

Lake Michigan Shore Association
Board of Directors
10/31/19

Report on High Lake Michigan Water Level Challenges

Current Lake Level Status

- 2” down since September 25, 2019
- Projected to fall 2” by November 25, 2019
- 15” higher than October 25, 2018
- 49” over chart datum
- 32” over long term October average
- 9” lower than 1986 historic October high
- 61” higher than 1964 historic October low
- 59” higher than five years ago
- Last 60 months are estimated to be the wettest in the Great Lakes basins since weather has been recorded.
- April 2020 forecast (the typical end of the shore ice season) predicts levels to be from a few inches below 2019 up to 10” higher than that. The upper end of the forecast would break historic records going into the condensation and snow runoff phase -- the “rise cycle”-- from March-July. That cycle generally increases the water level 7”-11”.

SOURCE: U.S. Army Corps of Engineers, Roger Gauthier (former Senior Hydrologist, Army Corps, and Member, Great Lakes Commission)

Actions by LMSA and Results

- LMSA requested area legislators in August to press Governor Whitmer to ask the International Joint Commission¹ to implement mitigation measures by diverting water from Lakes Michigan and Superior. Such measures, similar to what was done during the 80s high water episode, could lower the basin by 5”-7”. Thus far the legislators have received an acknowledgment letter from the Governor’s office with no public statement or action.
- LMSA asked Congressman Upton’s office to ask Rob Sisson, a recent appointee to the IJC and a Sturgis, MI resident, for assistance on diversion mitigation.
- LMSA is coordinating with the Great Lakes Coalition on the high-water issue. While the GLC had a well-attended General Meeting at which this topic was on the agenda, as far as we know, they are not getting answers.
- LMSA discussed this issue with both Rep. Whiteford and Sen. Nesbitt. They will accelerate discussions with Gov. Whitmer, Congressman Upton and Commissioner Sisson. Nesbitt reports that there will be a fast track bill introduced in the Senate to expedite permitting for remedial measures (see below).
- We are making other efforts to get through to the Governor.
- Conversations have occurred about tax assistance that included reinstating riparian qualification for uninsured casualty losses and property tax relief.
- Weekly updates with hydrologist Roger Gauthier continue.

- Saugatuck Township and our Legislative offices are aware of the property damages incurred by members of the LMSA and others in their district. They have also been apprised of the public safety challenges we are currently facing on Lakeshore Drive.

Advice for Affected LMSA Homeowners

Note: The LMSA is not a licensed engineer or contractor. The information below is provided solely as a public service. It is based on reports published by government agencies. You should consult professional help for your own specific circumstances.

- If your home is safely back from the bluff's edge, do nothing and wait for the water to go down. When the water recedes, re-slope the bluff to at least 45 degrees and replant. Otherwise let nature and gravity take their course. Be advised that de-watering may be required to redirect the flow of surface water to the Lake.
- If your home is near the edge of the bluff, either re-engineer your home or move it back from edge. Check on the setback recommendations done by the DEQ and ACOE after the 1980s high water episode.
- If your bluff is collapsing, one option is to construct a seawall – always do so with great caution and research. Another option is properly sloped revetments² built into the bluff's toe. Always use experienced and qualified contractors and/or engineers. Also, thoroughly brief your neighbors on your intended remediation work prior to implementing. Always consider the potential impact on your neighbor's property.

SOURCES:

U.S. Army Corps of Engineers, *Living on the Coast: Protecting Investment in Shore Property on the Great Lakes* (2002),

<https://www.lre.usace.army.mil/Portals/69/docs/GreatLakesInfo/docs/CoastalProgram/Living%20on%20the%20Coast%20Booklet.pdf?ver=2016-06-06-105107-683>

Chase et al., *Stabilizing Coastal Slopes on the Great Lakes* (revised 2012),

<https://www.lre.usace.army.mil/Portals/69/docs/GreatLakesInfo/docs/CoastalProgram/Living%20on%20the%20Coast%20Booklet.pdf?ver=2016-06-06-105107-683>

Clark et al, *Working with Engineers and Contractors on Shore Protection Projects* (revised 2012),

<https://publications.aqua.wisc.edu/product/working-with-engineers-and-contractors-on-shore-protection-projects/>

NOAA and Corps of Engineers, *Natural and Structural Measures for Shoreline Stabilization* (Feb. 2015),

<https://coast.noaa.gov/data/digitalcoast/pdf/living-shoreline.pdf>

¹ The IJC (www.ijc.org) advises the governments of the U.S. and Canada regarding boundary waters and approves and regulates projects that affect those waters.

² A revetment is typically a sloping structure (usually boulders in this case) placed on a bank or cliff in such a way as to absorb the energy of incoming water.