On a daily basis, human activities cause natural and synthetic chemicals to be emitted into the atmosphere. Once released, these substances are dispersed throughout the globe by air currents. Canada's waterways continue to be affected by the long-range transport of airborne pollutants.

Impacts of pollution include threats to drinking water in certain areas, closures of shellfish harvesting areas on the Atlantic and Pacific coasts, the loss of part of the Great Lakes fishery, reduced ecosystem diversity, and fewer recreational opportunities. In Kejimkujik National Park, Nova Scotia, long-range pollutants were identified as a contributing cause of blood mercury levels in loons — levels at least twice as high as anywhere else in North America. As well, we are becoming increasingly aware of impacts of certain chemicals that interact with endocrine systems, potentially impacting growth, development, and reproduction.

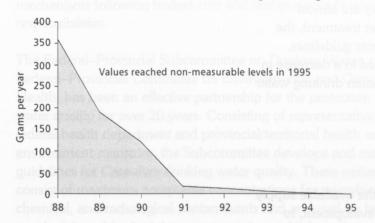
Acid rain continues to be a problem in Eastern Canada. In many places, the deposition continues to exceed critical levels, with potentially serious implications for the health and productivity of aquatic ecosystems and forests in Ontario, Quebec, and New Brunswick. Approximately half of the emissions causing this acid rain originate in the United States; cooperation is essential to resolve this problem.

Canada has made progress in reducing some major water pollution problems. Increasingly, Canadians are focusing on preventing rather than remediating pollution. Changing agricultural practices, including the development and use of more environmentally friendly pesticides and fertilizers, and increasing conservation tillage have contributed to improvements in water quality. Sewage treatment has improved. There is a significant decrease in the amount of toxic pollutants coming from industries such as petroleum refining, mining and smelting, and pulp and paper.

## **Wastewater Treatment**

As of 1994, nearly 75 percent of Canadians were serviced by municipal sewer systems. While the level of wastewater treatment is improving as more Canadian municipalities upgrade their wastewater treatment facilities, the level of treatment varies greatly across Canada. Of those serviced, 93 percent had at least primary wastewater treatment provided in 1994. Levels of wastewater treatment are mainly primary in British Columbia, secondary in the Prairie provinces, and tertiary in Ontario. Quebec has a mixture of primary and secondary, with some tertiary treatment. In the Atlantic provinces, more than half of the population served by sewer systems released untreated wastewater directly into estuarine and coastal waters.

## Reduction of Dioxins and Furans (Pulp and Paper)



Source: The Canadian Pulp and Paper Association.