



TROUBLE ON THE COASTLINE

LAKE LEVELS COULD COST MICHIGAN MILLIONS



PHOTOS BY KIMBERLY P. MITCHELL/DETROIT FREE PRESS

Ben Kendra of East Tawas, who works at Perfect Landing Vacation Rentals in Tawas City, fears low lake levels will hurt summer rental properties in the area. At some beachfront properties, the waterfront is nothing but waterlogged sand.

By Megha Satyanarayana
Free Press Staff Writer

Second of two parts

Michigan's coastal communities could lose millions of dollars this year, after water levels in Lakes Michigan and Huron hit record lows over the winter.

Whether via slip fees, shipping, commercial fishing, licenses, real estate or tourism, the state's \$7-billion boating economy, which includes about 800,000 licensed boats and about 500,000 jobs, is bracing to take hits.

"We're wondering if we're even going to be in business next year," said Bob Wiltse, owner of Charity Island Excursions in Au Gres. Low water levels—caused in part by climate change—have made it difficult for his boats to dock on the Lake Huron island. "We're definitely going to have our challenges."

Tourism, real estate, fishing and shipping expected to take a hit because of record lows



The Tiltin' Hilton sailboat sits in a South Haven marina. The bottom has hit land instead of water, causing it to tilt.

A 2011 economic impact study paints a grim snapshot: Water levels are currently 2 feet below average—at that level, the study predicts a loss of nearly \$850,000 in slip fees at just a handful of ports. The cost to the entire Lake Huron coast could be millions more.

Ships carry less; one harbormaster calculated that for each inch of water lost in the Lake Michigan-Huron system, the amount of cargo a ship could leave behind is equivalent to what fits in 200 tractor-trailers.

A commercial fishing operation predicted about \$25,000 in lost revenue each week, because boats cannot be loaded to capacity without risking getting stuck in sand.

"If the price of fish doesn't justify the means, it might not be worth staying in business," said Tod Williams, an owner of Bay Port Fish in Bay Port.

To help, the state has taken the rare move of reallocating funds to

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READ PART ONE AT FREEP.COM

Low lake levels and a backlog in dredging have hurt shipping ports in the Great Lakes but proposed legislation could help.

INTERACTIVE MAP

Find out what low water levels mean along Michigan's coasts.

COVER STORY TROUBLE ON THE COASTLINE



PHOTOS BY KIMBERLY P. MITCHELL/DETROIT FREE PRESS
Paul VandenBosch, South Haven harbormaster, says that despite dredging, he expects lost revenue as boats bypass his community in search of deeper waters. "What happens if we have new lows?"

LAKES: Communities along the coast could lose millions

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help dredge public marinas and harbors, in the hopes that federal dollars will take care of parts of larger ports. State officials surveyed 63 communities on their dredging costs and have asked the Legislature for \$21 million. The funds are awaiting Gov. Rick Snyder's approval. For South Haven harbormaster Paul VandenBosch, the \$436,000 he requested isn't enough to dredge to a depth that will suit all boats. He expects lost revenue as large boats and sailboats bypass South Haven for deeper water.

"The biggest concern is long-term," VandenBosch said. "We've managed to respond to the crisis this year, but what happens if we have new lows?"

Nature affected, too

Along parts of Saginaw Bay, the loss of 2 feet of water has drastically altered life for recreational fishermen. At Vanderbilt Park, near Bay City, fishermen have to trek thousands of feet from the official parking lot to get to water deep enough to fish. And many of their boat launches are useless.

"Those shanties out there? That's 3 feet of water," said Neal Ronk, 65, from Quanicassee. On a winter day, Ronk and a friend drove to the park, past the parking lot and into an opening where they parked their truck. From there, they trudged hundreds of feet to fish in an area Ronk said used to be a perch haven. In previous years, their trek would have been under water.

"This is the lowest I've ever seen the water," said Ronk. "There's a lot of places I can't even imagine going in a boat."

While fishermen usually tough it out, Ken Merckel of the Michigan Steelhead and Salmon Fishermen's Association said that if enough decide to forgo fishing and boating licenses this year, the state could lose revenue.

"They've got to open up some of these harbors," Merckel said. "If you can't launch a boat and go out fishing, who's going to go out and get a fishing license? Who's going to renew a boat license?"

The water levels of the Great Lakes go through cycles within cycles, said Jim Diana of the University of Michigan and the Michigan Sea Grant. There's a yearly cycle that peaks in the summer and bottoms out in the winter. But there's also a decadal cycle, an overall peak and low that averages about 20 years. Data puts the most recent high in 1984.

"We're at 30 years now, rather than 20, and the levels aren't going up," Diana said.

Even decent snowfall this winter won't be enough to replenish the lakes, said Keith Kompoltowicz, a hydrologist with the U.S. Army Corps of Engineers. The 2011-12 winter was too mild, he said. Even in the middle of the summer, the lakes will be a foot short.

The effect on wildlife is both good and bad. Low water levels are tied to climate change and geological change, said Don Uzarski, director of the Central Michigan University Institute for Great Lakes Research.

ing longer to freeze in the winter. The warm water and the cold air lead to more evaporation. Then, there is the lack of snowfall. Free Press calculations of average snowfall at several points in Michigan suggest that during the winter of 2011-12, the state got between 10 and 18 inches less snow than this year.

Uzarski and other scientists said these aberrations point to one main thing: "Obviously, climate change is having an impact here," he said.

Waiting and watching

With the newest Pure Michigan ad showcasing life on the lakes, recreation might take a hit this summer because of low water levels. The thought has chambers of commerce, business owners and others worried, but optimistic.

"We're hoping for the best," said Joyce Stanek, director of the Port Austin Chamber of Commerce. "Certainly, if the water level doesn't go up, all over this area, we're all going to be in trouble."

Across the state, officials have talked about needing every rung of dockside ladders to get people on land, having to use floating docks and being unable to launch boats off ramps.

Anne Giori, owner of Perfect Landing Vacation Rentals in Tawas City, said reservations are coming in, but in Au Gres, where some properties are all mucky beachfront and no water, she's waiting and watching.

"Nobody seems to be warded off," she said. "I don't think we'll really know the impact until this summer."

But on Lake Michigan, low water levels have been a boon for lakefront real estate. Jim Harpe, a Realtor based in Grand Rapids, said lakefront properties are fetching top dollar, even as his inland lake properties languish with docks that lead to nowhere. At one property north of Muskegon, what used to be a sliver of sand had become a nice, private beach at the foot of the house.

"You sell when the lake is low, and buy when it's high," he said. "We've been blessed with sales along the lakeshore."

In Alpena, a request for \$800,000 from the state will remove about 25,000 cubic yards of silt from the harbor, but it's not enough, said harbormaster Don Gilmet. Like in South Haven, larger boats could get stuck, and Gilmet said research

vessels could suffer. "Without doing a little dredging, we can't put their vessel back in the water," he said of the Thunder Bay Marine Sanctuary boat currently on land.

But dredging has its downside, said Uzarski. In addition to uprooted plants, pollutants, pesticides and heavy metals once lodged in the sediment are now loose in the water, with access to oxygen. That access can start chemical reactions that release other byproducts.

"Dredging liberates a lot of contaminants," said Uzarski. Though they understand the economic need to dredge now, Uzarski and other scientists said that for the sake of flora and fauna, the best thing to do is nothing.

"If we do nothing, the lake levels will return," said Uzarski. "Every time we go in and alter the system, we set off a chain of events that affects the ecosystem."

Dredging may not fix all

As the largest deep-water port on the Michigan side of Lake Michigan, Muskegon could lose big if water levels don't climb, said Stephen Gaw-



The shoreline of Mona Lake, which leads into Lake Michigan, has been receding for years, leaving behind black muck difficult to navigate.

ron, the city's mayor. The city's port is underutilized, and while city officials work with Grand Rapids and Kent County to create a shipping corridor that would take everything from wind turbines to coal directly from Muskegon in-state, low water levels have created an unexpected hurdle in community development.

"This is a major economic issue," he said. "It isn't just an inconvenience for dock owners and fishermen."

And even with the Army Corps of Engineers dredging the channel in previous years, the harbor, the marina and private boat slips are left to the city and residents, and they need to be dealt with now.

State funds help, he said, but "it won't erase the problem. But it will mitigate it, because, you know, so much of this relies on nature."

In Ludington, low water levels have affected shipping, said City Manager John Shay. There is less road-building aggregate and limestone coming in, and the S.S. Badger, which ferries cars to Wisconsin and back, is dealing with docking issues.

"It's really a lifeblood to our economy," Shay said of shipping and the ferry. "It's going to be harder to do as the harbor fills back up."

Glen Nekvasil, of the Lake Carriers Association, said the entire shipping industry takes a hit when lake levels are low. Ships carry below capacity, so they make more trips, spending money on fuel, among other things. Dredging is the answer, he said.

Dredging, while helpful, hasn't solved all Bay Port Fish's problems. Williams, who owns the company with his brother Forrest Williams, said they've moved operations to Caseville and have had to use different routes to get the same amount of fish. On sea, they deal with fuel costs and maintenance, as mud gets drawn up into the boats. On land, he said, they deal with transport and labor costs in moving fish from a remote dock to their Bay Port processing facility.

WHERE HAS ALL THE WATER GONE?

With Lakes Michigan and Huron reaching record lows, many in the state are concerned about economic impacts — by shipping, water-related commerce, boating or tourism in general. Others are concerned about what dredging will do to the environment. What's happening where you live? Go to freep.com for an interactive map and add photos of what the lakes look like near you.

LAKE MICHIGAN

1 Petoskey

"It's a significant concern for us. There are rocks exposed that were clearly under water a couple of years ago. Just kind of climbing the ladder ... to get to the pier is somewhat of a difficulty."

— Dan Ralley, city manager
Water levels have dropped so low in the 144-foot marina, it's hard to get people out of their boats.

2 Ludington

"Users pay dock fees, there are jobs in loading and unloading. There's a ripple effect."

— John Shay, city manager
Shay said he is concerned about the ability of the city's Lake Michigan ferry to dock.

3 North Muskegon

"There's still plenty of spots where it's not an issue."

— Jim and Steve Harpe, Realtors
Their homes on Lake Michigan are selling well because the low lake levels free up lots of beach.

4 Muskegon

"This is a major economic development issue. We're really looking to grow the main harbor capacity and positioning Muskegon to be the port of west Michigan."

— Stephen Garrow, mayor of Muskegon
City officials are trying to develop a plan with Grand Rapids and other Kent County communities to create a shipping corridor that would bring supplies directly to those cities.

5 Holland

"One year ago, we were not able to deliver coal cargo to the Holland Power Plant."

— Glen Nekvasil, Lake Carriers Association
Nekvasil represents shipping companies that use the Great Lakes to move cargo around the U.S. and Canada.

"If people don't buy licenses, you're talking major funding issues. Maybe they will be honorable enough to buy a license anyway."

— Dennis Eade, Michigan Steelheaders

6 South Haven

"We didn't budget for this. If the water would rise by 2 feet, we'd be OK."

— Paul VandenBosch, assistant city manager and harbormaster
VandenBosch believes that even with state funding to dredge, larger boats may bypass the city for deeper water.

HOW LAKE LEVELs ARE CALCULATED

The U.S. Army Corps of Engineers keeps regular watch on the levels of the Great Lakes, expressing the levels as a function of feet or meters above sea level.

On March 11, hydrologists with the Corps said the Lake Michigan-Huron system was at 576.2 feet above sea level, with the March average as calculated since 1918 being 578.4 feet above sea level.

The lakes are about 2 feet lower than average.

Different modeling methods and observational data go into both real-time measurements and predictions of where lake levels are going to go.

Among the groups that share data with the Corps to create an official measurement are the U.S. Geological Survey, the National Oceanic and Atmospheric Administration and Environment Canada. These partnerships date to 1953.

Sources: Keith Kompoltowicz, U.S. Army Corps of Engineers; Drew Gronewald, National Oceanic and Atmospheric Administration

LAKE HURON

7 Au Gres/Charity Island

"We've got a big investment out on Charity Island. Half of our business is out of state."

— Bob Wiltse, owner Charity Island Excursions
Because of the water levels, Wiltse has a hard time docking his boat once he gets to the island and has to be careful of running into sandbars and getting stuck.

8 Tawas City

"There's a lot of people that really like this place, in part, because of the beach, and they're not going to want it if it's all muddy."

— Ben Kendra, Perfect Landing Vacation Rentals
Some of the Au Gres rentals have little waterfront; just beach and mucky sand as far as the eye can see.

9 Port Austin

"No one in this area has ever seen it so low. It's frightening. We're hoping for the best."

— Joyce Stanek, director, Chamber of Commerce
The state put in floating docks last summer to accommodate boaters.

10 Bay Port

"We can't even get a boat to it anymore. We've got to haul fish back and forth, and some of the fish are not worth it."

— Tod Williams, Bay Port Fish
He and his brother Forrest Williams are using the Caseville port to load/unload, then have to drive everything to Bay Port to process. They've incurred significant transport, maintenance and labor costs because the boats pick up a lot of mud. He estimates about \$24,750 per week in lost revenue.

11 Quanacัสsee

"It's entirely a human perspective, the positives of dredging. Dredging, in general, has a negative effect."

— Don Uzarski, Central Michigan University Institute for Great Lakes Research
He and other scientists say people should just wait for the water levels to recover themselves.

12 Mayville

"If you can't launch a boat and go out fishing, who's going to go out and get a fishing license? Who's going to renew a boat license?"

— Ken Merckel, Michigan Steelhead and Salmon Fishermen's Association
Merckel said dredging will take care of many of the low-water issues.

Text by MEGHA SATYANARAYANA/DETROIT FREE PRESS
Graphic by MARTHA THIERRY/DETROIT FREE PRESS

"Basically, it's all mud there," Tod Williams said of their Bay Port dock. "There's no water. We're afraid to run aground in the marina. There's no place to go."

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IF YOU CAN'T LAUNCH A BOAT ... WHO'S GOING TO GO OUT AND GET A FISHING LICENSE? WHO'S GOING TO RENEW A BOAT LICENSE?"

KEN MERCKEL of the Michigan Steelhead and Salmon Fishermen's Association