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Coliform Counts on Lake Beaches, The Genesee River and Oatka Creek*

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COLIFORM COUNTS ON LAKE BEACHES, THE GENESEE RIVER AND OATKA CREEK

This report presents the results of counts of coliform bacteria taken on the beaches and the river on July 6, and on Oatka Creek in the vicinity of Scottsville on July 8.

1. Observations at Lake Ontario Beaches and Genesee River

<u>Location</u>	<u>Coliform Index</u>
Sea Breeze, 50 ft. west of the mouth of Irondequoit Bay.	2,000
Durand-Eastman Beach in front of bath house	3,300
Webster Park Beach (two samples). Sewage greaseballs were seen in water.	20,000 and 36,000
Genesee River, 10 ft. from outfall of Irondequoit's Summerville Plant	90,000
Genesee River, 8 ft from outfall of Irondequoit's Pattonwood Plant	520,000

Sewage grease balls and other sewage solids were seen at the Summerville Plant outfall, and tan sediment and flecks of grease were seen at the Pattonwood Plant outfall.

2. Observations at Oatka Creek in the vicinity of Scottsville

<u>Location</u>	<u>Coliform Index</u>
Oatka Creek 50 yards upstream from sewage treatment plant (STP)	680
Scottsville plant, sewage effluent (two samples)	13.4 million and 13.8 million
Oatka Creek, about 150 yards downstream from STP	120,000
Oatka Creek at Highway 251 Bridge, at foot of Main Street, downstream from STP	46,000

Sewage effluent of STP was tested for free chlorine, and the tests were negative. Sewage contained grey sediment. The creek had banks of sludge deposits.

3. Interpretation of results

a. Pollution of Genesee River

The two sewage disposal plants of the Town of Irondequoit have been adding chlorine to the effluent they put into the river: all our tests for chlorine since June 4 are positive. In spite of this, the effluent had living bacteria much in excess of the number permitted by law, and had floating solids that are forbidden by law. The same kinds of bacteria and solids were seen on the nearby swimming beaches. Although chlorine is a good

disinfectant for liquids, it apparently cannot manage to take out bacteria from the suspended solids that are discharged into the Genesee River by the Irondequoit Plants. The plants treat material that comes from human intestines, and the suspended solids may consequently carry human disease germs into the river and on to the beaches.

b. Pollution of Webster Beach

There was a very heavy growth of algae at Webster Beach. These algae grow fastest where the water is rich in fertilizer, that is phosphates and nitrogenous compounds. In rainy weather, fertilizer may come from farm runoff, but the weather has been dry. The wind was from the northwest, which is the direction of sewage outlets of the City of Rochester and Town of Irondequoit, and we found pieces of grease among the algae which looked like the grease coming out of sewage outfalls. The enrichment of water responsible for the bloom of algae at Webster Beach may consequently be due to sewage released nearby into the lake.

c. Pollution of Oatka Creek

That part of Oatka Creek that is in Monroe County bears a state classification of B, suitable for recreation, fishing and swimming. Scottsville is violating this classification by failing to disinfect the outflow of their plant, and by contaminating the creek with bacteria and floating solids of human fecal matter. According to New York State standards, this pollution makes the creek unfit for recreational use at least as far downstream as the bridge of Highway 251.

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