

BY: A THOUSAND LAKES  
PRESENTATION TO THE  
ENVIRONMENT AND SUSTAINABILITY STANDING COMMITTEE  
MARCH 6, 2025

# Toward a City of *Clean* Lakes

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# A Thousand Lakes

- Continuing the work of RWAB
- Combining expertise in natural science, environmental economics and policy
- Access to network of water professionals in private sector, academe, government
- Donating our time and expertise
- Provide science and policy advice to government decision makers (all levels)
- Fully independent

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# Core Group

- Dr. Linda Campbell
- Dr. Martin Willison
- Bob Rutherford
- Céo Gaudet



# Kudos

- Significantly improved policy analysis and development capacity
- Expanded testing programs that engage communities
- First ever Lake Watchers report (2024)
- Launch of the Watersheds Framework

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# Key Points

- Extremely valuable
- Irreplaceable
- Strong action is necessary and justified
- We are out of time
- Need to change how we think about the problem

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# Our Lakes - A Precious Resource

- In Dartmouth, a source of civic pride – “City of Lakes”
- Natural beauty
- Freshwater fun
- Numerous ecosystem and ecological services
- Support for property values

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# A History of Abuse...

- No provincial protections
- Provincial policies *encourage* directing untreated stormwater to the nearest natural watercourse
- All of the stormwater in the Dartmouth Lakes watershed is carried directly, untreated, into the lakes, carrying with it:
  - Nutrients
  - Salt
  - Excrement
  - Numerous other pollutants
- Recipe for disaster



...Has led to

- Excessive weed growth
- Increasingly frequent blue-green algae outbreaks
- Microbial pollution
- Problems related to floods and droughts



# Impacts

- Interference with (and possible cancellation of) paddling events (and training)
- Annual cost of mowing the grasses
- Skin irritation after swimming
- Illness from bacterial pollution after swimming
- Beach closures
- Dog Deaths
- Ecological impacts of floods and droughts
- Avoidance of swimming for self or family due to fear of pollution
- Potential loss of property values as lake quality continues to degrade
- Risk of crossing ecological tipping point thresholds

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# It Will Only Get Worse

- Severity of impacts depends on the *cumulative* stock of pollutants in the lakes
- Increasing concentrations of nutrients via internal nutrient cycling
- Risk of crossing ecological tipping points
- Climate change making ecosystems more sensitive (requires *more*, not less vigilance)

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# Costs of Inaction

- Interference and possible cancellation of paddling events \$\$
- Annual cost of mowing the grasses \$\$
- Education campaigns \$\$
- Skin irritation after swimming (pain and suffering + public health care costs) \$\$
- Illness from bacterial pollution after swimming (pain and suffering + public health care costs) \$\$
- Unavailability of freshwater swimming opportunities due to beach closures \$\$
- Owner and public grief over dog deaths \$\$
- Ecological impacts (algal blooms, anoxic water, unexplained fish deaths) \$\$
- Avoidance of freshwater swimming for self or family due to fear of pollution \$\$
- Loss in property values as lake quality continues to degrade \$\$
- Risk of crossing ecological tipping point thresholds \$\$
- Damage to civic pride \$\$



# Action Needed

- Break the cycle of nutrient accumulation
- Prevent road salt and excrement from reaching the lakes
- Will require engineering solutions

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# Watersheds Framework

- Provides an ideal opportunity to tap freshwater science and engineering expertise in the broader community (and beyond) to suggest and debate solutions.
  - Steering Committee empowered to commission studies
  - A Thousand Lakes ready and willing to help
    - can provide our own advice and reach out to other specialists in our networks

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# Policy Screening Tool

- Avoid “cosmetic” solutions
  - Politically attractive, expensive and ineffective
- Policies and programs should be:
  - Effective – solve the problem they are intended to solve
  - Efficient – least costly of the options that solve the problem
  - Equitable – do not impose undue costs or benefits on any individual or group

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# To Do Now

- Insufficient awareness in the surrounding communities about how what happens on their properties impacts the lakes
- Need a frank education campaign
  - Untreated stormwater being carried directly and untreated to the lakes
  - Here's what you can do

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## But... The *Cost!*

- Most common initial reaction to the suggestion of engineering solutions
- Keeping pollutants out of the lakes will be a significant and costly engineering challenge
- Costs need to be weighed against the costs of inaction, which are real, happening now, and will grow over time

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# Financing

- General revenues
- Existing climate change property surtax
- Local improvement charge
- Provincial participation
  - Entirely justified given the history of provincial misuse of our lakes
- Federal participation

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# Dartmouth – City of *Clean* Lakes

- How much more attractive a community would Dartmouth be if it could boast two clean and healthy, “always open” recreational lakes?
- How about rebranding Dartmouth as the City of *Clean* Lakes?
  - Then working tirelessly to achieve that goal
  - Could provide innumerable benefits to the community (e.g., preserve recreational value, civic pride, increased property values) and be an additional draw for tourists and international events.



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