

Wisconsin Water

Our way of life



Will decisions about Great Lakes water be made with or without you?

The DNR's estimated timeline for the Great Lakes Agreement is as follows:

- **April - June 2005:**
A revised draft Agreement is released and a second public comment period allows for comments
- **July 2005:**
Finalize the proposed Agreement based on second round of comments
- **Fall 2005:**
States' governors and legislators begin to debate the Agreement
- **Fall 2005 / 2006:**
U. S. Congress debate and review the Agreement for potential ratification into law.

Clean Wisconsin remains the main environmental group in Wisconsin working on the Great Lakes Agreement. To remain up-to-date on this issue, sign up for Clean Wisconsin's Email Action Network and we'll keep you posted on easy ways to make your voice heard. Simply email Becky at beweber@cleanwisconsin.org and ask to be included on the Action Network.

Lower Great Lakes Levels Will Threaten Economy

The five freshwater seas making up the Great Lakes are one of the natural wonders of the world. They hold nearly 20% of the world's freshwater and are an enormous resource for the region and its multi-trillion dollar economy. However, the Great Lakes are threatened by over-consumption and the possibility of diversions to support areas facing water shortages, such as the Great Plains, Texas and the Southwest. Proposals have even been made to ship water from the Great Lakes to Asia for sale as bottled water. The majority of climate models project declining water levels in the lakes as increased temperatures and decreased ice cover lead to increased rates of evaporation. When these factors are combined the lakes could see significantly reduced water levels if more safeguards are not enacted.

Why is it important to protect the Great Lakes' water levels? The Great Lakes are the biggest economic asset to the region and a lake-level decline would have serious consequences to the health of the region's economy. Low lake levels affect shipping, recreational boating, power generation, tourism, fishing, infrastructure, and lake ecosystems. Low lake levels during the latter part of the last decade gave us a glimpse of just how severe those consequences might be. Below are some of the economic consequences.

Shipping:

- For every inch that water levels fall roughly 300 tons of cargo must be off loaded from the large shipping vessels of the Great Lakes. This would require more ships be built or an increase in the number of trips per ship.
- Shipping supports over 60,000 jobs throughout the region, generates \$3 billion in annual revenue and is by far the most efficient way to transport large quantities of raw materials.
- Dredging to maintain shipping channels during low water levels costs over \$30 million each year.



Photo credit, Wisconsin Dept. of Tourism

Tourism and recreational boating:

- Of the ten states with the most registered boats, five border the Great Lakes. Recreational boating is a multi-billion dollar a year industry for the region.
- Low water levels led to a loss in 1999 of over \$11 million to marinas in Michigan alone. A drop of one foot below 1999 levels is estimated to cost the state's marinas an additional \$41 million.

Continued on back.

Tourism and recreational boating continued:

- Boaters will become increasingly concentrated in certain areas as lake levels drop leading to an increase in accidents and will see more damage to their boats as groundings become more common.
- Marinas will have fewer slips to sell to boaters due to receding waters.



Fishing:

- Fishing has an estimated net economic benefit in Wisconsin of over \$2 billion and generates over 21,000 jobs.
- Declining water levels would hurt breeding grounds for popular fish like walleye.
- Declining water levels lead to temperature increases which would hurt popular coldwater species like trout and salmon.

Power generation:

- Low water leads to a decrease in energy produced from hydroelectric generators. An Ontario study based on current models for future lake levels showed that the province stands to lose \$500 million from their three hydropower plants.
- Declines in hydroelectric generation could lead to a push for more coal plants and therefore more pollution costs.

Built infrastructure:

- Hundreds of miles of breakwaters would likely need to be repaired or replaced as they begin to rot when exposed to air. Estimates to fix the Racine Harbor alone are near \$2 million.
- Water intakes needed for power plants and municipal drinking water supplies would likely need to be extended further out into the lakes in order to get water that is sufficiently cool and safe. This would cost millions of dollars.

Ecosystem effects:

- More invasive species would favor the Great Lakes as water temperatures increase. Controlling zebra mussels, the most notorious exotic species in the lakes, is estimated to cost the region \$100-400 million per year.
- Warmer waters will also likely lead to more harmful algal blooms and incidents of hypoxia. HABs cost the country \$50 million per year and have been on the rise in the Great Lakes.

Dredging:

- The dredging that is required to maintain shipping channels would stir up sediments from the bottom of the lakes and connecting rivers. Years of pollution have contaminated these sediments with toxic materials that would get re-suspended in the water column by dredging. The re-suspended sediments would likely bury species of small insects that many fish depend on for feeding.
- New safe and secure sites for toxic dredged material would have to be found as many sites are rapidly filling up.

Preventing the decline of Great Lakes water levels is very important for the state, regional and national economies. Supporting the Great Lakes Agreement (or Compact) is one of the keys to protecting the lakes. The Agreement would simultaneously work to ensure adequate conservation measures are in place and regulate consumption and diversion of water from the basin. While the Agreement does not address climate change it is one more very important tool that we need to help protect the Great Lakes and Wisconsin's economy.

Sources:

U.S. Army Corps of Engineers Study
<http://www.lrc.usace.army.mil/greatlakes/hh/greatlakestudies/lakemichiganpotentialdamagesstudy/economicimpacts/>
Great Lakes Regional Assessment workshop
<http://www.geo.msu.edu/glra/workshop/01wresworkshop/report.html>
Union of Concerned Scientists Great Lakes Report
<http://www.ucsusa.org/greatlakes/glchallengeclimate.html>



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