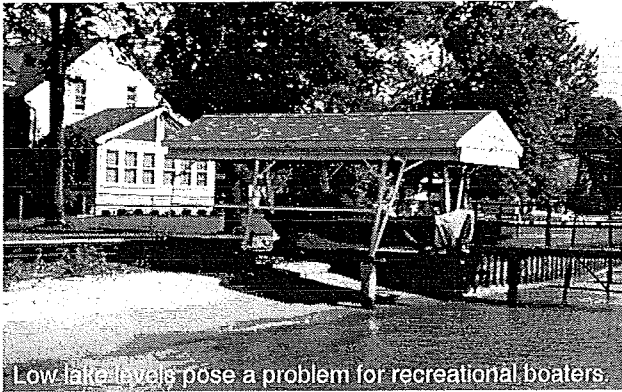




# Great Lakes Water Levels

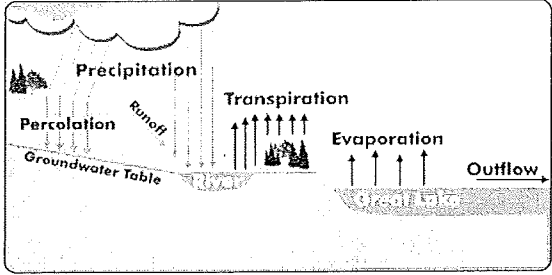
If you wander down the shores of Lake Michigan nowadays, it's difficult not to notice that beaches seem unusually wide. Boats that were once barely visible now jut from the waves. Marina docks seem built too high for the boats that will fit to them. A glance at the pilings tells why: the old line marking the lake level of previous years is often not above the water. Since 1998, the level of Lakes Michigan and Huron has dropped at the fastest pace ever recorded, being that residents have been reminded of the droughts of the 1930s and 1960s, when water levels also fell dramatically. Many more have grown concerned about the impact upon both the shipping industry and the environment.



Low lake levels pose a problem for recreational boaters.

## Why are Water Levels this Low?

It is easy to assume the lakes rise when it rains, and fall again when the weather dries up. But while the amount of precipitation we receive is certainly important, it is not the only factor that determines lake levels. It's not just the amount of rain and snow we get, but how much stays on the ground that really matters. After a storm, much of the rainwater evaporates quickly; it either dries up while still on the ground or it is absorbed by plants and released back into the air through their leaves. This combined process, known as evapotranspiration, prevents a large amount of rainwater from ever reaching the lakes in the first place. If it is warm and windy, as much as 80% can evapotranspire before it has a chance to flow into rivers and streams. Only a fraction of the precipitation that becomes groundwater seeps into the lakes. And of course, once the water reaches the lakes, the sun and wind hit the lake surface, evaporating even more of it.



Source: *Living with the Lakes*, U.S. Army Corps of Engineers; Great Lakes Commission, 1999.

The Hydrologic Cycle

When you place a glass of water in the sun, water evaporates quickly; one way to slow it down is by covering the top. When the Great Lakes freeze in winter, the ice cover works just like a lid; the water surface is protected from the sun's rays, and little moisture is lost. But if we have a warm winter, as we have had for the past few years, very little ice forms, and evaporation continues through the winter.

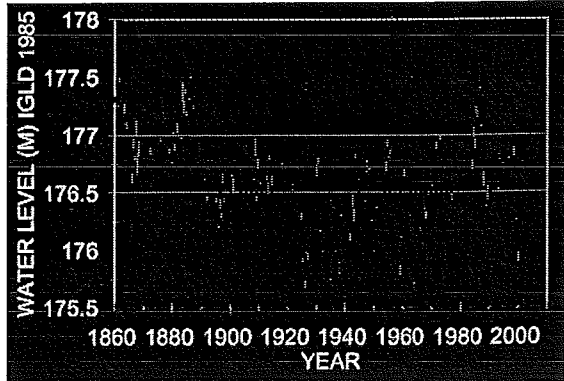
## Why has it been so warm?

Scientists say that one major factor is a global weather event called El Nino. In an El Nino year, such as 1997, the polar jet stream crosses North America further north than usual, keeping cold air masses away from the lakes. This brings milder winters with light precipitation, so there is less snowmelt and lake ice. Another weather event known as La Nina, which is closely related to El Nino, generally brings colder winters. We had La Nina winters in both 1998-99 and 1999-2000, but despite this tendency towards colder temperatures, the winters were warmer than usual. All these factors have combined to produce a 101.6 cm (40 in.) drop in water levels in Lakes Michigan and Huron over the last 3 years. The other lakes have fallen dramatically as well; during the same period, Superior has fallen 45.72 cm (18 in.), Erie 78.74 cm (31 in.), and Ontario 25.90 cm (10.2 in. ) (as of May 2000).

## How do these lows compare with past lows?

Despite the low water levels we are currently experiencing, they are not the lowest levels on record. In the early 20th Century the levels of Lakes Michigan and Huron were lower than they are at present, and in 1964 -- their record low -- they were nearly a foot below their present level. The other lakes have also been lower in previous years. At one point in 1926, Superior was 40.64 cm (16 in.) below its present level. In 1936 Lake Erie dipped 55.88 cm (22 in.) lower, and in 1935 Ontario was 78.74 cm (31 in. ) lower.

Lake Michigan-Huron water levels, 1860-2000.



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## **Don't Swallow Their Water Grab**

### **Clauses Put Forth at the Last Minute in Qatar Could Jeopardize the World's Clean, Safe Water**

**by Maude Barlow**

In a world preoccupied with terrorism and war, there was little coverage of the World Trade Organization ministerial meeting earlier this month in Doha, Qatar. What coverage there was, often in newspaper business pages, recounted that after tense negotiations around such issues as antidumping and agriculture subsidies, the now 144 member countries of the WTO had agreed to a new round of trade talks.

What didn't get reported is that in the last-minute wrangling over other issues, the European Union inserted a clause into the final text that puts our fresh water at risk, promotes the privatization of the world's water resources and endangers international environmental treaties.

Going into the meeting, there was a deep divide between the United States, Europe, Japan and Canada -- and everyone else. The North's wealthy countries were pushing an ambitious agenda almost universally opposed by the countries of the South. Well into every night, negotiators struggled with this divide.

The final draft text appeared on the morning of Nov. 14, and delegates, most of whom had not slept the night before, saved their energy for the final fight about the timing of the start of new issues. Only a handful of NGOs -- the few who had been able to travel to remote Qatar -- noticed that, overnight, a new section called Trade and Environment had been added to the text. When the assembly adopted the text later that day, the frantic NGOs couldn't find one delegate who'd noticed this addition. Too bad, because it may have terrible ramifications for the world.

Article 31, iii, calls for "the reduction, or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services." This poses an immediate threat to shrinking freshwater resources, as a "service" and as a "good."

While water has not yet been listed under the WTO General Agreement on Trade in Services (GATS) as an environmental service, several countries -- the U.S. and Canada among them -- are pushing for its inclusion. In any case, the GATS covers hundreds of types of water services under other categories and contains a catalogue of measures that limits what governments can do to conserve and protect water. Canada also wants all member countries to eliminate restrictions on national treatment and market access to water services.

Already, the World Bank and the International Monetary Fund are aggressively promoting water privatization in developing countries, opening the door for huge transnational water corporations to profit from water delivery and wastewater treatment. Under this new WTO provision, a domestic rule that protects water as a public service and a human right could be considered a "non-tariff barrier" to trade and eliminated. So could rules that limit privatization.

Water is clearly a "good" in the General Agreement on Tariffs and Trade (GATT). Article 11 already rules out any quantitative restrictions on the export of a good, but allows tariff measures, such as taxes or dual price systems. But the new text proposes to do away with such export controls, making it illegal to restrict the

## **GLIN==> Governors / premiers pledge diversion protection this year**

Great Lakes United Sustainable Waters Watch # 9  
Week of February 8, 2002

### GOVERNORS / PREMIERS PLEDGE DIVERSION PROTECTION THIS YEAR

Seven months after signing the Annex 2001 plan for protecting the Great Lakes against large-scale diversion, the region's ten governors and premiers have finally released a timeline to negotiate the formal, legally binding agreement that would carry out the promises of the annex.

The governors and premiers plan to present a draft reform agreement to the basin public in June of this year, followed by a 90-day comment period. All ten jurisdictions have agreed to hold public meetings to accept citizen comment on the draft plan. They will then revise the draft plan based on the public comment and complete a final document for signature by all ten governors and premiers in late November.

The new agreement is intended to protect the region from bulk water export and diversion by reforming state and provincial water use law to protect the environment rather than only the interests of human water users. By focusing their water use laws on environmental protection and treating all water proposals the same whether intended for use inside or outside the Great Lakes basin, the governors and premiers hope to make future rejections of damaging bulk water export and diversion proposals immune from challenge under U.S. trade laws or international trade agreements.

The timeline is ambitious, given that the parties took almost two years to agree just to the principles of the original Annex 2001 document. The scheduled November completion date would allow conclusion of the process before any change in the lineup of regional executives. At the end of this year the governors of Illinois, Pennsylvania, and Michigan are leaving office and the governors of Minnesota, Wisconsin, Ohio and New York will stand for reelection. The premier of Quebec may also call an election this year. Ontario will have a new premier next month.

The governors and premiers have appointed a group of at least twenty negotiators, a minimum of two from each jurisdiction, to write the new agreement. The executives are still considering possible means for including the governments of sovereign basin tribes and First Nations, some of which border the lakes and connecting channels.

The negotiating group has three subcommittees, responsible for 1) the substance of the agreement itself, that is, the ways in which water use law would be reformed, chaired by Illinois Office of Water Resources Director Don Vonnahme, 2) the means for making the agreement binding on the states, chaired by Matt Hare, natural resources policy coordinator for Michigan Gov. John Engler, and 3) the means for making the agreement binding between the provinces and across the binational border, chaired by Western Hemisphere Acting Team Leader Bill Carr of the Ontario Office of International Relations and Protocol.