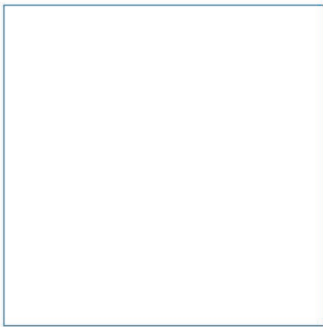
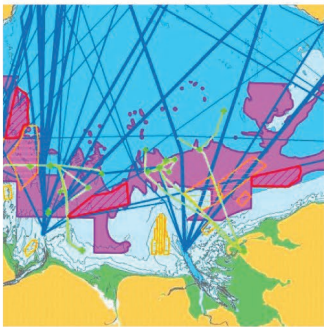
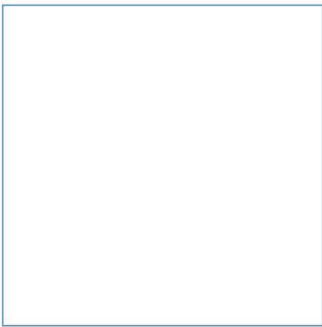
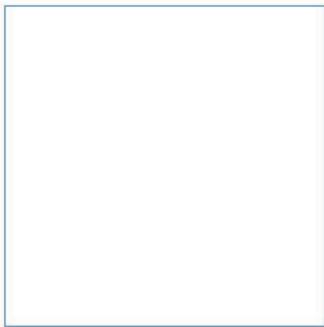


Associated British Ports

Future Port Talbot Ground Investigations

Method Statement and Supporting Information

February 2024



Innovative Thinking - Sustainable Solutions



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Future Port Talbot Ground Investigations

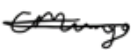
Method Statement and Supporting Information

February 2024



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1 Introduction

1.1 Background

Future Port Talbot is a proposal by Associated British Ports (ABP) to develop the port to support the transition to a net zero-carbon by providing the facilities to support the construction of Floating Offshore Wind (FLOW) developments. The proposals include construction of new quay walls and stone pads, quayside land reclamation, upgrade of the North Jetty and existing loading jetties, new pontoons and dredging for jack-up operations at Port Talbot. ABP is the Statutory Harbour Authority for Port Talbot.

Marine Ground Investigations (GI) are required to inform the design and to obtain geotechnical and geo-environmental information to inform the Environmental Impact Assessment (EIA) which will be submitted as part of the applications for planning and consent. The marine GI includes the following aspects:

- Investigation of ground conditions around the proposed quay walls to facilitate the preliminary design of these structures;
- Assessment of the depth of marine sediment and depth to bedrock;
- *In situ* and laboratory testing to assess geotechnical design parameters for the geological materials encountered;
- Geo-environmental/contamination testing for EIA, material dredging and disposal;
- Assessment of geoarchaeological potential and provision of samples for geoarchaeological assessment; and
- Information to facilitate the production of a Ground Investigation Report (GIR).

1.2 Purpose of this report

This report has been prepared to support a marine licence application under the Marine and Coastal Access Act 2009 for the Port Talbot marine GI works. It contains additional supporting information on the details of the works and on environmental considerations. The report is provided to Natural Resources Wales (NRW) as the organisation responsible for marine licensing in Welsh inshore areas, on behalf of the licensing authority, the Welsh Government.

The full suite of documents submitted as part of the application comprises:

- Application form for a Marine Licence for Marine Works
- Method Statement and Supporting Information report (this report)
- Biosecurity Risk Assessment and Management Plan
- Water Framework Directive (WFD) assessment
- Welsh National Marine Plan signposting document
- Habitats Regulations Assessment (HRA) Information for Screening report.

2 Ground Investigation methodology

2.1 Overview

The scope of the marine GI includes:

- 16 no. Cable Percussive/Sonic Core (CP/SC) boreholes taken to a maximum depth of 25.0 m. The use of either CP or SC drilling will be determined by the appointed Contractor, however, both methods have been considered in this report for completeness.
- 16 no. Cable Percussive/Sonic Core with Rotary Core follow-on (CP/SC+RC) boreholes will be taken to a maximum depth of 40.0 m. It is expected that CP/SC drilling will extend to a depth of circa 25.0m with rotary follow on to advance the borehole to the scheduled depth. This may vary depending on the ground conditions encountered.
- 33 no. Vibrocores taken to a maximum depth of 5.0 m below seabed level.
- 15 no. Van Veen Grab (VVG) samples to a maximum depth of 1.0 m below seabed level.
- 19 no. Seismic Cone Penetration Tests with Piezocone (SCPTu) taken to a maximum depth of 25.0 m.
- For each of the exploratory holes Standard Penetration Testing (SPT) and sampling will be carried out.

The marine licensable activities are those resulting in extraction of sediment. No materials will be deposited during the works.

2.2 Survey area

Port Talbot is located on the southern coast of Wales, on the east side of Swansea Bay. The site boundary of the GI works is shown in Figure 1.

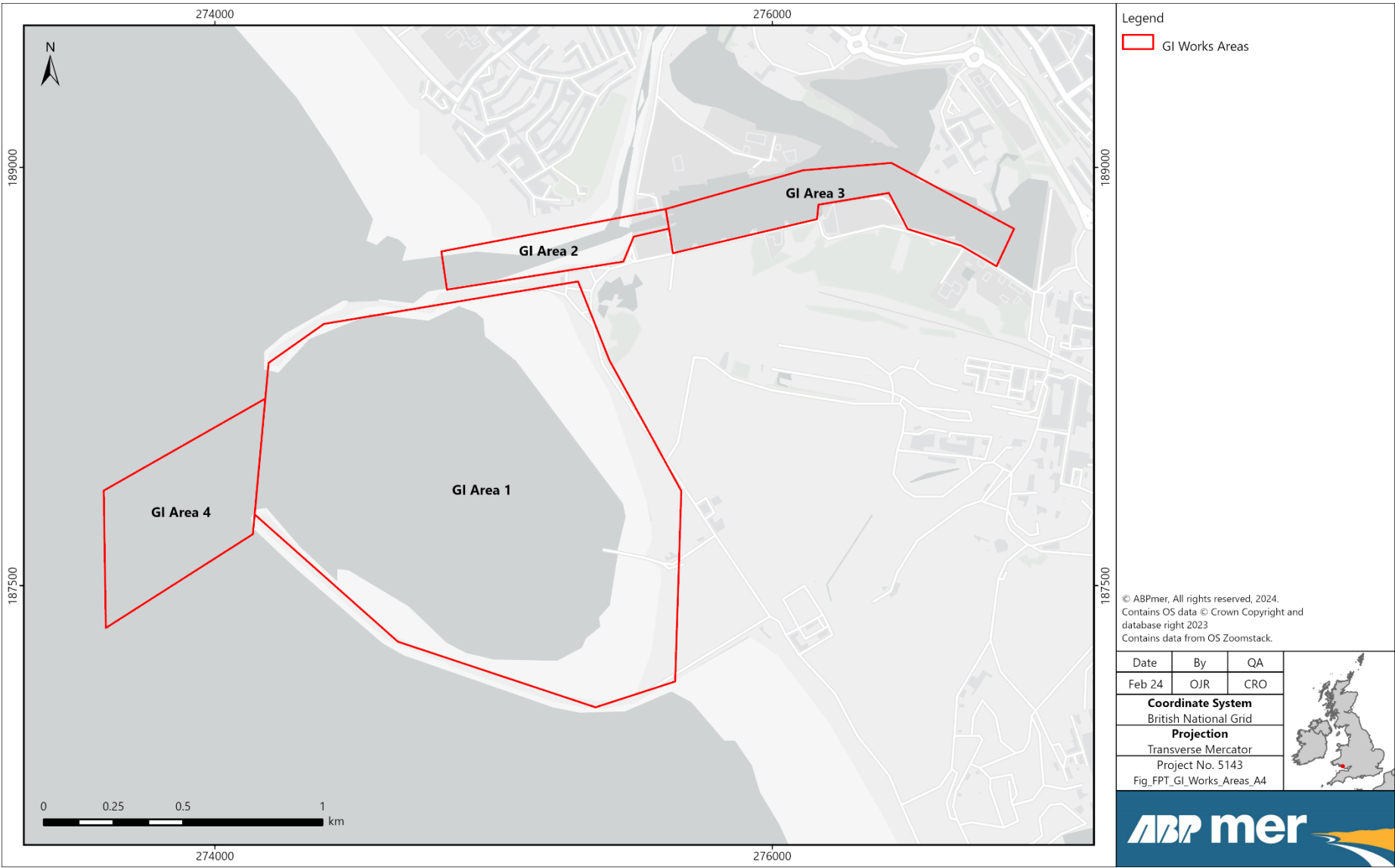


Figure 1: Port Talbot Ground Investigations Works Areas.

2.3 Survey programme

The marine GI is planned to commence in July 2024 with an appropriate working weather window between July-September. The duration of the works will be approximately eight weeks. Working hours will be continuous over a 24-hour period for the duration of the works (although works may be tide-dependent). Sampling at each location is anticipated to take approximately two days per borehole (assuming 24-hour working) and half a day per vibrocore.

Whilst the surveys should be completed within eight weeks, a marine licence is being sought for a 12-week period, from July 2024 to September 2024 to ensure sufficient contingency and reduce the need for subsequent licence variations, should works be delayed.

Given the timing of the works is dependent on the start date of the marine licence and on the Contractor, the appraisal of key environmental considerations (Section 3) has taken a precautionary approach and has considered that the works could be carried at any time of the year.

2.4 Vessels and plant

The methodology of drilling, being either Cable Percussive, Sonic and/or Rotary, or a combination of techniques, will be confirmed by the appointed Contractor. Following confirmation of the chosen method(s), NRW will be notified with any additional information made available on request for review.

Information on the anticipated marine vessels and plant equipment required to undertake the marine GI is presented in Table 1. Further information is provided in Appendix A.

It is noted that the samples on the foreshore may be carried out either from land using a track truck to transport the drilling rig/CPT rig, or they may be carried out from sea by a jack-up barge which is floated in at high tide and remains on the shore as the water recedes to carry out sampling.

Table 1: Information on vessels and plant likely to be used in the marine GI works.

Vessel/equipment	No. on site	Description
Cable Percussive Drilling Rig*	2*	▪ Used to drill boreholes using a heavy cutting tool in superficial deposits to obtain Class 1 undisturbed soil samples. ▪ The Cable Percussive rig will be located on a jack-up barge used to undertake 32 no. boreholes to circa 25m in depth depending on the ground conditions encountered. ▪ Typical rig details: ○ Weight = 4,000kg ○ Height (H) = 6.87m (total erected height) ○ Set up area = 2.44m x 1.62m ○ Drilling depth = As defined in the scope of the marine GI, up to 150mm diameter core. ○ Airborne noise level = 79dB L_{Aeq,T} at 10m [source: BS 5228-1:2009, Table C.2, Item 43]. ○ Underwater noise source levels TBC by contractor

Vessel/equipment	No. on site	Description
		Note the above details may vary depending on the rig type(s) and availability of the appointed Contractor.
Rotary Drilling Rig*	2*	- Used to drill boreholes using a drill bit and core sampler in bedrock geology to obtain cores for laboratory testing. - The rotary rig will be located on the jack up barge used to advance the previously drilled cable percussive boreholes to a maximum depth of 40.0m. - Typical rig details: - Weight = 5,100kg - Height = 5.23m (full mast), 2.40m (otherwise) - Width = 1.63m - Set up area = 4.84m x 1.80m - Drilling depth = As defined in the scope of the marine GI, up to 150mm diameter core. - Airborne noise level = 84dB at 1m (engine idle), 115dB (hammer on 1m), 94dB (hammer on 10m) [source: Comacchio GEO 305 Datasheet]. - Underwater noise source levels TBC by contractor - Note the above details may vary depending on the rig type(s) and availability of the appointed Contractor.
Sonic Drilling Rig*	2*	- Sonic drilling may be used as a replacement for cable percussive subject to the preference of the appointed Contractor. - Typical rig details: - Weight = 6,500kg - Height = 6.00m (full mast), 2.90m (otherwise) - Width = 2.10m - Set up area = 7.00m x 2.50m - Max frequency for oscillation = 150Hz - Drilling depth = As defined in the scope of the marine GI, up to 150mm diameter core. - Airborne noise level = 76.9dB LAeq,T at 10m (engine at full power and idling) [source: Xi Engineering Consultants, 2017]. - Underwater noise source levels TBC by contractor. - Note the above details may vary depending on the rig type(s) and availability of the appointed Contractor.
Track-truck Cone Penetration Testing Rig	1*	- Used to provide information for the superficial geology in the intertidal areas only to a maximum depth of 25.0m. The test measures the resistance to penetration using a steel rod with conical tip. - A track-truck or track only will be used to cope with soft or uneven terrain whilst minimising ground disturbance. In addition, the use of track mats is envisaged to provide access to each test location.

Vessel/equipment	No. on site	Description
		▪ It is anticipated that the CPTs will be undertaken at low tides from the land without a requirement for a jack up rig or support vessel. ▪ Typical rig details: ○ Weight: approx. 21,000kg (20.5T) ○ Track-truck length = 8.10m ○ Track-truck width = 2.50m ○ Track-truck height = 4.40m ○ Track length (individual) = 3.30m ○ Track width (individual) = 0.65m ○ Airborne noise level = 78.7dB(A) at 2m (driving) and 69.5dB(A) at 2m (testing) [source: PowerPoint Presentation (lankelma.com)] ○ Note the above details may vary depending on the rig type(s) and availability of the appointed Contractor.
Vibrocoring equipment	1*	▪ Vibrocoring uses the force of gravity, combined with kinetic energy (through a vibrating head) to drive a sampling-core into the seabed. The core is used to collect shallow marine sediment samples for chemical testing. ▪ Each vibrocore will be stored on a support vessel used to manoeuvre and access each test location. The vibrocore will be lifted using a crane or winch and lowered the seabed level. The vibrocore will then be used to core into the seabed to extract sediment samples. ▪ A total of 33 no. vibrocores are required, typically extending up to 5.0m below the seabed. ▪ Typical vibrocore details: ○ Using 5m core barrel ○ Height = 7.40 m ○ Footprint = 4.70 m diameter ○ Max weight = 1000-1200kg (in air), 850-1050kg (in water) ○ Airborne noise level = 80dB L_{Aeq,T} at 10m [source: BS 5228-1:2009, Table C.3, Item 27]
Van Veen Grab	1*	▪ This method involves a grab bucket (assumed 6L (0.006m³)) being lowered to the seabed which closes upon impact to allow for the shallow seabed sediment to be recovered inside. The sample is then winched back to the surface. ▪ Each sample location will be accessed using a support vessel to manoeuvre into position. ▪ Samples are used for chemical testing.
Jack-Up Barge (JUB)	2*	▪ A Jack-Up Barge is a mobile platform that consists of a buoyant hull fitted with movable legs which allow for the platform to be lifted above sea level. The hull is buoyant allowing for the JUB to be relocated to each investigation location using a support vessel (Anchor Handling Tugboat or equivalent). Once at the desired location, the legs are

Vessel/equipment	No. on site	Description
		lowered into seabed until such reaction is provided to raise the platform up vertically. - Used to provide a level platform for the rigs (CP/SC and RC) to undertake the drilling at each exploratory hole location. - Jack-up barge will be manoeuvred into each location with support from a vessel / tug. Jack-up barge to self-elevate using jacking system. Legs to be extended into the seabed to provide required bearing resistance. - On board the Jack-up barge will include a cabin, workshop, fuel bunker, navigation shapes and lights, bollards, handrails. Optional equipment may include winches, safety boat, crane, cantilever platforms and mobile generators. - Typical jack-up barge details [source: HAVEN-SEAJACK4.pdf (red7marine.co.uk)]. : - Haven Seajack 4 Modular Jack Up Barge - Weight = 190,000kg (190t) lightship weight. - Maximum deck load = 80,000kg (80t) - Length = 18.30m - Width = 12.20m - Deck area = 224m² - Leg diameter = 0.76m - Maximum leg length = 21.00m - Note the above details may vary depending on the rig type(s) and availability of the appointed Contractor.
Support vessel	1*	- Used to facilitate the undertaking of the marine investigations and transport personnel and soil sediment samples from the jack up rig to the shore. - To undertake vibrocores and Van Veen Grab samples at various locations within the intertidal harbour area. - The vessel size will be determined by the appointed Contractor to ensure it can operate within the impounded dock gates which is limited to 17.7m in width. It is worth noting survey vessels are not anticipated to exceed 5m beam. Details to be confirmed by the appointed Contractor. - Contractor shall determine appropriate vessel size to meet the requirements of the ground investigation.
4x4 vehicle (with optional trailer)	1*	Used to facilitate the undertaking of the marine investigations and transport personnel, equipment, and soil samples from the shore to the survey vessel and storage areas.

*Plant type and number to be confirmed by the appointed Contractor to meet the investigation Specification.

2.5 Sample volumes

Based on the scope of the marine GI, sediment samples will be retrieved from the following exploratory holes:

- 32no. boreholes (cable percussive / sonic / rotary)
- 33no. Vibrocores
- 19no. Cone Penetration Test
- 15no. Van Veen Grab Samples

It is anticipated that the boreholes will be undertaken from two small jack up barges and the Vibrocore and the Van Veen Grab samples will be undertaken from a support vessel. It is anticipated that the CPTs will be undertaken from land at low tides. If this is not feasible there is also the option to undertake the CPTs from a jack-up barge.

Estimates of the volumes of all material to be removed and the number of samples are set out in Table 2. The anticipated total volume of soil samples and rock cores from the investigation, inclusive of marine sediment is 20m³. The total volume of marine sediment to be removed within the firm scope of works will not exceed 11 m³. This is based on the following assumptions:

Boreholes (Cable percussive / sonic drilling / rotary drilling)

- Borehole diameter will not exceed 150mm.
- The sample depth of marine sediments within the boreholes is not anticipated to exceed 10m below seabed level.
- Collection of material beyond a depth of 10m will consist of the collection of soil/rock samples for geotechnical investigation only.

Vibrocores

- Core diameter will not exceed 150mm.
The sample depth of marine sediments of Vibrocores is anticipated to be up to 5.0m below the seabed level.

Cone Penetration Tests

- Assumed that Mostap samplers will be used to recover samples of peat only. The sampler will not exceed 65mm in diameter.
- The length of sample recovered will not exceed 3.0m per CPT location.

Van Veen Grab Samples

- Assumed sampler size will not exceed 6L (0.006m³) in size.
- Assumed maximum sample depth will not exceed 1.0m below the seabed level.

Table 2: Estimated core sample volumes for the geotechnical surveys within the firm scope of work.

Sample Type	Area	No. of exploratory holes
Boreholes (CP/SC and RC)	1	25
CPT		19
Vibrocores		9
Van Veen Grab Samples		11

Sample Type	Area	No. of exploratory holes
Boreholes (CP/SC and RC)	2	2
Vibrocores		2
Van Veen Grab Samples		1
Boreholes (CP/SC and RC)	3	5
Vibrocores		6
Vibrocores	4	6
Van Veen Grab Samples		3
Anticipated total volume of soil samples and rock cores from the investigation (m ³) *inclusive of marine sediment		20
Anticipated total volume of marine sediment (m ³) excluding soil samples and rock cores used for the geotechnical investigation.		11

3 Key environmental considerations

3.1 Overview

3.2 Designated Sites

Internationally and nationally designated nature conservation sites are shown in Figure 2 in relation to the proposed GI Works Areas. No international nature conservation sites (i.e. Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites) overlap with the proposed GI works. The nearest international nature conservation site to the proposed GI works is Kenfig SAC (approximately 4 km east). This site is designated for its sand dunes and saltmarsh.

The nearest internationally designated site with mobile features is the Camarthen Bay and Estuaries SAC which is located approximately 25 km west of the Proposed Development. Twaite shad *Alosa fallax* is an Annex II species that is a primary reason for its designation. Sea lamprey *Petromyzon marinus*, river lamprey *Lampetra fluviatilis*, Allis shad *Alosa alosa* and otter *Lutra lutra* are Annex II species that are present as qualifying features. Bristol Channel Approaches SAC is located approximately 35 km west of the proposed GI works. This site has been identified for the protection of harbour porpoise *Phocoena phocoena*. The nearest SAC with grey seal as a qualifying feature is the Pembrokeshire Marine SAC (approximately 70 km away).

Burry Inlet SPA and Ramsar Carmarthen Bay SPA are the nearest internationally designated sites to the GI works designated for bird features. These sites are located approximately 20 km and 30 km away respectively from the proposed GI works.

Potential effects on international nature conservation sites are considered in the Habitats Regulations Assessment (HRA) Information for Screening report (provided with the Marine License application submission). In summary, this assessment concluded no potential for a Likely Significant Effect (LSE).

With respect to nationally designated sites, Crymlyn Burrows Site of Special Scientific Interest (SSSI) is located approximately 4 km west of the Proposed Development. With respect to marine features this site is designated for saltmarsh and populations of wintering waders. Kenfig Sand SSSI is located approximately 4 km east and is designated for its sand dunes and intertidal habitats.

Intertidal habitat features of nearby nationally designated sites are not in the zone of influence of direct habitat changes (such as physical disturbance, sediment deposition etc) which will be restricted to the localised vicinity of the GI works. Given the scale of the GI works, no indirect habitat changes (as a result of changes to physical processes) will occur with changes in water quality (such as Suspended Sediment Concentration (SSC) and associated sediment bound contaminants) predicted to be highly localised and of negligible magnitude.

Waterbirds feeding and roosting on supporting intertidal habitat of these designated sites are also out of the zone of influence of potential disturbance effects associated with the GI works. In addition, any waterbirds from these designated sites which utilise the Port Talbot as part of their range would only be predicted to be exposed to temporary and localised disturbance stimuli (Section 3.4), with effects predicted to be limited and low magnitude.

On this basis, potential effects on nationally designated sites are predicted to be negligible.

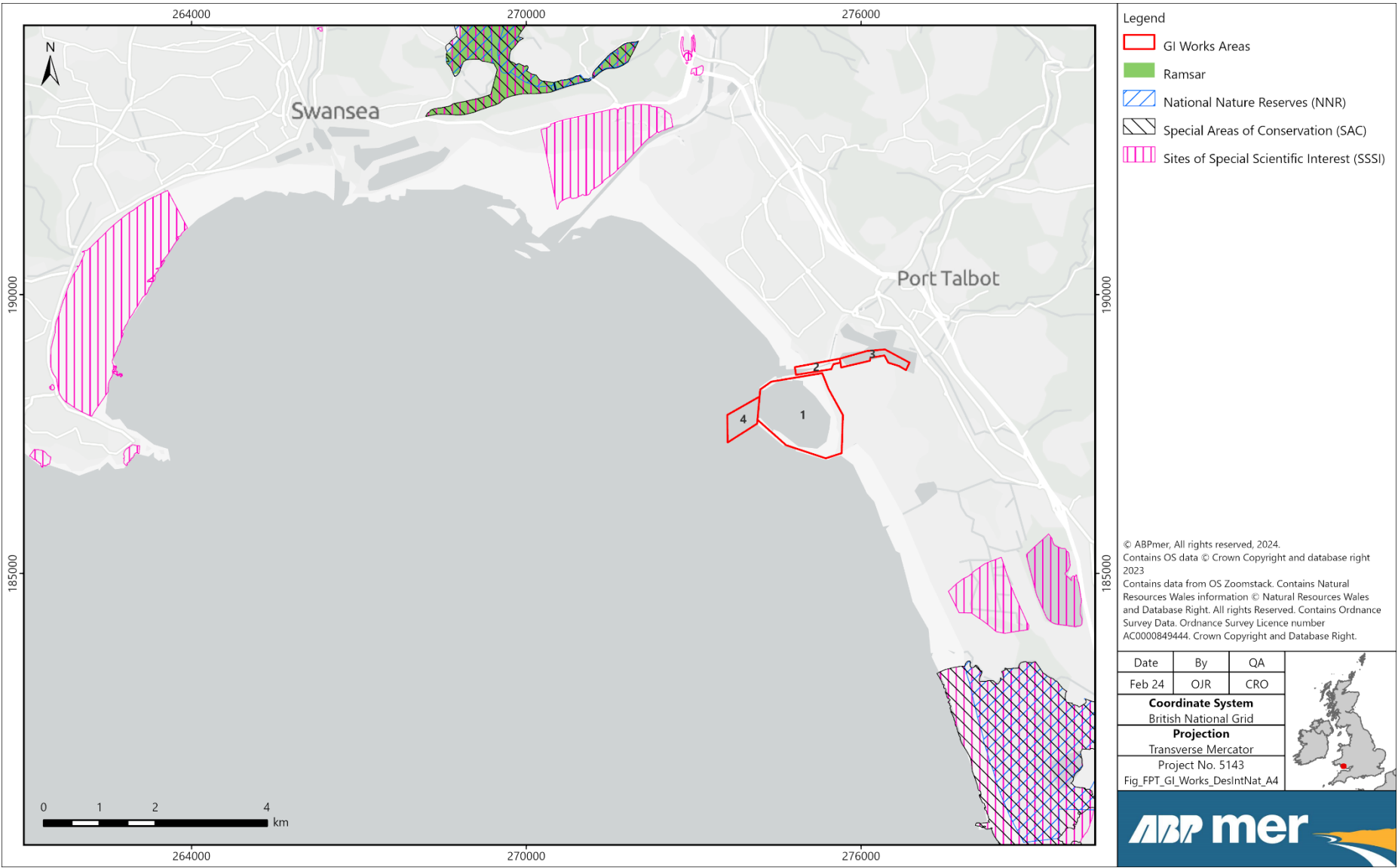


Figure 2: Designated nature conservation sites in relation to the proposed Ground Investigations at Port Talbot.

3.3 Marine Ecology

3.3.1 Potential effects on benthic habitats and species

The foreshore of Port Talbot Tidal Harbour, between the breakwaters, supports a rich mosaic of distinct habitats due to the wide variety of different substrates present in the area (including peat, clay, sand, mud, mixed sediment and large boulders) (ABPmer, 2024).

The following Section 7 Priority Habitats under The Environment (Wales) Act 2016 were recorded in a Phase 1 intertidal habitat survey of the foreshore in this area in 2023 (ABPmer, 2024):

- **Peat and clay exposures:** Fossilised peat with some clay was present along extensive areas of the northern section of foreshore. The habitat supported piddocks as well as a wide range of other species;
- **Intertidal mudflats:** Sandy mud and muddy sand mudflat (rich in infauna including cockles, lugworms etc) was present predominantly along mid to lower shore in southern section of the Port Talbot Tidal Harbour;
- ***Sabellaria alveolata* reefs:** A small patch of biogenic reef was observed in the northern section of foreshore; and
- **Intertidal boulder communities:** Along lower shore sections of the boulder sea defence a rich under boulder community characteristic of this habitat was recorded (although noting the boulders are of anthropogenic rather than natural origin).

Subtidal benthic habitats in the Port Talbot Tidal Harbour and approaches have been found to predominantly consist of mud along with sandy mud and muddy sand, with the assemblages observed considered characteristic of communities found more widely in coastal areas in the region (ABPmer, 2024).

Loss and localised physical disturbance to intertidal and subtidal benthic habitats and species

There is the potential for GI sampling to cause loss and localised physical disturbance to intertidal and subtidal benthic habitats and species. There is a fundamental need from a design perspective to sample within some of the sensitive habitats above. The information from core samples is integral to understanding the depth and properties of sedimentary and rock material to inform what is required in terms of support for infrastructure.

With respect to soft sediment habitats (i.e. those characterised predominantly by mud and sand), the footprint of the boreholes and vibrocores is small and once the equipment is removed from the seabed the void created by the sampling will collapse in on itself, filling in and effectively sealing it. Given the mobile nature of seabed the process is likely to occur over a matter of hours and would remove any trace of the borehole having been made. The loss is therefore temporary and the infilled hole does not constitute loss of habitat.

Peat and clay exposures are likely to be more sensitive as the substrate tends to be relatively firm and any hole created by GI works will remain. The number of sample sites within the peat and clay exposures habitat has been minimised to avoid damage as far as possible, however, it is integral to the design to collect data from a limited number of boreholes from this substrate.

The habitats on the foreshore were recently mapped including the peat and clay exposures biotopes. The footprint of the GI survey on the foreshore is very small (estimated as up to 5 No. boreholes and 19

No. CPT with a total combined footprint of 0.148 m²). The area of peat and clay exposures was mapped as 54,747 m² and therefore the loss is negligible in context of the extent of peat/clay exposures in the area. Peat and clay exposures could also be damaged as a result physical disturbance due to of the movement of vehicles and plant/machinery. However, a range of proposed mitigation as outlined below will help ensure effects on these habitats are minimised.

Some localised damage could also occur to epifaunal communities on harder substrate sedimentary habitats that are present on the foreshore (cobbles, pebbles, small boulders etc) as a result of abrasion and physical disturbance due to the movement of vehicles and plant/machinery. However, such effects are anticipated to be temporary with epifaunal species expected to colonise relatively rapidly from nearby areas. Proposed mitigation, as outlined below, will ensure that access and works around the *Sabellaria alveolata* biogenic reef area is avoided.

Smothering of benthic species

The works will also result in mobilisation of sediment which will resettle on the seabed, however, the amount of sediment is too small to result in smothering of benthic species. There would be a temporary increase in SSC but given the small extent of the works and the typically relatively high SSC in the local area, the effects are unlikely to be detectable above background.

Changes in water and sediment quality

In terms of water and sediment quality, the potential risk from accidents and spillages/leaks during construction will be avoided or minimised by ensuring that the construction methods, proposed design, and the contractual arrangements follow environmental management best practice.

Introduction and spread of invasive non-native species

There is also a risk to native species and habitats from the potential introduction and spread of invasive non-native species (INNS). However, the risk is considered to be relatively low on the basis that standard best practice guidance and measures are followed based on the principles highlighted in Payne *et al.*, (2015).

Mitigation

Proposed mitigation measures for benthic habitats and species are provided in Table 3.

3.3.2 Potential effects on fish and marine mammals

The Swansea Bay region supports a wide variety of demersal and pelagic fish species. The Afon Afan (which has its mouth at Port Talbot), is also known to support a range of diadromous fish species including Atlantic salmon *Salmo salar*, sea trout *Salmo trutta*, river lamprey *Lampetra fluviatilis* and European eel *Anguilla Anguilla* (Milner and Garcia de Leaniz, 2023; Clarke *et al.*, 2021).

With respect to marine mammals, relatively high densities of harbour porpoise *Phocoena phocoena* have been recorded in Swansea Bay (including in the Port Talbot area), with this species considered to have a year-round presence in this region. Other cetaceans such as short-beaked common dolphin *Delphinus delphis* are recorded more infrequently. Grey seals *Halichoerus grypus* are recorded relatively frequently in low numbers in Swansea Bay with this species recorded foraging in the Port Talbot area (Nuuttila *et al.*, 2018; Oakley *et al.*, 2016 Oakley *et al.*, 2017; Tidal Lagoon Swansea Bay plc, 2014).

The works will result in mobilisation of sediment which will resettle on the seabed, however, given the extent of the works the amount of sediment mobilised is not predicted to result in any changes to water and sediment quality and there are no predicted effects on fish or marine mammals in relation to this pathway.

There is the potential for underwater effects on fish and marine mammals as a result of the proposed GI works. Information on underwater noise source levels for the specific plant will be confirmed by the contractor. Geotechnical drilling and standard penetration testing (SPT) during marine GI will generate underwater noise Source Levels (SLs) circa 142-145 dB re 1 μ Pa rms @1 m for drilling and 151-160 dB re 1 μ Pa2s @1 m for SPT (Erbe and McPherson, 2017). These levels are comparable or less than the SLs generated by passenger or recreational vessels (MMO, 2015).

Based on these source noise levels, no injury effects in fish or marine mammal species would be predicted based on applying standard underwater noise thresholds (NOAA, 2018; Popper *et al.*, 2014; Southall *et al.*, 2019). In addition, only mild behavioural responses for fish and marine mammal species in relative proximity to the GI works are anticipated with noise levels unlikely to be discernible above ambient levels in the wider Port Talbot and Swansea Bay area given the relatively high levels of existing background vessel noise in the area. Underwater noise at the levels predicted would also not cause a barrier to the movement of migratory diadromous fish moving between the Afon Afan (which has its mouth at Port Talbot) and the sea.

On this basis, predicted underwater effects on fish and marine mammals associated with the GI works are predicted to be negligible.

3.4 Ornithology

The proposed development site and the wider Swansea Bay area supports populations of breeding birds – passerines in scrubby areas of the site itself, and non-passerines associated with the port and wider Swansea Bay area. The wider Swansea Bay area is also associated with non-breeding and migrant populations of passerine and non-passerine birds, as identified by preliminary bird surveys at the port site in the non-breeding and passage period.

All active nests (presence of breeding adults and eggs) are protected during the breeding season from destruction and damage. The nests of some rare or sensitive breeding birds (those listed on Schedule 1 of the Wildlife and Countryside Act 1981, as amended) are afforded additional legal protection from disturbance whilst nesting. If the marine GI works are proposed for the summer period (the sensitive window for breeding birds is from March and September), protection of nest sites from destruction or damage will need to be implemented. This will be achieved by vehicles using established roads/tracks and where other access routes are required (such as along the foreshore) these will be planned to avoid any areas of vegetation. In addition, where potential impact pathways have been identified to suitable nesting habitat within the footprint of the works this will be checked for the presence of active nests by a suitably experienced ornithologist. This includes terrestrial and intertidal habitats present. This check will be undertaken a maximum of 48 hours before the start of works. Where no active nests are identified, works can proceed without specific ornithological supervision (subject to any other ecological constraints). Where active nests are located, a suitable buffer must be maintained to protect against disturbance, and the nest checked by a competent (and, for Schedule 1 breeding birds, licensed) ornithologist. This buffer will be dependent on specific nesting ecology and the magnitude of the disturbance and so will be advised on a case-by-case basis. Note that in some cases it is not possible to attain the likelihood of nesting in certain habitat types (dense scrub, rough grassland) and in these cases nest checks are not possible.

In addition, if proposed works overlap with the overwintering period (September to March), non-breeding waders (for example Oystercatcher *Haematopus longirostris*, Ringed plover *Charadrius hiaticula* and Sanderling *Calidris alba*) may be present in supporting intertidal habitat. During surveys undertaken in late autumn/winter, peak counts of 101 – 114 Oystercatcher were recorded and high tide roost locations were identified within the footprint of the proposed development (BSG Ecology, 2023). Small waders including Oystercatcher are features of Blackpill, Swansea SSSI and Crymlyn Burrows SSSI. Based on the short term nature of the marine GI works and suitable supporting habitat (feeding and roosting) outside of the zone of influence, no significant impacts on non-breeding birds are anticipated.

3.5 Navigation

The proposed GI works are located within the Port of Port Talbot Statutory Harbour Authority (SHA) and Competent Harbour Authority (CHA) limits. ABP, in its capacity as the SHA has a set of powers, duties and responsibilities which include ensuring and maintaining safe port marine operations and the regulatory control of navigational activities. ABP is also the Local Lighthouse Authority (LLA) for the Port Talbot SHA area by virtue of the Merchant Shipping Act 1995 (UK Government). The proposed works are wholly within the ABP SHA, CHA and LLA areas.

Without planning, some borehole locations in the Harbour and Port Talbot Dock approaches have the potential to interfere with navigation. However, ABP has established a Marine Safety Management System (MSMS) to manage safe and efficient port operations. ABP established procedures include, planning, notification, Local port Services (LPS) coordination and Pilotage.

Discussions with the ABP Harbourmaster have concluded that whilst the tendering process will need to recognise the need for operational flexibility to accommodate shipping, with good planning and communication, the works can be achieved whilst maintaining port efficiency and safety.

It has been agreed with the ABP Port Talbot Harbour Master that the ABP Harbour Works Consent process will be followed. This approach has also been pre advised to the Maritime and Coastguard Agency (MCA) and Trinity House. The shipping and navigation mitigations this process provides are outlined in Section 3.8.

3.6 Archaeology and historic environment

A review of wrecks and obstructions data shared by the UK Hydrographic Office (UKHO) via the Admiralty Marine Data Portal (<https://data.admiralty.co.uk>) shows the presence of a recorded wreck within the Port Talbot inner dock (UKHO ID 99670). Only the dimensions are provided (7 x 4.6 x 0.78 m) for this feature, recorded during an ABP Survey in 2022. This has been confirmed by the former Port Talbot Harbour Master as a sunken small work boat and is not of archaeological interest (pers.comm R. Lewis (2024)).

The UKHO also records the wreck of the steamship *Stalheim*, located outside of the entrance to the harbour. The wreck (UKHO ID 12508) has been recorded with dimensions of 81.3 x 19.8 x 3.4m and the wreck is recorded as degraded with a debris field on the NW side of the wreck. *Stalheim* was lost on 31st July 1940 after detonating a German-laid aerial magnetic mine, whilst carrying 1,876 tons of anthracite from Port Talbot and Barry to St Johns, Newfoundland.

A review of Coflein (<https://coflein.gov.uk/en/>), the online database for the National Monuments Record of Wales (NMRW), shows several historic losses of vessels at Port Talbot, including the crane barge *Jumbo* built in 1907, which was recorded in 1936 as 'sunk in Port Talbot Dock since 1929'. No

archaeological remains of this vessel have been discovered indicating that the remains could be present, buried within the inner dock. This, along with the other recorded losses, indicate that there is potential for encountering previously unrecorded wrecks and related debris within the footprint of the ground investigations.

Marine geophysical surveys undertaken prior to the planned intrusive ground investigations will ensure that the seabed is clear of debris, which could be of archaeological interest. The survey will also provide additional data on the nature and extent of any known wreck sites (UKHO 99670 and *Stalheim* 12508) which may be present within or extend into the survey area. Archaeological Exclusion Zones (AEZs) around these sites would be implemented to ensure avoidance during ground investigations. This will ensure that all locations are clear of archaeological material prior to ground investigations. In addition, each location will also be assessed for the presence of potential UXO and any buried ferrous material, which could represent UXO or buried wreck or aircraft material, for example, will also be avoided.

A Protocol for Archaeological Discoveries (PAD) will be implemented during ground investigations in order to set out a clear protocol for reporting any discoveries of archaeological material during the works so that these can be addressed in a timely manner.

Given the known presence of peat in the intertidal zone that may be impacted by the development, and the potential for further deposits of geoarchaeological interest, a marine geoarchaeological assessment will be progressed following acquisition of samples. To this end, archaeological advice in planning the survey has been provided by Royal Haskoning DHV's marine geoarchaeologist. In the first instance, all preliminary borehole/vibrocore logs will be reviewed by a geoarchaeological specialist in advance of any destructive testing on undisturbed samples or vibrocores. Following review, should any deposits of palaeoenvironmental interest be encountered, recommendations for geoarchaeological assessment would be agreed with the heritage stakeholders.

Julian Whitewright, Senior Investigator (Maritime) with the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW), has been consulted on the proposed ground investigations and it has been confirmed via email (received 19th February 2024) that RCAHMW have no objection to the survey from a marine archaeological point of view (see Appendix B).

3.7 Local residents

The proposed GI works are located mainly within the harbour and the inner dock and therefore take place behind breakwaters and dock walls within the context of ongoing operational port activities. There is one location (GI Works Area 2, shown in Figure 1) in proximity to residential receptors. Within GI Works Area 2, located on the southern side of the Afon Afan, there are 2 No. vibrocore and 2 No. boreholes which are approximately 180m to the nearest residential receptor.

Consideration has been given to local residents and mitigation measures for airborne noise will be included to minimise the transfer of noise/vibration in the surrounding environment (see Table 3). The duration of activities in GI Works Area 2 is anticipated to be approximately one week.

3.8 Summary of mitigation measures

The mitigation measures included as part of the GI survey are presented in Table 3.

Table 3: Summary of mitigation measures for the Ground Investigations at Port Talbot.

Environmental topic	Mitigation measures
Marine ecology	■ Access routes along the northern section of the Port Talbot Tidal Harbour foreshore for GI plant/machinery will be restricted to areas of harder substrate sediment (cobbles/pebbles) which are considered more resilient to physical damage than peat/clay exposures as far as practicable. ■ Where possible, any GI sampling in areas of peat/clay exposures will be taken at the edge of the habitat to minimise potential physical disturbance. ■ Access around the area of <i>Sabellaria alveolata</i> biogenic reef is restricted to prevent damage to this habitat. ■ Where appropriate track matting will be placed along the access route for plant to minimise physical damage from tracking of machinery. ■ An Ecological Clerk of Works (ECoW) will be present for the works on the foreshore (if carried out from land) to assist with planning routes to avoid sensitive habitats. ■ Best practice pollution prevention guidelines will be followed to minimise the risk of accidental spillages and the risk of introduction of contaminants throughout the survey. To prevent the spread of invasive non-native species (INNS) the following measures will be taken: ■ Best practice guidance and measures highlighted in Marine Biosecurity Planning Guidance for England and Wales (Payne <i>et al.</i>, (2015) will be followed. ■ Provide a Biosecurity Risk Assessment to NRW with the specific details of vessels and plant which will be utilised during the works including information on the source location (i.e. the port of origin prior to arrival at Port Talbot) and the antifouling regime. ■ All immersible equipment will undergo washing, rinsing and / or drying as part of routine maintenance both immediately prior to departing the port of origin to undertake the licensed activity <i>and</i> immediately prior to leaving the licensed activity area on completion of the licensed activity. ■ All equipment will be cleaned between each sampling area to prevent contamination of samples between sites (i.e. harbour, Afon Afan and the inner dock) to stop the spread of any INNS. ■ Other submersible equipment will be rinsed at the beginning and end of the relevant survey activities with either salt or fresh water depending on the equipment before being dried and stored. ■ Vessels will adhere to international guidance such as the IMO's Ballast Water Convention and Biofouling Guidelines. ■ The sediment collected will be stored onboard the vessel for scientific analysis and will not be redistributed elsewhere within the survey area.

Environmental topic	Mitigation measures
Ornithology	■ Access routes for GI plant/machinery along the Port Talbot Tidal Harbour foreshore will be planned by the contractor, advised by an ECoW to avoid any sensitive habitats for breeding birds. ■ If works are undertaken during the breeding season (sensitive period from March to September), an ECoW will check suitable nesting habitat a maximum of 48 hours before the start of works for the presence of active nests (breeding adults, eggs and young). Where active nests are located, a suitable buffer must be maintained to protect against disturbance, and the nest checked by a competent (and, for Schedule 1 breeding birds, licensed) ornithologist. ■ Where appropriate, track matting will be placed along the access route for plant to minimise physical damage from tracking of machinery.
Navigation	ABPmer are in consultation with the ABP Port Talbot Harbourmaster and are aligned that the ABP Harbour Works Consent process will be followed to aid planning, communications, deconfliction and compliance. The following topic areas will be covered as part of this process: ■ Establishing the NRW Marine Licence requirement incumbent upon the organisation responsible for the proposed harbour works ■ Details of the works to be undertaken ■ Proportionate risk assessment and mitigation including: ○ Compliance with COLREGS including lights and sound signals. ○ Compliance with ABP Marine Safety Management System (MSMS) procedure ○ Planning ○ Contingencies ○ Communications ○ Notices to Mariners ○ Notification periods
Archaeology and historic environment	A Protocol for Archaeological Discoveries (PAD) will be implemented during ground investigations in order to set out a clear protocol for reporting any discoveries of archaeological material during the works so that these can be addressed in a timely manner.
Acoustics	■ Where practicable the control measures set out in BS 5228:2009+A1:2014 Part 1 and 2, Sections 8 will be implemented. ■ Employing only modern, quiet and well-maintained equipment (all equipment will comply with EC Directive 2000/14/EC, UK Statutory Instrument 2001/1701 and BS 5228); any plant, equipment, or items fitted with noise control equipment found to be defective will not be operated until repaired. ■ Careful planning of the sequence of work in order to minimise the transfer of noise/vibration in the surrounding environment. ■ Where appropriate, drilling and vibrocore methodology to start with soft start and ramp up of power over a period of 15-30 minutes duration to avoid sudden noise.

Environmental topic	Mitigation measures
	- Where feasible quieter construction methodologies will be applied to achieve the objective (e.g. vibratory drilling techniques as opposed to more conventional but noisier techniques); selection of quieter tools/machines. - Limit the use of noisy plant or vehicles and switch off vehicle engines when not in use. Machines in intermittent use will be shut down or throttled down to a minimum during periods between works; - Where reasonably practicable, fixed items of construction plant will be electrically powered in preference to being diesel or petrol driven. - All operatives on site will be trained to ensure that noise minimisation and best practice are implemented at all times. Works will be checked regularly by site engineers to ensure that all works carried out are employing best practice at all times and, where necessary, corrective actions implemented.

4 Stakeholder engagement

Stakeholders were contacted prior to submission of the marine licence application for the GI works. The organisations contacted and a summary of the engagement is presented in Table 4. A record of email correspondence is provided in Appendix B.

Table 4: Stakeholders engaged in relation to Ground Investigations at Port Talbot.

Organisation	Contacts	Details
Natural Resources Wales	Emmer Litt and Maria Alvarez	Call with NRW Marine Licensing Team on 6th February 2024 to introduce the FPT scheme, discuss GI works and approach to future engagement.
Natural Resources Wales	Adam Cooper and Jonathan Scott	Call with NRW Marine Advisory team on 7th February 2024 to introduce the FPT scheme, discuss GI works and approach to future engagement.
ABP	Gareth Robins (Harbour Master)	Meeting held on 16th February to discuss works. Noted that there will be ongoing discussions in relation to ABP Harbour Works Consent.
Trinity House	Catherine Bransby	Email sent on 19th February 2024 with information on the proposed GI survey.
Maritime and Coastguard Agency	Jo Cooke	Email sent on 19th February 2024 with information on the proposed GI survey. 26th Feb 2024: Confirmation from consultee that risk is 'relatively low'. Recommendations made for mitigation which will be implemented.
RCAHMW (archaeology)	Dr Julian Whitewright	2nd Feb 2024: call held to introduce the FPT scheme, discuss GI works and approach to future engagement. 19th Feb 2024: Confirmation from consultee of no objections to the proposed GI survey.

Organisation	Contacts	Details
GAAT (The Glamorgan Gwent Archaeological Trust)	General enquires	Email sent on 20 th February 2024 with information on the proposed GI survey.
Cadw	Neil Maylan	Email sent on 19 th February 2024 with information on the proposed GI survey.
Welsh Fisherman's Association	Jim Evans	Email sent on 19 th February 2024 with information on the proposed GI survey.
Welsh Government Marine and Fisheries Division	John Hamer Seb Evans	Email sent on 19 th February 2024 with information on the proposed GI survey. 29 th Feb 2024: Reply from Seb Evans noting that local fishers use the area near to the south breakwater for netting and suggesting to engage with, and notify all fishing vessels operating in this area prior to and during the works.

It is noted that once the application has been submitted that contact will be made with the Crown Estate and their agents to arrange the necessary permissions.

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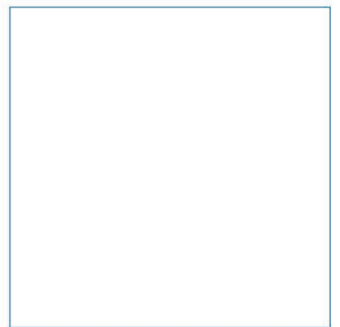
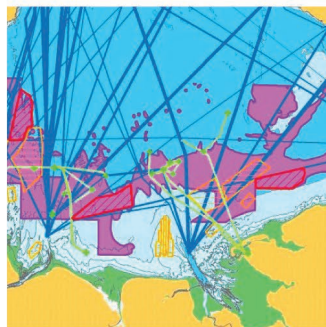
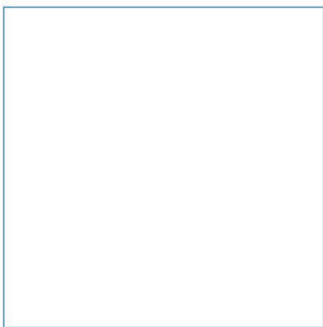
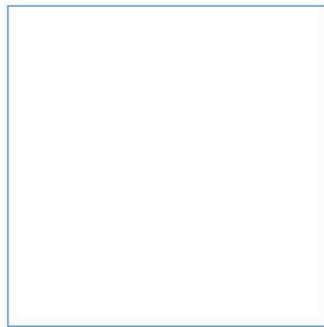
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Appendices



Innovative Thinking - Sustainable Solutions

A Further information - plant and equipment

Description of the typical plant and equipment that will be required for the GI works is provided. Further information will be provided on the actual plant and equipment which is intended for use once a contractor has been appointed.

A.1 Cable Percussive Drilling (CP)

Known as 'shell and auger' drilling, this is the most common drilling method in the UK. The rig has a large tripod used to lift and drop the heavy cutting tool ('clay cutter') into the ground (Image 1). Steel casing is used to line the annulus of the borehole to prevent collapse during the drilling operation. The borehole is advanced down using the cutting tool which is progressively lifted using a winch and wire hooked to a pulley wheel. Once raised, the cutter is later dropped into the bore to investigate the soil profile and obtain samples at depth.

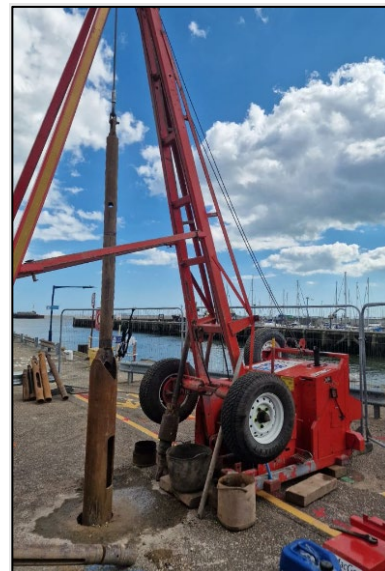
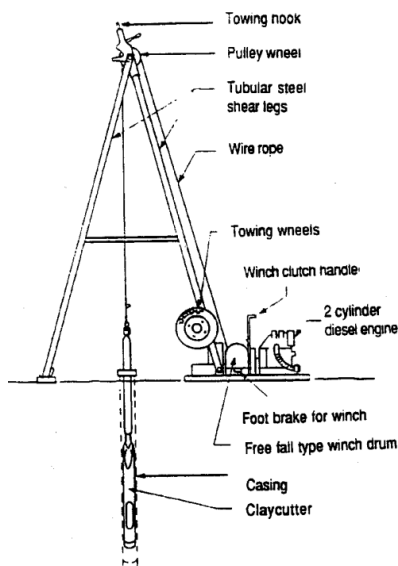


Image 1: Cable Percussive Drilling Rig

Advantages:

- Simple form of drilling.
- Boreholes can be temporarily or permanently cased (to install monitoring equipment).
- Undisturbed and disturbed samples can be obtained.

A.2 Rotary Drilling (RO, RC)

Rotary auger methods are where the drilling tool is attached to the lower end of a string consisting of hollow drilling rods or a 'shaft' (Image 2). The rotary cutting head is powered by a diesel engine which rotates and is controlled by the operator as the drill rod is lowered into the ground. The drilling rod is lubricated using air, water or mud to prevent the cutting head from overheating.

- Rotary Open Hole (RO) drilling is where the drilling is mixed with lubricant resulting in rapid drilling with no core recovery for sampling.
- Rotary Core (RC) drilling is used using a wire line where, double, or triple tube core barrels are used to obtain soil or rock samples. The core barrels are rotated from the surface by the rods with the inner barrel attached to a line and a recovery tool. For double tube, the inner barrel does not rotate, and the core passes up into this inner barrel enabling the sample to be recovered and brought to the surface. For triple tube, the non-rotating inner barrel contains a removable tube or liner.

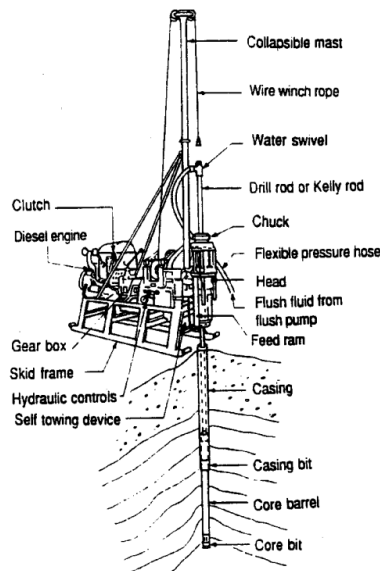


Image 2: Rotary Drilling Rig

Advantages:

- Good in most conditions (soft soils, hard rock)
- Enable core recovery at great depths.
- Boreholes can be temporarily or permanently cased (for install monitoring equipment).
- Undisturbed and disturbed samples obtained.

A.3 Sonic Drilling

Known as 'resonance' drilling, this is a soil penetration technique using high-frequency mechanical vibration frequency (typically 30 Hz to 150 Hz) to advance the borehole, with optional rotation (Image 3). The oscillator in the drill head generates a high frequency resonating energy that is directed into the casing and down into the borehole. This ensures the re-distribution of energy into the drill bit to reduce the friction along the drill string. This allows for soil and weak rock samples to be retrieved from the core barrel.

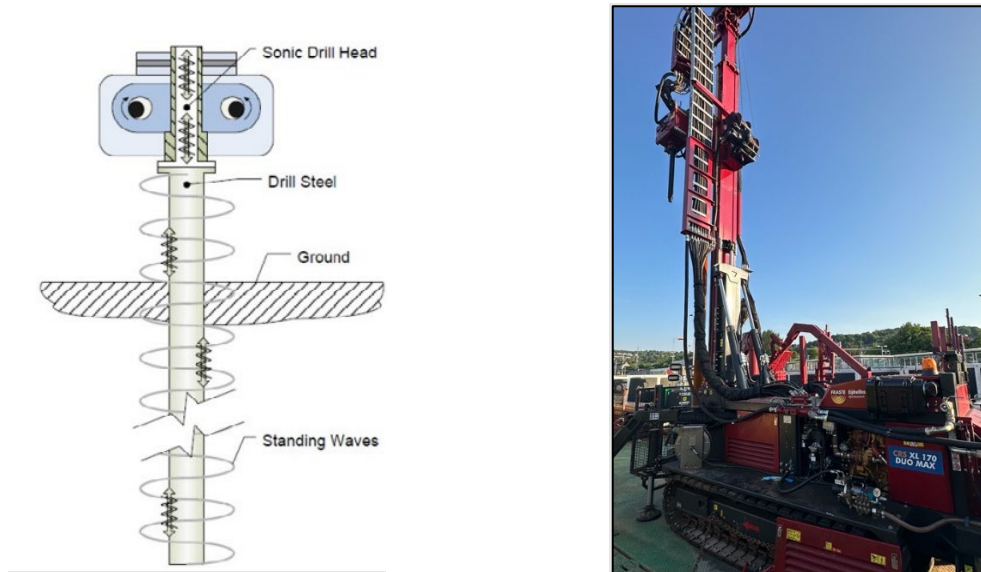


Image 3: Sonic Drilling Rig

Advantages:

- Good in most conditions (soft soils, hard rock)
- Enable core recovery at great depths.
- Quicker than CP and sometimes RC.
- Does not need drilling fluids (mud, air or water)
- Undisturbed and disturbed samples obtained.

A.4 Cone Penetration Testing (CPT)

This is an in-situ method of testing used to identify the soil type by measuring the penetration resistance and sleeve friction. A test cone penetrometer is pushed into the ground at a steady rate allowing for data to be recorded at regular intervals (Image 4). The probe can be fitted with pore-water pressure sensors and other sensors including magnetometer or seismic receivers. There are different types of rigs available which are tailored to operate within the site terrain and ground conditions present. This includes tracked trucks, crawlers or mini crawlers.

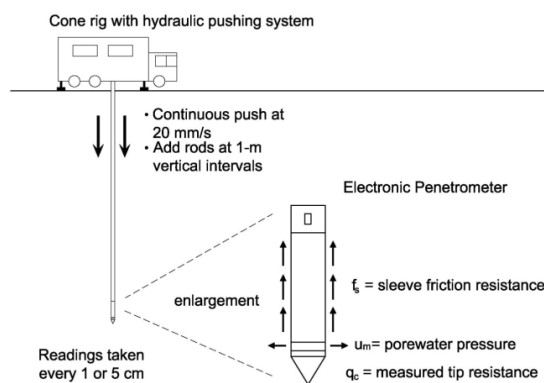


Image 4: Cone Penetration Testing Rig

Advantages:

- Good in most conditions (soft soils, hard rock)
- Quiet *in situ* test.

A.5 Vibro-coring

This is an effective method for obtaining samples from thick sediment deposits and is widely used in marine applications. The vibro-core rigs consist of a tetra pod structure that is ordinarily mounted to a pontoon or small vessel. The vibro-core is submersed and lowered to the seabed. The core tube is electrically driven and vibrated into the ground until practical refusal (Image 5). The sediment is captured within the core barrel; each core is either 3.0m or 6.0m in length and protected using a HDPE liner.

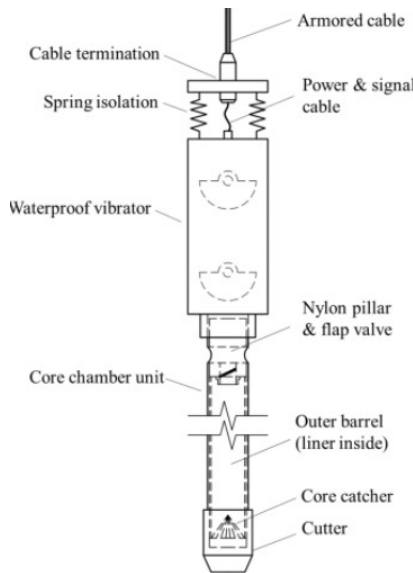


Image 5: Vibro coring equipment

Advantages:

- Lightweight system.
- Quite method of sampling.
- Undisturbed and disturbed samples retrieved.
- Operate up to 300m below water level.

B Email correspondence with consultees

B.1 RCAHMW

Re: Marine Ground Investigations at Port Talbot

DJ

Dr Julian Whitewright <julian.whitewright@rcahmw.gov.uk>

To

Emma Mungo

Cc

Claire Stephenson; Rebecca Hogan; Maz Upson

Follow up.

Start by 19 February 2024. Due by 19 February 2024.

You replied to this message on 19/02/2024 16:29.

If there are problems with how this message is displayed, click here to view it in a web browser.

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↩ Reply

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⋮

Mon 19/02/2024 14:17

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Dear Emma,

Thanks for your email.

We would have no objections to the GI survey from a marine archaeological point of view.

From memory, one area to be investigated included some peat deposits - albeit I am not sure where this is on the attached plan. It would be excellent from the perspective of enhancing knowledge (Policy Soc5 of the Welsh National Marine Plan) if the work in these areas could include some geoarchaeological analysis of the peat as a means to better understand the paleo/prehistoric landscape that the deposit represents. Its quite rare to have an opportunity to sample a peat deposit all the way through from the top and out of the bottom (as it were).

Happy to discuss further as required.

Yours

Julian

CBHC

Comisiwn Breshinol
Henebion Cymru

Royal Commission on the Ancient
and Historical Monuments of Wales

Dr Julian Whitewright

Dysgwir

Uwch Ymchwilydd (Arforol) | Senior Investigator (Maritime)

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📘

🐦

Rydym yn croesawu gohebiaeth yn Gymraeg a Saesneg. Ni fydd gohebu yn Gymraeg yn peri oedi.
We welcome correspondence in Welsh and English. Corresponding in Welsh will not lead to any delay.

Dear Julian

We are contacting you in relation to a Marine Licence application that we will be submitting on behalf of Associated British Ports (ABP) to Natural Resources Wales (NRW) for a Marine Ground Investigation (GI) survey at Port Talbot. I believe you may be aware of the survey from your discussions with the team about the Future Port Talbot project earlier this month.

We anticipate submitting the application for the GI survey at the end of February and expect that as one of the statutory consultees you will be contacted by NRW. In advance of you receiving the application we would like to explain what the works comprise and provide an opportunity for a follow up call. We are keen to engage with you early to gain your thoughts on this proposed survey.

The proposed GI includes the following survey elements (all below Mean High Water Springs):

- 35 no. boreholes: Cable percussive/Sonic core (CP/SC) boreholes taken to a maximum depth of 25 m. Cable percussive/Sonic core with rotary follow-on (CP/SC + RC) boreholes will be taken to a maximum depth of 40 m.
- 45 no. vibrocores taken to a maximum depth of 5 m.
- 15 no. Van Veen Grab (VVG) samples
- 19 no. Seismic cone penetration tests with piezocone taken to a maximum depth of 25 m. For each of the exploratory holes Standard Penetration Testing (SPT) and sampling will be carried out.

The locations of the works are shown in red in the figure below.



The GI survey is currently scheduled for July 2024. The duration of the works will be approximately eight weeks. Working hours will be continuous over a 24-hour period for the duration of the works. Sampling at each station is anticipated to take between four and six days per borehole and half a day per vibrocore.

We would be grateful if you are able to confirm you have no objections to the proposed survey? Or alternatively please let us know if you or your colleagues would like any additional information or if a call would be helpful. Also to let you know we have contacted Abi McCullough (from the Clwyd-Powys Archaeological Trust) and asked her if she could liaise with her colleagues at The Glamorgan Gwent Archaeological Trust.

Kind regards

Emma

Emma Mungo | Principal Marine Consultant | ABPmer
Quayside Suite | Medina Chambers | Town Quay | Southampton | SO14 2AQ |
Direct: 023 8144 9884 | www.abpmer.co.uk

ABPmer, February 2024, 4474

29

B.2 Maritime & Coastguard Agency

From: Rod Lewis
Sent: Tuesday, February 27, 2024 8:29 AM
To: navigation safety <navigationsafety@mca.gov.uk>
Subject: RE: Draft MCA: GI Surveys - Port Talbot

Dear Jo

Thank you very much for your response which is well noted.

I can confirm that the below risk mitigations are accepted.

Best regards

Rod

Rod Lewis | Associate Maritime Consultant | ABPmer
Quayside Suite | Medina Chambers | Town Quay | Southampton | SO14 2AQ
DD: | Mob: 07762910048
Email: rlewis@abpmer.co.uk | Web: www.abpmer.co.uk | www.portriskmanagement.com

From: navigation safety <navigationsafety@mca.gov.uk>
Sent: Monday, February 26, 2024 4:05 PM
To: Rod Lewis <rlewis@abpmer.co.uk>
Subject: RE: Draft MCA: GI Surveys - Port Talbot

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Dear Rod,

Thank you for the information regarding the proposed GI Surveys at the stated locations around Port Talbot which are planned to take place over 8 weeks from July 2024 and for which a Marine Licence will be applied with Natural Resources Wales.

We note that the works fall within the jurisdiction of a Statutory Harbour Authority (SHA), being Associated British Ports, and therefore they are responsible for the safety of navigation within their waters.

Therefore, on the understanding that the following takes place, the MCA would have no significant concerns to raise with regards to the safety of navigation and would be satisfied that the risk is relatively low on this occasion:

1. All maritime safety legislation is complied with;
2. The site is within port limits and the applicant should gain the approval/agreement of the responsible local navigation authority or the Harbour Authority/Commissioners/Council. They may wish to issue local warnings to alert those navigating in the vicinity to the presence of the works, as deemed necessary.

Please can you confirm that you accept the above risk mitigations?

Kind regards,

Jo Cooke
Policy Advisor
Marine Licensing and Consenting
UK Technical Services Navigation NavigationSafety@mca.gov.uk

Mobile: 07815 703225



Maritime &
Coastguard
Agency

Maritime & Coastguard Agency
Spring Place, 105 Commercial Road,
Southampton, SO15 1EG



Safer Lives, Safer Ships, Cleaner Seas
www.gov.uk/mca

From: Rod Lewis <rlewis@abpmer.co.uk>
 Sent: Monday, February 19, 2024 2:39 PM
 To: Sam Chudley <sam.chudley@mca.gov.uk>
 Subject: Draft MCA

CAUTION: This email originated from outside the UK Government. Do not click links or open attachments unless you recognise the sender and know the content is safe. Please use the Report Message function to report suspicious messages.

Dear Sam Chudley,

We are contacting you in relation to a Marine Licence application that we will be submitting on behalf of Associated British Ports (ABP) to Natural Resources Wales (NRW) for a Marine Ground Investigation (GI) survey. We anticipate submitting the application at the end of February and expect that as one of the statutory consultees you will be contacted by NRW. In advance of you receiving the application we would like to explain what the works comprise and provide an opportunity for a follow up call. We are keen to engage with you early to gain your thoughts on this proposed survey.

The proposed GI includes the following survey elements:

- 35 no. boreholes: Cable percussive/Sonic core (CP/SC) boreholes taken to a maximum depth of 25 m. Cable percussive/Sonic core with rotary follow-on (CP/SC+RC) boreholes will be taken to a maximum depth of 40 m.
- 45 no. vibrocores taken to a maximum depth of 5 m.
- 15 no. Van Veen Grab (VVG) samples
- 19 no. Seismic cone penetration tests with piezocone taken to a maximum depth of 25 m. For each of the exploratory holes Standard Penetration Testing (SPT) and sampling will be carried out.

The locations of the works are shown in red in the figure below.



The GI survey is currently scheduled for July 2024. The duration of the works will be approximately eight weeks. Working hours will be continuous over a 24-hour period for the duration of the works. Sampling at each station is anticipated to take between four and six days per borehole and half a day per vibrocore.

We are in correspondence with the ABP Harbour Master at Port Talbot and are aligned on the following points:

- The works are being undertaken wholly within the SHA, CHA and LLA Authority areas of ABP.
- ABPmer are in consultation with the ABP Port Talbot Harbourmaster and are aligned that the ABP Harbour Works Consent process will be followed to aid planning, communications, deconfliction and compliance. The following topic areas will be covered as part of this process:
 - Establishing the NRW Marine Licence requirement incumbent upon the organisation responsible for the proposed harbour works
 - Details of the works to be undertaken
 - Proportionate risk assessment and mitigation including:
 - Compliance with COLREGS including lights and sound signals.
 - Compliance with ABP Marine safety Management System (MSMS) procedure
 - Planning
 - Contingencies
 - Communications
 - Notices to Mariners
 - Notification periods

Please do let us know if you would like any additional information or if a call would be helpful.

Kind regards

Rod Lewis | Associate Maritime Consultant | ABPmer
 Quayside Suite | Medina Chambers | Town Quay | Southampton | SO14 2AQ
 DD: | Mob: 07762910048
 Email: rlewis@abpmer.co.uk | Web: www.abpmer.co.uk | www.portriskmanagement.com

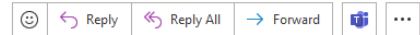
B.3 Welsh Government

Marine Ground Investigations at Port Talbot



Sebastian.Evans033@gov.wales

To: Emma Mungo



Thu 29/02/2024 09:59

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Dear Emma,

Thank you for consulting the Welsh Government on your proposed ground investigation works at Port Talbot. Please refer to the Welsh National Marine Plan for Welsh Government policies on the Sustainable Development of the Welsh marine plan area to inform your marine licence application to Natural Resources Wales (NRW).

We defer to NRW, as the Welsh Government's Statutory Nature Conservation Advisor for any technical comments on the proposal relating to the environment.

We are aware that local fishers use the area near to the south breakwater for netting. As such, we suggest you engage with, and notify all fishing vessels operating in this area prior to and during the works.

Useful links:

Welsh National Marine Plan: [Welsh National Marine Plan | GOV.WALES](#)

Marine Planning Portal: [Marine planning portal | GOV.WALES](#)

Diolch / Thank You
Seb

Seb Evans

Swyddog Polisi Trwyddedu Morol / Marine Licensing Policy Officer
Is-adran Y Môr a Bioamrywiaeth / Marine and Biodiversity Division
Llywodraeth Cymru / Welsh Government
Ffôn / Tel: 07980757660
E-bost / E-mail: sebastian.evans033@gov.wales

From: Emma Mungo <emma.mungo@abpmer.co.uk>

Sent: Monday, February 19, 2024 9:25 AM

To: Hamer, John (CCRA - EA - Marine and Biodiversity) <John.Hamer@gov.wales>

Cc: Claire Stephenson <claire.stephenson@abports.co.uk>; Maz Upson <mary-anne.upson@abpmer.co.uk>; Rebecca Hogan <becky.hogan@abports.co.uk>

Subject: Marine Ground Investigations at Port Talbot

Dear John

We are contacting you in relation to a Marine Licence application that we will be submitting on behalf of Associated British Ports (ABP) to Natural Resources Wales (NRW) for a Marine Ground Investigation (GI) survey at Port Talbot. I hope you are the right person to contact but please do let me know if there is an alternative contact to follow this up with.

We anticipate submitting the application at the end of February and expect that as one of the statutory consultees you will be contacted by NRW. In advance of you receiving the application we would like to explain what the works comprise and provide an opportunity for a follow up call. We are keen to engage with you early to gain your thoughts on this proposed survey.

The proposed GI includes the following survey elements (all below Mean High Water Springs):

- 35 no. boreholes: Cable percussive/Sonic core (CP/SC) boreholes taken to a maximum depth of 25 m. Cable percussive/Sonic core with rotary follow-on (CP/SC+RC) boreholes will be taken to a maximum depth of 40 m.
- 45 no. vibrocores taken to a maximum depth of 5 m.
- 15 no. Van Veen Grab (VVG) samples
- 19 no. Seismic cone penetration tests with piezocone taken to a maximum depth of 25 m. For each of the exploratory holes Standard Penetration Testing (SPT) and sampling will be carried out.

The locations of the works are shown in red in the figure below.



The GI survey is currently scheduled for July 2024. The duration of the works will be approximately eight weeks. Working hours will be continuous over a 24-hour period for the duration of the works. Sampling at each station is anticipated to take between four and six days per borehole and half a day per vibrocore.

We would be grateful if you are able to confirm you have no objections to the proposed survey? Or alternatively please let us know if you or your colleagues would like any additional information or if a call would be helpful.

Kind regards

Emma

Emma Mungo | Principal Marine Consultant | ABPmer
Quayside Suite | Medina Chambers | Town Quay | Southampton | SO14 2AQ |
Direct: 023 8144 9804 | www.abpmer.co.uk

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