



Town of Darien

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Health Department

Report on Beach Water Quality

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This department collects water samples once a week at Pear Tree Point and Weed Beaches from Memorial Day through Labor Day. In 2015, forty two (42) samples were taken from three sampling stations at Pear Tree Point Beach and twenty eight (28) samples were taken from the two stations at Weed Beach. These samples were submitted to the Stamford Health Department laboratory to be tested for bacteria. The purpose of the testing is to ensure that the bacteria counts in the swimming areas conform to standards established by the Connecticut Department of Public Health and the EPA. Current protocol requires beach closures if test results for bacteria exceed limits on two consecutive sampling days.

In addition to water sampling, this department monitors rainfall amounts during the season and has established a protocol of notifying the Parks and Recreation Department to close the beaches for swimming when over one (1) inch of rainfall occurs in a 24 hour period. There is a HOTLINE (203-656-7323) that provides residents with up-to the-minute messages regarding the status of our beaches.

Summary of test results:

- **There have been NO beach closures due to elevated bacteria counts from 2009 through 2015.**
- **In 2015, beaches were preemptively closed for a total of three days in conjunction with rainfall events over one (1) inch.**
- **So far in 2016, there have been no exceedances in bacteria levels.**

The Darien Health Department has partnered with the Westport/Weston and East Shore Health Districts in securing a grant to conduct a DNA source tracking study for bacteria entering Long Island Sound. Water samples, beginning in January 2016, are being collected once a month from Goodwives River, upstream of Gorham's Pond to be analyzed at a laboratory at Yale University. The final report, due in late spring 2017, should identify sources of bacteria that impact our waters after rainfall and determine whether it is from human, wildlife, birds or just general urban runoff.

In July of 2015, Save the Sound, a program of the Connecticut Fund for the Environment, launched a webpage intended to provide a glimpse of water quality at all beaches surrounding Long Island Sound. Water test results from the beach samples that are routinely submitted by local health departments to the State Department of Public Health were used to assign a letter grade depending on the percentage of times the water test results exceeded the EPA standard. A press release announcing this beach rating or scoring system has recently been issued by Save the Sound assigning a less than stellar grade to Pear Tree Point Beach. It is important for the public to realize that health or safety was never at risk when the beach was open. Elevated bacteria levels were detected (and reported) after rain, primarily during 2012 when we were doing a study to determine the effect of rainfall on water quality to evaluate the adequacy of our closure protocol noted above. The grade assigned by Save the Sound for Pear Tree Point in the recent press

release does not account for the research done to assess the preemptive closure protocol – test results from 2012 skewed the score over the time period of 2010 through 2015 because samples taken during and after rainfall exhibited elevated bacteria accounts which verified our closure protocol. This department, as well as other shoreline communities will be working with Save the Sound to bring the reporting and grading system into better alignment with actual water quality and provide qualifying commentary as appropriate.

Summary of water sampling from 2015:

- Pear Tree Point – 42 samples – 7% (or 3) over standard – letter grade would be a “B+”
- Weed Beach – 28 Samples – 4% (or 1) exceeded the standard - letter grade would be an “A”

Grades are based on “Safe Swimming Failure Rates” and are as follows:

*A (0 – 5%)
B (6 – 11%)
C (12 – 17%)
D (18 – 23%)
F (23% and above)*

The DNA source tracking study is expected to provide scientific answers as to the source of bacteria after rainfall events.