

**Summary of the Watershed Counts Meeting
Thursday, March 13, 2014**

1:00 PM - 3:00 PM at Narragansett Bay Commission

Attendees:

Tom Borden, Narragansett Bay Estuary Program
Olivia Ahern, Narragansett Bay Estuary Program
Nicole Rohr, URI Coastal Institute
Tom Uva, Narragansett Bay Commission
Pam Reitsma, Narragansett Bay Commission
Heather Stoffel, Graduate School of Oceanography
Jim Boyd, Coastal Resources Management Council
Walter Berry, EPA-Atlantic Ecology Division
Warren Prell, Brown University
Peg Pelletier, EPA- Atlantic Ecology Division
Hal Walker, EPA- Atlantic Ecology Division
Steve Rego, EPA- Atlantic Ecology Division
Sue Kiernan, RI Department of Environmental Management
Heidi Travers, RI Department of Environmental Management
Tom Kutcher, Save the Bay
David McLaughlin, Clean Ocean Access, Newport
Caitlyn Whittle, USEPA Region 1
Veronica Berounsky, Graduate School of Oceanography



Welcome and Introductions

Nicole Rohr and Tom Borden welcomed all to the meeting and provided an overview of the purpose of the meeting. They reiterated that the Watershed Counts consensus was that the 2014 report should shine a “spotlight” on the Freshwater and Marine Beaches indicator. However, the Marine Water Quality indicator has new information to incorporate since the 2013 report, and the goal of this meeting is to discuss those data and decide what aspects of marine water quality will be incorporated in the 2014 WC report.

Discussion of 2013 Dissolved Oxygen Data

Heather Stoffel, Sue Kiernan, Warren Prell, Pam Reitsma and Tom Uva provided an overview of their respective data related to dissolved oxygen in Narragansett Bay. 2013 was a wet year, so there were more exceedances of criteria than there were in 2012. However, 2012 was a dry year so this is not unexpected. 2013 had fewer exceedances of criteria when compared to other similar wet years such as 2006. The Insomniacs conducted six surveys and saw a peak for hypoxia in mid-July.

For the dissolved oxygen map that is included in the Watershed Counts report to have a change in designation of “impaired waters” a site must be considered “impaired” for three consecutive years. None of the sites monitored have changed designation since the 2013 WC report, so the map will not change in appearance. There was discussion of the map including “areas of concern” which would indicate sites that are not considered impaired but did show exceedances of criteria. It was decided that this feature will be added to the map for the 2014 report.

Concerns were raised that there are additional weekly seabird dip data produced by the Narragansett Bay Commission that are not being included in the report. This data was discussed and it was decided that this data would not be included in the 2014 WC report but we would look at ways to foster collaboration between NBC and Insomniacs in order to potentially include this information in future reports.

We discussed the implications of reporting that hypoxic events were more common in 2013 than 2012 even though the state is investing considerable money in wastewater treatment to reduce nitrogen inputs to the Bay. It was decided should include:

- Discussion of factors other than nitrogen that contribute to hypoxia.
- Data on rainfall and hypoxia with comparison of wet year data as well as continuous data but be careful not to frame it that ONLY rainfall is driving hypoxia.
- Explanation that researchers are still working to model and understand the factors that contribute to hypoxia.
- Highlight the steps that are being taken to reduce hypoxia (i.e. CSO, improved sewage treatment, Warwick not expanding sewer lines).

Other Indicators of Marine Water Quality

Chlorophyll was raised as an indicator of marine water quality. NBC collects this data and the EPA often references chlorophyll and clarity as an indicator of water quality. While there is data on chlorophyll, it is not ready to be analyzed and reported on for the 2014 WC report. However, we should keep it in mind for future reports when there may be an opportunity to dedicate more report space to fully explaining this indicator. Tom and Nicole also pointed out that Watershed Counts has a very nice website that can be updated and expanded year-round if that is a better interim option.

Biological measurements such as eelgrass, benthos, and shellfish are also fairly common indicators, which can be linked to chlorophyll levels and water clarity. No one at the meeting was aware of good, consistent biological monitoring being conducted in Narragansett Bay that could be included in the 2014 WC report.

Shellfish pathogens are an indicator that could be included in the 2014 WC report. DEM has careful documentation of shellfish pathogens and documented progress in the mid-Bay, which is contributed to by the CSO. It was agreed that data on shellfish pathogens would be included in the 2014 WC report. It was also agreed that shellfish disease in Greenwich Bay would be contrasted with the rest of the Bay in a careful manner.

Walter Berry commented that the best indicators to include are ones that tie directly to a regulation or public interest. There are not stated regulatory goals and benchmarks for clarity or seagrass in Narragansett Bay. The CRMC is monitoring seagrass but the baseline was really just completed in 2012 with the initiation of new and improved monitoring techniques. Seagrass is also a complicated indicator because of water temperature and other factors. Depending on CRMC monitoring with addition of data Save the Bay has, we may consider this in future WC reports.

Long Island Sound has a sentinel estuary monitoring program. Narragansett Bay does not have a comparable program but it would be good to start a discussion on the possibility of

one and what indicators - including biological indicators - that would be best for Narragansett Bay. One possibility is to include how Narragansett Bay compares to other states in terms of monitoring. Tom Borden thought this may be considered in the NBEP Status and Trends report.

Toxins were raised as a possible indicator but there are no water column impairments for toxics in the Bay. There are perhaps some sediment concerns but Dr. John King explains the increase in sediment toxins in the mid-Bay as sediment transport from the upper Bay. Mercury in fish is being researched but not enough data yet to report on.

Warren has a paper that talks about different paths of how estuaries repair themselves. Would be interesting to see what path Narragansett Bay is on.

Tasks for 2014 Watershed Counts Report

- Write Marine Water Quality section - Heather and Pam (based on DEM and Insomniacs data)
- Update DO map with areas of concern - Heather
- Nitrogen loading to the Bay and reduction due to CSO investment - Pam
- Shellfish pathogen map and a few paragraphs - Sue to check with Liz Scott
- Two paragraphs for report on response mechanisms and how investments in water quality improvements take time for observable results - Warren and Peg