

EXECUTIVE SUMMARY

A monitoring survey was conducted in August 2007 at the Portland Disposal Site (PDS) as part of the Disposal Area Monitoring System (DAMOS) Program. The 2007 field effort consisted of bathymetric, sediment-profile imaging, and plan view imaging surveys designed to characterize the seafloor topography of the disposal site, document the distribution of dredged material around recent and historic disposal locations, and assess the benthic conditions over recently formed and historic disposal mounds.

The August 2007 bathymetric survey was performed over a 2100 x 2100 m area encompassing the entire PDS. Placement of a total of 369,000 m³ of dredged material at the site marker buoy from 2001 to 2007 resulted in an increase in height and diameter of the PDA A Mound. The height of the mound increased approximately 4.5 m, and the diameter increased 250 to 400 m. No other significant bathymetric changes were observed. Consolidation was not apparent at the historic mounds PDA 95 and PDA 98.

The August 2007 sediment-profile imaging and plan view imaging survey was performed at the recently augmented PDA A Mound and the historical mounds PDA 95 and PDA 98. Recolonization at the older mounds (PDA 95 and PDA 98) has continued as expected, with mature, Stage III communities found at every station. The infaunal community at each of these mounds is now considered to be fully recovered with habitat conditions similar to those found at the reference stations.

The PDA A Mound displayed a recolonization pattern consistent with newly disturbed areas or recently formed disposal mounds. Little to no evidence of deep burrowing or bioturbational activity was detected in any of the profile images from this site, and successional stages were confined to initial opportunistic assemblages (Stage I) or shallow-dwelling deposit feeders (Stage II). No evidence of organic enrichment or subsurface methane was found at any of the stations on any of the three mounds, so there is little reason to suspect that recolonization on the PDA A Mound would not follow the same progression as that documented on the PDA 95 and PDA 98 Mounds.

While future monitoring surveys at the site should include the PDA A Mound to document the completion of the recolonization sequence, frequent monitoring of either the PDA 95 or PDA 98 Mounds is determined to be unnecessary.