



**GREAT LAKES
COALITION**

Michigan/Lake Michigan Chapter For Shoreline Preservation Newsletter – Winter 2010

IJC WILL INVESTIGATE RAISING LAKE LEVELS 20 INCHES!!

By Roger J. Smith

Yes, you read the headline right. How would you like levels that, in the next cycle of high water, are 20 inches higher than they were in 1986 or 1997? How can that be? Didn't the Upper Great Lakes Study Board recommend that nothing be done to restrict the flow through the St. Clair River? The answer is yes, they did. They recommended that to the six-member International Joint Commission (IJC) and the Commission accepted the recommendation ----**for now**.

However, the Commission added something else. They asked the Study board to also make an "exploratory investigation" of raising the level of Lake Michigan and Lake Huron, and to suggest things that could be done to accomplish it. "Mitigative options" they call it. Specifically, they asked the Study Board to consider four different scenarios for raising levels:

- 2.5 inches (10 centimeters) to compensate for the 1960s dredging
- 10 Inches (25 centimeters) to compensate for the 1930's dredging, too
- 16 inches (40 centimeters) to get levels back to where they were in the 1900s
- 20 inches (50 centimeters) to get back to the 1850s!

Why did the IJC make this request? Because they received a lot of letters from Georgian Bay folks asking them to, and they are being responsive to them. They received very few letters from Lake Michigan people.

The IJC issued a news release about this for the public to read, and the *Detroit Free Press* had a front page article on it in October. You can read the entire news release by pasting this link into your browser:

http://www.ijc.org/rel/news/2010/101001_e.htm

or we can send you a copy.

What can Lake Michigan people do? It is not too late to write to:

International Joint Commission
2401 Pennsylvania Avenue, NW
Fourth Floor
Washington, DC 20440

Just tell them in your own words that you don't want higher levels. You might tell them how it would affect your property if levels were raised. If you experienced the high water in 1986 or 1997, you could tell them what happened then. Mention the erosion, how close the bluff is to your home, the cost of installing and maintaining seawall, the stress and effect on your health, the heartbreak of seeing what you have worked for being threatened. You might say let nature take its course. Individual letters are much more effective than a bunch of identical postcards.

There is another thing we can do: The IJC will be holding public meetings again in the summer of 2011. There will be one in Chicago, but not in Muskegon this time (the one in 2009 was not well attended). However, the IJC would be happy to have a special meeting with Great Lakes Coalition members, if enough are interested. We have attached a coupon at the end of this newsletter that you can return to the Coalition office if you would like such a meeting. We are thinking about the Benton Harbor-St. Joseph area because it might be closer to more of the concerned folks. Would that be a good idea? So get a letter out as soon as possible and let us know if you would attend a meeting.

NOVEMBER 2010 WATER LEVELS

By John H. Boyd, Technical Director

So far this November the average water level is 577.33 feet above sea level. In the last 93 years the water level has been this low or lower 18 times. The record low was 576.28 feet in 1964 and the record high was 581.96 feet in 1986. The range seem is 5.68 feet from highest to lowest and November 2010 is currently 1.36 feet below the long term average.

SCIENCE – POLITICS - LAW

By John B. Ehret, Esq.

WATER AND ICE. Why does ice float? As water cools to 4°C (39.2°F) it is gradually contracting. In fact, at 4°C water is at maximum density. As it continues to cool to zero degrees centigrade it is gradually expanding or becoming less dense. BUT at 0°C (freezing) it expands three times that amount or 30%. If water did not expand slightly as it cooled below 4°C and expand much more as it freezes, the ice which forms on the surface of the lake would sink to the bottom.

But, so what? Well, along the shoreline the shallower the water, the greater the possibility that the lake will freeze solid. Then the water saturated cohesive layer will freeze (solidify), expand, and buckle into pieces or chunks. These are the chunks we see washed ashore on the beach – if there IS a beach.

DOWNCUTTING OR UNDERMINING. When the buckle-up happens near a seawall it causes massive lakeward loss of subjacent (below and adjacent) support resulting in catastrophic collapse away from property and homes it is meant to support and protect. This is called DOWNCUTTING or UNDERMINING or LAKEBED LOWERING.

WAVE SUPPORT. The deeper it is in front of shore protection, the bigger the wave that will make it to the wall and overtop. 6.5 foot deep water will support a 5-foot high wave. 10 foot depth will support an 8-foot wave. The Corps of Engineers calls this the 80% rule.

INDIANA LAND GRAB. An overflow crowd has been reported at a Michigan City gymnasium to hear the Indiana Lake Michigan specialist declare that riparians will be subject to an ever-increasing elevation determined OHWM (Ordinary High Water Mark, or the “MARK”) as the locator of their lakeward property boundary. The truth is that the MARK has been declared to be non-elevation related. The northward retreat of the glaciers has been going on for thousands of years. The earth’s crust lifts up (isostatic rebound) as a result of the removal of that glacial weight. The north end of Lake Michigan is still lifting, or rebounding, but the Indiana shore has long ago stopped rebounding. That makes no never-mind to the State of Indiana bureaucrats be they Republican or Democrat. They plan to take control of private Indiana property by increasing the MARK based on rebound data from northern Lake Michigan and Canada. The FACTS are that the Indiana coast of Lake Michigan is actually subsiding about 3.5 inches per century. SO SUE ME, SAYS INDIANA.

WIND POWER is hard to store so that it is there when you need it. One way to store wind power is to pump water to elevated reservoirs from which the water flows down to drive electric generators when we actually need the electricity. But a NEW WAY is rapidly being tried – compressed air confined in massive underground caverns. Air at 1000 psi (pounds per square inch) is over 60 times less in volume than it wants to be at atmospheric pressure of 14.7 psi. When released into a turbo generator, electricity can be provided at the time it is to be used. The McIntosh salt caverns in Alabama have been used for the compressed air storage method for about 20 years and are considered capable of providing 110 mega watts. A 2700 mega watt compressed air storage facility is being considered in Norton, Ohio. The costs are very great and cannot really be proven to pay for themselves. It is called SOCIALIZATION OF COSTS, sort of like socialization of the lakefront.

ST. JOSEPH RIVER – Bed Load and Suspended Load. River “bed load” is best defined as bottom sand in downstream motion as opposed to “fines, silt and clay” in more or less continual suspension. Dredging volumes indicate to some degree the volume being transported by the river bed – but only a snapshot. The government’s trial records in Banks v. US show only 14,000 cubic yards per year in river bed dredging, but in FYs 2008, 2009, and 2010 the Corps has dredged or granted permits to dredge over 200,000 cy/yr. That doesn’t include over 80,000 cy/yr of suspended fluvial sediment calculated by the United States Geological Survey and published in 1994 by Coleman and Foster, International Journal of Great Lakes Research.

Note to our Forest Beach, Grand Beach and Long Beach Friends: All that St. Joseph River sand and silt ultimately belongs to you to feed your beaches.

ADDITIONAL RESOURCES

International Joint Commission
http://www.ijc.org/en/home/main_accueil.htm

P.O.W.E.R.
<http://www.protectwithpower.org>.

U. S. Army Corps of Engineers
<http://www.usace.army.mil>

National Oceanic & Atmospheric Administration –
Great Lakes Environmental Research Laboratory
<http://www.glerl.noaa.gov/>

Time to renew your membership for 2011, or join us if not already a member:

Michigan/Lake Michigan Chapter-Great Lakes Coalition
P. O. Box 429
Saugatuck, MI 49453
(269) 857-8945

We are a 501(C) (3) tax-exempt organization
Contributions are deductible to the full extent of the law

NAME _____

MAILING ADDRESS _____

LAKE PROPERTY ADDRESS IF DIFFERENT:

E-MAIL ADDRESS _____

SUGGESTED MEMBERSHIP CONTRIBUTION: _____\$35 _____\$50 _____ \$100 _____ Other

_____ **YES, I WOULD BE INTERESTED IN ATTENDING A SPECIAL MEETING WITH THE IJC IN THE SUMMER OF 2011**

DATE _____ SIGNATURE _____



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P. O. Box 429, Saugatuck, MI 49453
www.iglc.org

RETURN SERVICE REQUESTED

