

New Bedford Harbor Long Term Monitoring Program: 2014 Collection Dr. Barbara Bergen, USEPA, Office of Research and Development, NHEERL, Atlantic Ecology Division, Narragansett, RI

<u>Chemical Data</u>: PCB concentration comparison 2009 vs 2014

<u>2009</u> <u>2</u>





<u>Upper Harbor</u>: Average concentration similar (7 stations decreased, 4 increased), Percent of surface area below 10 ppm increased

Biological Data: EMAP Benthic Index comparison 2009 vs 2014

<u>2014</u>



2009

Upper Harbor:

Number of stations classified as "good" increased from 7% to 22%



Lower Harbor: Average concentration decreased (21 of 29 stations with lower PCBs), Percent of surface area > 10 ppm decreased to 0



Lower Harbor:

Number of stations classified as "good" increased from 48% to 72%



Outer Harbor:

Average concentration similar (20 of 23 stations with lower PCBs), Percent of surface area >1 ppm decreased to 0



<u>Outer Harbor</u>: 100 % of stations both years classified as "good"

Biological Data: EMAP Benthic Index comparison

for all LTM Collections

This graph shows the percent of stations classified as having a "good" EMAP Benthic Index in each section of the harbor for each of six LTM collections

Note: Significant increases in both the upper and lower harbors since 1993 collection



Conclusions:

- PCB concentrations site wide show decline even with significant dredging in both the upper and lower harbors

- Benthic health shows increase in both the upper and lower harbors

- Reasonable to assume that with increased PCB removal, these trends will continue and may accelerate once cleanup is complete