OUR WATERS

The waters of Southeastern Wisconsin are vast but vulnerable.
We depend on our waters for drinking water, irrigation, industry, transportation, power production, recreation and scenic beauty.
Understanding our region's water-related issues and future challenges can help us protect clean, abundant water for generations to come.

The Great Lakes Compact

Water, it's said, will be the oil of the 21st century. Demand for drinking water is rising in the United States and around the world due to population growth. At the same time, existing supplies of water are being strained by pollution, overconsumption, and drought, and may be strained further in the future by climate change. As these trends continue, communities and countries around the world will seek new sources of water—and one place they will look to is the Great Lakes.

The Great Lakes are the largest system of fresh surface water on earth. They hold nearly 20 percent of the world's and 90 percent of North America's fresh surface water. Yet for all their size, the Great Lakes are nonetheless finite—and vulnerable. Just as even a large bank account can be depleted by overspending, the Great Lakes can be depleted if more water leaves than enters them.

However, if the water "bank account" is kept in balance, the Great Lakes—and the diverse ecosystem and large regional economy they support—can be sustained.

The Great Lakes Compact* is an unprecedented, multistate agreement aimed at protecting the Great Lakes from "overspending." Under the Compact, the eight Great Lakes states (see Fig. 1) agree to adopt water-conservation plans and to abide by Compact rules for allowing and managing diversions of Great Lakes water. The Compact recognizes the lakes as a shared resource which no single state owns, but of which all states are stewards. As such, a defining feature of the Compact is its emphasis on using *regional* cooperation to manage the lakes as a single ecosystem.

Unveiled in Milwaukee in December 2005, the Compact is the product of five years of negotiations between states, Canadian provinces, tribes, businesses, environmental groups, municipalities, water managers, scientists, lawyers, and the public. In 2007 and 2008, the Compact was approved by the legislatures of the eight Great Lakes states and by Congress. The Compact was signed into law by President Bush on October 3, 2008.

*Great Lakes–St. Lawrence River Basin Water Resources Compact

Fig. 1. The Great Lakes basin. The Great Lakes basin is an area composed of the five Great Lakes (dark blue) and the land that drains into them (shaded areas). The Great Lakes basin is made up of the smaller basins of the individual lakes. Eight states and two Canadian provinces border the Great Lakes and have land in the Great Lakes basin.

Image courtesy Great Lakes Commission

What is a compact?

An interstate compact establishes a formal, legal relationship between two or more states. Compacts allow states to jointly address problems that transcend state boundaries. About 200 compacts exist today, including others pertaining to water, like the Colorado River Compact.

Compacts can take years to develop and implement. Compact states become part of a "collective" governing authority that allows them to regulate themselves as a group, rather than having the federal government regulate them. They also gain the ability to weigh in on other states' decisions on matters covered by the compact. Compacts provide for uniform regulation and enforcement of compact issues across the participating states. Congressionally ratified compacts are formally backed by the U.S. government.

Sources: Council of State Governments—National Center for Interstate Compacts, and the Council of Great Lakes Governors

Summary of the Great Lakes Compact

At the heart of the Great Lakes Compact is a water management approach known as whole basin management. A basin is the area of land that naturally drains to a particular river, lake, or other type of water body. Under the whole basin management approach, a water resource is managed as a whole system, defined by these natural basin boundaries. Whole basin management helps protect the integrity—and therefore the health—of a water resource.

The main way in which the Compact applies this management approach is through provisions aimed at minimizing the amount of Great Lakes water that is unnaturally diverted out of the Great Lakes basin, never to return to the lakes. The Compact also contains provisions promoting the conservation and efficient use of Great Lakes water *inside* the Great Lakes basin. In addition, it sets guidelines for assessing the effectiveness of these management strategies.

Key provisions of the Compact:

• New or increased diversions of Great Lakes water outside the Great Lakes basin are prohibited, with some limited exceptions:

A *community* that straddles the basin boundary may be allowed to divert water for public use if:
1) The diversion (if 100,000 gallons per day or larger) meets an exception standard. Under the standard, the community must, among other things, return unconsumed water to the basin after use, show that the need for the diversion cannot be avoided through conservation and efficient use of existing water supplies, and show that the diversion will not negatively impact water quality or quantity.
2) The diversion (if it results in a consumptive use of 5 million gallons or more per day) undergoes a regional review.

A community located outside the basin but in a *county* that straddles the basin boundary (see Fig. 2) may be allowed to divert water for public use if:
1) The diversion meets the exception standard described above.
2) The diversion undergoes a regional review.
3) The diversion is approved by all eight Great Lakes governors.

• Communities that meet diversion standards but are denied a diversion will have the ability to appeal the decision

• Diversions in Illinois will be governed by the existing terms of the U.S. Supreme Court decree in Wisconsin et al. v. Illinois et al. (278 U.S. 367 (1929))

• Removal of water from the basin in containers larger than 5.7 gallons will be treated as a diversion; states may determine how to treat smaller containers

• States will develop water conservation and efficiency programs, collect water usage data, and produce annual water usage reports

• States, together with the Canadian provinces that border the Great Lakes, will periodically assess the impacts of water usage in the basin

• Compact-related decision making will involve public participation

For the complete text of the Great Lakes Compact, visit the Council of Great Lakes Governors web site at www.cglg.org

Definitions

Basin - Also known as a watershed, the area of land that naturally drains to a particular river, lake, or other water body. Each Great Lake has its own basin; combined, these individual basins make up the Great Lakes basin (see Fig. 1).

Consumptive use - Any use in which water is consumed and ultimately lost from, rather than eventually returned to, the Great Lakes basin. Water incorporated into products such as juice or beer, or evaporated by industrial processes is consumed. Water that is used for showering, routed to a wastewater facility, treated, and released to the basin is not consumed.

Diversion - The transfer of water out of one basin and into another.

Regional review - Review by the eight governors and two Canadian premiers of the Great Lakes states and provinces.

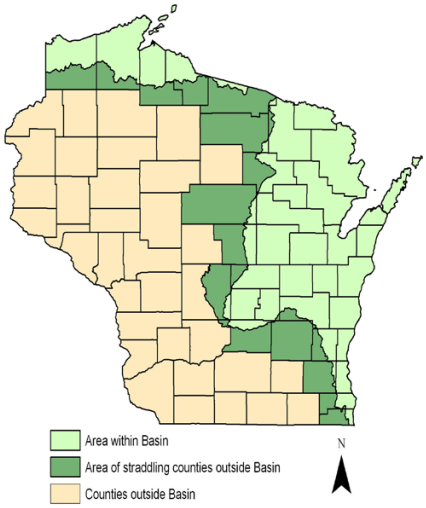

Fig. 2. The Great Lakes basin in Wisconsin. About one-third of Wisconsin is located in the Great Lakes basin (light green). In northern Wisconsin, land within the basin drains to Lake Superior; in eastern Wisconsin, it drains to Lake Michigan. Land outside the basin drains to the Mississippi River.

Communities in the dark green areas lie outside the Great Lakes basin, but belong to counties that are partially within it. Under the Compact, these communities could be allowed to obtain Great Lakes water through a diversion if they meet certain criteria.

History of Great Lakes policy

Great Lakes Policy Timeline

- **1909 – International Boundary Waters Treaty** signed. Treaty establishes International Joint Commission to arbitrate disputes over diversions that affect the level or flow of waters shared by United States and Canada.
- **1985 – Great Lakes Charter** signed. Charter is a good-faith agreement between states and Canadian provinces that border the Great Lakes to obtain consent for water diversions or consumptive uses greater than 5 million gallons per day.
- **1986** – Federal **Water Resources Development Act** passed. Act prohibits water diversions of any size out of the Great Lakes in United States without unanimous approval of Great Lakes governors.
- **2001 – Great Lakes Charter Annex** signed. Annex amends 1985 charter and commits Great Lakes governors and premiers to creation of new, binding water-management policies: the Great Lakes Compact and the Great Lakes Agreement.
- **2005 – Great Lakes Compact** and **Great Lakes Agreement** released. Compact is a binding agreement between Great Lakes states; Agreement commits Great Lakes provinces in Canada to implementing policy that parallels states' Compact.
- **2008 – Great Lakes Compact** signed into law.

The Great Lakes Compact was preceded by a number of other Great Lakes water management policies. Looking back at these past policies provides a context for better understanding the goals of the Compact.

One of the earliest policies related to Great Lakes diversions was the International Boundary Waters Treaty. Signed in 1909, the treaty established the International Joint Commission to arbitrate disputes over diversions or construction projects that affected the level or flow of waters shared by the United States and Canada.

Although the treaty provided some measure of control over individual Great Lakes diversions, it didn't provide a way to regulate the potential cumulative impact of multiple diversions.

Then in the 1980s, two significant proposals to divert Great Lakes water to other parts of the United States brought to light the need for a better management system. In response, the governors and premiers of the states and Canadian provinces that border the Great Lakes created the Great Lakes Charter of 1985. The charter is a good-faith agreement to obtain consent before approving diversions or in-basin consumptive uses of water greater than 5 million gallons per day. The charter was soon followed in 1986 by federal legislation, the Water Resources Development Act (WRDA), which prohibits new diversions out of the Great Lakes in the United States unless approved by all eight Great Lakes governors.

Together, the charter and WRDA provided new protections for the Great Lakes. However, the charter is non-binding, and WRDA applies only in the United States, not Canada.

In 1998, the need for a still more comprehensive management system than could be provided by the charter or WRDA was underscored when a Canadian company's proposal to ship Great Lakes water to Asia exposed the gaps in these two policies. Great Lakes officials responded by creating the Great Lakes Charter Annex of 2001. The annex amended the 1985 charter and committed the Great Lakes governors and premiers to developing new, binding policies for collectively managing the lakes in a sustainable way. These policies—the Great Lakes Compact and the Great Lakes Agreement—were drafted over the next several years and formally released in 2005.

The Great Lakes Compact was signed into law on October 3, 2008.

The Great Lakes Agreement: A companion document

Because federal law prohibits states and provinces from entering into their own treaty, the Great Lakes Compact applies only to the *states* that border the Great Lakes. So what about the Canadian *provinces* that border the Great Lakes?

To ensure the lakes are governed by the same policy on both sides of the U.S.-Canadian border, the Great Lakes governors and premiers developed the Great Lakes Agreement. The Agreement is a companion to the Compact, and commits the provinces to implementing policy that parallels that of the states under the Compact.

Diversions

The idea of diverting water from the Great Lakes has been around since at least 1825, when a diversion from Lake Ontario went into operation to supply the Erie Canal. Today, more than a dozen diversions—out of and into the Great Lakes basin, and between individual lake basins—exist in the Great Lakes region. Diversion proposals over the years have ranged from a request to send water several miles over the basin boundary, to a request to ship water as far away as Asia.

Great Lakes diversions supply public drinking water systems and support irrigation, industry, shipping and recreational boating. But diversions also alter the natural flow of the Great Lakes, and water returned from diversions may be of a different quality than when it was withdrawn. Changes to natural flow and water quality can impact wetlands and nearshore ecosystems like fish spawning grounds; open the door to exotic species; influence tourism, recreation, and shoreline property values; and affect hydroelectric power production and commercial shipping.

The impact of existing diversions on Great Lakes levels are minor. However, experiences elsewhere show that without proper management, diversions can dramatically impact even large water systems. The Aral Sea is the most extreme example of this (see Fig. 3). Located in Central Asia, the Aral Sea once held nearly as much water as Lake Ontario, but lost 90 percent of its volume over 45 years due to diversions for agriculture. The drying of portions of the sea has significantly impacted the area's ecosystem and fishing industry.

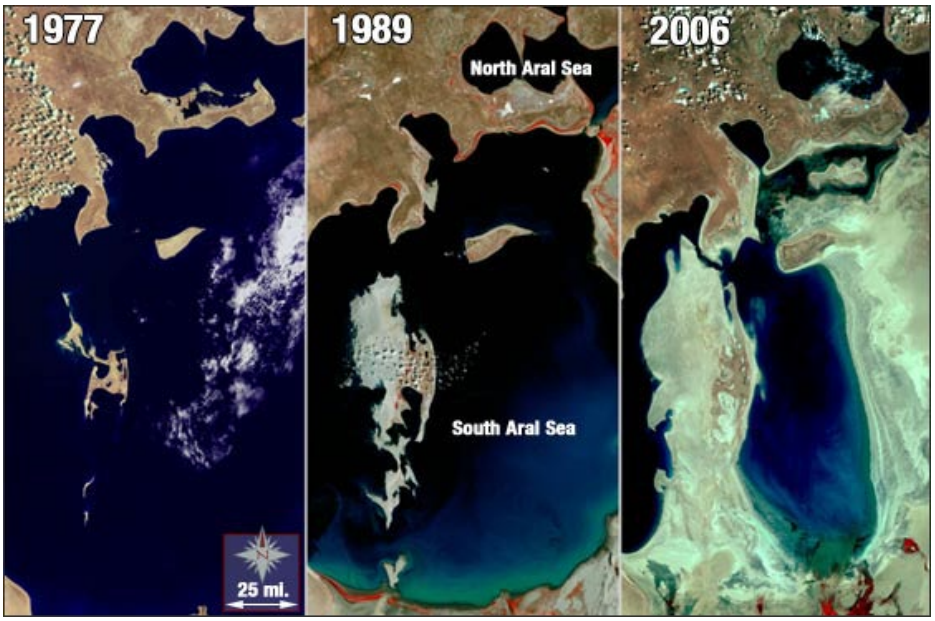

Fig. 3. The Aral Sea. The Aral Sea once held nearly as much water as Lake Ontario, but lost 90 percent of its volume over 45 years due to diversions. These satellite images document the shrinking of the sea between 1977 and 2006.

Landsat imagery courtesy of NASA Goddard Space Flight Center and U.S. Geological Survey

The Great Lakes Compact aims to minimize the impacts of changes to water flow, quality, and quantity on the Great Lakes by limiting diversions and regionally managing the lakes as a whole system.

For more information:

The **Council of Great Lakes Governors web site** (www.cglg.org) includes:
- a copy of the Great Lakes Compact
- copies of other historical Great Lakes water management policies

The ***Our Waters* web site** (www.glwi.uwm.edu/ourwaters) includes a fact sheet on Great Lakes diversions

The ***Great Lakes Water Wars*** by Peter Annin provides an overview of past and present diversions and water management policy in the Great Lakes region

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Web: www.glwi.uwm.edu/ourwaters
E-mail: our-waters@uwm.edu

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