

T H I S W E E K

Déchets dangereux

Toxic wastes from US threaten Lake Ontario

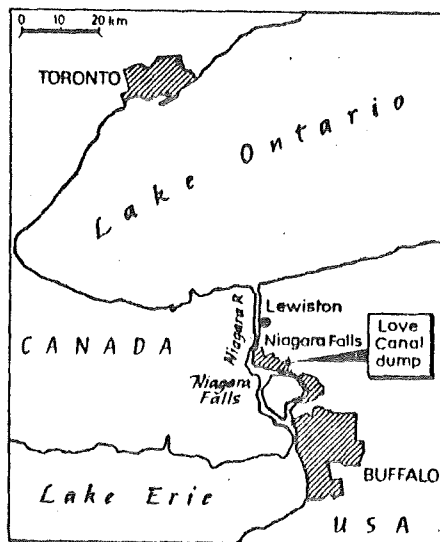
AN AMERICAN citizens' group says that the US government has lied to Canada by covering up the extent of industrial pollution in the Niagara River, which flows through New York State into Lake Ontario. The Public Interest Research Group backs up its allegations in a report published last week.

The report points to the Hyde Park waste dump as the greatest hazard to the area. This site, which contains hundreds of kilograms of the deadly chemical dioxin, has been the centre of controversy for the past two weeks at special hearings in a US District Court. One scientist told the hearings that a single spadeful of the dioxin waste would be enough to kill Lake Ontario.

Donald Ross, the executive director of the Public Interest Research Group, said almost two thousand million litres of hazardous industrial waste water is dumped into the Niagara every day. He says this waste will, in the long term, pose a serious health hazard to the 400 000 people who get their drinking water from the river.

The report published last week points out that mortality rates from cancer in the two counties in the US most directly affected by the dumping are among the highest in the country, according to figures from the National Cancer Institute. The report, called *The Ravaged River*, says that almost 800 companies dump waste into the river—sometimes without any treatment.

The group quotes, as an example of the cover-up, a government report on a waste treatment plant in Niagara Falls in New York State. The government did not release the report, which gave details of how raw waste water passed virtually untreated through the plant because it failed after only six weeks of operation. Robert Slater, the Ontario director of the Canadian environment department, says his department carried out tests when officials in the US said



The Hyde Park dump is near Lewiston

that they could not give details about the possible pollution dangers created by the plant's breakdown. The Canadian tests found 41 organic compounds and heavy metals in samples of the plant's outflow into the Niagara River; two dozen of the chemicals are on the American Environmental Protection

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Agency's list of "priority" pollutants.

Meanwhile controversy has been raging at hearings of the US District Court for Buffalo into the Hyde Park dump for toxic waste, not far from Lewiston in New York State. It contains four times as much chemical waste as the now famous Love Canal site—and is owned by the same company, Hooker Chemical and Plastics.

The company has negotiated a secret plan with the Environmental Protection Agency and state authorities to try to

deal with the waste. Hooker says the plan will be 90 per cent effective in clearing the dangerous waste, but a growing number of Canadian and American scientists and environmentalists say that it is not good enough—even the 10 per cent left will be enough to destroy the Niagara River and Lake Ontario. The US District Court agreed to hear their arguments, with a view to possibly blocking the secret plan.

Doug Hallett, the Canadian scientist who first detected the danger of dioxin in Lake Ontario (*New Scientist*, 18/25 December, 1980, p 761), said that even a spadeful of the dioxin waste tossed into Lake Ontario would be enough to kill the lake. Testifying before the District Court, Hallett said that he has already found the "fingerprints" of toxic chemicals from the dump in water and sludge taken from the walls of the nearby Niagara Gorge.

Hooker says it will spend \$10 million cleaning up the Hyde Park site. But Canadian and American objectors say they have already found contamination seeping from the dump 170 metres away and 17 metres below the surface of the bedrock that underlies the Hyde Park dump. Hydrologist Grant Anderson says that bedrock is heavily fissured and that no measure short of removing and burning the waste would eliminate the danger. But US experts told the District Court that it would cost \$200 million and take 20 years to remove the waste.

Ray Stewart of the Ontario Ministry of the Environment says that speed is of the essence and the court hearings have already caused delay. He says Ontario will support Hooker's plan—as long as the company is willing to modify its tactics in the light of later findings. But the Canadian federal environment department is dead set against the plan—it supplied experts and money to back the objectors at the District Court hearings. □

Geneticists plan their response to future Love Canals

LEST you think it was all in vain," says the frontispiece of a new report dedicated to the former residents of Love Canal, the chemical dump site discovered near Niagara Falls last year. The report, prepared by a panel of American geneticists and other experts, sets out the studies that should be made on people at risk after future incidents like Love Canal.

The idea came up a year ago around a table in the New York Hilton, when about 20 scientists at a meeting of the American Society of Human Genetics began to vent their anger at the way officials had responded to the mess at Love Canal. At the time, scientists charged that government studies were quick, cheap, and poorly done. "How it was covered was little less than a national disgrace," James Neel of the

University of Michigan said last week.

The scientists' report, sponsored by the US charity March of Dimes and four government agencies, is aimed more at bureaucrats than researchers. It describes the methods, costs and effectiveness of existing tests for genetic damage, and predicts that in a few years new tests will dramatically increase the chances of detecting damage caused by chemicals or radiation.

It is still more or less impossible to determine which individuals in an exposed population are at greatest risk of genetic damage from a mutagen, the report says, although methods exist to determine who has had the greatest exposure.

The first thing to do upon discovery of "arewide contamination" suggests Dr Robert Miller, head of the national

Cancer Institute's Epidemiology Branch, is to take a census—both to get information and to calm the public. The suspect contaminants should be identified quickly, he says, and samples of urine, faeces, and blood collected immediately from people thought to be exposed.

There are two kinds of mutation to look out for: genetic damage to the body cells, which may lead to cancer, and genetic damage to germ cells, which may cause sterility or transmit genetic defects to unborn children. The best indicators of damage to body cells, the report says, are microscope studies of blood lymphocytes looking for chromosome changes. At about \$600 per person, these studies are relatively cheap but cannot reveal which individuals are in danger or, at the moment, whether the defect threatens the unborn. □