that before contributing to the meeting that they reiterate their name and organisation.
- JO gave an update on the Morlais project progress since the last meeting, and that the onshore infrastructure was nearing completion. This included some of the the Horizontal Directional Drilling (HDD) bore holes that would carry cables from the Morlais Demonstration Zone (MDZ) to landfall under the seabed, the substation where the generated electricity would be routed to the Scottish Power substation in Parc Cybi via under road cabling, and the cable route itself.
- JO reminded those present in the last meeting that Magallanes, a Spanish tidal stream turbine developer, had been awarded a Contract for Difference (CfD) from the UK government, and would be deploying four surface emergent turbines in the 2024-2026 period. This deployment is expected to comprise the first phase of the Morlais deployment and generate 5.6MW of electricity.
- The developers and turbine types that would constitute phase 2 of the Morlais deployment is not yet confirmed, and would become clearer following the next award round of CfDs in Autumn 2023.
- JO briefly introduced the Marinus research buoy that would be deployed in the MDZ. The buoy is intended to facilitate the further refinement and calibration of the monitoring and mitigation technology the project is obliged to develop. This learning will be shared publicly and benefit the whole renewables industry.
Further details of the buoy were covered in a later section.
- AC opened the Marico presentation and stated that delegates would have received an email in the lead up to the meeting which explained that, due to technical challenges with the VTS monitoring equipment, the winter VTS survey could not be successfully completed as planned.
- AC explained that Marico had learned valuable lessons from the Winter VTS sortie, and would be thoroughly testing the replacement equipment both in-house and on site before the summer deployment.
- The impact of the winter survey not being completed in January-March 2023 is that the survey would be completed in the latter months of 2023. Together with the data collected to date, this will not affect the NRA delivery deadline in December 2023.
- AC and RH moved on to discuss the full NRA process which would begin in Spring 2023, how AIS data collected would be used, and how stakeholders could expect to engage with the project.
- On the slide depicting of the RADAR range capability was shown, where the coloured bands indicated the level of perception accuracy. The range is stated to extend to 72NM, vessels captured in the green zone would be detected at sea level, yellow 5m above sea level, orange 30m off sea level.
- RH drew the meeting's attention to a chart of the MDZ, illustrating the traffic routes and density, where AIS data collected in the winter VTS showed 15 tracks inside of the MDZ, contrasted with commercially procured summer 2022 AIS data, showing only 80 tracks in the MDZ. In the winter data, a vessel



conducting a line transect survey in the MDZ was clearly identifiable, as were the ferry vessels whose tracks were colour coded into categories by their transmitted AIS identity.

- MAIB (1997-2021: 5 incidents) and RNLI (2008-2021: 28 incidents) data had also been extracted to highlight the incident numbers and locations in the vicinity of the MDZ in the past years.
- RH explained that to complete the NRA, the VTS survey data would be considered holistically with other data sources, such as information submitted by kayakers, and supplied by the Rhoscolyn NCI.
- JO thanked Marico for the work conducted in support of the project, and looked forward to receiving an NRA update following the summer VTS and the completion of user group consultations.
- JO presented the Marinus buoy to the meeting participants and explained that, as part of the Marine Licence awarded by Natural Resources Wales (NRW) to Morlais, the project had obligations to develop technology able to monitor and mitigate harm to marine mammals, diving birds and migrating fish in the MDZ.
- The Marinus platform is specifically designed for deployment in high flow locations, will facilitate the development and calibration of equipment specifically to the MDZ environment, and enable the collection of preliminary data which will help the project better understand requirements across all tidal states during the operation phase.
- The platform will initially be fitted with above water visual and infrared cameras directed at the sea surface, and under water visual cameras directed at the below platform water column. The images collected by these cameras will be used to train mammal identifying algorithms, which will be used in a holistic monitoring and mitigation system alongside sonar cameras and Passive Acoustic Monitoring (PAM) equipment.
- JO went into more specific detail regarding the observational capabilities of the sonars and PAMs, explaining that in some cases the mammals could be identified by their species using this technology. The observations are not yet able to be as definitive in regard to birds, however that is something that is being investigated.
- A chart of the MDZ with an approximate deployment location near the area where the Magallanes turbines will be situated was shown. JO noted that the MCRP would be circulating notifications to the relevant authorities for promulgation 14 days prior to deployment commencing.
- JO summarised that the buoy would be IALA compliant, fitted with a “special mark” and with both a light and GeoFence alarm system to monitor that the buoy does not exceed the mooring perimeter allowance.
- JO confirmed that Marico had completed a high level NRA in relation to the buoy deployment, which had fully considered all local traffic, including the implications to leisure users. This had been completed in consultation with, and accepted by, the MCA, Trinity House and NRW.
- **Q&A**

MG Sea Kayak Alliance:

Has any consideration been made as to the use of the surface emergent devices being used as a refuge by mariners in difficulties?



JO responded that the buoy was not designed to be used as a routine mooring for local mariners, and the MCRP would not be encouraging any interaction with the buoy. However, should lives be at risk, exceptions would be readily made.

JW Sea Kayak Alliance:

How long will the buoy be in situ?

JO said the initial deployment period will be one year, there will then be a review to consider extension of the deployment.

AP Sea Kayak Alliance:

How far offshore is the deployment location?

1.6km approximately

JW Sea Kayak Alliance:

Queried if a deployment of this sort required an NRA?

JO confirmed a buoy specific NRA had been completed, however as this is not a device-turbine, the full site NRA is not required.

TS Rhoscolyn NCI:

Is the data offered by the NCI to supplement the VTS survey no longer required?

AC explained that since the first NSM meeting, the Marico member of staff responsible for stakeholder liaison had moved on; his replacement would be in touch shortly. AC impressed that any input that the NCI could offer would be valued.

AP Sea Kayak Alliance:

Questioned the ability of the RADAR to capture kayakers transiting the MDZ.

AC assured that the RADAR has been selected due to its ability to identify small craft, if the conditions were permitting. In addition, the CCTV and supplementary input from stakeholders would ensure the kayakers are identified in the data collection. AC shared that during the short period that the CCTV was operational in March 2023, kayakers were observed by the equipment.

JW Sea Kayak Alliance:

Hoped to discuss the data the kayakers submitted covering the January - February period, as this is when the group was led to believe the VTS survey would be conducted. 21 trips in total were logged by 82 alliance members. This included 7 GPX tracks.

JW hoped to better understand the way Marico would interpret the data, as in many cases the kayakers populated some locations in the tracks for longer periods than others i.e. play locations on standing waves etc.

JW also added that the Sea Kayak Alliance was happy to repeat the data logging exercise in alignment with the summer VTS, if the MCRP could indicate the time of operation.

AC stated that Marico would gratefully accept submissions detailing kayaking logs during the summer period from the Sea Kayaking Alliance.

MG Sea Kayak Alliance:

Shared that the wind experienced in January may have suppressed the number of kayakers using the area during January, and added that in summer kayakers were liable to venture further offshore. MG felt repeating the kayaker



data log collection in summer, post buoy deployment, would be of value, and expressed willingness to participate on a one-off basis.

AC assured that any data provided would be considered as part of the VTS data analysis, and the submission shared by the Sea Kayak Alliance was representative of the winter period.

AC went on to say that the data submissions did not need to align with the Marico VTS survey dates; as long as submissions were representative of the season being captured, the data would be used to construct a holistic risk picture of the MDZ.

JO supported AC, and stated the MCRP and Marico will continue to endeavour to maintain an unbiased and accurate representation of the traffic in the MDZ. For this reason, the exact dates of VTS surveys would not be shared.

JW Sea Kayak Alliance:

Requested a copy of the Marinus buoy NRA, and was curious of the Marico presented assessment that the area is subject to low usage, and therefore the buoy is a low risk to navigation.

JO stated that in addition to the contemporary NRA being conducted by Marico, a comprehensive understanding of the MDZ and its use by mariners is held from the work conducted pre-inquiry.

JO stated that the Marinus deployment is a research buoy, and considerations have been made in the design to ensure that it poses as little risk as possible to mariners, in consultation with subject matter experts.

AB SBS boat charter:

Confirmed that the maritime use significantly increases in the area during summer in his experience.

AC states that this is appreciated and is the basis of conducting both a summer and winter survey.

PJ Holyhead Towing:

Requested clarification of the restricted areas, and their implications on mariners transiting the area.

JO reiterated a clarification from the first NSM meeting – the restrictions apply only to the types of turbines (surface, suspended, sea bed) that can be deployed in sub-zones within the MDZ, and do not impact the ability of vessels to transit through the area. The restrictions are in place to ensure there is no impediment to traffic, and their ability to use the area to shelter safely in adverse weather. Purple indicates 20m under keel clearance, blue 8m, yellow below surface, green indicates no restriction.

AP Sea Kayak Alliance:

Expressed concerns that works to line the HDD cable routes would present a hazard to safe navigation through the area, and restrict emergency access, particularly in Abraham's Bosom.

JO explained that the HDD works yet to be completed were still in the planning phase, and once finalised appropriate notifications would be circulated, including to the Coastguard. There was no intention at this time to implement exclusion areas around vessels undertaking the works, and JO assured that all endeavours would be made to prevent any impediment to emergency access.

AC concurred with JO, and added that it was not UK policy to implement exclusion zones around offshore works.

AP Sea Kayak Alliance:

Queried the level of consultation that would be conducted in the drafting of NRAs for the HDD works yet to be completed, and the Magallanes turbines.

AC stated that there would be a revised NRA issued every 2 years, and prior to each type of device array deployment. Part of the NRA process included stakeholder consultation, where data submitted would be absorbed



into the VTS analysis, and input from meetings was considered in the overall assessment of risk. AC acknowledged that verbal input was qualitative, however impressed that Marico understood the value of experienced mariners and gave weight to their input.

AP expressed dissatisfaction at the small vessel experience held on Marico's team during the enquiry.

AC assured AP that the team had a wide skill set and that small vessel users were represented on the Marico team.

PJ Holyhead Towing:

Regarding the promulgation of information to mariners – happy to act as a liaison for the local fishing community. HR thanked PJ for offering to share the notifications, and stated PJ would be included on the circulation list for future notifications.

JW Sea Kayak Alliance:

Wanted to clarify that the NRA would be updated every two years even if there were no further deployments intended during the upcoming period.

AC assured the delegates that the Morlais project would be supported by Marico to follow the MCA guidelines regarding offshore renewable NRA requirements.

RI RYA Wales:

Queried the data being used in the Marinus NRA, and the VTS being prepared for the Morlais NRA.

AC stated that for the Marinus NRA, the AIS data collected during March 2023 VTS deployment and commercially procured data was used, and supplemented with external expert sources such as the RYA Coastal Atlas.

RI stated that the RYA Coastal Atlas had not been revised in the last 5 years, and expressed concern that the buoy may cause a restriction in the increased local traffic during the summer months.

AC shared that all efforts had been made to use the most recent data, and welcomed a more recent representation from the RYA, should one be available.

CW Rhoscolyn NCI:

Appreciated that the MCRP and Marico had been forthcoming regarding the failure to complete the March 2023 VTS survey, and looked forward to supporting the subsequent surveys with visual observations from the Rhoscolyn NCI station.

JO thanked CW for offering to support Marico to conduct a comprehensive and representative VTS survey, and added that the project would be building on past surveys conducted, increasing our understanding of how the area is utilised.

JO shared more detail regarding the Marinus buoy following the earlier introduction to respond to questions raised by RI RYA. JO explained that the buoy was sized as necessary, as the area demanded a buoy able to withstand the strong tidal conditions experienced. The project were keen to develop relationships with stakeholders who regularly transited the area, and hoped these meetings would assure delegates that the project is doing its utmost to safeguard vessel users, and allay any concerns that the deployments would pose a risk to navigation.

CG RNLI:

Concurred with JO's assertion that the buoy posed little threat to safe navigation, and postulated that it was likely that approaches made to the buoy would be as a result of curiosity rather than the inability to perceive or avoid the buoy, which was relatively small in a large open area of water. CG expressed interest in the delivery outputs of the work being conducted by the project, in order to progress marine conservation in the offshore renewables industry.



RR Red Wharf Bay Sailing Club:

Agreed that deployments and learning opportunities cannot be rejected based on a small potential threat to navigation. As a sailor, RR expressed that in his experience stationary and marked objects were easily navigated around safely.

CW Rhoscolyn NCI:

Asked the MCRP to expand on how the data collected on the Marinus buoy would be used in the project and applied as industry wide learning.

JO explained that the cameras being deployed initially would be part of a package of technology later used to ground truth the primary sonar monitoring devices mounted on the turbine, and that data collected from the Marinus platform would be used to train computer algorithms to automatically detect marine mammals in the MDZ specific imagery.

JO went on to explain that all data collected during the project would be stored on a platform being developed by Bangor University, and that this would be accessible to the wider industry following NRW acceptance.

CW asked how the data would be used to directly safeguard animals operating around the turbines.

JO shared that the project aimed to deliver both monitoring and mitigation capability. The cameras would serve as part of the monitoring equipment, and facilitate accurate and timely observations, which could then be used to inform mitigation actions such as acoustic deterrent devices (ADD). ADD are not intended to be tested on the Marinus platform, but have been shown to elicit an effective response from mammals, without causing harm or superfluous displacement from an area.

The current scientific feeling is that mammals can perceive and avoid turbines without intervention; the MCRP aim to evidence this, but also ensure safeguarding is in place as best practice.

MC Trearddur Bay Boat Yard:

Introduced himself to the MCRP team, and offered his extensive professional contacts and insight into the local maritime users.

HR Thanked MC, and stated that details would be shared following the meeting.

JW Sea Kayak Alliance:

Queried when the buoy would be deployed in the MDZ.

JO answered that the buoy would be deployed in the MDZ following a process of Third Party Verification of the mooring and buoy structure, as mandated by the MCA. Early indications are May, however this is subject to finalisation.

DJ Trearddur Bay Sailing Club:

Asked for confirmation of the buoy dimensions.

JO confirmed the buoy was 20m long x 13 m wide.

CL closed the meeting, and thanked the delegates for their time and input.

- The next NSM meeting will be scheduled after the completion of the Summer VTS survey, and invitations should be expected in approximately 6 months' time.

