PD Teesport – Maintenance Dredging Method Statement

Suction Dredging

PD Teesport employs two trailing suction hopper dredgers (TSHD) of 1500m (cubed) hopper volume to maintain depths within the navigable channel and berths within The Tees and Hartlepool.

The larger suction dredger (by deadweight) operates on a 6 day/week basis and predominantly dredges sand or sandy silts, the small suction dredger operates on a 3 day/week basis concentrating on silts, fine sands and berth/frontage dredging. Both are traditional suction dredgers with active bottom door dumping systems, the only variation being the vessel deadweight capacity and the inclusion of an active drag-head on the larger vessel to assist in the sand dredging.

Both vessels are essentially maintenance dredge vessels however limited capital dredge is possible where the material is soft or relatively unconsolidated. The two vessels are "*Heortnesse*" (the larger vessel) and "*Cleveland County*".

Maintenance dredging operations

The suction dredgers operate on a nominal production time 8-10 hours per day for 6 days per week, this can for a limited period be increased to 22 hours and 7 days per week where sudden increases in deposition rate occur primarily following storm conditions.

Based on both vessels working together the maximum disposal rate equates to around 1200mt per hour and nominally centred around daylight hours.

Plough Dredging

PD Teesport employs a buoy tender "Wilton" using a 5 metre plough 3rd party contractors utilising a 10m plough(bed-leveller) to remove isolated high spots on the river bed primarily off frontages or confined areas. The material is removed from the high spots and deposited into deeper areas where they can be removed using conventional suction dredge process.

This results in no change and on occasion a reduction in production volume or disposal volume but allows dredge depths to be better maintained.

Maintenance dredging operations

Chart areas 1 to 5 (see attached Maintenance Dredging Baseline Document) generally have dredge materials of an organic silty nature. Chart areas 6 to 8 are generally sandy silt and silty sand, and chart areas 9 and seaward (i.e. 10, 11 and 12) are predominantly composed of sand with fine sand moving to a coarser nature into the sea reaches.

All issues relating to safe navigation are controlled by the Competent Harbour Authority's integrated management system the requirements with which the Conservancy Engineering Department complies.

Disposal within the designated maintenance disposal site (Tees Bay ‘A’ – TY160) is controlled under the Tees Disposal Protocol. The site is zoned into 12 distinct sub-sites which are rotated on a monthly basis, and monitoring of this site is undertaken by PD Teesport (bathymetry) and CEFAS (sediment quality/contamination).

The location of dredge areas and positioning of vessels within the disposal site are controlled using the integrated navigation, survey and dredge control software, with final locations for disposal confirmed and recorded within the Port Operation Centre VTS system.

Where dredge areas are subject to the application of the Conservation of Species and Habitats Regulations 2010 (Habitats Regulations), such operations are planned and consents are agreed in advance with Natural England and other relevant Statutory Consultees as necessary.

This method statement should be read in conjunction with the Maintenance Dredging Baseline Protocol Document which was originally produced for the Tees estuary in 2005 and then was updated and, subsequently, published in February 2008, alongside annual reviews undertaken in November 2009, February 2011, March 2012, February 2013, May 2014 and, most recently, in February 2015. This document will continue to be updated yearly by PD Teesport.