

### Southfield Availability

Referenced to Rainfall and Bacteria Counts; Reported January 24, 1996.

6 years of results showing the suitability of Southfield beach water for swimming. All information represents a one day closure for 24 hours after 0.25" of rain. This is part of a complete analysis performed on all Stamford beaches and includes all samples, 96 total, taken from May 1, 1992 to June 27, 1995.

This first table represents the actual analysis performed for the five years compiled.

	Days Surveyed	percent closure due to rain amounts	days with high bacteria levels	percent closure due to bacteria levels
Total Days 1990 thru 1995	627		70	11.16%
No significant rain	550	0.00%	31	5.61%
rain greater than 0.250"	77	12.28%	39	50.00%
rain between 0.250" and 0.499"	34	5.42%	13	38.46%
rain between 0.500" and 0.999"	29	4.63%	13	45.45%
rain greater or equal to 1.000"	14	2.23%	14	100.00%

This table represents a seasonal average derived simply by dividing the above figures.

	Total Days	percent closure due to rain amounts	days with high bacteria levels	percent closure due to bacteria levels
Total Days 1990 thru 1995	104.5		11	10.50%
No significant rain	91.7		5	5.61%
rain greater than 0.250"	12.8	12.28%	6	50.00%
rain between 0.250" and 0.499"	5.7	5.42%	2	38.46%
rain between 0.500" and 0.999"	4.8	4.63%	2	45.45%
rain greater or equal to 1.000"	2.3	2.23%	2	100.00%
Season closures total	12.8	12.28%	11	10.50%

This evaluation of the quality of the water taken from Southfield beach only takes into account the weather patterns that have occurred, most of which were normal to dry seasons. The water quality at Southfield may change for the worse if a particularly wet season occurs.

The single test limit for swimming waters is to have fewer than 61 enterococcus bacteria per 100 milliliters of sample. Fifteen samples or 15.46%, showed levels of enterococcus bacteria exceeding the state guidelines. Although this number is higher than the other beach water in Stamford, the evaluation of these numbers by taking a geometric mean shows the water to be generally acceptable. The standard imposed using the geometric mean is 33, Southfield waters gave a value of 12.4.

Fecal coliform levels are consistently high, even when enterococcus values are below acceptable limits. The major bacteria isolated has been E. Coli, which is a known pathogen.

These numbers indicate that Southfield beach could be opened for swimming, but that more stringent monitoring of the water quality should be established if it is to be opened. A 1 day closure after any rain of 0.25" or more and a 2 day closure after rain greater than 1 inch is recommended. The water would then be available for swimming 87.72% of the season under dry conditions or an average of 92 of 104 days in the season.