

Understanding
Plan 2014

What lakeshore families,
businesses and municipalities
need to know.

- Grassroots organization
- Engage governments and private home owners towards the protection of lakeshore homes, families, businesses, emergency responders and municipalities
- Partners with United Shoreline USA

United Shoreline: Ontario

United in One Voice



Clarington, Ontario

About us

We have lived on Lake Ontario in Bowmanville, Ontario for almost two decades.

In spring 2017, we experienced **traumatic flooding over months.**

It changed every part of us.

Our work, our family, our heart, our finances, our health and our security.

There are ~100 homes in our community. We are all changed.



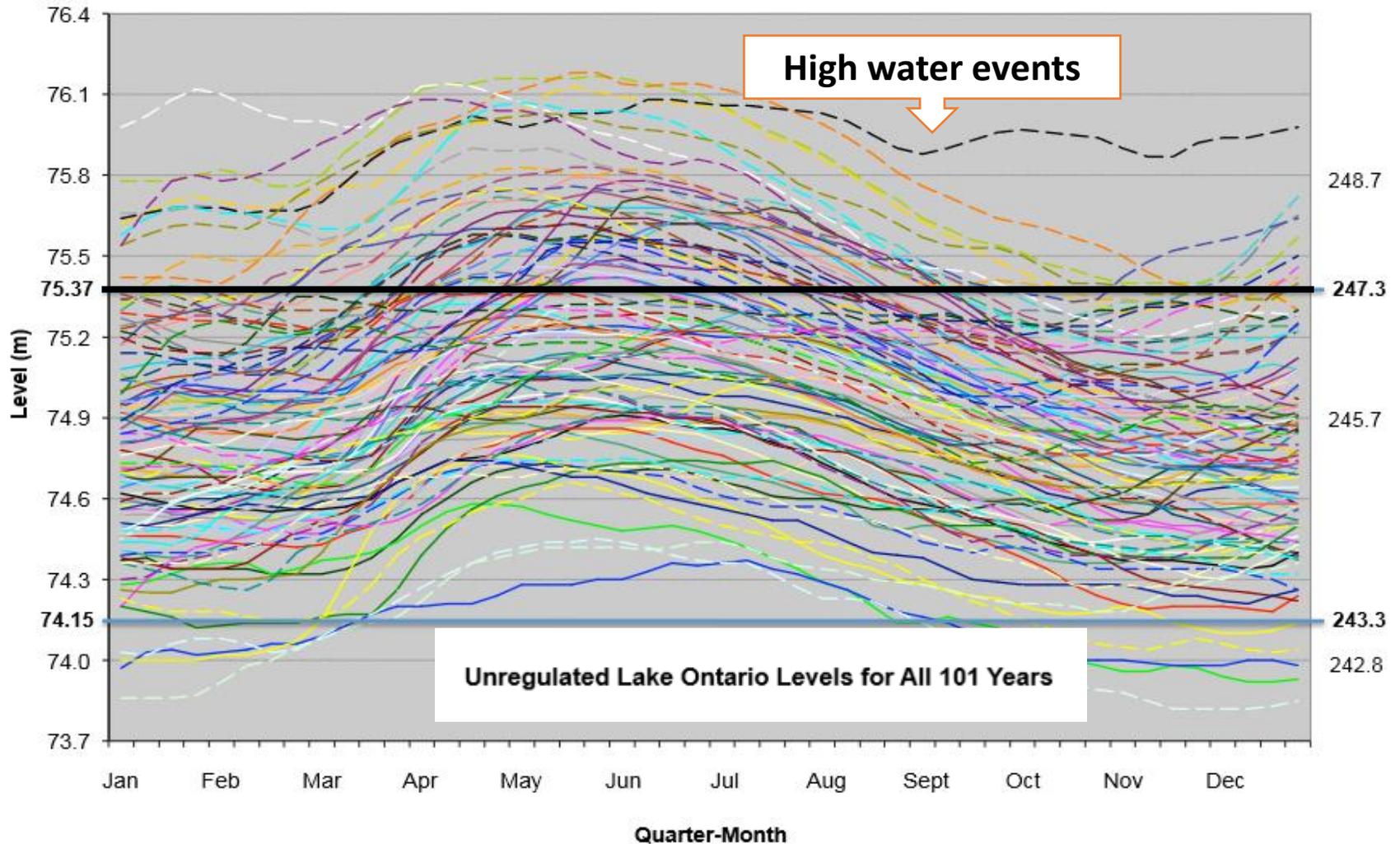
Plan 2014 influences the level of Lake Ontario by releasing water 'outflows' through the Moses Saunders dam.

By design, this **new** plan allows for "higher highs" and "lower lows" on Lake Ontario over extended periods of time.

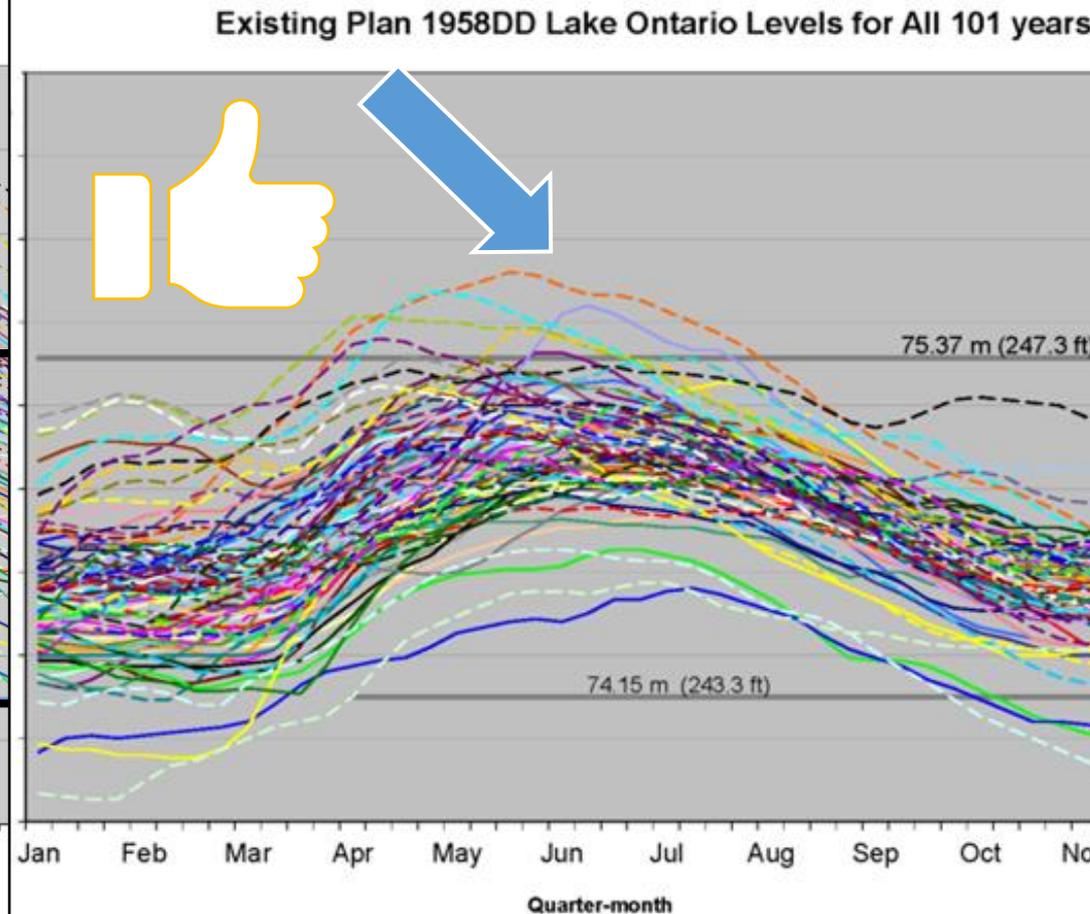
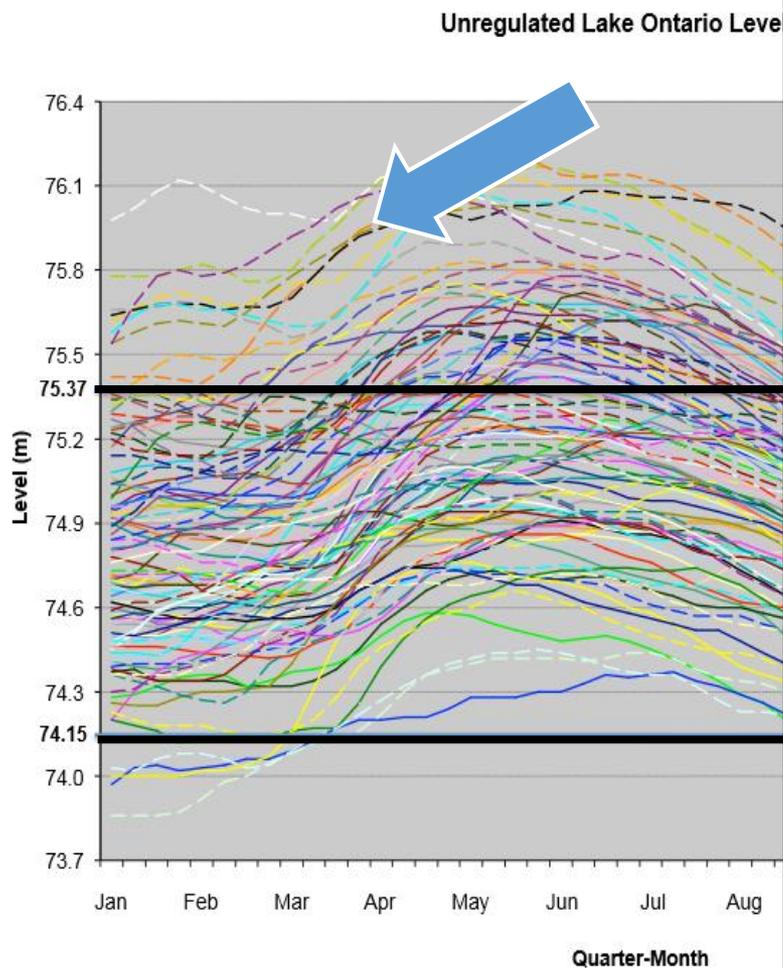
This will have significant impacts on the shoreline, including erosion, flooding, and dry water wells.

Climate Change will compound these impacts.

International Joint Commission (IJC): independent binational organization established to regulate shared water uses and investigating transboundary issues and recommending solutions.

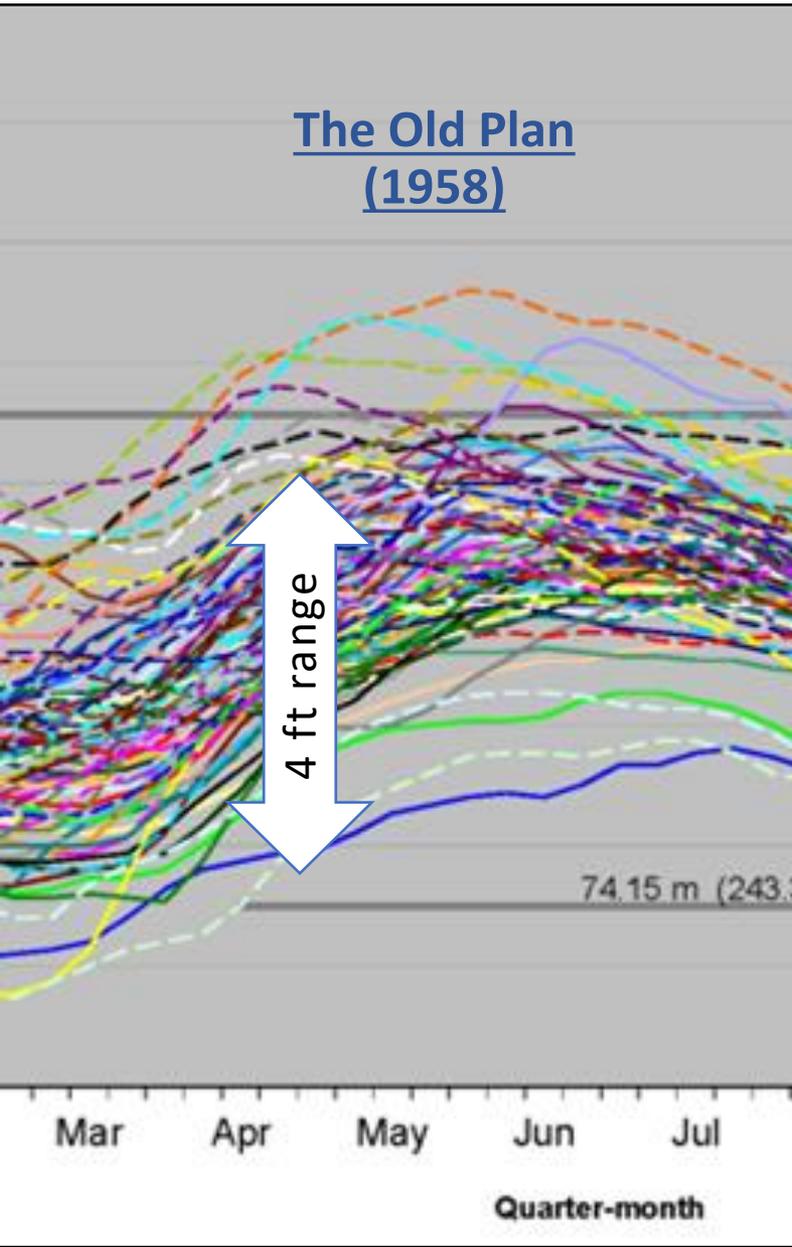


For 50+ years, Federal, Provincial and Municipal authorities **trusted** the limits of 1958DD in setting engineering designs and policies for such things as set backs, boat launches, public and private docks, public infrastructure as well as private shore protections permits.

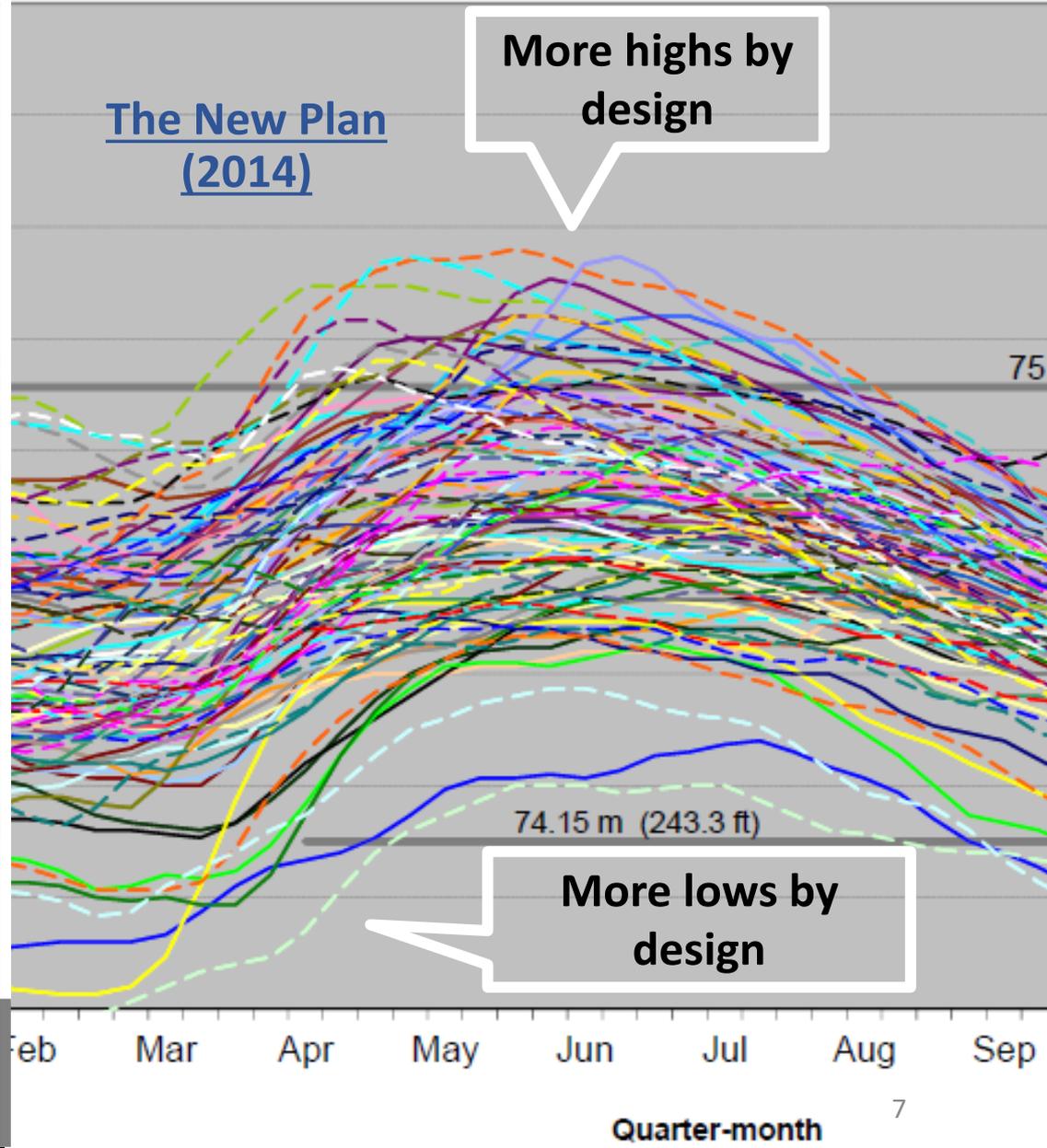


Now add ½ – 2 meter waves...

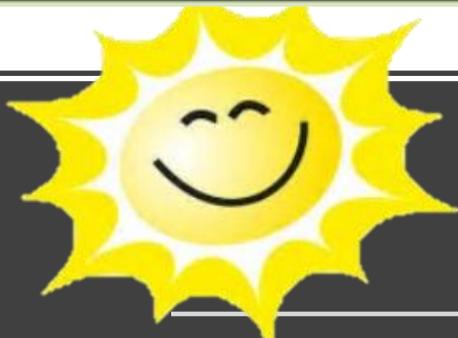
The Old Plan
(1958)



The New Plan
(2014)



Economic Benefits (in \$US Million 2005) Net Average Annual Using stochastic water supplies	Regulation Plans				
	1958DD	B+	Bv7	Bv7 2-95	Plan 2014 (Bv7 2-90)
Hydropower	\$0.00	\$6.08	\$3.45	\$3.41	\$5.26
NYPA-OPG	\$0.00	\$3.85	\$3.45	\$3.41	\$3.54
Hydro-Quebec	\$0.00	\$2.22	\$1.95	\$1.85	\$1.76
Coastal	\$0.00	-\$2.78	-\$2.62	-\$2.22	-\$2.24
Lake Ontario total	\$0.00	-\$2.53	-\$3.11	-\$2.22	-\$2.23
Shore protection maintenance	\$0.00	-\$2.16	-2.62	-\$1.94	-\$1.95
Erosion to unprotected developed parcels	\$0.00	-\$0.17	-0.17	-\$0.16	-\$0.18
Flooding	\$0.00	-\$0.20	-\$0.32	-\$0.11	-\$0.11
Upper St. Lawrence River flooding	\$0.00	-\$0.04	-\$0.07	-\$0.01	-\$0.01
Lower St. Lawrence River flooding	\$0.00	-\$0.22	\$0.00	\$0.00	\$0.00



Plan 2014

There will be winners and there will be losers...



The "damage calculations" for Plan 2014 only consider the additional costs of shoreline protection structures on PRIVATE properties (60% of total shoreline), at 2005 dollar values.

The following costs are not included:

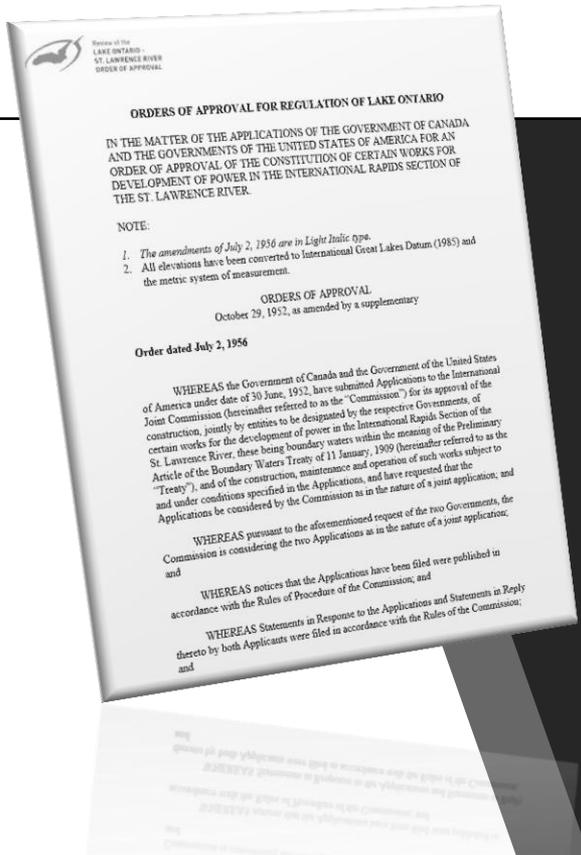
- emergency response
- damages to municipal infrastructure (roads, drainage, sewer)
- damages to public parks and beaches
- damages to properties on bays and creek inlets
- lost economic activity from shoreline businesses
- lost taxes due to decreased property values

Kingston Area, ON.



Plan 2014

“Order of Approval” December 2016



CONDITIONS:

“In Accordance with article VIII of the [1909 Boundary Waters] Treaty, interests on either side of the International Boundary that are injured by reason of the construction, maintenance and operation of the works shall be given suitable and adequate protection and indemnity as provided by the laws in Canada, or the Constitution and laws in the United States respectively.”

“The IJC is well aware that Plan 2014 will increase shoreline erosion and costs.”

Municipalities, business and home owners,
WHERE IS THAT PROTECTION AND INDEMNITY??

Plan 2014 appears to violate three Principle Guidelines of the IJC Study.

1. “If damages result from any plan, they should not fall disproportionately on any one geographic area or interest group.”
 - **Almost all the damages from Plan 2014 fall to the Lake Ontario shoreline*
2. “If damages are anticipated, mitigation and compensation measures should be in place prior to implementation.”
 - **Plan 2014 has none.*
3. “Any plan should be developed in an open process with wide public participation.”
 - **Plan 2014 was developed **in secret** by a group that only consulted with environmental advocates.*

Brighton, Ontario,
Spring 2017



*Dr. Frank Sciremammano was a member of the IJC study and is a current member of the International St-Lawrence River Board of Control.



So, how do municipalities mitigate damages?

Ajax, Ontario

Lake Ontario Shoreline Municipalities, Business and Families - *in summary:*

- × **Plan 2014** puts your shoreline infrastructure built to Plan 1958DD at risk;
- × **Plan 2014** will cost millions in coastal damages and emergency response;
- × **Plan 2014** violates the IJC Study “Principle Guidelines”
- × **Plan 2014** violates international treaty provisions for protection and indemnity.
- × **Plan 2014** transfers the risk and the burden of cost to those that can afford it the least (shoreline citizens), and to those with the fiduciary duty to protect them (Municipalities), *without mitigation or compensation.*



Toronto, Ontario
Spring flooding, 2017

Next Steps:

-
- #1 Plan** Ensure your municipality has an Emergency Management plan for the Hazard of Flooding.
-
- #2 Share** Tell your residents about United Shoreline Ontario so they can join our voice. We need protections and indemnities. We urgently need to share resources for FLOOD RESILIENCY.
-
- #3 Connect** Join with other municipalities / emergency services to share resources for prevention, mitigation and response (e.g. flood plans, resources, tools, training).
-
- #4 Lobby** Consider a similar resolution as passed in Clarington – **LOBBY FOR RESOURCES and shoreline protections.**
-

Request to Strike Committee to Review Mitigation and Safety Plan for Great Lakes and St. Lawrence Seaway Communities -Resolution #GG-357-17

June 19th, 2017

Moved By: Mayor Adrian Foster / Seconded by: Councillor Willie Woo

Whereas Lake Ontario is a valuable regional, national and international resource;

Whereas federal governments of the United States and Canada and the International Joint Commission have, in partnership with the States and Provinces, a joint interest in the management of Lake Ontario;

Whereas the management of the lake levels falls within this joint interest;

Whereas the flooding experienced by the residents of Cedar Crest Beach in Municipality of Clarington has resulted in effecting resident's safety and has caused significant property damage;

Whereas the Corporation of the Municipality of Clarington has expended significant staffing resources and financial resources in aiding the area residents and ensuring their safety;

Whereas the Federal Government and the Provincial Governments provide financial assistance programs in restoration of damages in the event of Lake Ontario shoreline flooding;

And whereas it is conceivable and reasonable to anticipate future flooding as was experienced in the spring of 2017;

Now therefore be it resolved that the provincial and federal governments be requested to strike a committee to review mitigation and safety plans for the communities fronting the Great Lakes and St Lawrence Seaway; and

That the Municipality of Clarington be invited to participate on the committee to allow for input in the review of this plan.

United Shoreline: Ontario

United in One Voice

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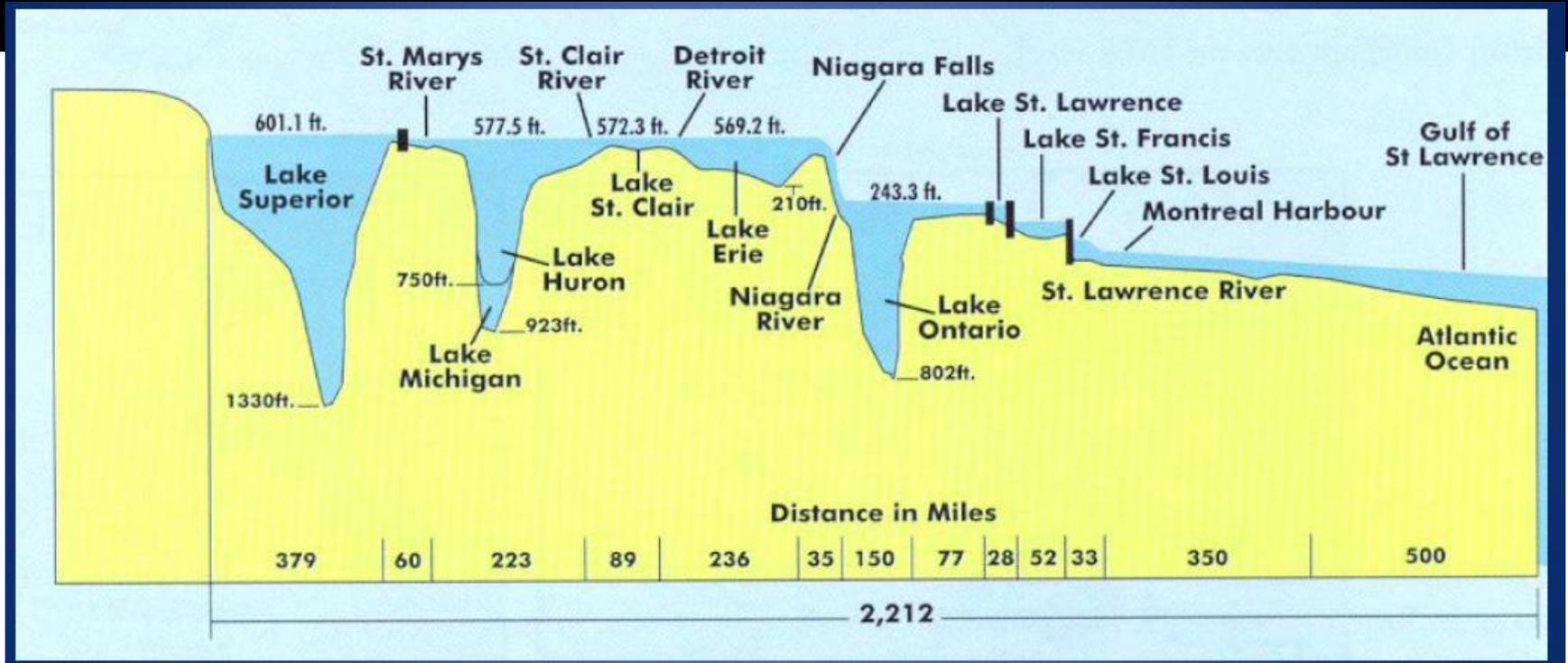
collaborator@unitedshorelineontario.ca

March 12th, 2018

Background slides

Water flow and water levels are managed through 2 locations on the Great Lakes-St. Lawrence River system.

Lake Ontario is the lowest lake of the Great Lakes Basin, separated from the upper basin by the large drop at Niagara Falls.



Like dominos, if any of the upstream Great Lakes has rising water, that lake dumps into the next, ultimately going through the Moses Saunders Dam to the Atlantic Ocean

Why does Canada and the US regulate the water levels?

Various benefits:

- hydropower production;
- improving conditions for commercial navigation;
- recreational boating and water intakes;
- reducing the flooding and erosion of shoreline communities.

The water has been regulated for over 50 years by the International Joint Commission (IJC).

Plan 2014 is the new regulation plan, and it came into effect January 2017. This plan also considers ecosystem health.



“Triggers” –

*How do these align to your elevations?
What happens if you have .5+ meter swells?*

		High Trigger	Low Trigger
1	1-Jan	75.03	74.13
2		75.07	74.13
3		75.10	74.13
4		75.13	74.12
5	1-Feb	75.14	74.12
6		75.14	74.12
7		75.13	74.11
8		75.14	74.11
9	1-Mar	75.16	74.13
10		75.18	74.15
11		75.22	74.19
12		75.27	74.25
13	1-Apr	75.33	74.33
14		75.40	74.40
15		75.45	74.46
16		75.50	74.51
17	1-May	75.53	74.55
18		75.56	74.58
19		75.60	74.61
20		75.62	74.62
21	1-Jun	75.63	74.64
22		75.62	74.65
23		75.60	74.65
24		75.59	74.65

		High Trigger	Low Trigger
25	1-Jul	75.57	74.65
26		75.54	74.64
27		75.50	74.63
28		75.47	74.61
29	1-Aug	75.43	74.59
30		75.39	74.56
31		75.34	74.53
32		75.30	74.50
33	1-Sep	75.26	74.46
34		75.20	74.42
35		75.15	74.39
36		75.10	74.35
37	1-Oct	75.06	74.31
38		75.01	74.27
39		74.97	74.24
40		74.95	74.20
41	1-Nov	74.94	74.18
42		74.92	74.17
43		74.91	74.16
44		74.92	74.16
45	1-Dec	74.93	74.15
46		74.93	74.15
47		74.95	74.14
48		75.00	74.13