Environment Canada | Environnement Canada

Working for the Environment
in the Ontario Region

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Our region

Ontario is a land of water, with lakes, rivers and streams covering nearly a sixth of the province, represented by two vast watersheds—the Great Lakes and Hudson Bay. The region is home to 30 000 species of plants and wildlife, and more than 12 million residents, most of whom live in cities near Great Lakes (Superior, Huron, Erie and Ontario). The Great Lakes are the largest system of fresh surface water on Earth, accounting for about 18% of the world's supply. This ecosystem has more than 3500 species of plants and animals, and supports fishing and shipping industries that inject over $7 billion annually into Canada's economy. It also supports a rich natural diversity, including globally important stopover habitat for migratory waterfowl and shorebirds numbering in the millions.

Who we are

Environment Canada's 1300-plus Ontario Region employees work across the province to provide a range of services and programs. Most of this work supports national objectives related to clean air, clean water, wildlife and weather. Environment Canada delivers these national programs in a manner tailored to respond to regional and local issues, such as the restoration, protection and conservation of the Great Lakes' water quality. Furthermore, for more than 35 years, Ontario Region has been at the heart of Environment Canada's weather, climate science and research programs.

Our team

"One of our biggest accomplishments has been the tangible improvements to water quality and ecosystem health in Ontario. Without our science, policy and programs, many of our region's successes would not have been possible. In conservation and protection, monitoring, research, and weather forecasting, we are working with partners and communities to achieve a cleaner, healthier and more sustainable environment."

– Regional Director General,
Ontario Region

Canada

What we do

Canadians enjoy one of the highest standards of clean water in the world. Nonetheless, our local waters are affected by contaminated sediment, atmospheric deposition, toxic chemicals and nutrients, fluctuations in water levels, municipal and industrial loadings, invasive species, and land use. Ontario Region operates the largest freshwater research facility in Canada: the Canada Centre for Inland Waters, located in Burlington. At the Centre, more than 300 Environment Canada scientists play a vital role in ensuring that the Great Lakes and other aquatic ecosystems in Canada are managed in a sustainable manner. Also located in Burlington is our Wastewater Technology Centre, which helps develop and evaluate treatment and disposal technologies for municipal and industrial wastewaters, and associated residues.

Ontario Region works with communities and other levels of government to protect and restore water quality in the Great Lakes. Since 1989, the Government of Canada has invested more than $355 million under the federal Great Lakes Action Plan to restore and protect water quality in the Great Lakes and to support ecosystem health. This includes more than 800 partnered projects to clean up contaminated sediment, restore fish and wildlife habitat, and improve municipal wastewater treatment systems. Working with our partners, we have successfully restored environmental conditions in three Great Lakes areas that had been identified as severely degraded: Collingwood Harbour, Severn Sound and Wheatley Harbour. As well, we led the negotiation and implementation of the Canada-U.S. Great Lakes Water Quality Agreement and the Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem.

An important aspect of our work is conserving the number and variety of migratory birds and species at risk, and their habitats in the province. Our biologists and wildlife technicians collect data on priority species, prepare conservation plans and work with partners to implement actions to conserve species and their habitats. We conduct aerial surveys of waterfowl, from southern plots to sections of the Hudson Bay and James Bay coasts. We manage 10 National Wildlife Areas and 9 Migratory Bird Sanctuaries, as part of Environment Canada's national protected areas network of significant habitats for migratory birds or species at risk.

We also work with governments, universities, research institutes, non-governmental organizations, industry, Aboriginal peoples and other individuals to protect Ontario's ecosystems.

Ontario Region works with stakeholders to promote sound environmental practices and compliance with federal policies and regulations. Our Environmental Protection Operations have responsibility for regional delivery of programs on environmental assessment, contaminated sites, compliance promotion, environmental emergencies and certain Great Lakes programs. We possess technical expertise for various industrial sectors, including Ontario's nuclear sector, and provide technical advice and support for the environmental programs, regulations and policies associated with industrial sectors.

The Ontario Storm Prediction Centre in Toronto alerts Ontario residents about impending severe weather events. The Centre issues weather warnings and weather watches to local and regional radio and television stations. These warnings are also broadcast on Weatheradio, which gives Canadians continuous weather information and instant updates when weather threatens. A national research program works closely with the Centre to improve the scientific understanding and prediction of tornadoes, ice storms and other high-impact weather.

Our research and monitoring work on atmospheric pollution is an essential part of ensuring that Ontario residents and Canadians have clean air to breathe. Our work on the challenges of smog, acid rain and the cross-border flow of pollution is reducing the toll that air pollution takes on the health and productivity of Canadians. Much of the scientific basis for this action is carried out in the Andrew Thomson Research Labs in Toronto, where air quality samples from across Canada are analyzed using state-of-the-art technology. In fact, you will not find a larger group of scientists studying atmospheric pollution anywhere else in Canada.

Over the years

Here are a few examples of Ontario Region accomplishments over the years:

- CANWARN, a volunteer storm-spotter network, was established in 1987. Also, in 2003, we arranged with the Ontario Provincial Police to have real-time reports of severe weather sent directly to our Ontario Storm Prediction Centre.
- A 10-year voluntary pollution-prevention strategy developed in 1993 for the metal finishing industry eliminated more than 2.5 million kilograms of waste from this industrial sector.
- Under the Ecological Gifts Program, more than 300 gifts of land have been certified since 1994, protecting over 11 000 hectares of Ontario land worth more than $110 million.
- Reductions of more than 90% in several persistent toxic substances, which have been achieved in the Great Lakes Basin ecosystem, as part of the Great Lakes Binational Toxics Strategy signed by Canada and the United States in 1997. The Strategy set goals for specific chemicals that were targeted for virtual elimination. Of the 17 original goals set by both countries, 14 have been met, and the remaining 3 are well under way.
- Between 2000 and 2010, 397 recovery and conservation projects worth over $22.1 million were approved under the Habitat Stewardship Program for Species at Risk. A further 76 projects, valued at $2.2 million, were approved under the Aboriginal Funds for Species at Risk over the same period.
- An awareness program on burning firewood in homes (2003-2008) resulted in a 70% success rate for changing wood-burning practices to reduce harmful emissions.
- In 2004, we mapped atmospheric hazards, for use by emergency coordinators in more than 400 municipalities across Ontario. Our hazards website enables assessment of multiple risks from naturally occurring events such as acid rain and smog. The site is now used as an international model.

Did you know?

- Lake Superior is the second-largest lake by volume on the planet.
- Ontario is home to Niagara Falls, the most powerful waterfall in North America.
- Ontario's vast boreal ecosystem supports more than 10% of the global population of some 20 land-bird species.
- Of Canada's 51 National Wildlife Areas, 10 are in Ontario.
- Ontario's unique Long Point National Wildlife Area is home to nearly 100 rare plant species.
- Ontario has over 165 federally listed species at risk.
- The UV Index was created in Toronto and is now used around the world to help people reduce their exposure to the damaging rays of the sun.

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