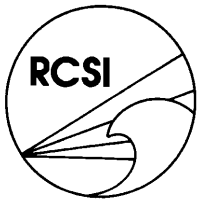

Rochester Committee
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Good Condition of Honeoye Creek

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#37(W)

THE ROCHESTER COMMITTEE FOR SCIENTIFIC INFORMATION
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GOOD CONDITION OF HONEOYE CREEK

I. Summary

This report presents data collected on 2 September, 1967 on Honeoye Creek at sites above and below the Honeoye Falls sewage treatment plant outfall and at the outfall itself. These results show that this plant is providing effective disinfection, is removing essentially all suspended solids, and is not producing dissolved oxygen deficiencies downstream. Animals observed in the stream indicate that the creek is probably now in its natural, biologically wholesome state.

Pollution of Honeoye Creek by the Village of Honeoye Falls and the Dutch Hollow Creamery (located in the Village) has been a source of some controversy in the past (see, for example, our report of January, 1966), and has been the subject of legal action and newspaper publicity in recent months. The Water Pollution Subcommittee noted significant improvements approximately a year ago, when we reported that sludge beds previously noted were gone, and that the creek had a clean bottom again. We now report a continuing improvement, and we are happy to commend the Honeoye Falls sewage treatment plant for keeping up the good work.

II. Methods and Results.

Dissolved oxygen and orthophosphate analyses were carried out on the stream samples; and the sewage treatment plant effluent was analyzed for settleable solids, residual free chlorine, and orthophosphate. Sites are listed in order as one moves upstream. Oxygen and phosphate are shown in parts per million (ppm), as O_2 and PO_4, in the water.

LOCATION AND APPEARANCE	OXYGEN	PHOSPHATE
Honeoye Creek at East River Rd., near the stream's mouth. Stream clear, minnows and invertebrates noted, quite a bit of weed, some green algae. No odor.	10 ppm	0.5 ppm
Honeoye Creek at West Henrietta Rd. Stream clear, minnows and invertebrates noted, lots of weed. No odor.	10	0.3
Honeoye Creek at Rush Veterans' Memorial Park, in pond upstream from dam. Lots of weed, algae. Minnows.	6 (3 ft. depth)	0.2
"	7	---
Honeoye Creek at Plains Rd. (Rochester Junction). Clear, lots of weed. Minnows, sunfish, no odor	13	0.5
Honeoye Creek at Sibley Rd. Clear, a good bit of weed. Greyfish, minnows.	10	0.5

	OXYGEN	PHOSPHATE
Honeoye Falls sewage effluent. Free chlorine (by Imhoff conc.) 0 ppm. No sludge banks visible, faint oder of chlorine.	----	greater than 10
Honeoye Creek at Highway 65 bridge (just upstream from Dutch Hollow Creamery). No weed, no odor. This site is upstream from the sewage plant outfall.	9	0.1
Honeoye Creek at Ontario St. bridge, upstream from the falls. Minnows, some weed.	7	less than 0.1

III. Comments.

The outflow of the sewage treatment plant and the water in Honeoye Creek downstream from this outfall give every appearance of complying with the official b classification, which requires the creek to be fit for recreational use. There was enough chlorine in the effluent to disinfect the water, so we did not check for coliform bacteria. There were no settleable solids in the effluent. The presence of fish and invertebrates at all sites downstream from the sewage plant outfall indicates that these reaches of the stream have been of reasonably good quality for some time. These animals would be killed by even brief exposure to water containing insufficient dissolved oxygen.

The phosphate measurements indicate that the Honeoye Falls sewage treatment plant is a major source of this plant food on the creek. This probably plays a role in the very heavy growths of algae and pond weeds found at the Veterans' Memorial Park, Rush. Neither primary nor secondary tre atment, as normally practices, remove very much of the phosphate from sewage. The pre-treatment of this sewage with lime or alum, which converts phosphate to a solid form that is easily removed, might be tried if the heavy growths of weed and algae downstream are regarded as a problem. This could be considered in any plans to expand the plant in the future.

In the past, we found high coliform counts in Honeoye Creek which did not come from the sewage treatment plant. There are, apparently, places where sewage gets into the creek and pollutes the water, and this happens both upstream and downstream from the plant. We hope that Honeoye Falls residents will help us find the sources of this pollution of their stream.

We are indebted to the Scientists' Institute for Public Information for equipment used in this study, and to Mrs. Martha Wertlieb for the publication of this report.

20 September, 1967

David J. Wilson
Water Pollution Subcommittee