

Our ref: R/5683_11_Fishguard Replacement
Linkspan_JFO

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Formal request for advice on sediment sample analysis results for Fishguard Replacement Linkspan
REF: CML2612

Dear Emma

1. With reference to your request dated 29 May 2026, for advice on the sediment sample analysis results relating to the above marine licence application CML2612 for Stena Line Linkspan Replacement in Fishguard, please find the advice below.

Description of the Project

2. The Stena Line Linkspan Replacement in Fishguard project includes the replacement of the existing linkspan bridge and jack up barge with a new floating linkspan pontoon to serve the Stena Line ferry at Fishguard Harbour. The project will include plough dredging of 2,500 m³, a piled reinforced concrete bankseat, tubular steel guide piles, rock armour scour protection, and ancillary and temporary works.
3. Plough dredging will be undertaken within the footprint of the floating pontoon location to allow for the installation of scour protection. A plough dredger/multi-cat will remove material to a depth of 1.5 m below the seabed. Material will be redistributed to a scour hole north of the pontoon. The proposed dredge area covers an area of 3,705 m².
4. There has been no dredging undertaken in the harbour for at least the last ten years. Therefore, dredging undertaken as part of these works constitute capital dredging.

Documents Reviewed

5. The following documents have been reviewed:
 - CML2612 - 03-06-25-Environmental-Statement-Vol-II-Technical Appendices - 17;
 - CML2612 - Cover Letter;
 - CML2612 - Fishguard Replacement Linkspan eng-marine-dredge-and-disposal-licence-application;
 - CML2612 - Fishguard Replacement Linkspan eng-marine-works-licence-application;



- CML2612 Clarification letter;
- CML2612 - Fishguard EIA Volume 1 Main Document;
- CML2612 POR00886-TT-ML-XX-DR-C-0250-A1-C02 Marine Licence Site Location Plan; and
- CML2612 POR00886-TT-ML-XX-DR-C-0253-A1-C02 Marine Licence Plough Dredge Location Plan.

Responses to Questions Posed Within 'DML2352 Cardiff Harbour dredge - Sediment Sample Analysis Quote Request' (by E-mail)

Please can you review the results and provide advice, in line with OSPAR guidelines?

6. The analysis results provided in the Excel spreadsheet titled 'CML2612 - 03-06-25-Environmental-Statement-Vol-II-Technical Appendices - 17' indicate that sediment samples were collected and analysed from a total of five sample stations/locations. The 'CML2612 Clarification letter' confirms that the current marine licence application (CML2612) comprises a smaller licensable area than these samples were collected for (under previous marine licence application CML2533). Therefore, only Area A (Basin) samples ID VC-006 0.90 – 1.00m ES1, VC-006 1.90 – 2.00m ES2, and GS-006 0.00 – 0.20m ES2 are relevant to the proposed works (i.e., one sample location).
7. A sample plan request was not submitted for the proposed works covered by this marine licence application (CML2612). However, sample plan SP2502 covered the previous iteration of the project which encompassed a larger licensable area under the previously submitted marine licence application (CML2533). The project now comprises a smaller dredge using a plough consisting of 2,500 m³ over an area of 3,705 m². OSPAR Guidelines for the Management of Dredged Material¹ recommend 1-3 samples for dredges < 10,000 m² and, therefore, the sampling conducted for the project remains in line with the guidelines. It should be noted that the sample within Area A is located slightly outside the dredge area, however, it is still considered representative of the material that will be dredged.
8. The samples were analysed for trace metals, organotins, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), organochlorine pesticides (OCPs), polybrominated diphenyl ethers (PBDEs), and particle size distribution (as required under SP2502).
9. The particle size analysis (PSA) was undertaken by Benthic Solutions Ltd. This is not an NRW validated laboratory for PSA (however, it is validated by the Marine Management Organisation for PSA in England). The chemical analyses were undertaken by SOCOTEC, which is approved by NRW to undertake these analyses in support of marine licence applications.
10. The results of the trace metal analysis show that concentrations were below Cefas Action Level 1 (AL1) in all samples, with the exception of nickel in both VC-006 0.90 – 1.00m ES1 and VC-006 1.90 – 2.00m ES2 where Cefas AL1 was marginally exceeded. On the basis of trace metals concentrations, the movement of the material by plough dredging is not considered a concern.
11. Organotins were all below the limit of detection (LOD) and, therefore, are not of concern for plough dredging.
12. With respect to PAHs, the majority of concentrations were below Cefas AL1. Only a few individual PAHs (namely, benzo(b)fluoranthene, C1-phenanthrenes, fluoranthene, phenanthrene, and pyrene) marginally exceeded AL1 (there is currently no Cefas AL2 for PAHs). On this basis, concentrations of PAHs are not of concern for plough dredging.

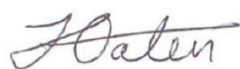
¹ <https://www.ospar.org/documents?v=33037>

13. Concentrations of PCBs were low, mostly below the LOD or below AL1 for the sum of International Council for the Exploration of the Sea (ICES) 7 and sum of 25 congeners. On the basis of PCB concentrations, the material is considered suitable for plough dredging.
14. OCP concentrations were also low. Both dieldrin and dichlorodiphenyltrichloroethane (DDT) were below the respective AL1s. The majority of other organochlorine pesticides tested were below the LOD. OCP concentrations are not considered to preclude plough dredging.
15. PBDE concentrations were mostly below the LOD. These data have been normalised for further assessment using the following normalisation factor (NF) for total organic carbon (TOC): 2.5/TOC%. Following normalisation, VC-006 0.90 – 1.00m ES1, VC-006 1.90 – 2.00m ES2, and GS-006 0.00 – 0.20m ES2 showed levels of one congener (BDE209) to be above the Lower Assessment Criteria (LAC) recommended by Mason *et al.* (2022)². Whilst these results could indicate a degree of risk to the marine environment from BDE209, concentrations are not so elevated to be preclude plough dredging of the material. The risk is also reduced as all remaining BDE congeners are low in concentration (mostly below the LOD).
16. PSA showed that sediment within the dredge areas predominantly comprised silt (>60%). Samples contained a smaller fraction of sand (between 20% and 40%), with negligible amounts of gravel.
17. Overall, the results provided indicate that concentrations of trace metals, organotins, PAHs, PCBs, OCPs and PBDEs in the dredge material for the assessed substances should not preclude it from removal by plough dredging.

Conclusion

18. In summary, it is considered that material proposed to be dredged as part of the Stena Line Linkspan Replacement in Fishguard is suitable for plough dredging on the basis of the analysis provided with the request for advice. It is recommended that material from the proposed dredge area is re-analysed at least every 3 years (if either dredging has not taken place within 3 years of sediment sampling, or maintenance dredging is required).
19. This advice is based solely on the information provided in the marine licence and the supporting documents listed above. ABPmer reserves the right to request further sampling/analysis should any information come to light that differs from that information submitted in the marine licence application.

Yours sincerely
for ABPmer



Jamie Oaten
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² Mason, C., Vivian, C., Griffith, A., Warford, L., Hynes, C., Barber, J., Sheahan, D., Bersuder, P., Bakir, A. and Lonsdale, J.A. (2022). Reviewing the UK's Action Levels for the Management of Dredged Material. *Geosciences*, 12(1), 3.