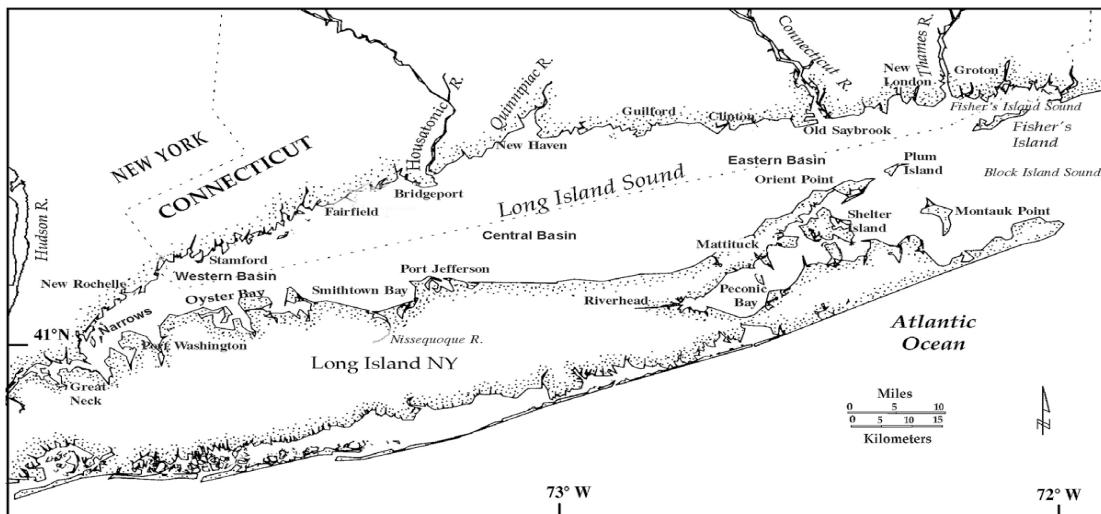


Geography of Long Island Sound

Long Island Sound is the second largest estuary on the east coast of the United States after Chesapeake Bay.



It was created 8000 years ago as the glaciers retreated and their meltwater filled the depressions behind the Harbor Hill moraine with fresh water. The Harbor Hill extends from Rhode Island to Nassau County. Remnants include the North Fork of Long Island, Plum Island, and Fishers Island.

As sea level rose, the fresh water basins was flooded by the sea and turned salty.

Technically, LIS stretches from the Battery (Manhattan) to The Race (islands between NY and RI). The East River (actually a strait between LIS and NY Harbor) did not exist as a western outlet until the rising sea flowed over the western divide.

Today Long Island Sound has about 600 miles of coastline, is bordered by three states (NY, CT, and RI) and surrounded by over 20 million people. Over 90% of its fresh water comes from three south flowing rivers: the (1) Connecticut, (2) Housatonic, and (3) Thames. Its watershed includes much of New England (see map.)

However, there is no major river to flush out LIS from west to east. There is limited exchange of sea water at the eastern end and very little at the western end. It is shallow (65-120 ft) with its eastern basin saltier than its western basin.

Because of its physical characteristics, it has problems.



Surrounded by one of the most densely populated urban-industrialized areas of the country, it has seen the degradation of its habitats, both in water and coastal. Tidal wetlands have been lost to development. Shallow water with limited tidal and freshwater flushing has created dead zones. Hypoxia (low dissolved oxygen level from sewage and agricultural activities containing nitrogen), habitat degradation from pollution and contaminated bottom sediment with toxic chemicals and pathogens (bacteria and viruses) in water, have posed threats to sea life, birds and people. There is observable floatable debris.

Poor water quality has hindered shoreline use on both coasts by people. Fisheries have suffered. Shellfish beds have been closed.