

Our ref: R/5683_10_MonkstoneJFO

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Formal request for a sediment sample plan for Monkstone Marina Maintenance Dredging

REF: PS2608

Dear Dylan

1. With reference to your request dated 23 June 2026, for advice regarding sediment sampling for maintenance dredging at Monkstone Marina, please find the advice below and a sample plan form attached.
2. ABPmer provides advice to Natural Resource Wales (NRW) on sampling plans to ensure that there is sufficient evidence on sediment quality to understand potential impacts on the marine environment associated with marine licence applications and existing long-term marine licences. This may include characterisation of dredged sediment for disposal at sea or of areas where other activities are likely to lead to the mobilisation of sediments. To enable ABPmer to provide that advice, and to fulfil the UK's obligations under International Conventions in respect of disposal at sea, and the requirements of the Marine and Coastal Access Act where applicable, sediment samples are required for analysis.

Description of the Project

3. The Proposed Project relates to maintenance dredging material within Monkstone Marina, Neath, south Wales. The dredge area covers Monkstone Marina only. Based on the information provided with the sample plan request, the volume of material to be dredged is up to 10,800 m³, over an area of 9,000 m². The maximum dredge depth required is 1.2 m. The dredge material will either be disposed of at sea, within the River Neath on ebb tides. The dredge material within the harbour is comprised of silts and sand.
4. Monkstone Cruising and Sailing Club Ltd requested a sediment sampling plan on 17 June 2026. This document forms the sediment sampling plan.

Sampling Required

5. In accordance with the recommendations of the OSPAR Guidelines for the Management of Dredged Material¹, which were updated in 2024, samples should be taken to provide a good representation of the volume of material to be dredged. The distribution and depth of sampling should reflect the size and depth of the area to be dredged, the amount to be dredged and the expected variability in the horizontal and vertical distribution of contaminants. We also use the OSPAR guidelines to inform our advice on sampling requirements for other activities which are likely to lead to the mobilisation of sediments. Based on the information submitted (as described above), the following sampling and analysis is required.
6. ABPmer advises that three separate sampling stations (locations) will be required from across the dredge areas to provide adequate spatial coverage. This is in keeping with the guidelines set by OSPAR², which recommend 1-3 stations for dredge areas measuring <10,000 m². It also allows sufficient coverage of the area that requires dredging. The distribution of sampling should be representative of the spatial extent of the areas to be dredged and evenly distributed.
7. OSPAR guidelines also recommend that samples at depth will be required where the projected depth of dredging is significant, and the volume of dredge material should be taken into consideration to determine the number of samples³. On this occasion, given the small volume of material, limited depth of dredging, and the fact that the works consist of maintenance dredging, samples must be taken at the surface (0 metres depth) as indicated on the sample plan form attached.
8. The following information must be included with any samples (irrespective of the laboratory to be used for analysis):
 - Clearly labelled samples;
 - Completed sample position sheet, including the latitude and longitude (decimal degrees and the projection i.e., WGS84) of each location and if core samples are required the depth at which each sample is taken;
 - Details of the method of sampling; and
 - A map/chart detailing the sample locations.
9. Surface samples should be taken from the upper layer of *in-situ* sediment using a non-metallic / stainless steel scoop. To maintain the integrity of the samples please ensure that they are frozen and remain in the freezer until they can be dispatched. Please ensure the samples are dispatched in a cool box - the cool box should not be placed in any other packaging.

Analysis Required

10. Sediment analysis was last undertaken in 2021, at which time two samples were collected from the surface and analysed for levels of trace metals and total hydrocarbons (THCs). The results show slightly elevated levels of trace metals (above Cefas Action Level 1 (CAL1)) and THCs, however these levels were not so elevated as to preclude the material from disposal to sea.

¹ <https://www.ospar.org/documents?v=33037>

² OSPAR guidance on number of separate sampling stations (locations) required by dredge area (dredge area (m²) [number of stations (locations)]. <10,000 m² [1-3] | 10,000–50,000 m² [4–8] | 50,000 – 100,000 m² [9–10] | >100,000 m² [extra 5 per 100,000 m²].

³ OSPAR guidance on number of samples required by quantity of dredged material (amount dredged (m³) [Number of sample sites]). Up to 25,000 m³ [3] | 25,000–100,000 m³ [4–6] | 100,000 – 500,000 m³ [7–15] | 500,000 – 2,000,000 m³ [16–30] | >2,000,000 m³ [extra 10 per million m³].

11. In light of potential sources of contamination at this location, analysis is, on this occasion, required for:
- Trace metals (Cd, Cr, Cu, Hg, Ni, Pb, Zn) + arsenic (As);
 - Organotins;
 - Polycyclic aromatic hydrocarbons (PAHs); and
 - Particle Size Analysis (PSA).
12. Trace metals, organotins, and PAHs are included on the 'Primary List' under Technical Annex I of the OSPAR guidelines (Analytical Requirements for Dredge Material Assessment) which '*should be determined all cases*'. Paragraph 5.6 of the guidance also recommends '*if the list of determinants is reduced, further analysis of the complete list of determinants is advisable every five years.*' Marina operations and vessels present a potential source for these contaminants.
13. Further details can be found in Annex 1 (. Sample plan form).
14. It is recommended that the analysis is carried out following established specific dredge material testing methods. A list of laboratories which are approved for the suggested determinands is available at <https://naturalresources.wales/permits-and-permissions/marine-licensing/request-a-sampling-plan-for-a-dredge-or-disposal-marine-licence-application/?lang=en>. Any results following these methods would be acceptable to support a marine licence application or sampling required under an existing marine licence to NRW.
15. To ensure consistency between laboratories it is expected that all analysis required will be undertaken from the same sample container. It is the applicant's responsibility to ensure that sufficient sample is collected, in a single container, for all the analysis required.

Conclusion

16. This advice is based solely on the information provided in the sediment sampling plan request (SP2608) and the assumptions set out above. The sampling and analysis described will be adequate to inform a licence application that mirrors the information in this sediment sampling plan, providing that no further issues come to light and an application is submitted in a suitable timeframe. ABPmer will take a pragmatic approach to the requirement of repeat samples in relation to projects where works have not yet commenced, however, due to the dynamic nature of the marine environment and the potential for changes in the quantity and quality of sediments, there may be a need for some sediments to be re-sampled and analysed if the project has not commenced within two years of the time of sampling.
17. Where long term licences for maintenance dredging will be applied for, additional sampling and analysis may be required throughout the duration of the proposed licence term in order to comply with the OSPAR guidelines. Required sampling will be stipulated in any granted licence.
18. ABPmer reserves the right to request further sampling/analysis should any information come to light that differs from that information submitted in this sediment sampling plan request. Any future request must clearly state this reference number.

Yours sincerely
for ABPmer



Jamie Oaten
Principal Marine Environmental Consultant

Annex 1. Sample plan form

Sample	Station	Metals	Organotins	THC	PAHs	PCBs	PDBEs	OCs	PSA
1	Site A - 0 m	☒	☒	☐	☒	☐	☐	☐	☒
2	Site B - 0 m	☒	☒	☐	☒	☐	☐	☐	☒
3	Site C - 0 m	☒	☒	☐	☒	☐	☐	☐	☒
4		☐	☐	☐	☐	☐	☐	☐	☐
5		☐	☐	☐	☐	☐	☐	☐	☐
6		☐	☐	☐	☐	☐	☐	☐	☐
7		☐	☐	☐	☐	☐	☐	☐	☐
8		☐	☐	☐	☐	☐	☐	☐	☐
9		☐	☐	☐	☐	☐	☐	☐	☐
10		☐	☐	☐	☐	☐	☐	☐	☐
11		☐	☐	☐	☐	☐	☐	☐	☐
12		☐	☐	☐	☐	☐	☐	☐	☐
13		☐	☐	☐	☐	☐	☐	☐	☐
14		☐	☐	☐	☐	☐	☐	☐	☐
15		☐	☐	☐	☐	☐	☐	☐	☐
16		☐	☐	☐	☐	☐	☐	☐	☐
17		☐	☐	☐	☐	☐	☐	☐	☐
18		☐	☐	☐	☐	☐	☐	☐	☐
19		☐	☐	☐	☐	☐	☐	☐	☐
20		☐	☐	☐	☐	☐	☐	☐	☐

Comments:

Stations should be evenly distributed and representative of the dredge areas.