Unit 23, Beaufort Park,
Riverside Court
Chepstow, Monmouthshire
NP16 5UH
T +44 1483 746 500

Our ref: EOR0795

Date: 31 March 2021

c/o Joe Thomas
Marine Licensing
Natural Resources Wales

Dear Joe,

CML2111 – South Hook LNG Jetty Maintenance Activities

Thank you for your email. Following review please find below our response to NRW email **Sent:** 30 March 2021 08:45.

It initially appears that NRW may not have considered the proposal based on its individual merits, but may have defaulted to a theoretical position that physical disturbance of the seabed could potentially disturb sediment into suspension which may therefore result in an impact on the adjacent Maerl Beds.

We therefore would like to take this opportunity to clarify the extent of potential impacts of the proposal on the receiving environment. As per the following impact summary:

Impact: Temporary Habitat Loss of Seabed

The proposed work activity will require the temporary deployment of two spud legs during retrieval and re-installation of the loading arm with total disturbance area on the seabed of 2.26 m^2 per two leg deployment (assuming a circular 1.2 m diameter spud leg) and a total seabed disturbance of 4.52 m^2 across the two deployments. The proposed spud deployment is located within the existing berthing area, a deep water area which is used by LNG ships on a regular routine basis which will result in a highly disturbed environment due to propellor wash and mooring activities. Given the negligible disturbance area, temporary duration and highly modified environment in which the spud legs will be there will be not impact on seabed habitats from direct disturbance from spud leg deployment.

Impact: Increase in Suspended Sediments and Sediment Deposition Causing Impact on adjacent Maerl Bed Habitat

Maerl beds are considered sensitive to anthropogenic disturbance and have the potential to be impacted from activities that cause increases in suspended sediments and sediment deposition that may smother or cause impact on photosynthesis from reduction of light attenuation. Maerl beds have been found to exist approximately 200 m to the west and north of the barge location (attachment 1).

Firstly the proposal should be considered in in terms of scale and extent and in the context of the geographical location and hydrodynamic regime at the proposed works location. The berth area in which the spud legs will be deployed is located a central tidal channel, of the Milford Haven Waterway which experience strong tidal currents (maximum neap current speed - 0.7 knts and maximum spring current speed - 1.5 knts), in an east to west direction[1]. Therefore the sediments within the berth area will likely be relatively coarse material (i.e. sands and gravels) as any fine sediments will be remobilised into the water column by

[1] Hyder Consulting (1999). Quantification of Inputs to Milford Haven, MHW Environmental Monitoring Steering Group.

the tidal currents. This is supported by mapping presented at Magic.defra.gov.uk which indicates the area around the South Hook jetty as being characterised by subtidal coarse sediments and work undertaken Carey *et al*. (2015[2]) which characterised the area as fine sands to mixed sediments and identified the biotopes A5.444: *Flustra* and *Hydrallmania* on tide swept sediment and A5.422: *Crepidula* in mixed sediment in the vicinity of the South Hook Jetty. The berth areas of the jetty also do not require maintenance dredging to be undertaken providing further justification that fine sediments are unlikely to accumulate in significant quantities in the area in which the spud legs will be deployed.

The deployment of each spud leg during loading arm retrieval and re installation will potentially displace/ disturb a maximum volume of 0.678 m^3 per deployment (2.26 m^2 (Spud leg area) x 0.3 m (approximate penetration depth) of material. Even if sediments are disturbed, these will be disturbed locally, at the seabed and would be expected to fall out of suspension within close proximity (metres) of the location of spud leg placement. In the unlikely event that these sediments would be transported further afield the negligible volume of sediment disturbed (as outlined above) and the high dilution afforded within Milford Haven waterway would mean that suspended sediments would be below detectable levels in the immediate vicinity of the proposed works, with no adverse impacts on the Maerl Beds approximately 200 m to the west.

Given the negligible volume of sediments that will be disturbed, the immediate fall out of coarse sediments following suspension immediately following disturbance there will no impact on adjacent Maerl beds or any other benthic habitat within Milford Haven.

In conclusion, while we are aware of and accept that the Maerl Beds are very sensitive ecological features in the Milford Haven Waterway, the additional information provided above as well as the details provided in the application demonstrate that there will be no impact from the proposal on any benthic conservation features, including Maerl Beds of the Milford Haven waterway. We therefore request immediate expedition in the determination of the application for a Marine Licence, as the proposed activity will incur significant operational consequences and financial costs, as previously highlighted, if the works are delayed past the 19 April 2021.

Yours sincerely,
for RPS Energy Ltd

Daniel Collins
Principal Consultant
collinsda@rpsgroup.com
+44 (0) 1291 645005

cc: Wayne Davis - RPS
Shane Evans – South Hook LNG

[2] Carey, D.A., Hayn, M., German, J.D., Little, D.I. and Bullimore, B (2015) Marine habitat mapping of the Milford Haven Waterway, Wales, UK: Comparison of facies mapping and EUNIS classification for monitoring sediment habitats in an industrialized estuary. Journal of Sea Research 100 (2015) 99-119.

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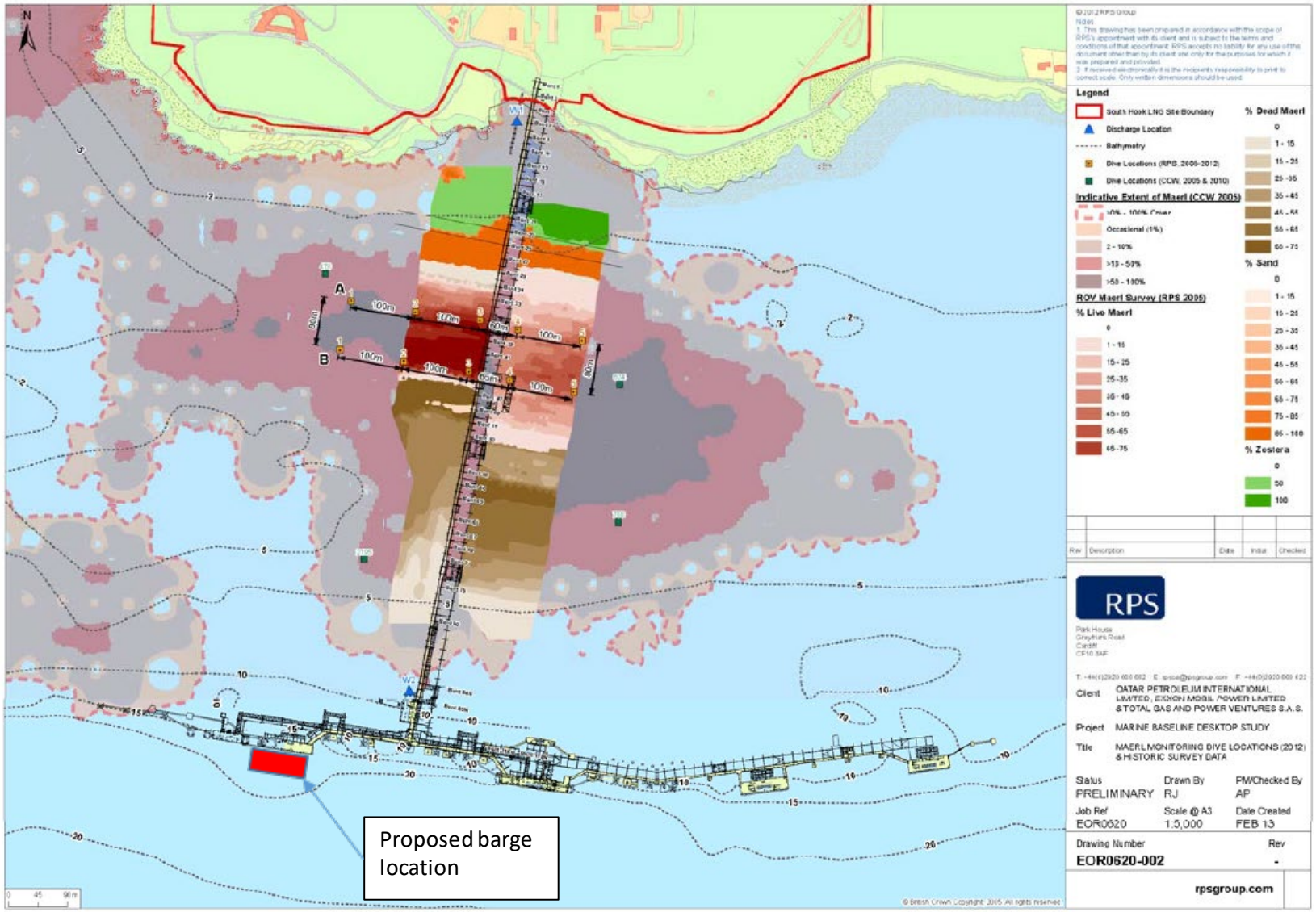
A.1 Attachment 1 – Maerl Bed Habitat Map and Barge Location



Reference. '*Post Operational Maerl Monitoring Survey Report 2012*', Project Ref: EOR0620 Report No: EOR0620-R-02-02, RPS May 2013), which was submitted to EAW (NRW predessor).