# Addressing Declining Water Levels and Other Key Water Challenges

Adaptive Interventions Climate Change

0-10 years 10-20 years 50-200 years

Short-Term Medium-Term Long-Term



# What Can We Expect?

- More intense rain, more intense drought
  - Flooding, "unseasonal" weather, periodic water rationing
  - Milwaukee experience vs. Georgian Bay
- Greater fluctuation in water level, with downward bias
  - Drop last year, rise this year both unusual
- Risk of invasive plants obstructing water access
  - Phragmites moving in when waters drop
  - Eurasian Milfoil filling in harbours and swimming areas
- Bottom Line extreme events are happening, are more likely to keep happening faster than we thought
  - Relying on government support when disaster strikes a bad bet



# What Can We Expect?

### Potential impacts have been generally described:

- Federal infrastructure channel access, re-buoying
- Municipal infrastructure habours, beaches, other water access, intakes, sewers, rivers
- Business infrastructure docking facilities, channel access, intakes
- Personal infrastructure docks, channel access, intakes
- Property values unclear, scary
- Influence on "business" or "tourism" ???



### What are Real Influences on Tourism?

- Impacts on tourism-related shoreline infrastructure
  - Does each community have a clear inventory?
  - Do we all know how magnitude of water fluctuations, invasive plant infestations could affect these?
- Disruption in the local tourism-oriented "eco-system"
- Impact of "hearsay" in tourist community
- Coordination/prioritization of infrastructure investment (what can we count on?)
  - How do we prioritize investment to adapt local shoreline assets?
  - How are increased costs of maintaining public assets shared?



# **Questions You Need to Answer**

- Who are the water-oriented visitors to your area?
- What are they coming to your area to enjoy?
- What "public" assets do you depend on?
- What is the scope of the water-related tourist eco-system that you are operating in?
- How vulnerable are you / is it to water-level fluctuations, intense weather events, invasive plants?
  - Are any activities completely at risk?
  - Are there key investments that i) government, or ii) community, or iii)
     you have to prioritize to accommodate change
- How do your visitor categories develop their impressions of current conditions in your area?



## **Adaptive Process is Challenging Because:**

You don't know the range of possible future states

You don't know what "public" assets or investment you can count on

You don't know how to analyze impact of possible future states on your business

You don't know what visitors are coming to you or to your area to enjoy, and you're not sure how water levels affect this

It's not clear how visitors gather data about "the condition of the water" in your area in order to decide whether to visit

You don't know how other eco-system members are going to react to the same thing you are facing



# **Community Adaptation Planning**

- Municipality(ies), tourism and other stakeholder groups, members of public
  - Facilitated, with access to scientific resources
  - IJC is seeking to institutionalize this process, looking for pilots
- Clarify who visitors are, what they're coming for
- Identify scope of possible impacts on shoreline assets
- Identify community vs. personal vulnerabilities
- Plan community action plans under differing scenarios
  - Including sharing of expenditures
- Plan community measures/indicators to track developments



# Helping Governments to Set Priorities – Pay Attention

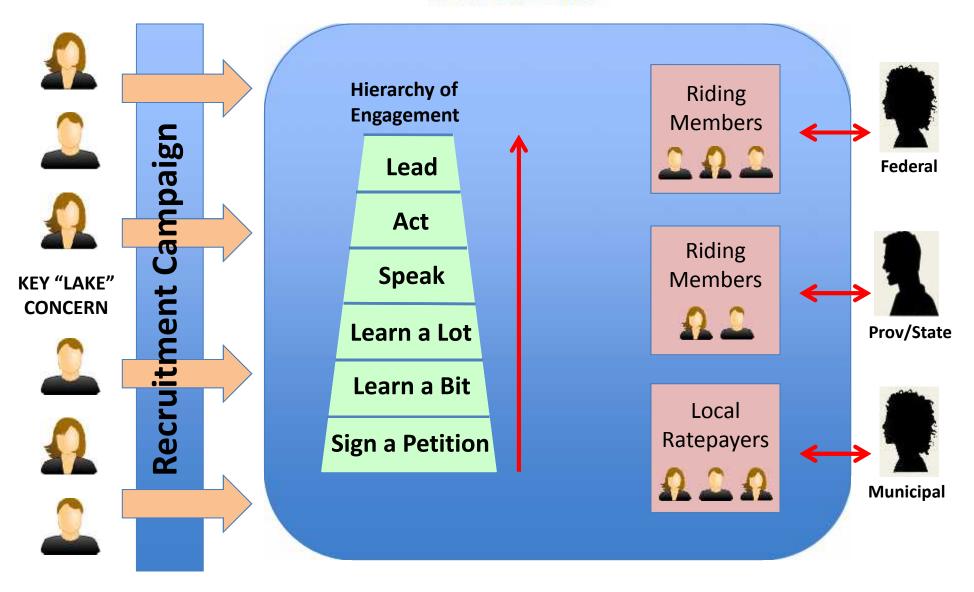
- Getting Short-Med–Long term solutions moving is critical for the Great Lakes region
- Requires all tiers of government to confront / engage scary, complex issues
- Governments will be reluctant to pay attention unless the public provides a supportive environment
  - Safeguarding fresh water is a topic the public has shown itself prepared to prioritize / pay for
  - Public needs help consistently engaging with their elected reps
- → On this issue, you are the public & the public is your friend
- → Sign up for Stop the Drop
  - Every member of your family, employees and their families, etc.



#### **PUBLIC**

#### LOCAL STOP THE DROP COMMUNITY

#### **ELECTED REPS**



- 1. Recruiting targets key "Lake" concern
- 2. Activities designed to increase engagement
- 3. Tools to make "public opinion" clear & reinforce accountability

### **Coordinating Entity**



# **Educational Partnerships**

High school course University co-projects

Brand, Technology, Trademarks, Promotional Campaigns, Operational Assistance

#### Canada



#### **USA**

#### **Local Partnership**

Georgian Bay expands to include Canadian Lake Huron

#### **Local Partnership**

Lake Erie

#### **Local Partnership**

Lake Ontario

#### **Local Partnership**

**Lake Superior** 

#### **Local Partnership**

Lake Huron

#### **Local Partnership**

Lake Michigan

#### **Local Partnership**

Lake Erie

#### **Local Partnership**

Lake Ontario

#### **Local Partnership**

**Lake Superior** 



### Who Showed Up This Summer?

Our 20,000 members

Span the age spectrum

10 – 17	16.3%
18 – 25	12.5%
26 – 39	15.3%
40 – 99	56.0%



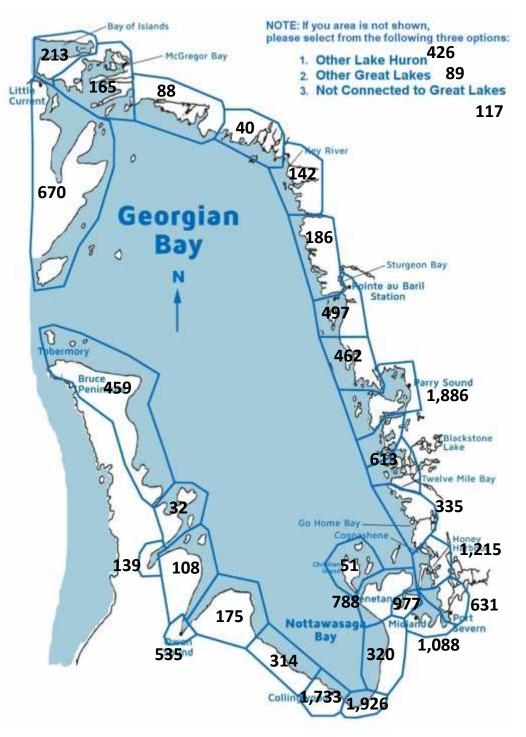
### Who Showed Up?

Our 20,000 members

Span the age spectrum

Use the Lake here





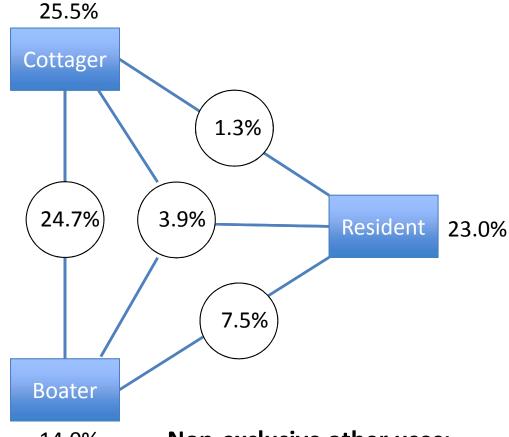
### Who Showed Up?

Our 20,000 members

Span the age spectrum

Use the Lake here

Use the Lake in this way



14.0%

#### Non-exclusive other uses:

•	Renters	149
•	Campers	1,264
•	First Nations Resident	82
•	Anglers/Hunters	1,882
•	Other Visitors	1,623
•	Marina/Tourism Ops	168
•	Other Businesses	254



# **A Community That Cares**

These are real people who care about water levels as it impacts them personally.

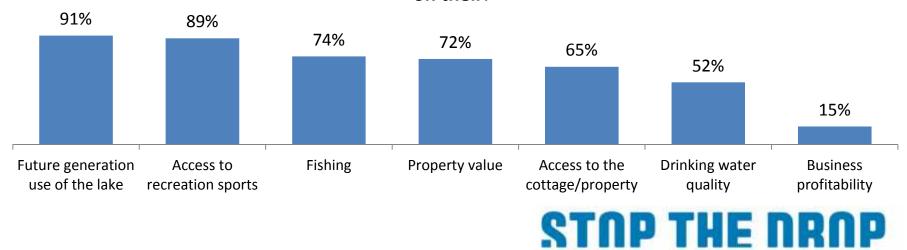
"If the water keeps going down, we won't be able to access " (We are) los the cottage which has been in the family since 1945!"

" (We are) losing fish habitat at an alarming rate"

"My children (are) not being able to enjoy the bay like I did"

• Low water levels has impacted their lives in a variety of different ways. 36% have had to spend an average of over \$3,000 this year to accommodate for the low water levels.

# % of community members whom low water levels have had a personal impact on their:



Note: all data presented is among the respondent base for that survey and extrapolated to reflect the community members as a whole.

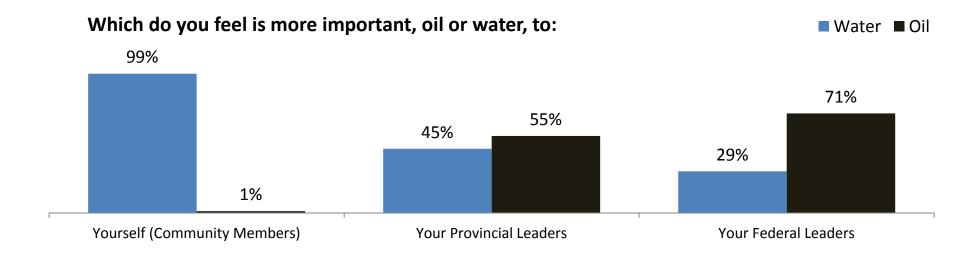
# **They Want Action**

• Of those who read the IJC report, 47% were left feeling frustrated. 76% of readers felt that the IJC report will just lead to more discussion and no real action.

"Political wheels grind slowly."

"Unless it is perceived to generate votes, governments won't take action"

There is a sense of disconnect between the priorities of the community members and those
of their elected officials.

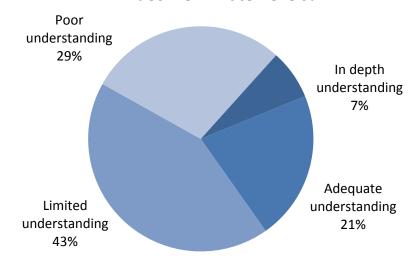




### **Yearn to Learn**

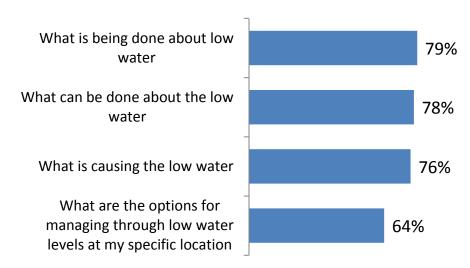
 72% of the community feel they don't have an adequate understanding of what is causing low water levels. • Getting more information is very important to them.

### How well do you understand what is causing the decline in water levels?



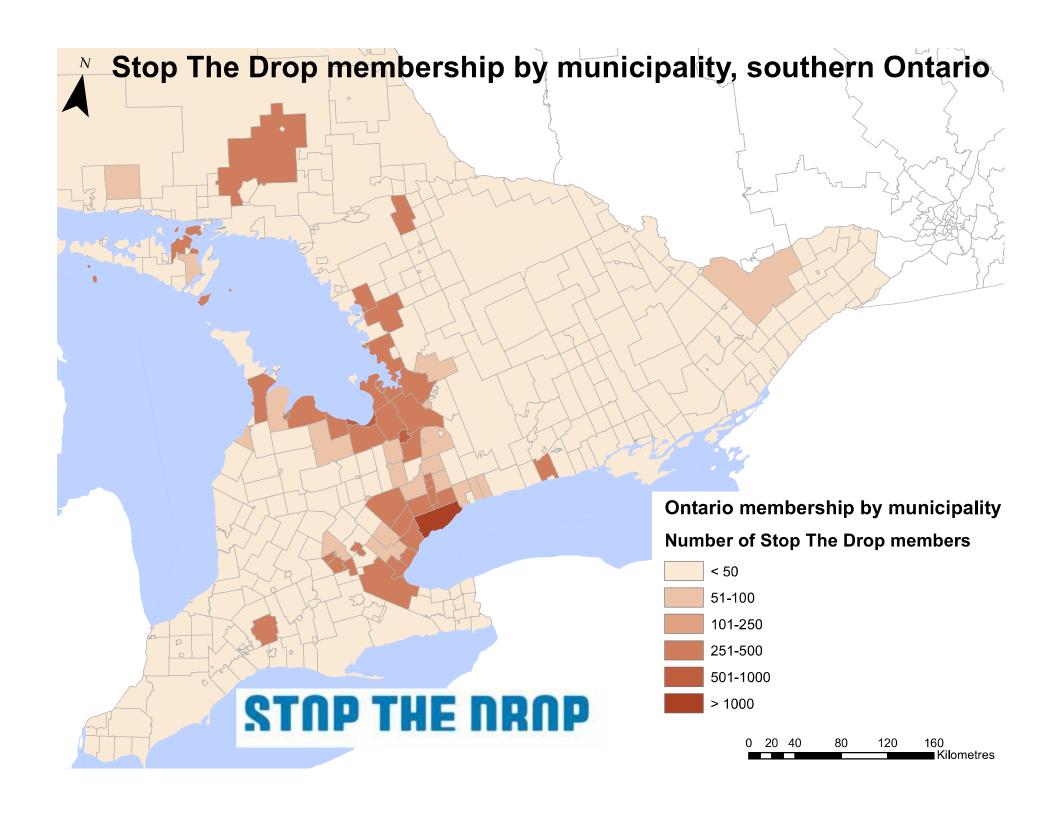
### Which of the following would you like to know more about?

■ Getting more information is very important to me









# **Immediate Campaign Follow up**

Municipal deputations (18 around Bay)

Oct. 1 – Nov. 25

- Campaign results (overall and local)
- Plans for next stage of growth
- Plans for "citizen update" and consultation tools

MPP presentations (6 around Bay/Huron)

Oct. 1 - Oct. 31

- Campaign results (overall and local)
- Plans for next stage of growth
- Plans for "citizen update" and consultation tools

MP presentations (5 around Bay)

Oct. 1 – Nov. 15

- Campaign results (overall and local)
- Plans for next stage of growth
- Plans for "citizen update" and consultation tools

Presentations to key industry stakeholders

Oct. 1 – Nov. 15

Boating, Tourism, Farmers, Hunters, Shippers

STOP THE DROP

# So What Do You Need To Do?

- Get and keep informed personally about current science and government/community plans
- Try doing a personal assessment of your exposure to possible developments
  - Identify what you don't know or can't answer
- Encourage regional industry groups to help fill in gaps
- Work with regional industry groups to encourage government to initiate lead regional planning processes
  - Resources more likely to flow to folks who get ahead of curve
- Get / stay personally engaged with the issue to help / encourage governments to engage with it

