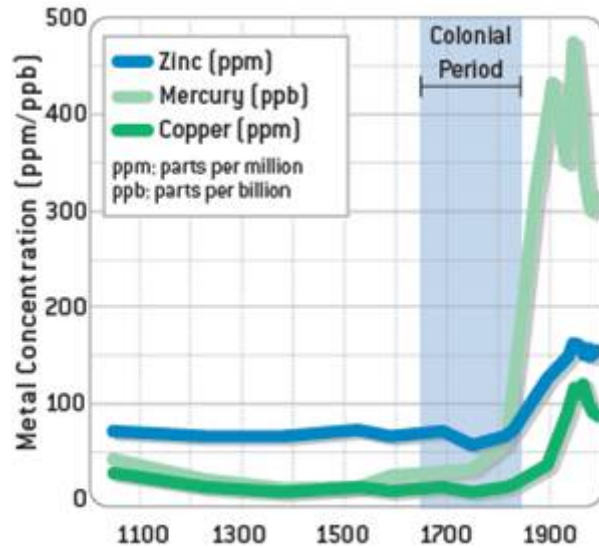


Archived Long Island Sound Study Legacy Indicator

Heavy Metals in Sediment



Wesleyan University and USGS Woods Hole Field Center

WHAT ARE HEAVY METALS IN THE SEDIMENT?

During the 19th and early and mid-20th centuries, industries discharged large amounts of heavy metals into the Sound and its tributaries as byproducts of manufacturing processes. While large-scale industrial release of heavy metals has been reduced, other modern sources still exist. Atmospheric deposition into the Sound directly and into the larger watershed can be a source of heavy metals, as well as particles discharged from wastewater treatment plants.

WHAT DOES THIS INDICATE?

Data from sediment cores is an indicator of trends in heavy metal contamination of Long Island Sound over the last thousand years.

STATUS

The chart above uses data collected from a core sample taken off Norwalk Harbor. It represents a historical record of heavy metal concentrations in a formerly industrial area of Long Island Sound. Concentrations of mercury, copper and zinc began to increase during the Industrial Revolution. Although concentrations have begun to decrease in the most recent decades, overall concentrations are still far above the pre-industrial baseline.

what are historical/legacy indicators?

Some of our indicators are categorized as either historical or legacy indicators. Heavy Metals in Sediment indicator is a historical indicator. This type of indicator provides perspective on past environmental conditions in Long Island. It is not measured periodically like our other indicators. Many indicators of this type use sediment core samples to measure how conditions in the Sound have changed over hundreds to thousands of years.

A legacy indicator is another type of indicator that is no longer actively tracked by the Long Island Sound Study. This is often due to lack of funding or termination of field sampling programs, but also sometimes because we have developed more effective indicators to replace them. We continue to present these legacy indicators because they can still provide baseline information on conditions in the Sound if the sampling programs resume.