In July 1992, the Western Long Island Sound Disposal Site (WLIS) was surveyed as part of the Disposal Area Monitoring System (DAMOS) Program. The survey was conducted to assess the effects of recent disposal at the site as well as to revisit areas within the site and at the reference areas that had showed evidence of disturbance based on results from the last survey in June 1991.

In June 1991, the monitoring survey at WLIS showed high sediment oxygen demand and a high sulfide content at some monitoring stations on disposal mounds "A" and "D" where dredged material had been released during the 1989/1990 disposal season. The survey also indicated that reference area WLIS-REF may contain historical dredged material and that 2000S had experienced frequent physical disturbance. In addition, 2000S contained patchy distributions of elevated polycyclic aromatic hydrocarbons (PAHs). Recognizing that it is difficult to find areas of western Long Island Sound that do not show some impact from human activity, it was still determined that a search for more suitable references should be conducted.

The July 1992 monitoring survey at WLIS addressed these two concerns as well as determined the topography, areal extent, and recolonization status of the active mound WLIS "F". Survey methods at the WLIS "F" mound included bathymetry and REMOTS® sediment-profile photography. The bathymetric survey at WLIS "F" showed a mound approximately 200 m in diameter and 1.9 m in height. The thin layer of dredged material detected by REMOTS® was within a circular area 350 m in diameter. The WLIS "F" mound had recolonized rapidly with deep apparent redox potential discontinuity (RPD) values and Stage III infauna at the apex of the mound.

The benthic habitat and sediment toxicity studies for selected stations at mounds "A" and "D" included REMOTS® sediment-profile photography and a 10-day amphipod bioassay. The REMOTS® data at mound "A" and "D" indicated only modest improvement in habitat quality since 1991. However, the 10-day bioassay test showed no statistical difference between these sediments and those at the reference areas or control sediments. No remedial action is warranted based on these observations, though periodic follow-up monitoring should continue.

The search for reference areas to replace WLIS-REF and 2000S included a cross-shaped bathymetric survey of areas named SOUTH and EAST to characterize the topography of these proposed areas and a 13-station cross grid REMOTS® survey of each proposed site. These areas were also sampled for metals, PAHs, grain size, and total organic carbon. The results showed that SOUTH was a suitable replacement for 2000S. Area EAST was located too close to an historic dredged material disposal site and showed some of the same characteristics as WLIS-REF.