



## **Dredge BPEO Review**



**STORNOWAY PORT AUTHORITY**



A Best Practicable Environmental Option (BPEO) for the Stornoway Deep Water Port (DWP) was produced in 2018 by EnviroCentre to support the dredge licence application for the project. Following its submission, it was identified that the dredge depth required is -10m CD to accommodate larger draft vessels not -9.5m as previously considered. The increase in depth requirements also increases the dredge footprint area as shown in Drawing SDWP-WS2139-XX-00-DR-C-9021 included in Volume 4 of the EIAR. The dredge volume is for the revised design and is estimated to be approximately 500,000m<sup>3</sup> (an increase from 440,000m<sup>3</sup> in the previous design).

15 boreholes with depth range of -1.5m below ground level (bgl) to -4.5m were taken in 2018, and samples taken every 0.5m for chemical analysis in line with Marine Scotland's Pre-Disposal Sampling Guidance. The BPEO assessment for the previous design was based on 66 sediment sample tests from the 15 boreholes.

Two additional boreholes, BH52 and BH53 were drilled in 2019 respectively and underwent chemical analyses. The top sample from BH53 (BH53.01) exceeds AL1 for Diben(ah) anthracene, all other results are below AL1.

The sampling results from BH52 and BH53 and the three samples from the shallowest, middle and deepest sample depths for the 2018 boreholes have been utilised to complete the Pre-disposal Sampling Results submitted in support of the Marine Dredge Licence application. Table 5.1 of the Ground Investigation Interpretive Report completed by Gavin & Doherty Geosolutions Ltd provided in Appendix N.3 of Volume 3 of the EIAR shows the seabed level that the samples were taken from and the borehole depths. This demonstrates that samples were taken at depths up to and beyond -10mCD and hence are appropriate for informing the planned dredge.

The average wet weight concentration values show that there are no metals, organotins, polycyclic aromatic hydrocarbons (PAH), or Organohalogens with results above Action Level 1. The BPEO considered the AL1 exceedances associated with the original 15 boreholes, which included minor exceedance of AL1 for Diben(ah) anthracene for a number of the samples. As such the BPEO considerations and conclusions are not changed by the additional sample results.

The BPEO identified that all material suitable for reuse, should be reused in the land reclamation works. This conclusion is still relevant and is the preferred option for dealing with dredge arisings. The BPEO however acknowledged that an allowance for geotechnically unfavourable material (silts) be made, and that this should be deposited at the Stornoway Spoil Disposal Site (HE035) site nearby.

A 10% allowance for geotechnically unsuitable material is proposed, hence a request for a dredge disposal licence of 50,000m<sup>3</sup> Stornoway Spoil Disposal Site (HE035).