

Canada's long coastline is also vulnerable to pollution. During the past winter there were two large oil spills off the west coast.

In January, oil leaking from a barge in U.S. waters drifted onto the shoreline of a national park in British Columbia. Two months later, the tanker *Exxon Valdez* ran aground on a shoal after leaving port in Alaska, creating the largest tanker spill in North America. In this case the oil washed up on U.S. coasts, just north of the Canadian border.

### Results of Atmospheric Changes

Federal government scientists say the ozone layer has already thinned by 3 to 4 per cent at latitudes such as Toronto's. They estimate that people living in this heavily

populated region now face an 8-to-16-per-cent greater risk of skin cancer because of the increased solar radiation leaking through the damaged ozone shield.

Canada has suffered a series of droughts in the 1980s. It is too early to tell if they are caused by an early appearance of the greenhouse effect, but researchers say that in any case this is what life will be like as the climate warms up. Climate change in Canada will upset the water cycle, causing dramatic changes in agriculture, forestry, hydro-electric power production and even the future of coastal cities.

PCBs can cause cancer and liver damage in laboratory rats, leading to fears that these chemicals will have long-term effects on humans.

The food-producing Prairie provinces are predicted to get much drier, thus reducing the amount of grain available for export. The Great Lakes are forecast to drop and this will hurt shipping and the production of electric power at generating stations such as Niagara Falls.

On the seacoasts, the oceans will rise, threatening such low-lying cities as Charlottetown and Saint John. Over a century or two the province of Prince Edward Island may well be cut into three or four small islands.

### Cleaning Up Our Act

The rising tide of public opinion in favour of a cleaner environment has led to an increasing number of major pollution cleanups.

A couple of decades ago, Lake Erie, one of the Great Lakes, was so polluted with sewage, soaps and fertilizers that it was turning into a green, soupy mess. Many people said that the lake was dying.

Since then Canada has spent more than \$1 billion on sewage treatment to reduce pollution to the Great Lakes, and the United States has spent even more. This has led to a dramatic reduction in the phosphorus pollution that was turning the lower Great Lakes into bowls of algae.

Canada is now in the midst of a massive acid-rain reduction program in the eastern half of the country, where the problem is most severe. Emissions from copper and nickel smelters, coal-burning power plants and cars are all being cleaned up.

Between 1980 and 1994, the emissions of sulphur dioxide pollution, which causes sulphuric acid rain, will be cut in half. It will cost an estimated \$500 million a year.

In addition the pollution controls being required on new cars will prevent an increase in nitrogen oxides which form nitric acids and which help to form low-level ozone — a health hazard.

### Protecting the Ozone Layer

At the same time, Canada is trying to save the high-level ozone layer that shields the planet from excessive solar radiation.

Canada was the host country for signing of the 1987 Montreal Protocol, an international pact to cut the production of ozone-destroying chemicals by half by 1999. Earlier this year, Environment Minister Lucien Bouchard announced that the Canadian government intends to completely eliminate these chemicals within a decade. Mr. Bouchard urged other countries to seek at least an 85-per-cent reduction in such chemicals.

### Making Canada's Environment Healthier

Canadians are also taking personal responsibility for cleaning up the environment. In parts of the country people are separating the garbage in an effort to recycle valuable wastes and to slow the stream of material that is filling up the nation's dumps.

Surveys have shown that Canadians want to be able to buy products that do not harm the environment. Four out of five people would even pay as much as 10 per cent more for such goods. In 1988, Environment Canada launched a program to help consumers find products that help to relieve pressure on the environment. The Environmental Choice Program uses an independent panel to screen products to be recommended to the public. The first three products



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