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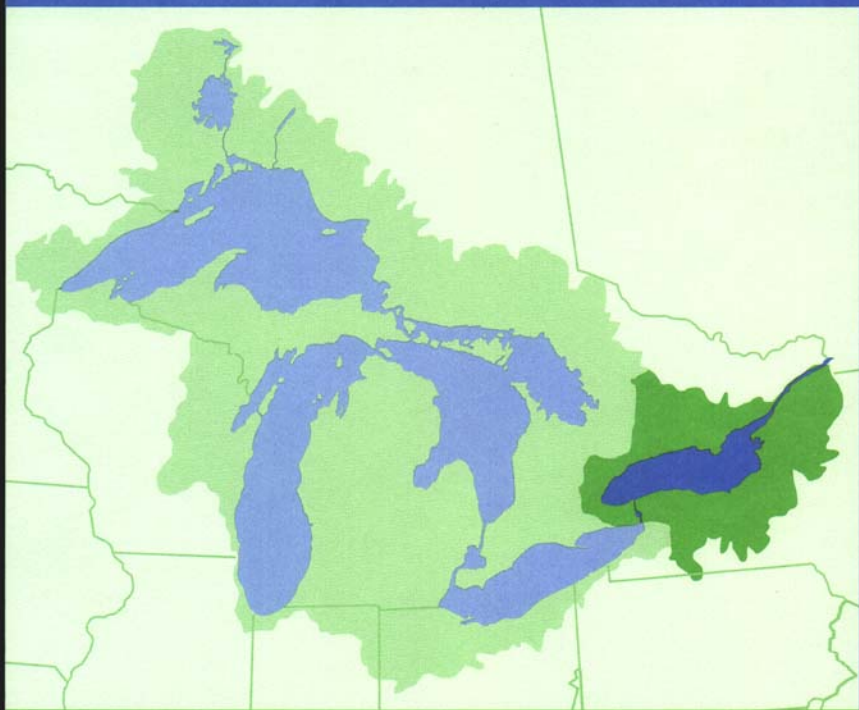
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Lake Ontario Basin
Michigan State University Cooperative Extension Service
Michigan SeaGrant
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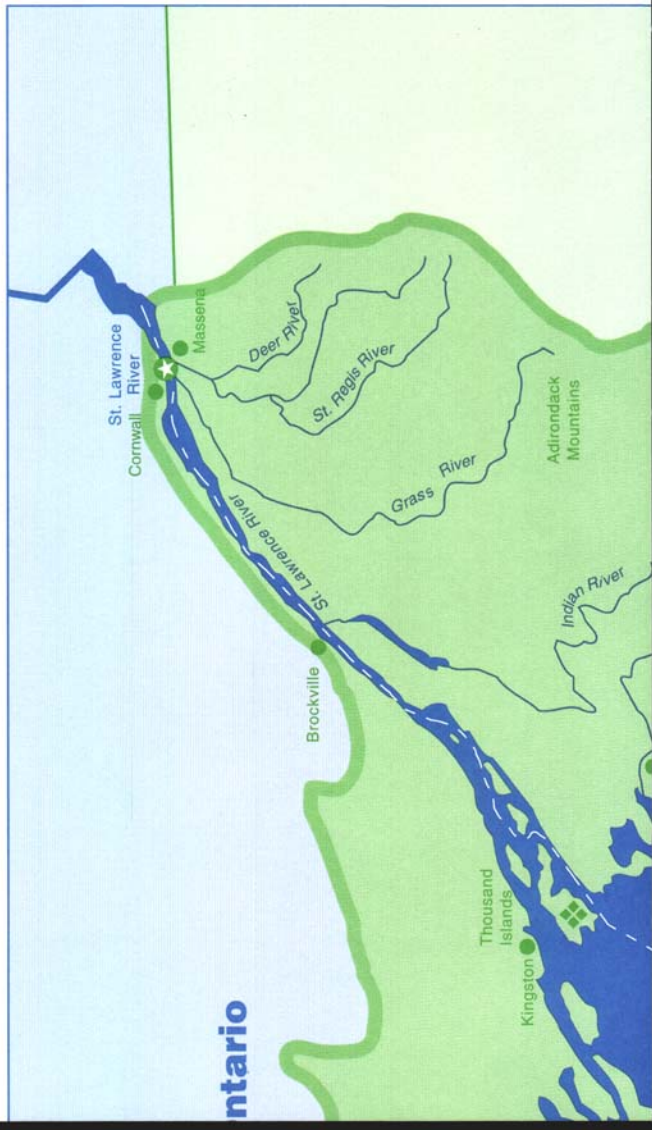
Lake Ontario Basin



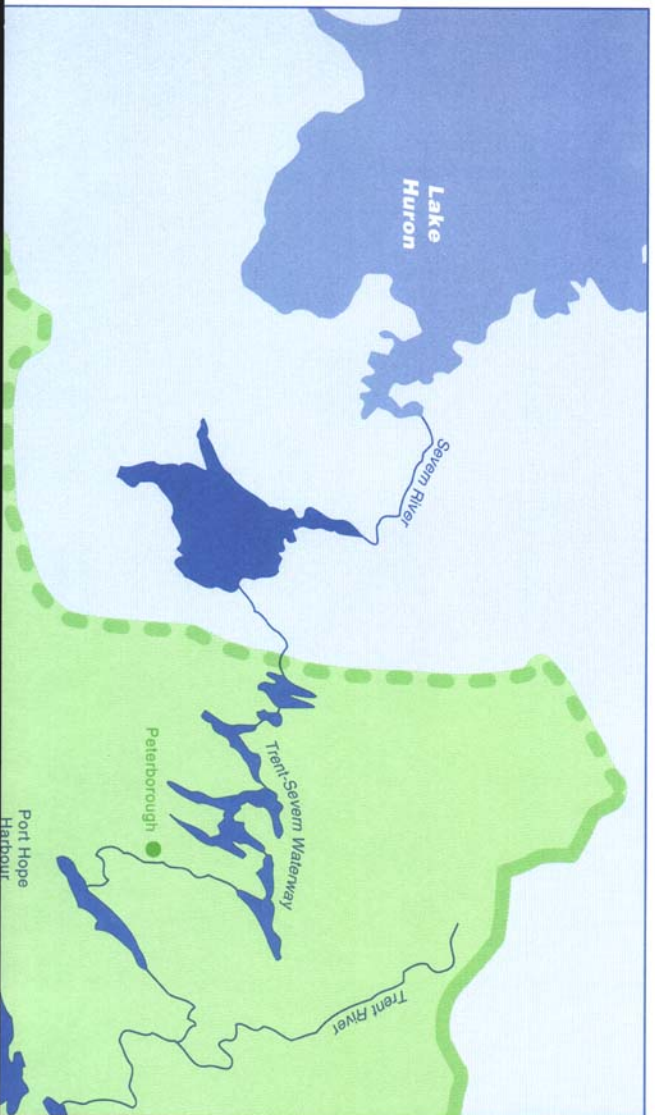
Lake Ontario Basin Statistics

Length	193 mi/311 km	Shoreline Length	712 mi/1,146 km (includes islands)
Breadth	53 mi/85 km	Elevation	243.3 ft/74.2 m
Depth	283 ft/86 m average 802 ft/244 m maximum	Outlet	St. Lawrence River to the Atlantic Ocean
Volume	393 mi ³ /1,639 km ³	Retention/Replacement Time	6 years
Water Surface Area	7,340 mi ² /19,009 km ²	Population	5,692,178
Drainage Basin Area	23,400 mi ² /60,601 km ²	U.S.	2,856,360
		Canada	2,835,818

rio Basin



Lake On



Lake Ontario, the 14th largest lake in the world, is the smallest of the Great Lakes in surface area. It ranks fourth among the Great Lakes in maximum depth but is second only to Lake Superior in average depth. The state of New York and the Canadian province of Ontario surround the lake.

The basin's land area is largely rural overall, and nearly half of its land area is forested. Agriculture is dominant in the U.S. portion. By contrast, Ontario's largest city, Toronto, and some other large urban and industrialized areas are located on the Canadian shoreline.

Shoreline Use

United States

42.1%
3.3%
4.6%
50.1%*

Residential
Commercial/Industrial
Agricultural
Other

Canada

13.4%
6.0%
22.7%
57.9%**

* U.S. "other" classification includes public, beaches, forests, barren lands.

** Canadian "other" classification includes transportation and communications, recreation, extraction, water, wetlands, forestry, grassland, barren and unknown.

Economy

Industry: Generating stations at Niagara Falls produce one-fourth of all the power used in New York and Ontario. Two-thirds of Canada's steel production occurs in the province of Ontario, much of it in the Lake Ontario basin near Hamilton.

Shipping: Lake Ontario has 13 major ports through which iron ore, limestone and coal are shipped.

The oldest lighthouse on the U.S. side of the Great Lakes was built at Fort Niagara.

Agriculture: More than 7,000 farms are located on the U.S. side of the Lake Ontario basin. In 1997, the market value of their products was more than \$1.1 billion. Major agricultural commodities include apples, onions, cabbage, and meat and dairy products.

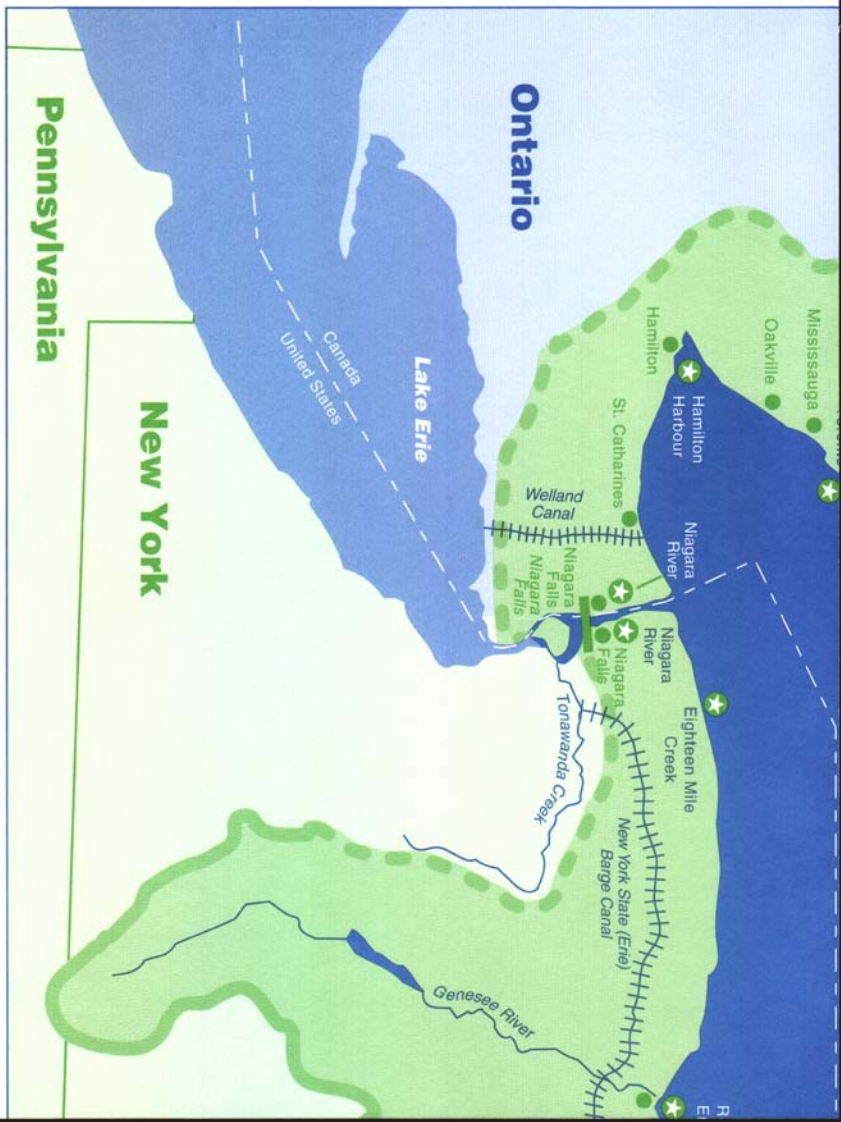
Fisheries: In 1996, 1.8 million pounds of fish were commercially harvested in Lake Ontario waters. The main species caught were lake whitefish, bullheads and yellow perch. Lake Ontario also has a very important recreational fishery centering on trout and salmon.

Tourism/Recreation: More than 20 million people annually visit Niagara Falls. In addition, more than 10 million visitors annually visit state, provincial and national parks in the Lake Ontario basin. In 2000, the state of New York designated the first underwater park in Lake Ontario to protect shipwrecks and provide recreational opportunities for divers. Toronto provides an urban alternative and is one of Canada's major tourism and convention centers.

Ecology

Lake Ontario is bounded by the powerful Niagara Falls on the west and the picturesque Thousand Islands on the east. In addition to these notable features, the Lake Ontario basin also has important forested areas and wetlands. The majority of the basin is forested, dominated by northern hardwoods such as maple and beech and conifers such as red and white pines. Coastal sand dunes are another important feature. The basin's forests are home to more than 3,500 species of plants and animals, including the bald eagle, great blue heron, beaver, coyote, porcupine and flying squirrel. More than 44,000 acres of wetlands line Lake Ontario's shores. This important ecosystem is home to 17 rare species of plants and 90 species of fish.





Pennsylvania

New York

Ontario

Canada
United States

Lake Erie

Hamilton

Oakville

Mississauga

Hamilton Harbour

St. Catharines

Welland Canal

Niagara Falls
Niagara Falls

Niagara River

Niagara River

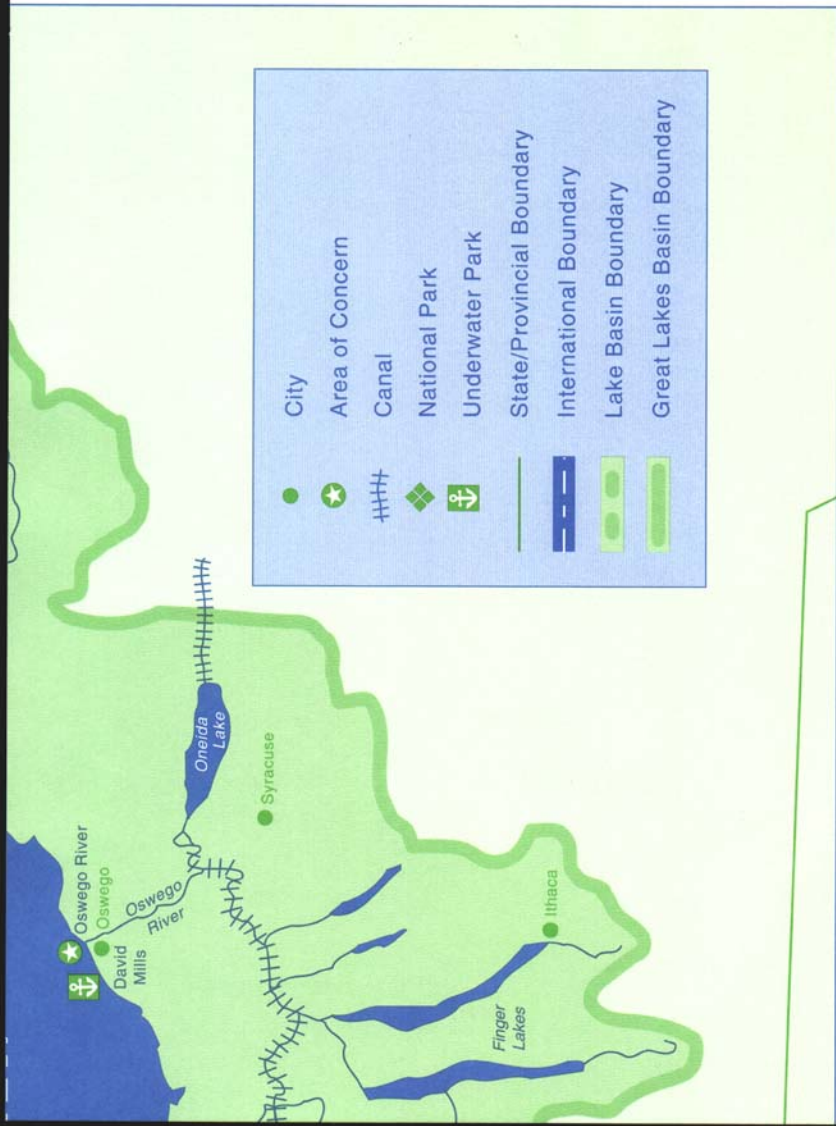
Eighteen Mile Creek

New York State (Erie)
Barge Canal

Tonawanda Creek

Genesee River

R
E



●	City
★	Area of Concern
	Canal
◆	National Park
⚓	Underwater Park
—	State/Provincial Boundary
— — —	International Boundary
▭ (light green)	Lake Basin Boundary
▭ (darker green)	Great Lakes Basin Boundary

Natural Resource and Environmental Issues

Loss of Wetlands: Wetlands are important to the lake ecosystem because they help to replenish and purify groundwater, prevent flooding, and support a wide diversity of plant and animal life. Many of the major cities in the Lake Ontario basin are located on land that was once coastal wetlands. An estimated 60 percent of the original wetlands on the U.S. side of the lake have been lost already, mainly because of the expansion of urban areas near Oswego and Rochester.

Water Quality: Water from all four of the other Great Lakes and the Niagara River flows into Lake Ontario. With that water come pollutants. Adding this influx to the agricultural runoff, urban sewage, stormwater and industrial waste discharges that enter the lake from point and nonpoint sources within the basin results in extensive water quality problems. In addition, certain toxins such as PCBs, dieldrin, lead and mercury enter the lake from the atmosphere. A commercial fishing ban has been placed on eels in Lake Ontario because of airborne release of dioxins and PCBs into the lake. Some effects of this pollution are closed beaches, human health risks, contamination of fish and wildlife, and economic losses in tourism and fisheries. The U.S. and Canadian governments have designated 11 places on connecting channels and the Lake Ontario shoreline as areas of concern where beneficial uses have been impaired and environmental standards are not being met.

Niagara Falls, located between lakes Erie and Ontario, is one of North America's most famous geographic features and is considered by some to be one of the natural wonders of the world. The normal flow over the falls is 100,000 cubic feet per second.



The Michigan Sea Grant College Program is a joint effort of the University of Michigan and Michigan State University, funded by the National Oceanic and Atmospheric Administration, to conduct research, outreach and education on Great Lakes issues. MICHU-SG-00-405

**MICHIGAN STATE
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