The Boston Globe

EDITORIAL | December 7, 2018

Boston Harbor is clean but could face new threats to marine life

The Massachusetts Water Resources Authority has fulfilled its mission of cleaning up Boston Harbor — and without adverse impacts farther out into Massachusetts Bay. An entire generation of Bostonians has grown up without remembering when the harbor bottom was the consistency of black mayonnaise and flounder were turning up with ulcers and liver tumors. A recent report from the Woods Hole Oceanographic Institute declared the harbor's winter flounder to be tumor-free for the 14th consecutive year.

So far, so healthy. Now the question comes whether the MWRA's expertise should be turned toward monitoring new and emerging threats to the marine environment: plastics, pharmaceuticals, hormones, nutrients, industrial chemicals, and the like. With an extensive and successful monitoring infrastructure already in place, it would seem a natural fit.

The world produces 322 million tons of plastics every year, up from 15 million a half-century ago. Each year, at least 8 million tonsof plastic waste leaks into the oceans.

The World Economic Forum warns that by 2050 there could be more plastic in the sea than fish. Plastics and other emerging pollutants can work their way up the food chain to our diets. Hundreds of marine animals eat micro-plastics, the tiny bits that break down from larger trash in the sea.

Only a fraction of the medicines we consume is metabolized by our bodies; the rest is excreted or washed into the waste stream. Oysters are particularly vulnerable to waste from pharmaceuticals and personal-care products because they are filter-feeders, sifting contaminants through their gills.

The Environmental Protection Agency hasn't set discharge standards for most of these compounds, and while the MWRA did test the drinking water supply at all its protected reservoirs and found no evidence of pharmaceuticals, it has not been tracking the wastewater that comes into its treatment plant at Deer Island or releases through its 9.5 mile-outfall pipe where treated sewage is discharged.

The MWRA's monitoring program — an exhaustive collection of data on oxygen levels, pathogens, metals, algae blooms, fish populations, and more — began 29 years ago, before the agency constructed the Deer Island plant, but it was codified in 2000, under a federal permit to build the outfall pipe. The permit also created a group of technical experts who analyze the reams of data collected. At a recent workshop, the panel and other harbor advocates discussed the threat of emerging contaminants with an eye toward recommending whether and how the MWRA should address the challenges.

"The MWRA has transformed Boston Harbor and the health of Massachusetts Bay, and it's an extraordinary achievement," said Bruce Berman of Save the Harbor Save the Bay, which cosponsored the workshop, "but the outfall pipe remains one of the largest sources of pollutants into a changing ocean."

The dividend for the $4.7 billion public investment in the cleanup — including the overhaul of 84 combined sewer overflow pipes that used to dump sewage into the harbor and rivers with every rainstorm — is a healthy environment, some of the cleanest urban beaches in the country, and a development explosion in the Seaport District. The 43 cities and towns of the MWRA district owe the agency a debt.

Many questions remain about how best to design a monitoring system for the new contaminants, how long it might take to phase in, whether the MWRA should enlist new partners in the effort, and whether it can all be done for the relatively inexpensive $1.5 million a year the agency currently spends on monitoring. But the MWRA is uniquely positioned to answer those questions. It is clear that a shift in focus would be consistent with the agency's mission.