



*Rochester Committee  
for Scientific Information  
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*RCSI Bulletin 3  
Third Report on Water Pollution*

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THE ROCHESTER COMMITTEE FOR SCIENTIFIC INFORMATION

# 3 (w)

P.O. Box 5236, River Campus Station  
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THIRD REPORT ON WATER POLLUTION

1. Third series of tests of local waters.

The location and results of tests conducted on May 9, 1965 are shown in Table 1, below. Sampling and counting was done by a subcommittee consisting of Drs. T.T. Bannister, G.G. Berg, J.W. Christiansen and I. Spar. The day was sunny, with moderate winds from the south. The water at all four locations was free of objectionable odors and had no visible gross pollution in it. Samples were taken between 1 and 3 PM. Coliform bacteria were counted by serial dilution and the EMB Agar Plate method, in conformity with the Standard Methods of the A.P.H.A. recommended by the New York State Department of Health. The bacteria which were counted here live in intestines, and are the best measure of contamination of water with human fecal material. The method of counting was conservative in that it underestimated rather than overestimated the amount of pollution.

Table 1

Location	Coliform organisms per 100 ml*	Remarks
Irondequoit Bay, south end west shore, near Orchard Park Boulevard, Irondequoit.	Detectable fewer than 1,000	water cloudy
Irondequoit Creek, main channel near outlet into Bay at Dayton Road	30,000 (range 10,000-60,000)	water silty, yellowish
Irondequoit Creek, 150 feet upstream from mouth of Allen Creek	50,000 (range 20,000-80,000)	water clear
Allen Creek, 500 feet upstream from outlet into Irondequoit Creek	70,000 (range 60,000-80,000)	water clear

\* At all locations, we counted approximately ten times more lac. + bacteria than there were coliform bacteria.

## 2. Comparison with previous tests.

Previous tests on these waters were done by the State of New York in October 1954 (Lake Ontario Drainage Basin Survey, Report No. 2, 1955) and by our Subcommittee in 1964 (First Report on Water Pollution, October, 1964). A comparison of the results is in Table 2.

Table 2

Location	Coliform organisms per 100 ml		
	1954	1964	1965
Irondequoit Creek above Allen Creek and below East Rochester Sewage Treatment Plant.	45,000	250,000	50,000
Irondequoit Creek, 2 mile above East Rochester S.T.P.	up to 3,000	3,000	
Allen Creek, near outlet	45,000		70,000

## 3. Meaning of results

The following interpretation of the results is submitted to members of the R.C.S.I. and interested citizens.

a. Irondequoit Creek and Allen Creek are polluted. The presence of human wastes makes these waters a disease hazard, and specifically makes their shores unsuitable for free access and play by children. The mouth of Irondequoit Creek is rated B for recreational use. This rating is not being met.

b. The pollution is readily removable. The coliform counts seen in 1965 are low enough to show that the sewage effluent they came from would be made harmless by routine tertiary sewage processing. Such processing was recommended in Governor Rockefeller's Clean Waters Program.

c. Irondequoit Creek pollutes Irondequoit Bay. Some creeks are self-cleansing. Irondequoit Creek was clearly not self-cleansing under present conditions, since it had the same amount of fecal pollution near the sewage outfall as it had at the creek mouth. This pollution was discharged into the Bay, and in fact we picked up coliform bacteria in the Bay.

In the 1954 and 1964 surveys, Irondequoit Creek received unprocessed sewage which brought with it a heavy bacterial contamination (as seen in Table 2). In 1965, the creek was free of the bad odors and floating debris seen in previous years, and it is likely that all the contamination we measured came from sewage processing plants. In spite of this, the coliform counts in Allen Creek and in nearby Irondequoit Creek were higher in 1965 than they were eleven years before. It is reasonable to conclude, that the construction of new sewage treatment facilities in the Irondequoit Creek Basin did not result in the improvement of the waters, and failed to get ahead of the growth of population.

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