

## WATER POLLUTION

In southern Saskatchewan water is very precious. We must store and make the best possible use of all the water we have. This year we seem much richer for now we have Diefenbaker Lake.

We are richer, however, only if we can keep supplies alive and healthy. There is much talk of water pollution at Moose Jaw, in the North Saskatchewan, and in the beautiful Qu'Appelle Valley lakes. A valley farmer told me recently that if he sprinkles with water from the Qu'Appelle River below the Wascana Creek his plants die, especially things like the cucumber. Will all our waters soon be dead?

This summer returning from the east, near the end of June, we drove along the south shore of Lake Erie. The woods were beautiful but the lake was disappointing. We stopped overnight in a cabin right on the shore at Lorain, Ohio. The water was calm and a few gulls flew by. On the shore there were a few dead fish. A boy told me that the day before there had been some waves and hundreds of dead fish had come in but that these had been gathered up and buried. Lake Erie is now nearly dead. Perhaps I may quote a few lines from "America the raped" by Gene Marine (*Ramparts*, 34-45, April, 1967).

"Once upon a time there was a lake. It was a thing of magnificent beauty, left a breathtaking blue by departing glaciers. It was 30 miles wide in some places, nearly 60 in others, and more than 240 miles long. Ten thousand square miles of lake, over 200 feet deep, . . . .

"In 1669, a white man—Louis Joliet or Jolliet—saw the lake, and soon forts and settlements sprang up.

"Today, Lake Erie is virtually dead. Detroit, Cleveland, Buffalo, Akron, Toledo and a dozen other cities pour millions of tons of sewage into the lake every day. Some of it is fairly carefully treated; much of it (especially Detroit's) is not.

"The Detroit River, which feeds Lake Erie, carries every day, in addi-

tion to Detroit's largely untreated sewage, 19,000 gallons of oil; 100,000 pounds of iron; 200,000 pounds of various acids; and two million pounds of chemical salts. The fertilizer used on the farms of Ohio and Pennsylvania and New York drains into streams which pour into the Erie Paper mills in the Munroe area of Michigan pour volumes of pollutant waste into the lake. Steelmakers pour in mill scale and oil and grease and pickling solution and rinse water. The Engineers of the Army dredge the harbors and channels of the area and dump the sludge into the middle of Lake Erie.

"Normally, a lake receives from various sources a certain amount of nutrient material, which is consumed by plankton or algae or bottom vegetation or bacteria. The fish eat the plankton and the algae, the bacteria mess around with the nitrogen, a couple of hundred other processes simultaneously take place, and it all works out.

"So you dump a bunch of sewage or fertilizer or other biologically rich material into the water, and the algae, for instance, grow faster than the fish can eat them. Algae are life forms just like you and me, but (like you and me) in large numbers they stink. They also use up whatever free oxygen might be in the water, which makes it tough for the other life forms. Beaches become covered with algae in the form of slime, and so does the surface of the lake. The lake, in ecological terms, 'dies'.

"Lake Erie has had it."

This year, in spite of the drought, we have more water in the province but is it fit to drink or swim in? More important, is it fit for the life of normal aquatic organisms? We have no large cities to pollute our rivers and lakes but we do have nearly a million people, so we must learn how to prevent water pollution. In fact we must try to improve the present water quality before trying to attract more people and more industries to our province.—*G. F. Ledingham, Regina.*