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Climate experts foresee heavier storms, rising lake levels

By JOHN MATUSZAK - HP Staff Writer Oct 26, 2017 Updated 3 hrs ago



Dune erosion along Lake Michigan is evident at Tiscornia Beach. Climate experts who spoke in St. Joseph Wednesday predict heavier and more frequent storms and warmer winters, possibly increasing lake levels and further beach erosion.

Photos by Don Campbell / HP staff

ST. JOSEPH — Living along the Great Lakes isn't always a day at the beach, experts on coastal conditions and climate said at a workshop Wednesday at St. Joseph City Hall.

And conditions are likely to get more severe, requiring communities to respond and adapt to the changes, they urged.

This was the first of three free "Coastal Resiliency" workshops to be held to instruct local planners, planning commissioners, elected officials, municipal staff and interested citizens in Berrien, Cass and Van Buren counties on how to address these challenges and build greater resiliency. The next workshops will be 6-7:30 p.m. Nov. 1 and Nov. 15 in St. Joseph.

The panelists pointed out that 16 percent of Michigan's jurisdictions touch the Great Lakes, making them vulnerable to coastal conditions.

Jeffrey Andresen, state climatologist with Michigan State University, said the long-term forecast is for overall conditions to be "warmer and wetter."

That will mean warmer winters, less ice coverage on the Great Lakes, and rising lake levels, he said. Scientists expect to see earlier warming in the spring. Projections of rising mean temperatures range from 2 to 16 degrees Fahrenheit.

Storms are projected to be heavier, more frequent and more severe, Andresen said. That could result in three to four additional inches of precipitation, “a whole extra month” of precipitation according to Michigan’s monthly average, he said.

Southwest Michigan is the wettest area of the state, Andresen said.

Trends show greater variability in conditions, as well. Andresen noted that communities can adapt to steady climate change, but will have more difficulty coping with rapidly fluctuating conditions.

Guy Meadows, director of the Great Lakes Research Center at Michigan Technological University, said more extremes in conditions are a worldwide event, as shown by the massive hurricanes that hit this year.

Meadows said extremes are being seen on the Great Lakes, as well. He said recent storms resulted in waves on Lake Superior that went from a half-foot to 15 feet, with some reaching 50 feet.

Lake levels are near all-time highs, Meadows said, with Lake Michigan only a foot below its record set in 1986. The high water levels 30 years ago led to increased erosion, followed by dropping water levels and more sand on the beaches.

This convinced some people to build homes on the beach, which are now threatened by the rising water levels.

That shows the need to plan for changing conditions, according to Richard Norton, a professor at the University of Michigan.

St. Joseph in 2013 became the first city along Lake Michigan to enact restrictions on where structures could be built along the lakeshore.

Climate changes will have an impact on a host of issues, from growing crops to sustaining tourism to disaster recovery, Norton said.

He encouraged “smart growth,” that includes having a mix of building types and uses and diverse housing, transportation options and community engagement.

The Nov. 1 workshop will focus on understanding and gathering coastal data. The Nov. 15 workshop will address using coastal data to affect local planning.

The presentations are part of a pilot program to formulate information to be presented in other communities.

Information, including PowerPoints from the presentations, can be viewed at www.resilientmichigan.org.

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