

*Rochester Committee
for Scientific Information
Rochester, NY*

*RCSI Bulletin 40
Evaluation of Reported Improvement in the Condition of
Ontario Beach*

*By: J. R. Christensen & D. J. Wilson
October 13, 1967*

THE ROCHESTER COMMITTEE FOR SCIENTIFIC INFORMATION

Water Pollution Bulletin
40(W) (copied)

P.O. Box 5236
River Campus Station
Rochester, N.Y. 14627

EVALUATION OF REPORTED IMPROVEMENT IN THE CONDITION OF
ONTARIO BEACH

In the Democrat and Chronicle for September 29, 1967, County Manager Gordon Howe expressed the hope that Ontario Beach Park will be open next year. He was commenting on a County Health Department report on coliform counts taken this summer at Ontario Beach, and stated, "This information fortifies our feeling that the waters were not unsafe for swimming or in violation of state standards. ...it does offer hope that an objective analysis of the coliform count can lead to opening of Ontario Beach for swimming in the 1968 summer season."

In the October 10 Democrat and Chronicle, City Manager Seymour Scher called for the opening of Ontario Beach next summer and criticized the state's closing of the beach last spring. He stated, "It's disastrous to have to wait until the summer is over to find out that the coliform counts at the beach were within the state's standards."

Currently we have examined all the data that we have from official sources in an effort to answer two questions: (1) In 1967, did the water at Ontario Beach meet the state standards? (2) Was there an improvement in 1967, as compared with 1965 and 1966? We are also continuing our concern with possible sources of undisinfected sewage pollution of Ontario Beach.

Standards. Limits established by the New York State Public Health Law are summarized in the first two columns of Table 1. It can be noted that the 1967 law markedly relaxes the standards set by the 1965 law, which were already the most lenient coliform standards for bathing water of which we are aware.

Did Ontario Beach meet the standards in 1967? In Figure 1, we have plotted the percentage of samples that exceeded a count of 5000 for each of a series of overlapping 26 day periods (data from the Monroe County Health Department). For three of the ten periods, the standards established by state law are violated. In the final columns of Table 1, the same data are tabulated by calendar month. During one of the three months, the standards are violated.

The standard is a double one; it specifies a median no greater than 2400 and in addition it specifies that no more than 20% of the counts during a month shall exceed 5000. The median count did not exceed the standard for any of the periods, but this is irrelevant, because the other criterion (no more than 20% greater than 5000) was violated, as shown in Figure 1.

Has there been an improvement in the bacteriological quality of the water? In Table 1, data from 1967 can be compared with data from 1965 and 1966. The median count has shown some improvement. However, for July and August of 1967, the number of counts over 5000 is remarkably similar to that for previous years. August 1967 was worse than August 1966. It is extremely unlikely that

July 1967 would have met the standards of the 1965 law (we have no breakdown of the data on this point, but if 19.1% of the counts were over 5000, almost certainly more than 20% were over 2400).

Where does this pollution come from? Ontario Beach is located 1.2 miles east of the mouth of Slater Creek, which receives sewage effluent from Greece's Latta Road plant, and is about 3 miles from the outfall of Rochester's Durand-Eastman sewage treatment plant. The high counts at Ontario Beach this last summer (including one of 24,000) could be due to discharges of undisinfectated sewage from these plants. That such discharges occur is demonstrated by the following coliform counts:

Date and location	coliforms per 100 ml.
16 July Downwind (east) approximately 1/4 mile from the Durand-Eastman STP outfall in the lake	60,000 63,000
19 July Mouth of Slater Creek	170,000
24 July Latta Road STP effluent	1.1 million

Conclusions

During the swimming season of 1967, the water at Ontario Beach violated state standards for coliform quality approximately one third of the time. Undisinfectated sewage was observed in the vicinity of Rochester's Durand-Eastman and Greece's Latta Road sewage treatment plants as indicated above. There is certainly no marked improvement in the coliform counts over the last three years, but only a small decrease in the median counts. The very large spread in the data and the use of medians rather than averages obscure any trend. The recent statements by Mr. Howe and Dr. Scher implying that the condition of Ontario Beach is significantly improved and that this beach now meets state standards are incorrect. Contrary to the statements of Mr. Howe and Dr. Scher, the RCSI finds no scientific basis for criticizing the judgment of the State Health Department in the matter of Ontario Beach. We also note that the state's position is consistent with those of the Federal Water Pollution Control Administration and the independent consultants hired by the city and the county at the beginning of the summer.

13 October, 1967

J. R. Christensen
D. J. Wilson
Water Pollution Subcommittee

TABLE 1

	New York State standards (maximum limits)		Summaries of Data from Ontario Beach, 1965 to 1967				
	1965	1967	1965 ¹	Aug. 1966 ²	1967 ³ June July August		
Median count		2400	1400-2100	1500-1600	490	790	790-1100
% of counts over 2400	20%	50%	*33.3%	*37.1%			
% of counts over 5000		20%	**22.2%	19.8%	8.3%	19.1%	**26.3%

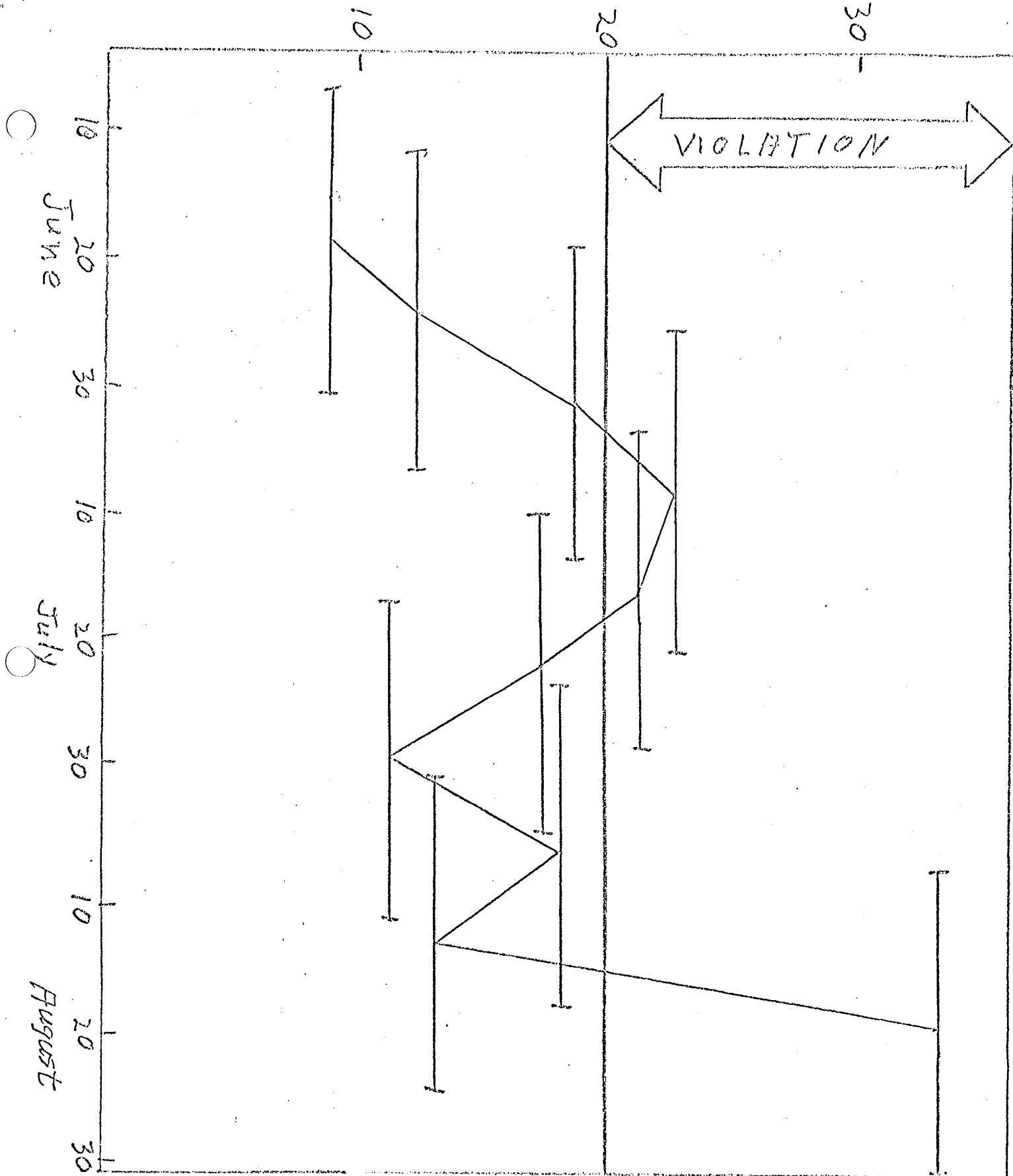
* Violation of 1965 standards

**Violation of 1967 standards

¹Data from Monroe County Health Department (10 counts) and from the Lake Ontario Office of the Great Lakes Project, United States Public Health Service (8 counts). Period covered, June 17 to Sept. 7.

²Data from the New York State Department of Health, as published in the Democrat and Chronicle. We could find no published data for the period of Aug 25 through 28. Otherwise, there are four counts for each day (106 counts).

³Data from the Monroe County Health Department press release, Sept. 27, 1967. Number of counts not indicated.



% of coliform counts over 5000
Ontario Beach, 1967

Fig 1, 13 Oct. '67