

## EXECUTIVE SUMMARY

The Portland Disposal site is located in Bigelow Bight approximately 7.1 nautical miles east of Cape Elizabeth, Maine (Figure 1-1). It is a one nautical mile square with sides running true north-south and east-west, centered at 43° 4.1' N, 70° 02.0' W. The center area has a maximum depth of 60 meters; it is surrounded by hard rock ridges which shoal up to 48 meters.

Dredged material disposal began at the Portland site in 1979. Initial disposal occurred at a taut-wire moored buoy located at 43° 34.11' N, 70° 01.91' W. This buoy was the location for specific disposal operations until its removal in 1984. For the last five years, disposal has taken place at a conventionally moored buoy presently located 350 meters north of the taut-wire buoy location (Figure 2-1).

Previous monitoring at the Portland Disposal site under the DAMOS program has included bathymetric and sidescan surveys, sediment and benthic sampling, and direct observation in a manned submersible; the last DAMOS monitoring survey took place five years ago in May 1984 (SAIC, 1984). Since that time, an estimated total of 46,000 m<sup>3</sup> of dredged material has been deposited.

Field operations were conducted between January 23rd and 30th 1989. The objective of this survey was to determine acoustically the portion of the mound greater than 30 cm thick and delineate with REMOTS® the extent and thickness of dredged material not detectable with bathymetry. In addition REMOTS® photography was used to observe the status of benthic colonization on and near the disposal mound.