



Beach walker probably in the right spot

**TODAY'S WEATHER:**

[www.wunderground.com/us/mi/kewadin](http://www.wunderground.com/us/mi/kewadin)

**Storm Central | Great Lakes Energy**

[www.gtlakes.com/storm-central/](http://www.gtlakes.com/storm-central/)

**Great Lakes Population**

| LAKE            | Watershed Population | Shore Miles | Surface sq. mi. |
|-----------------|----------------------|-------------|-----------------|
| Michigan        | 12 Million           | 1640        | 22,300          |
| Huron           | 3 Million            | 3830        | 23,000          |
| <b>Total MH</b> | <b>15 Million</b>    | <b>5470</b> | <b>45,300</b>   |
| L.Superior      | 607,000              | 2980        | 31,700          |

**EAST GRAND TRAVERSE BAY SHORELINE EROSION**

Photos by TNN



**GREAT LAKES WATER LEVELS – MORE EXCESS DISCHARGE FROM LAKE SUPERIOR**

**QUOTES from (3) Published Citations – Please read the full articles on-line.**

**1.WHAT HAPPENS WHEN LAKE SUPERIOR HAS TOO MUCH WATER? IT DUMPS IT INTO AN ALREADY OVERFLOWING LAKE MICHIGAN.**

BY: Tony Briscoe Contact Reporter Chicago Tribune July 13, 2108

For nearly a century, a dam at the head of the St. Marys River near Sault Ste. Marie, Mich., has been used like a faucet, controlling the amount of water flowing from Lake Superior into lakes Michigan and Huron. In the past five years, following a swift rise in lake levels, the relatively obscure Lake Superior board that regulates the amount of water released has stepped up these discharges, raising an outcry from a group representing property owners along the shoreline of Lake Michigan and potentially harming seasonal tourism.

Please read complete story at:

<http://www.chicagotribune.com/news/ct-met-lake-michigan-superior-water-levels-20180709-story.html>

**2.CALLERS CRITICIZE BOARD THAT REGULATES HOW MUCH WATER LAKE SUPERIOR DISCHARGES INTO LAKE MICHIGAN**

BY: Tony Briscoe Contact Reporter Chicago Tribune July 19, 2018



The board that controls the amount of water released from Lake Superior into lakes Michigan and Huron was criticized Thursday for increasing the discharge of water into the lower lakes during periods of high lake levels.

In its only [public forum of the year](#), the board downplayed its impact on Lakes-Michigan - Huron

While natural factors - precipitation, runoff and evaporation - have been the main drivers of rising levels, greater releases from Lake Superior have contributed to the swell in the lower lakes. [Last year, the amount of water released from Lake Superior into lakes Michigan and Huron was the highest in 32 years.](#)

Since 1921, a dam at the head of the St. Marys River has determined how much water is unleashed downstream. Since a period of high lake levels in the 1970s, the International Lake Superior Board of Control, a binational entity that determines how much water is released into the rapids, has vowed to maintain a balance between Lake Superior and lakes Michigan and Huron, which are measured as one lake . . . connected at the Straits of Mackinac.

Most recently, the Lake Superior board expects to increase the flow to 2,800 cubic meters per second this month — more than enough to fill an Olympic-size swimming pool each second — and above the amount called for in the most recent regulatory plan for balancing the lakes. At Thursday's teleconference, Jean-Francois Cantin, the control board's Canadian chairman, said the board could raise the levels further in the fall if Lake Superior's levels rise.

Callers to Thursday's meeting questioned these plans. **Continued on Page 3**

## Plant Beach Grass FOR EROSION CONTROL



**SEPTEMBER-OCTOBER!**

[www.mydunegrass.com/about-dune-grass/planting-advice/](http://www.mydunegrass.com/about-dune-grass/planting-advice/)

Courtesy of Olde Path Inc.

**Plant:** Sep-Dec. as plants are dormant

**Method:** Plant root 6-8 inches deep. Plants are dipped in a moisture holding polymer; but do not allow to dry out.

### Spacing:

6 inches for steep slopes.

8 inches for medium and visible sites

12 inches for flat ground

18 inches for economy

**Growth:** 1<sup>st</sup> year, clumps of 6 shoots—  
2<sup>nd</sup> year, dense stand of grass.

## Marram Beach Grass

Adapted from *Guide to Great Lakes Coastal Plants*, by Ellen Elliott Weatherbee, U of M Press.

**Habitat:** [Dunes](#) and dry sand.

Smooth stems, 20-40 inches tall. Leaves are smooth and 1/8<sup>th</sup> to 3/8<sup>th</sup> wide. Scratchy on top. Flowers in early summer. Dense heads, 1 inch wide.

**Characteristics:** Marram beach grass is likely familiar to anyone who has visited a Great Lakes beach. It grows throughout coastal areas of the Great Lakes. Marram grows in [upland](#) area of the beach. It provides critical service - binds blowing sand, stabilizes sand with many rhizomes, which form large, underground mats. Marram also serves as good habitats for plants not able to establish themselves.



## CRYSTAL CLEAR GREAT LAKES MIGHT NOT BE SO HEALTHY

By DAN KRAKER • NOV 6, 2017 Reprinted by permission of [Great Lakes Today](http://www.greatlakes.today)  
<http://www.greatlakes.today/search/google/Lake%20Michigan%20has%20become%20much%20clearer%20in%2020%20years>



At Brighton Beach outside Duluth, the waters of Lake Superior are stunningly clear. Looking into about six feet of water, it's easy to see smooth rocks at the bottom.

But Lake Superior has lost its long-held title as the clearest of the Great Lakes. A recent study showed that lakes Michigan and Huron have changed drastically.

"And not only did they show big changes, but they also passed Lake Superior in terms of water clarity," says Gary Fahnenstiel, who co-authored the study in the *Journal of Great Lakes Research*.

"And this was really profound, because if anyone's been in the Great Lakes for years, you recognize that Lake Superior is kind of always held as the clearest, most pristine lake of all five Great Lakes."

For the study, scientists analyzed satellite images captured between 1998 and 2012. Over that period, the depth that light could penetrate into the water increased by about 20 percent in lakes Michigan and Huron.

So what's going on? Fahnenstiel, a senior research scientist at Michigan Tech University, says it's partly due to less runoff of phosphorous, which is common in farm fertilizer.

But the dominant factor, he says, is the explosion of invasive zebra and quagga mussels in the lakes in the past twenty years or so. He says some of the world's highest concentrations of quagga mussels are found in Lake Michigan.

"So in a somewhat figurative sense, you can almost walk on a bed of mussels from one side of Lake Michigan to the other," he says. And all those mussels filter a lot of water.

"It's estimated in Lake Michigan right now the mussels can filter the entire volume of water in six days," he says.

The mussels eat the plankton in the water. Those plankton are the dominant light absorbers. So remove plankton, and the water gets a lot clearer.

That's good, right? After all, if you've been to the eastern shore of Lake Michigan, you know, it's gorgeous. The water is this aqua blue color, and you can see down 30 or 40 feet.

"And I feel the same way when I'm on my sailboat in Lake Michigan, it reminds me now of the Caribbean," says Robert Scuchman, co-director of the Michigan Tech Research Institute and a co-author of the study.

He says you have to think about the ramifications of that water clarity. The plankton that the mussels filter also are the base of the food chain. If they're gone, the rest of the chain risks starvation.

"So, it's very disconcerting, because if you take it to the limit, the Great Lakes may be totally clear and you're kayaking, and you're seeing the bottom, but they may end up being literally ecological deserts," Scuchman says.

**Continued on Page 3**

**CRYSTAL CLEAR**  
Continued from Page 2



The clearer water also has led to a surge in a dangerous algae.

Cladophora is a hotspot for the growth of a harmful bacteria that in turn produces a botulism toxin. And that has killed large numbers of fish and birds, including migrating loons.

But there may be a bit of good news, says Fahnenstiel. The number of invasive mussels may have peaked in Lake Michigan. And he hopes the improved water clarity in lakes Michigan and Huron sparks a new sense of pride and stewardship.

Back at Brighton Beach, 70-year-old Rob Hall knows firsthand just how clear Lake Superior is. The retired firefighter is a scuba diver who's done about 500 dives in the big lake.

"I drink it, I swim in it, I eat the fish that come out of it," he says. "It's still the best. They call it Superior for a reason."

Even if it's no longer the clearest of the Great Lakes.

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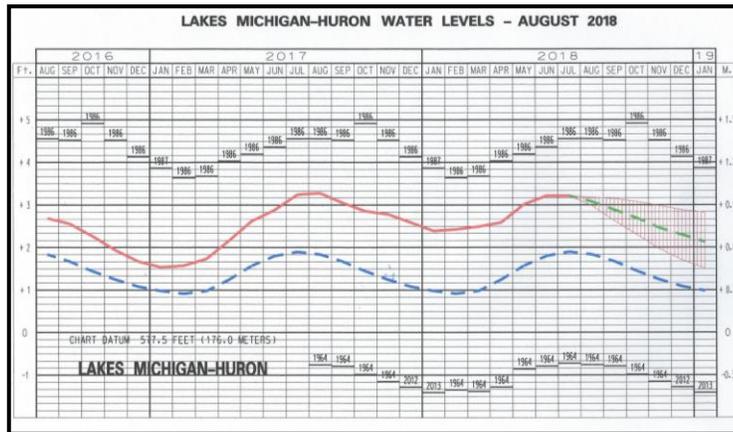
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**CALLERS Continued from Page 1**  
**GREAT LAKES WATER LEVELS – MORE EXCESS DISCHARGE FROM L.SUPERIOR**



In the past several years, all three lakes have experienced high lake levels. Last month, Lake Superior was about 9 inches above its long-term average but almost 5 inches below its levels from last July.

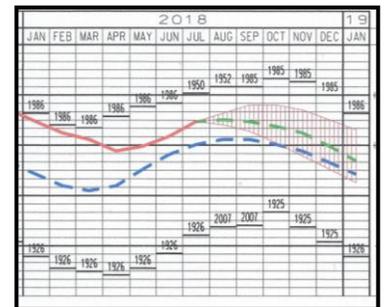
"Lakes Michigan and Huron were recorded at nearly 2 feet above their historical average and 1/2 inch higher than a year ago".

U.S. officials say the elevated discharges aren't simply an attempt to drive down Lake Superior's levels, highlighting the need to accommodate hydropower plants, downstream fish-spawning habitat and commercial shipping.

Please read the entire Chicago Tribune story at:  
<http://www.chicagotribune.com/news/ct-met-lake-superior-board-public-input-20180719-story.html>

**3.UPDATE ON LAKE SUPERIOR OUTFLOWS AND EXPECTED CONDITIONS – JULY 5, 2018**  
BY: International Lake Superior Board of Control

At the beginning of July, Lake Superior (was) 11 cm (4.4 inches) above average (1918 to 2017), but 14 cm (5.5 inches) below the level at this time last year (see chart at right). Lake Michigan-Huron (was) 45 cm (18 inches) over average, 4 cm (1.6 inches) above last year's beginning-of-July level, **and the highest since 1997** (emphasis added). Seasonal water level rise is expected to continue on both lakes in July.



The above-average levels coupled with strong winds and waves continue to result in shoreline erosion and coastal damages across the upper Great Lakes system. Additional shoreline erosion and coastal damages may occur this spring and summer should active weather continue.

The Board obtained approval from the International Joint Commission (IJC) to temporarily deviate from Regulation Plan 2012 from May through November 2018 in a manner similar to that employed in the past three years, which were also marked by high lake levels and outflows . . . in order to offset the effects of reductions in hydropower flows.

Please read the entire Press Release - [http://ijc.org/en\\_/ilsbc/news?news\\_id=662](http://ijc.org/en_/ilsbc/news?news_id=662)