

## **ROWI Talking Points**

June 2013

### **1. Why are water levels so low?**

Climate conditions across the northern Great Lakes shifted significantly since 1998 with a decrease in precipitation and an increase in air and lake temperatures. This climate shift has caused reduced ice cover and greater evaporation across the lakes. Meanwhile, St. Clair River outflows have increased due to dredging and erosion, magnifying the current low water crisis on lakes Michigan and Huron.

### **2. How long will low levels persist?**

Low levels are likely to persist for the foreseeable future. Global climate models agree that air temperatures in the northern latitudes will be significantly warmer than normal. The excessive outflows through the St. Clair River will also require several years to be fixed.

### **3. What are the economic impacts of persistent low lake levels?**

Low lake levels are causing substantial long-term economic losses across the region that have not been quantified. They are likely in tens of billions of dollars annually. The economic losses are occurring due to increased deterioration of wooden coastal structures, decreased hydropower generation, decreased recreational boating, decreased commercial and sport fishing and increased shipping costs via freighters.

### **4. What are the environmental impacts of persistent low lake levels?**

The environmental impacts of persistent low water levels are likely huge and may not be known for a generation. Persistent low lake levels have caused a decrease in biodiversity in the fishery due to warmer nearshore waters and changes in wetlands due allowing for spread of aggressive invasive plants like Phragmites and Eurasian milfoil.

### **5. What steps need to be taken to address the current low water crisis?**

Reducing the impacts of global climate change will require large-scale and long-term international cooperation. Meanwhile, the U.S. and Canada need to focus on efforts to RETAIN water in the Great Lakes. By magnitude the following measures need to be implemented: 1) reducing outflows from Lake Huron by installing structures in the St. Clair River to compensate for past dredging activities and river bottom erosion; 2) increasing outflows from Lake Superior; 3) increasing inflows into Lake Superior via the Long Lac and Ogoki Diversions; and 4) decreasing outflows from Lake Michigan via the Chicago Diversion.

### **6. Can St. Clair River outflows from Lake Huron be decreased?**

Dredging, sand/gravel mining and channel bottom erosion in the St. Clair River increased outflows from Lake Huron which have permanently lowered Lakes Michigan-Huron by at least 20 inches. Compensation structure were designed in the 1960s but never installed. A variety of new designs need to be developed to eliminate the increased conveyance of the St. Clair in a responsible and

environmentally sustainable manner. The design of these structures need to maintain safe and efficient shipping, improve fishery habitat, potentially incorporate hydropower production AND be adaptable to allow for high flows if wet weather conditions return to the upper Great Lakes.

**7. If structures are put in the St. Clair River what effect would this have on Lakes St. Clair and Erie?**

Implementation of compensation structures in the St. Clair River will TEMPORARILY reduce inflows to Lakes St. Clair and Erie. These temporary reductions can be easily offset by also including temporary measures at the head of the Niagara River to RETAIN water in Lakes St. Clair and Erie as part of a consistent and responsible management strategy.

**8. Can Lake Superior's outflows be increased into Lakes Michigan-Huron?**

The outflows from Lake Superior are controlled through structures between Sault Ste. Marie, Michigan and Ontario under the direction of the International Joint Commission (IJC). Since 2001, the Lake Superior outflows have been mostly at minimum levels. The IJC could increase outflows to Lake Michigan Huron, if they treated the current conditions as a crisis. This decision has not yet been addressed.

**9. Can diversions be modified into and out of the lakes?**

Yes, but to a very small degree. Inflows into Lake Superior through the Long Lac and Ogoki Diversions might be increased but would provide only an inch of rise in Lake Superior levels, and correspondingly a fraction of an inch on Lakes Michigan and Huron. Likewise reducing outflows through the Chicago Diversion would produce only a fraction of an inch on lakes Michigan and Huron. Besides, the Chicago Diversion flows are managed under an U.S. Supreme Court ruling to insure that Chicago metropolitan area needs for drinking water and wastewater treatment are met, increasing the complexity of modifying this system.

**10. What can people do to influence the outcome?**

You are encouraged to write, call or visit your representatives in the U.S. or Canadian federal, state/provincial or local governments to influence policy decisions for restoring the natural water level range on Lakes Michigan and Huron. In addition, people should consider contributing to ROWI's campaign to restore natural water levels across the Great Lakes.

**11. What are ROWI's objectives?**

The mission of ROWI is to restore the natural ranges of water levels on the Great Lakes and flows in their interconnecting waterways that have been altered by man-made intervention. Specifically, we desire that lakes Michigan and Huron current crisis low water levels be raised since they are causing grave economic and environmental harm to array of interests.