

To: Natural Resources Wales

Ref: RML2420

From: ABPmer on behalf of ABP

Date: 09 July 2024

Subject: Response to comments from Natural Resources Wales in relation to the Future Port Talbot Ground Investigations Marine Licence Application (RML2420)

Overview

Following consultation with Natural Resources Wales (NRW) advisors as part of the application process, NRW Marine Licensing Team (MLT) requested a Technical Note to be produced to address specific comments in relation to peat and clay and invasive non-native species (INNS). Comments from NRW advisors were provided in a 'Marine Advice Memo' dated 7 June 2024.

This Technical Note addresses the comments raised including providing further detail on sample methodology, number of samples, and further justification of the need to survey the peat and clay exposures habitat. As requested ABP has also provided the Phase 1 habitat survey report¹ and an updated Biosecurity Risk Assessment (BRA) which have been issued as separate documents.

Key Issue 2 (part 1)

Comment

The following detailed comment was provided by NRW:

NRW (A) acknowledges that: "Peat and clay exposures are likely to be more sensitive as the substrate tends to be relatively firm and any hole created by GI [Ground investigation] works will remain" and recognise that the number of sample sites in the foreshore has been minimised to avoid damage as much as possible but cannot support the conclusion that: "it is integral to the design to collect data from a limited number of boreholes from this substrate" based on the information provided.

- *As such, NRW (A) requests further information and clarification on the sampling methodology and proposed development which should be updated and submitted to NRW prior to works commencing in order to understand the numbers of boreholes and/or CPT [Cone Penetration Tests] proposed on the exposed peat and clay habitats, the necessity for directly sampling on this Section 7 habitat, and the different methods proposed for different habitats i.e. will a jack-up barge be used for boreholes on each intertidal habitat?*
- *Until further justification is provided as to the requirement to directly sample peat and clay exposures in this instance, NRW (A) strongly advises that the ground investigation works avoid this Section 7 habitat and implement a buffer zone around any peat and clay exposures to minimise any impacts from the vehicles/machinery used in these ground investigations, particularly those related to the jack-up barge operating in the intertidal area.*

¹ ABPmer (2024). Port Talbot Marine Ecology Surveys, Summary Report, ABPmer Report No. R.4292.

Response

By way of response we would like to offer the following:

Clarification on the sampling methodology and proposed plant

Methodology and sampling

All boreholes (BH) and CPTs will be carried out from the sea by jack-up barge. It is noted that when referring to CPT sampling that in this case this also includes collection of sediment samples using a Mostap sampler. The contractor will not undertake any marine GI works from land. In planning the sequencing of locations and assessing limitations on moves the contractor carried out a desk study which included plotting out each location at various times and dates using Navonics software to plot tides. This allowed for an assessment of risk to me made in particular in relation to intertidal borehole locations. It was considered that very few stations could even be attempted by land-based methods with the main concern being related to safety associated with placing persons and heavy machinery in the intertidal zone and exposure to potential difficulties associated with trying to “beat” the flood tide.

The jack-up barges will be moved to position by tow/bow-push/hip tow using a tug workboat. All jack legs will be completely retracted before towing to preclude dragging of legs over the seabed. Manoeuvres to position the jack-up barge are scheduled to take place during slack water to ensure maximum control over positioning. Once the moonpool (the opening found in the floor or base of the hull, platform, or chamber giving access to the water below) is within the pre-agreed tolerance of the setting-out location (typically radius of 1m from setting out coordinates) the jacking process commences, with the barge being held *in situ* by the tug until such time as two jack legs get purchase in the seabed.

Details of proposed plant

The details of the jack-up barges and vessels are shown in Table 1. The CPTs on the foreshore are programmed to be carried out by the shallow-draft jack-up barge *Causeway Giant 1*.

Table 1: Details of plant and vessels involved in marine Ground Investigations at Port Talbot.

Type	Name	Details
Jack-up barge	Causeway Giant 1	15m x 18m C5, 28m jack legs
	Causeway Giant 2	17m x 24m RCP250, 36m jack legs
Workboat/Tug	Ocean Energy/Supporter	19m multicat with 4t deck crane
Crew transfer vessel	Ocean Clipper	12 PAX MCA licenced CTV

Revised numbers of boreholes and/or CPTs proposed on the peat and clay exposures habitat

A meeting was held between the engineering team and environmental specialists to review the planned locations for the boreholes and CPTs in relation to the mapped² Section 7 habitats. Each sample station was considered individually to determine whether it was essential to sample in that location, or whether it could be relocated. Tidal constraints to sample site locations were also taken into consideration. Through this review process, it was possible to relocate four sample stations outside the mapped extent of the peat and clay habitat. There is one remaining borehole (BH122) and three CPT sampling stations (CPT105, CPT109 and CPT110) which were deemed essential to sample as a minimum to inform the design.

The locations of boreholes and CPTs are shown in Figure 1. The numbers of sample stations in each Section 7 habitat and the combined footprints of the jack-up barge, boreholes and CPTs are provided in Table 2.

² Mapped layers of Section 7 habitats are based on the extents in ABPmer (2024). *Port Talbot Marine Ecology Surveys, Summary Report*, ABPmer Report No. R.4292.

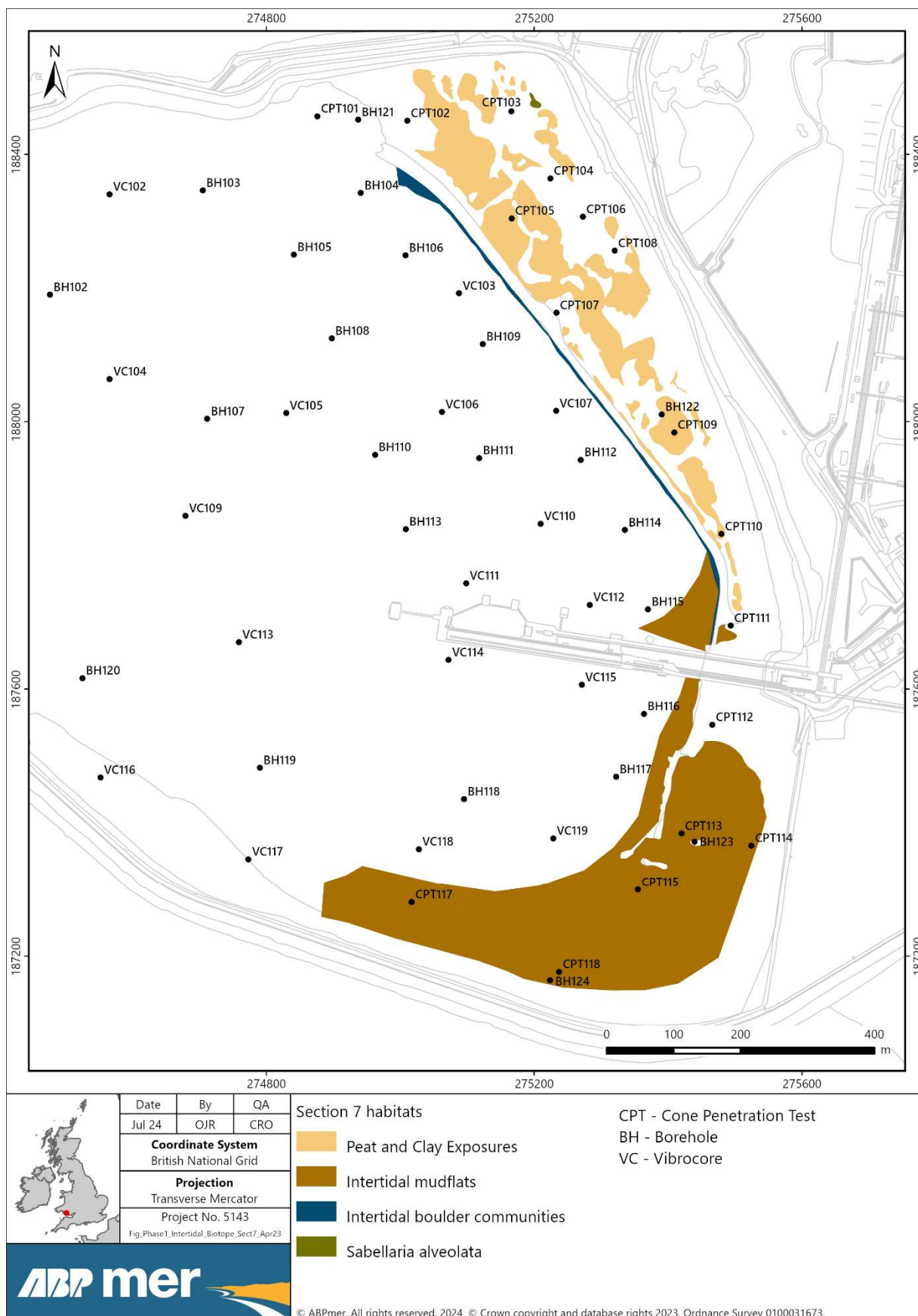


Figure 1: Location of Ground Investigation sampling stations in relation to Section 7 habitats.

Table 2: Numbers of sample stations and associated footprints in Section 7 habitats from GI works at Port Talbot.

Section 7 Habitat	No. of boreholes	Footprint of boreholes (m ²) (Note 1)	No. of CPTs	Footprint of CPT (m ²) (Note 2)	Footprint of jack-up barge (m ²) (Note 3)	Total footprint in Section 7 habitat (m ²)	Area of Section 7 habitat mapped at Port Talbot (m ²) (Note 4)	Footprint as a % of the mapped habitat
Peat and clay exposures	1	0.02	3	0.01	18.10	18.12	54,721	0.03
Intertidal mudflat	2	0.04	5	0.02	31.67	31.72	123,752	0.03
Intertidal boulder communities	0	0	0	0	0	0	4,701	0
Honeycomb worm <i>Sabellaria alveolata</i>	0	0	0	0	0	0	213	0

Note 1: Based on the maximum diameter of a borehole of 150mm.

Note 2: Based on the maximum diameter of CPT Mostap sampler of 65mm.

Note 3: This is calculated by multiplying the number of stations with the total footprint of the jack-up barge legs at each station. The Causeway Giant 1 jack-up barge would be used to carry out sampling in intertidal areas. It has 4 spud legs; each leg has a footprint on the seabed of 1.1315m²; resulting in a combined footprint of the 4 spud legs of 4.524m². Expected penetration of spud legs into the seabed varies between 1m and a maximum of 15m (depending on the substrate type).

Note 4: Habitat extents are based on 2023 survey (ABPmer, 2024).

As far as possible stations have been moved to be outside the boundaries of Section 7 habitats (i.e. where the sampling station is not deemed essential to inform design). The stations outside Section 7 habitat will have a buffer around the sample site of 20m to account for the size of the jack-up barge (15m x 18m) plus a buffer from the edge of the barge (Figure 2). The dynamic positioning system used to position the barge on the station has a tolerance of 1m and therefore a 20m buffer ensures that the spud legs would not be placed on any Section 7 habitats.

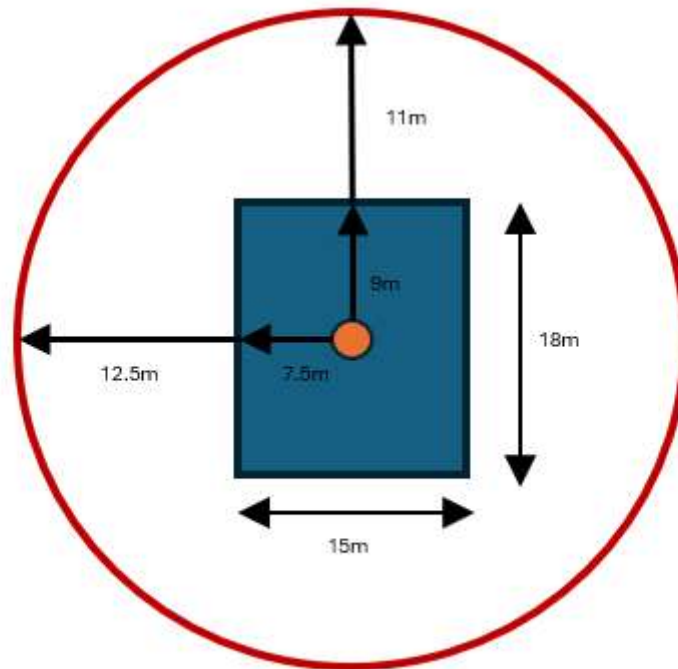


Figure 2: Indicative drawing (not to scale) showing a 20m buffer from the sample station point.

Rationale for the requirement to directly sample within Section 7 habitats

There is a fundamental need to sample within the peat and clay habitat to determine the geotechnical properties (strength and stiffness) of the substrate materials in order to understand how they will behave, i.e. how resilient and compressible the material is in order to allow engineers to calculate the necessary foundations and design of the scheme. Without testing there would be unacceptable risk to the project in terms of uncertainty in the design. Acquiring information on the material properties is essential to ensure that the scheme taken forward for consenting is feasible from a technical and engineering perspective.

Gaining a clear and robust understanding of technical constraints is also integral to informing the necessary appraisal of design alternatives, including consideration of options to avoid/minimise the footprint of structures on protected habitats. It is also required to understand the potential impacts relating to carbon storage.

Whilst there is a small degree of flexibility with the location of sample stations, there is a need for a spread of stations across the foreshore to gain sufficient information for the reasons outlined above.

Key Issue 2 (part 2)

Comment

The following detailed comment was provided by NRW:

It would be very useful to see the Phase 1 intertidal habitat survey report from 2023 in order to understand the distribution of the Section 7 habitats recorded and potential impacts arising from these proposed works: ABPmer, (2024). Port Talbot Marine Ecology Surveys, Summary Report, ABPmer Report No. R.4292

- *In addition to the points above regarding Section 7 peat and clay exposures, NRW (A) recommends that the following condition be included in the marine licence to mitigate impacts to sensitive habitats: "The Licence Holder must ensure that in the event of removal of any sensitive species or habitat designated by NRW under Section 7 of the Environment (Wales) Act 2016, no further removals occur at that location, or within 20 meters of that location."*
- *NRW (A) agrees with the mitigation measures set out in Table 3 of the FPT Ground Investigations Method Statement with regards to marine benthic ecology (pending outcome of issues identified around peat and clay exposures) and the transfer of INNS (see below for recommendations relating to mitigation of INNS transfer in relation to PPE).*

Response

By way of response we would like to offer the following points:

The Phase 1 intertidal habitat survey report, ABPmer, (2024). *Port Talbot Marine Ecology Surveys, Summary Report*, ABPmer Report No. R.4292, was issued to NRW Advisory (Adam Cooper) on 14 June 2024. It was confirmed on the call on 1 July 2024 that the NRW benthic specialist had received the report. ABP has also submitted the report to NRW MLT for their records.

In relation to the proposed condition *"The Licence Holder must ensure that in the event of removal of any sensitive species or habitat designated by NRW under Section 7 of the Environment (Wales) Act 2016, no further removals occur at that location, or within 20 meters of that location."*

It is acknowledged that for a small number of sample stations it is the intention to acquire one sample per station within the Section 7 peat and clay exposures habitat (1 borehole and 3 CPT stations, see Figure 1 and Table 2). It is understood that multiple samples could not be taken in the same location or within 20m of that location.

It is noted that intertidal mudflat is also Section 7 habitat and that there are boreholes and CPTs planned to overlap this habitat (south of the Tata jetty). The impacts of sampling in this habitat differs to peat and clay as once intertidal mud sediment has been removed by the borehole/CPT the hole will collapse in on itself, effectively infilling and sealing the hole, and the substrate would be quickly recolonised by surrounding infauna. The effect is therefore considered to be temporary and would not affect the extent or condition of the intertidal mudflat.

We note NRW's agreement with the mitigation measures set out in Table 3 of the FPT Ground Investigations Method Statement with regards to marine benthic ecology (pending resolution of outstanding comments).

Key Issue 3

Comment

The following detailed comment was provided by NRW:

NRW (A) acknowledge the production of a biosecurity risk assessment and management plan, however, no details of the proposed vessels to be used for this survey have been provided. NRW (A) recommend that such information is included in the Biosecurity Plan along with an assessment of INNS known to be present at each port visited by each vessel over the past 12/24 months in order to sufficiently assess the risks associated with this project and identify suitable mitigation measures accordingly.

NRW (A) recommends that the applicant refer to NRW's [Guidance for completing NRW's Marine Non-native Species Biosecurity Risk Assessment and Management Plan](#), in particular, section B.1.1, which lists suitable data sources to investigate for records of INNS around the UK to inform this and future assessments.

NRW (A) recommends that consideration is given to risks associated with transfer of INNS through contamination of PPE and other clothing following sample handling on deck or working intertidally.

NRW (A) recommends that in addition to the measures set out for washing down vessels and equipment, that all PPE is also washed down prior to leaving the site to minimise the risk of INNS being transported on clothing, boots, etc. following sample handling on deck or working intertidally.

Response

By way of response we would like to offer the following:

1. An updated BRA has been provided which contains the information on the specific vessels and equipment that would be used to carry out the marine GI. The information has been provided in line with NRW's [Guidance for completing NRW's Marine Non-native Species Biosecurity Risk Assessment and Management Plan](#).
2. The BRA has been updated to include consideration of the risks associated with transfer of INNS through contamination of PPE and other clothing following sample handling on deck or working intertidally. As requested, a mitigation measure has been added requiring all PPE to be washed down prior to leaving the site to minimise the risk of INNS being transported on clothing, boots, etc. following sample handling on deck or working intertidally. The contractor has confirmed that this measure (and all other mitigation measures) will be complied with.

Other comments

We note the comments provided by other NRW specialists in the Advice Note of 7 June 2024. In a call with NRW MLT on 1st July 2024 it was agreed that no further action was required by ABP in relation to these comments at this time.