

EXECUTIVE SUMMARY

A monitoring survey was conducted at the Rockland Disposal Site (RDS), as part of the Disposal Area Monitoring System (DAMOS), from 5 to 26 September 2003. The September 2003 field effort consisted of bathymetric, side-scan sonar, and sediment-profile imaging (SPI) surveys designed to document changes in seafloor topography, evaluate the physical distribution of dredged material, and assess benthic recolonization status associated with recent dredged material disposal activity.

Approximately 263,000 m³ of dredged material was deposited at RDS since the last bathymetric and sediment-profile imaging survey (September 2000). This dredged material disposal volume is large relative to the prior 10 years of disposal activity at this site. A recently formed disposal mound was found at the present location of the disposal buoy. The mound had a maximum height of approximately 4 m and an approximate diameter of 220 m based on comparison of bathymetric data from the previous (2000) and present (2003) surveys. Side-scan sonar and SPI data collected in 2003 are consistent with the bathymetric data, revealing a single mound centered at the disposal buoy. These more sensitive measurement techniques revealed a thin layer of dredged material extending farther from the disposal buoy with a diameter of approximately 900 m. This single mound detected in 2003 appears to have replaced the two smaller mounds observed during the previous (2000-2001) RDS monitoring survey. The location and extent of the single mound at the active disposal buoy was entirely consistent with dredged material disposal activities conducted over the past three years.

Advanced benthic recolonization was found at RDS. The sediment-profile imaging survey found evidence of a diverse benthic community comprised of both surface-dwelling polychaetes (Stage I) and sub-surface deposit-feeders (Stage III) at a very high percentage of locations throughout RDS. Overall median Organism-Sediment Index (OSI) values at RDS stations indicated a high level of recovery within the sediment deposit from the physical disturbance associated with both past and present dredged material placement.