

EXECUTIVE SUMMARY

An assessment of lobster abundance was conducted at the Rhode Island Sound Disposal Site (RISDS) in 2005 as part of the U.S. Army Corps of Engineers (USACE) New England District (NAE) Disposal Area Monitoring System (DAMOS) Program. This assessment was designed to evaluate whether the disposal of dredged material from the Providence River and Harbor maintenance dredging project caused negative impacts on lobster populations at the RISDS compared to nearby areas.

Initial surveys of lobster abundance were conducted in August, September, and November of 1999 at each of three sites (Sites 18, 69A, and 69B) in Rhode Island Sound. At the time, each of these sites was under consideration for designation as a dredged material disposal site. The site ultimately designated as the RISDS has a boundary configuration that largely overlaps the area studied in 1999 that represented one of several variations on boundaries for Site 69B. The 2005 study essentially repeated the one conducted in 1999. The objective was to examine differences among the three sites, and compare the 2005 results with those from 1999, to assess whether the disposal of dredged material at the RISDS had resulted in significant changes in lobster abundance.

In both years, each monthly sampling event involved deploying 20 commercial lobster traps at each of the three sites for three days, pulling the traps, and recording the number, size and sex of the lobsters collected in each trap. A subset of these traps was covered with small mesh in an attempt to capture more juveniles.

Overall, fewer lobsters were captured at each site in 2005 than in 1999, reflecting a trend of steadily declining numbers of both juvenile and adult lobsters throughout the southern New England region since the 1990s. While the average abundance and size of lobsters generally decreased between 1999 and 2005 at all three sites, the magnitude of this decrease was always less at the RISDS than the average decrease at Sites 18 and 69A. Roughly 1.5 years after the completion of the Providence River and Harbor maintenance dredging project, the disposal activities did not appear to have caused significant adverse impacts to lobster population abundance at the RISDS compared to nearby areas of Rhode Island Sound.