

## EXECUTIVE SUMMARY

---

Science Applications International Corporation (SAIC) conducted monitoring surveys of the New London Disposal Site (NLDS) in August 1992; August 1995; September 1997; and July 1998, as part of the Disposal Area Monitoring System (DAMOS) Program. Field operations in each survey year included data collection of one or more of the following: precision bathymetric surveys, Remote Ecological Monitoring of the Seafloor (REMOTS®) sediment-profile surveys, and surface and near-bottom dissolved oxygen determinations.

Since its inception in 1977, the Disposal Area Monitoring System (DAMOS) Program has investigated dredging and dredged material disposal practices in an effort to minimize adverse physical, chemical, and biological impacts. DAMOS utilizes a flexible, tiered management approach centered around comprehensive environmental monitoring to oversee the placement of sediments at nine open water disposal sites along the coast of New England. Active disposal sites are surveyed on a regular basis to ensure the effects of dredged material disposition on the benthic habitat are localized and temporary.

There has been an active dredged material disposal site near New London since at least 1955. DAMOS monitoring of the New London Disposal Site started in 1977 when the program was established. In 1996, the boundary of the New London Disposal Site shown in DAMOS graphics was shifted in accordance with the Final Programmatic Environmental Impact Statement, resulting in a 0.2 nmi northerly shift of the disposal site. The new, northern region was surveyed in 1997.

The New London disposal site has been used for on-going disposal throughout the 1990's, including unconfined disposal of suitable sediments, and capped disposal of unsuitable sediments. This report summarizes the disposal and monitoring activities conducted from the 1991-1992 dredging season through monitoring in July 1998. This information is presented as a single report to provide a clear, concise picture of use of the New London Disposal Site during this time frame and to include important monitoring information related to the dredged material mounds.

During the 1991-1992 disposal season, the NLDS received a total barge volume of 104,200 m<sup>3</sup> of dredged material generated from four separate projects in the eastern Long Island Sound region. Disposal resulted in creation of two disposal mounds, the Dow/Stonington (D/S) mound, consisting of unsuitable dredged material (Dow and Stonington sediments) and suitable cap material (Dow sediments), and the NL-91 mound immediately north of the D/S mound.

Bathymetric surveys and REMOTS® data, which were fully developed using pre- and post-cap bathymetric survey data analyzed in 1994-1995, showed that due to errors in navigation, while some cap material covered the D/S mound, most of the cap material was

deposited approximately 250 m east of the mound. Following the misplacement of some of the cap material, additional cap material has been deposited at the site as it becomes available, to steadily increase cap thickness over the mound. REMOTS® surveys of the D/S mound conducted in 1992, 1995, 1997, and 1998, showed no adverse impacts, strong signs of benthic community recovery, and the continued presence of a stable benthic community.

During the 1994-1995 dredging season, two new capped mounds were created at the NLDS, including the U.S. Coast Guard Academy (USCGA) mound, and New London 1994 (NL-94) mound. Although monitoring in August, 1995, indicated the NLDS area was experiencing low oxygen bottom waters, it appeared to be part of a regional, seasonal hypoxia event that is unrelated to dredged material disposal. The benthic community at the newly formed disposal mounds was comparable to the reference areas. The NL-94 cap was augmented with additional material during the 1996-97 disposal season, and healthy benthic recolonization was evident by the September 1997, surveys.

Additional disposal activities conducted at the New London Disposal Site during this time frame consist of creation of the Seawolf Mound with sediments from the New London Naval Submarine Base, the Thames River navigational channel, and two smaller dredging projects. Monitoring of this mound conducted in 1997 and 1998 is discussed in a separate DAMOS report.