

EXECUTIVE SUMMARY

During 1979 and 1980, the New England Division of the US Army Corps of Engineers has been conducting a carefully managed and monitored program of dredge material disposal at the Central Long Island Sound Disposal Site. This program has been concerned with the coverage or "capping" of enriched material from Stamford Harbor with cleaner material from New Haven. This capping procedure resulted in a steep-sided compact mound of spoil material (Figure 1) that was developed by point dumping of material at a taut-wire moored buoy. Consequently, when additional capping material was available for disposal, it was necessary to dump this material at some distance from the buoy to avoid excessive shoaling of the mound.

Two general areas for disposal were identified: one, approximately 300 meters west of the buoy where some Stamford material was exposed, and second, around the southern margin of the spoil mound where additional material would increase the thickness of capping. Since placement of a series of taut-wire buoys to control this disposal would be cost prohibitive, an alternate plan using computer enhanced Loran-C control was initiated to manage the disposal operation.

An additional benefit derived from the enhanced Loran-C approach to disposal is the ability to monitor and manage the dumping procedure. During this operation, Loran-C data were recorded at five (5) minute intervals during transit to the site and more frequently as specified during the dumping operation by the inspector.