

## BATHYMETRIC SEDIMENT TRAPS IN New York HARBOR

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Between 1950 and 1976, sand was dredged from the floor of the Lower Bay of New York harbor was dredged to provide material for construction. Although the surrounding sea floor was sandy, the pit was subject to anomalously rapid, disequilibrium accumulation of fined-grained sediment. This change in substrate that would altered the benthic ecological community of the Lower Bay Bathymetric surveys were done from the Harbor School's *R/V Privateer* over one of the borrow pits near Hoffman and Swinburne Island to detect changes that may have occurred over a fifty-year period. In 1980, the maximum depth of the pit exceeded 12 m and about 0.5 m of mud had accumulated on the pit floor. In 2018, our preliminary results showed that addition mud had accumulated corresponding to a long term deposition rate of 2.6 cm/year. The bathymetric feature has continued to trap fine-grained sediment. This feature and others like it in the Lower Bay appear to be permanent habitat alterations.