

METHOD STATEMENT FOR DISPOSAL OF MATERIAL AT FAL BAY DISPOSAL GROUND

The capital dredging works forms part of the Port of Falmouth Development Initiative (PFDI) and the proposed dredging method is predicted to utilise backhoe dredgers and barges.

The preferred disposal option for the clean dredged material is to dispose of all the material at the Falmouth Bay offshore disposal site, with the additional option to re-use some of the dredged material as a soil improver. Clean material is defined as material that does not contain contaminants at concentrations that prohibit disposal or re-use in the marine environment under the requirements of the FEPA.

For the proposed PFDI, a self-propelled sea-going barge is likely to support the use of backhoe dredgers and will be used to carry out disposal at the Falmouth Bay offshore site. Typically for this type of activity, a barge sails to the offshore site and deposits the dredged material into the water via doors in the hull. The dredged material falls to the seabed within the boundaries of the offshore site, as required by disposal licensing requirements made under the FEPA. The barge then returns to the dredging area. It is anticipated that the barge will have a volume of c. 1,000m³, which would require c.600 sailings to and from the disposal site over the six months dredging period.

Depending on the requirements of the FEPA licence, it may be necessary to zone disposal at the offshore site for reasons such as avoiding environmentally sensitive areas of the seabed within or near to the offshore disposal site, or avoiding an uneven build up of disposed material within the disposal site.

METHOD STATEMENT FOR MAERL REPLACEMENT

The dredging of maerl for seabed habitat mitigation forms part of a larger scheme. A predicted method statement for the dredging operations associated with this FEPA licence application is provided in the paragraphs below.

In terms of this FEPA licence application, a backhoe dredger supported by a barge is predicted to be most suitable for dredging of maerl substrate in the eastern part of the proposed PFDI navigation channel (i.e. the part of the channel aligned east-west from Carrick Roads / The Narrows to the Eastern Breakwater) and transporting to and placing it on the seabed in the habitat mitigation areas within the channel. Backhoe dredgers are more likely to maintain the maerl substrate in its original condition compared to other dredging methods, which is beneficial for maintaining the habitat value of the maerl and facilitating colonisation and community development following placement.

The dredging of maerl substrate will form part of the capital dredging of the proposed PFDI navigation channel. The dredgers' productivity rates under the following two scenarios are predicted to be:

- 10,000m³ per week for a smaller backhoe dredger with a bucket of 2m³, excavating weak material (e.g. mud, sand, maerl); and
- 25,000m³ per week for a larger backhoe dredger with a bucket of 5m³, excavating weak material.

It is proposed that approximately six hectares of seabed within the eastern part of the PDFI navigation channel be dredged to a depth of approximately one metre more than the declared depth in order to remove non-maerl substrate, and then be filled with maerl substrate. In terms of volume, approximately 60,000m³ of non-maerl substrate will be removed and be replaced by maerl substrate. Given the barge hopper volumes of 1,000m³ and dredger productivity rates of 10,000m³ per week (2m³ bucket) and 25,000m³ per week (5m³ bucket), then there is predicted to be sixty dredging, transport and placement operations (i.e. 60,000m³ / 1,000m³ = 60 barge loads) extending over 2.4 to 6 weeks depending on productivity rates (i.e. 60,000m³ / 25,000m³ = 2.4 weeks and 60,000m³ / 10,000m³ = 6 weeks).

Pure maerl, rather than mixed maerl, is likely to be placed to minimise the release of fines during the placement process. For the purposes of nature conservation, the maerl substrate is of more habitat value than the substrate it replaces and contributes to offsetting the potential impacts associated with capital dredging.