

Investments in wastewater treatment pay off:



Narragansett Bay Commission, RI

- \$360M investment in Phase I of the CSO project, estimated \$216.5M cost for Phase II
- Storage of 65 million gallons of untreated wastewater and stormwater in CSO tunnel
- Contributed to 37% reduction in fecal coliform levels, improving conditions in the Upper Bay for recreation
- Estimated \$113.6M investment in nitrogen removal upgrades
- 74% reduction in nitrogen loading from NBC facilities to improve marine water quality and reduce threat of fish kills



City of Fall River, MA

- \$160M investment in addressing CSOs
- Storage of 38 million gallons of untreated wastewater and stormwater
- Construction began in 2005



Upper Blackstone Water Pollution Abatement District, MA

- \$180M in treatment upgrades
- 61% reduction in nitrogen loadings
- 89% reduction in phosphorus loading to improve water quality in the Blackstone River

Watershed Counts is facilitated and supported by the URI Coastal Institute and the Narragansett Bay Estuary Program with additional support from the U.S. Environmental Protection Agency.

2014 Watershed Counts Report: Marine and Freshwater Beaches

The 2014 Watershed Counts report shines a spotlight on beaches in the Narragansett Bay region—which includes the Narragansett Bay watershed, the Wood-Pawcatuck watershed, and the watersheds of the RI coastal ponds. Our beaches continue to feel the affects of stormwater pollution, but investments at the local, state and federal levels have produced a marked improvement in reducing that danger to the health of the shores. Yet with the increased threat of climate change-induced sea level rise and more intense storms, added to fragile funding for beach monitoring, there is a call for increased commitment to clean beaches in those areas.

What are the greatest threats to our beaches?

Failing or inadequate wastewater and stormwater treatment options threaten our beaches with sewage overflow and high nutrient input, and climate change will compound the problems. Rising sea level and increasing number of strong storms cause beach erosion and in certain places the beaches are disappearing. Breeding bacteria flourish in warm waters and we may see more human health risks as water temperatures rise. Changes in rainfall patterns may result in more heavy precipitation events, which can overwhelm stormwater and wastewater infrastructure and contaminants run directly into our waters. We need to take actions today to prevent future problems.

What is being done to improve beach health and overall water quality?

Many efforts are underway to improve beach health and water quality by reducing bacterial contamination and nutrient inputs to our waters. Projects include upgrades to small wastewater treatment facilities to reduce bacteria levels, construction of combined sewer overflow (CSO) abatement tunnels to reduce nitrogen input, and implementation of green infrastructure techniques to reduce stormwater runoff.

How many monitored beaches were closed in 2013?

Marine beaches in the Narragansett Bay region experienced 41 closure events (36 in RI and 5 in MA) out of 75 total monitored marine beaches (69 in RI, 6 in MA). These numbers are promising because beach closures are very much dependent upon rainfall, as stormwater flushes out pollutants and bacteria that close both beaches and shellfishing areas. There was heavy rainfall in 2013, but fewer beach closure events when compared with other large rainfall years.

Freshwater beaches in RI and MA do not have as extensive a monitoring program as marine beaches. RI monitors 36 freshwater beaches in the Narragansett Bay region, and had 5 closure events, and MA monitors 52 freshwater beaches, and had 16 closure events.

Who funds beach monitoring?

Funding for monitoring marine beaches is provided by the U.S. Environmental Protection Agency through the National Beach Program. RI and MA received over \$200,000 each in federal funds for monitoring marine beaches in 2013, and state budgets contained no funding despite the fact that beaches are an economic driver for the state. The federal monitoring program for saltwater beaches has recently been at issue for possible elimination in federal budget talks, so keep your eyes on this for future developments.

No federal funds are available for monitoring local freshwater beaches. Monitoring costs are provided by lake managers, volunteer organizations, and local municipalities for freshwater beaches they choose to operate. Watershed Counts sees steady funding as necessary to ensure beaches that are used by the public for swimming, fishing and recreation do not endanger public health.

If you have questions about Watershed Counts please contact:

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