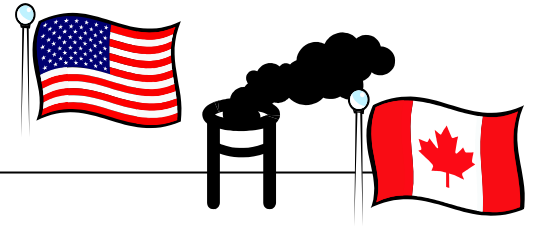


Pollution from the United States



Canada shares the continent of North America with the United States, Mexico, and many other nations. Whether in the atmosphere or in the water, polluting substances migrate according to natural forces. Pollutants recognize no borders and it is therefore called transborder pollution.

In Canada, the prevailing winds are the southwesterlies. Because we are in the mid-latitude range, most of our weather systems come from the west or southwest. It is the weather from the southwest that causes most of the air quality problems experienced in the Great Lakes - St. Lawrence basin. This basin includes southern Ontario and the populated corridor of Montreal to Quebec City.

The problems created by weather from the southwest are most noticeable in the summer. As warm, humid, polluted air moves slowly from southwest to northeast, pollution is picked up from the heavily industrialized areas of the Ohio Valley. When this calm, stable air mass settles over southern Ontario and Quebec, air quality declines, acid rain increases, and people with breathing problems experience difficulty. Canada's National Air Pollution Surveillance Network, which monitors air quality across Canada, issues air quality warnings. In extreme cases, industries are asked, or sometimes order, to shut down in order to reduce the pollutants in the air. The effort to reduce pollutants would be helped if it was possible to reduce traffic, but doing so is difficult.

Fresh water is also a common resource on this continent. Part of the very long border shared by Canada and the United States includes the Great Lakes - St. Lawrence River system. Water can spread pollutants in the air (as rain), in surface water (lakes and rivers), and underground (wells and the water table). Over the years, the Great Lakes were polluted by industrial waste, sewage, and landfill leachates (polluted water seeping out of the landfill). The International Joint Commission continuously monitors the pollution of the lakes and urges both countries to take action to combat pollution in the lakes. Agencies like the Ohio State Sea Grant Education Program and the Ontario Ministry of Natural Resources promote education about the Great Lakes to make people aware of the need to keep the Great Lakes healthy.

Transborder pollution can also occur with natural elements. Dutch Elm disease, carried to Canada from beyond its borders, has killed thousands of beautiful trees. The lamprey eel and the zebra mussel have invaded the Great Lakes causing death or deformations in fish already living in the lakes. Purple Loosestrife has invaded marshlands in Ontario, spreading rapidly and strangling other plant life in the marshes.

QUESTIONS

1. What countries share the North American continent?
2. What are the prevailing winds in most of Canada?
3. How can water spread pollution?
4. On the map below, illustrate where most of the pollution in Central Canada originated, then add all of the usual map essentials.

