



Dartmouth Lakes Town Hall

Thursday, August 22nd, 2019
Mic Mac Amateur Aquatic Club,
Dartmouth, Nova Scotia

Hosted by:
Claudia Chender, MLA Dartmouth South
Susan Leblanc, MLA Dartmouth North



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Executive Summary.

On August 22nd, Claudia Chender, MLA for Dartmouth South, and Susan Leblanc, MLA for Dartmouth North, convened a meeting of over 150 community members, including municipal, provincial and federal representatives of all parties to discuss the future of the Dartmouth lakes. For a variety of reasons that are clear to the community and were clearly enumerated during the presentations and conversations, the lakes of the City of Lakes are deeply stressed.

The MLAs wanted to hear from the community what role they expect the Province to play as the level of government with legislative authority over all watercourses in Nova Scotia.

The meeting was organized to:

- Provide education about the complex challenges affecting our lakes
- Identify areas of individual, organizational and government responsibility
- Identify key actions to help save our lakes
- Build shared commitment

After a land acknowledgement and welcome, Norm Steele, member of the Portland Estates and Hills Residents' Association (Morris and Russell Lakes Conservation Committee) and Oathill Lake Conservation Society, made a presentation on the many challenges facing our lakes. In his extensive presentation, he discussed the lack of appropriate responses from the Department of Environment and HRM around complaints and enforcement, confusion in terms of roles and responses, and a lack of front line training. He also discussed individual actions such as the use of fertilizer, and not curbing dog waste. Finally, the presentation covered issues with stormwater run-off into the lakes among other stressors leading to the presence of harmful algal blooms, invasive species, and the other challenges we are currently living with.

After the presentation, we then asked the group to discuss what the most pressing of these challenges were for them. Many of the comments fell broadly into the following categories:

- Health concerns for swimmers and paddlers
- A concern over appropriate permitting, monitoring and enforcement of development and construction across Dartmouth
- General issues with governance and leadership regarding the lakes, specifically confusion around jurisdiction, as well as the suggestion for a new governance group comprised of all concerned parties
- Planning concerns
- Concerns about a lack of public awareness around actions that impact the health of our lakes
- A perceived lack of scientific knowledge on the part of front line workers dealing with lakes and watersheds at all levels of government
- Stormwater management and runoff issues--everything flows into the sewers and into the lakes which is part of the stress on the natural aquatic environments
- Invasive species, especially in Little Albro Lake
- Animals and wildlife around the lake

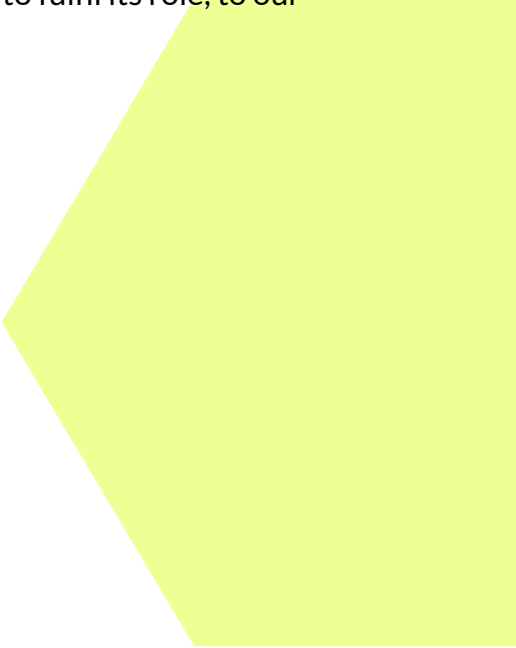
The second presentation of the evening was by Bob Rutherford, retired aquatic habitat restoration biologist, who gave an overview of the various and overlapping areas of jurisdiction over lakes. He began by pointing out that the Canadian constitution is actually silent on the question of jurisdiction over lakes. That being said, the *Nova Scotia Environment Act* specifies what jurisdiction the Province has over watercourses in the Province. The *Municipal Governance Act* and the *HRM Charter* also specify roles for the municipality in terms of urban land use and its impacts.

Sam Austin, HRM Councillor for District 5 then gave a short overview of the work that HRM is doing, including a pilot program to reduce the invasive species in Little Albro lake, weeding of Lake Banook, a recent pollution study on Lake Banook, and a commitment to revisit lake monitoring. He was also clear that most of this is technically outside of the mandate of the HRM Charter and that HRM Council is eager for the Province to fulfill their mandated role to a greater extent.

Participants then discussed in smaller groups what specific actions they would like to see the Province take to address these challenges. The responses were varied, but the key areas of interest were:

- Enhanced provincial leadership on the lakes file and prioritization of urban lakes with resources assigned
- Clarification of jurisdiction
- Development of sound policy and regulations regarding urban lake health
- Enhanced enforcement by Nova Scotia Department of Environment, additional resources for monitoring and regulation
- Better resourcing of all front line enforcement

We closed the meeting with a promise to create a record of the proceedings, which would be shared, and to bring this record, along with our petition calling on the Province to fulfil its role, to our meeting with the Minister this month.



Challenges Facing Our Lakes.

Presented by Norman Steele, Portland Estates and Hills Residents' Association (Morris and Russell Lakes Conservation Committee) and Oathill Lake Conservation Society

CONCERNS

- **LAKE WATER AND OVERALL QUALITY IS HEADING IN A NEGATIVE DIRECTION – RECREATIONAL USE OF THE LAKES IS THREATENED, THERE ARE HEALTH CONCERNS**

- EXCESSIVE GROWTH OF WEEDS (BOTH NATIVE AND INVASIVE PLANTS, ALGAE)
- WATER QUALITY – E.COLI, METALS, HYDROCARBONS, TOTAL PHOSPHOROUS
- POOR LAND USE PLANNING, DEVELOPMENT, AND MANAGEMENT
- OUR ELECTED REPRESENTATIVES, HRM, HALIFAX WATER, AND NOVA SCOTIA ARE NOT DOING ENOUGH AND OFTEN NOT TAKING RESPONSIBILITY



WHAT WE NEED AND WHAT IS EXPECTED WHEN WE REACH OUT TO OUR GOVERNMENTS AND REGULATORY AGENCIES

- A RESPONSE THAT OFFERS TO HELP AND WILLINGNESS TO WORK ON SOLUTIONS
- TAKE RESPONSIBILITY FOR REGULATORY REQUIREMENTS AND DUTIES
- ENFORCE EXISTING REGULATIONS
- TAKE RESPONSIBILITY OF ROLE IN LAND USE PLANNING AND MANAGEMENT, INCLUDING WASTE AND STORM WATER MANAGEMENT
- WORK WITH COMMUNITY GROUPS AND PROVIDE FUNDING/RESOURCES TO CONDUCT STUDIES, MONITORING, SOLUTIONS, AND REMEDIATION



A SNAPSHOT OF EXPERIENCES

CALL TO HRM AND NSE REGARDING SILT GOING INTO STORMWATER DRAINS FROM CONSTRUCTION SITES

- HRM RESPONSE - NO RESPONSE/ REPLY
- NSE RESPONSE - INSPECTOR TO SITE A FEW DAYS LATER AFTER NOTIFICATION, A FEW WEEKS LATER SAME ISSUE OCCURRED AT SAME SITE – ON SECOND COMPLAINT NO RESPONSE FROM HRM, NO RETURN FOLLOW UP FROM NSE – PROBLEM CONTINUED AND WAS ONGOING



A SNAPSHOT OF EXPERIENCES

DEVELOPERS USING LAKE AS SETTLING POND

- NO RESPONSE FROM HRM
- NSE RESPONSE - LISTENED TO CONCERN BUT NO CONCRETE CORRECTIVE ACTION TAKEN
- ISSUE ONGOING IN RUSSEL LAKE



A SNAPSHOT OF EXPERIENCES

CONCERNS ABOUT LAKE WATER QUALITY AND WEED GROWTH - DRAMATIC CHANGES

NEGATIVE IMPACTS: LOSS OF RECREATIONAL USE (SWIMMING, FISHING, SPORTING EVENTS); ALGAE BLOOMS HAVE HEALTH RISKS; LOWER PROPERTY VALUES;

- HRM RESPONSE - LAKES ARE NOT OUR RESPONSIBILITY ALTHOUGH WE HAVE SOME RESOURCES DIRECTED TOWARDS LAKE BANOOK; IT IS A PROVINCIAL RESPONSIBILITY
- NSE RESPONSE - WE DON'T HAVE ANY SPECIFIC EXPERIENCE AND KNOWLEDGE IN LAKE WEEDS, WE ARE NOT TYPICALLY INVOLVED - CHECK WITH HRM



A SNAPSHOT OF EXPERIENCES

BOX CULVERT (OUTFLOW OF LAKE) IN HRM PARKLAND CLOGGED WITH BEAVER DAM - FISH AND AQUATIC WILDLIFE PASSAGE RESTRICTED - SPRING RUN OF GASPHEREAU FISH THREATENED - OUTFLOW STREAM DRY - RESTRICTS STORMWATER DRAINAGE, ELEVATED LAKE LEVEL

- HRM RESPONSE - HAS KNOWN ABOUT ISSUES FOR MANY YEARS. FLUCTUATES BETWEEN ACKNOWLEDGEMENT AND DENIAL OF RESPONSIBILITY
 - ALWAYS A DEBATE WHEN CALLING - SLOW TO RESPOND AND OR NO RESPONSE
 - RESULTED IN SIGNIFICANT FISH KILL LAST YEAR. *IT'S NORMAL FOR FISH TO DIE, THEY WILL FIND SOMEWHERE ELSE TO GO,* CITIZENS AND SENIORS RISKING SAFETY TRYING TO CLEAR DEBRIS
- NSE RESPONSE – *NOT OUR RESPONSIBILITY*



A SNAPSHOT OF EXPERIENCES

ADVERSE POSSESSION OF LAND AND DESTRUCTION OF VEGETATION IN THE PARKLAND SURROUNDING THE LAKES AND CONSTRUCTION OF UNREGULATED STRUCTURES IN THE LAKES

1. HRM RESPONSE - NO MECHANISM TO DEAL WITH THIS, MINOR TO LITTLE RESPONSE TO COMPLAINTS – ONGOING ISSUE
2. NSE RESPONSE - NO SPECIFIC REGULATIONS FOR THE CONSTRUCTION OF SMALL DOCKS/WHARVES, FLOATING HOMES IN LAKES PARTICULARLY ADJACENT TO PARKLAND (NOT THE CONSTRUCTOR'S PROPERTY)



CONCLUSION - SOLUTIONS

FRUSTRATION



- GOVERNMENT NOT TAKING RESPONSIBILITY
- LACK OF RESOURCES/HELP/LEADERSHIP AVAILABLE FOR EITHER GOVERNMENT OR COMMUNITY GROUPS TO SAVE OUR DARTMOUTH LAKES

CONCLUSION - SOLUTIONS

POSSIBLE SOLUTIONS

- **OFFER TO HELP - START A CONVERSATION**
- **TAKE RESPONSIBILITY IN ROLE CONTRIBUTING TO THE ISSUES AND ENFORCE REGULATIONS**
- **PROVIDE RESOURCES AND FUNDING**



THANK YOU

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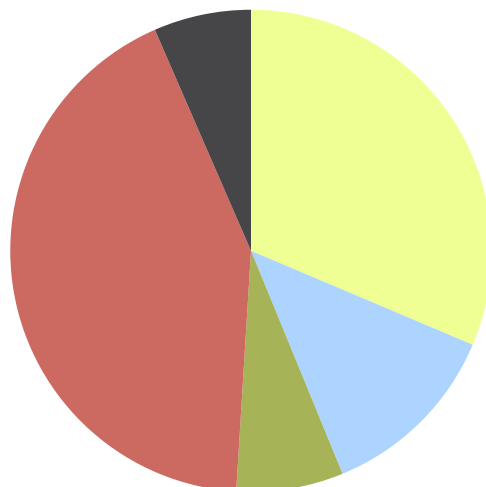
What are the most important challenges facing our lakes?

Everyone in the room took 20 minutes to share their biggest challenges surrounding the Dartmouth lakes.

Here are the results according to the community:



■ Governance (31.37%) ■ Enforcement (12.42%) ■ Public Awareness (7.19%) ■ Environmental (42.48%)
■ Other (6.54%)



Dartmouth Lakes: Government Jurisdiction.

Presented by Bob Rutherford, aquatic habitat restoration biologist

Environment and the Law

- under the Canadian Constitution
 - Environment is not assigned to the federal or provincial governments
 - So by convention it becomes the jurisdiction of the Province except where the environmental impacts cross provincial or international boundaries or on federal crown lands.
 - Inland and coastal fisheries are assigned to the Federal Government so DFO has jurisdiction where fish or fish habitat is affected.
- So Dartmouth lakes and watercourses are Provincial jurisdiction from a water quality/ quantity perspective but DFO has the fish and fish habitat.

Nova Scotia Environment NSE

- The ***Environment Act*** regulates water resource management, industrial land use and effluent discharge and environmental impact
 - Responsible for all the water quality and quantity in the Province
 - All watercourses are provincial crownland – the bed / banks and the water they contain.
 - There are “pre confederation” water lots in Mic-Mac and Banook which are private not crown land
-

From the Environment Act

- “watercourse” means
- (i) the bed and shore of every river, stream, lake, creek, pond, spring, lagoon or other natural body of water, and the water therein, within the jurisdiction of the Province, whether it contains water or not, and
- (ii) all groundwater;
- “watershed” means the area drained by, or contributing to a stream, lake or other body of water;
- “wetland” means land commonly referred to as a marsh, swamp, fen or bog that either periodically or permanently has a water table at, near or above the land’s surface or that is saturated with water, and sustains aquatic processes as indicated by the presence of poorly drained soils, hydrophytic vegetation and biological activities adapted to wet conditions.

Nova Scotia Environment NSE

- *Activities Designation Regulations* requires approvals for watercourse alteration, pesticide application, central sewage and storm drainage and industrial effluent.
- *Environmental Assessment Regulations* set out the process for reviewing proposed developments at the planning stage. Impacts on wetlands are subject to an environmental impact assessment (EIA) and review.
- *On-site Sewage Disposal Regulations Act*
- enables the Minister to protect an area surrounding any source or future source of water supply

Nova Scotia Environment NSE

- If you are going to do any alteration of a watercourse you need a permit from NSE
- All projects must be supervised by a certified installer.
- The focus is on the water quantity/quality and the bed and banks of the watercourse
- They do not get involved in all land use planning and many of the activities there cause the problems in watercourses. So tend to be reactionary to land based impacts.

Department of Fisheries and Oceans

- Illegal under the Federal Fisheries Act to kill a fish any way other than licenced fishing or harmfully alter, disrupt, or destroy (HADD) fish habitat by any work undertaking or activity in or affecting fish habitat
 - Now applies to all fish species
 - Management of resident inland species and fishing licencing delegated to the Province under Fisheries Act regulation
 - But all fish habitat is DFO's both freshwater and marine
 - ECCC handles deleterious substances under FA
 - No other Federal environmental jurisdiction unless federal environmental assessment is triggered or on federal land
-

Both departments play a big role in the lakes

- But doesn't mean they have powers over everything in the watershed
- the watercourses are very impacted by what happens in the watershed and those departments do not review everything that is going on in the watershed.

Other Provincial Powers

- The Municipal Government Act (MGA)
 - is the key piece of legislation that enables municipalities to conduct land use planning. Under the *MGA*, a watercourse includes fresh and salt water.
 - This is the main governing document for municipalities in Nova Scotia.
 - Section 193 provides for the adoption of Statements of Provincial Interest (SPI) for the protection and use of land and water resources, the development of communities and guiding regional land use.
 - Section 220 sets out what municipalities can regulate in land-use bylaws. Subsections 4 and 5 include provisions for: buffers and non-disturbance setbacks; erosion and sedimentation control; lot sizes; excavation and infilling of land or floodplains; and performance standards. Subsection 5 (p) allows municipalities to zone individual properties as hazard land and prohibit development. Hazard lands include floodplains, steep slopes and marshy and other unsuitable land.
 - But Municipal powers vary depending on SPI delegation

Halifax SPI Halifax Regional Municipality Charter, SNS 2008, c 39

- 5 Where a municipal planning strategy so provides, a land-use by-law may
 - (o) regulate or prohibit development within a specified distance of a watercourse or a municipal water-supply wellhead;
 - (p) prohibit development on land that
 - (i) is subject to flooding or subsidence,
 - (ii) has steep slopes,
 - (iii) is low-lying, marshy, or unstable,

Halifax SPI

- Content of development agreements 242
- (1) A development agreement may contain terms with respect to
- (d) easements for the construction, maintenance or improvement of watercourses, ditches, land drainage works, stormwater systems, wastewater facilities, water systems and other utilities;
- 3) A site-plan approval may deal with
 - grading or alteration in elevation or contour of the land and provision for the disposal of storm and surface water;
 - the construction, in whole or in part, of a stormwater system, wastewater facilities and water system;
 - the retention of existing vegetation;

Other Provincial Powers

- The **Wilderness Areas Protection Act** applies to Crown lands with provisions for adjacent private lands.
- Special Places Act
- The **Crown Lands Act** requires permits for the building of structures, such as wharves, on submerged lands, peatland exploration and development, infilling and aggregate removal in coastal areas.
- The **Beaches Act** regulates the removal of sand, gravel, stone or other material from a beach.
- And other that do not apply in Dartmouth

Many other Acts and Departments

- A Guide to Land Use Planning in Coastal Areas of the Maritime Provinces
 - P.L. Stewart, R.J. Rutherford, H.A. Levy, and J.M. Jackson
 - <http://www.dfo-mpo.gc.ca/Library/316491.pdf>
- Navigating the Maze: A Citizen's Guide to Coastal Management in Nova Scotia
 - Sean Weseloh McKeane and Anne Gregory, Alexi Baccardax
 - https://ecologyaction.ca/files/images-documents/file/February2008_NGM.pdf
- So there are overlaps and gaps but lots of Acts in environmental protection of the lakes.
- There are enough laws and regulations but need comprehensive co-ordination.

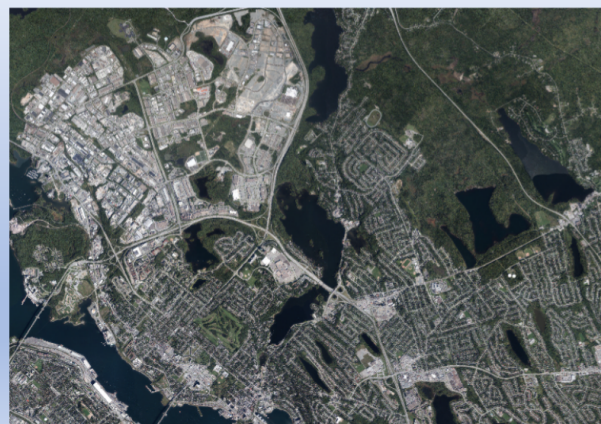
Source of the problems

- If the lakes were on their own there wouldn't be many problems
- Connected by the hydrological cycle that links all the air and land in the watershed with the streams and lakes
- The air is washed – acid rain - changing lake chemistry
- The vegetation and land and everything on the land is washed by the rain and flows to the streams and lake
- This is the source of many problems in the lake including clarity and nutrient loading/ plant growth

Sept 2004



Most recent 2018



HRM Update.

Presented by Sam Austin, Councillor District 5

Lake Banook: HRM has completed a pollution control study that will be rolling up to Council in the next few months with specific recommendations for Council. Halifax Water is finishing up an investigation of the stormwater system around Banook and Micmac to identify if there are any leaks or cross-connections. So far nothing. HRM has launched a PR effort to try and cajole more dog owners into picking up after their pets.

Lake Banook Weeding: HRM is continuing with the weeding to ensure the lake's paddling course is open. This is a one-off as a result of Banook's special status as a sports and recreation hub. HRM hasn't taken on weeding in other lakes. The Lake Banook weeding also supports the pollution study recommendation which was to continue with weeding since it removes phosphorous and nutrients from the lake in plant form.

Little Albro: HRM has approved a pilot project to cover a small area of the lake with benthic mats in hopes of suffocating the Floating Yellow Heart that has taken over the lake. While the actions around Banook fit with Council's responsibilities around land-use planning, stormwater, runoff, and recreation, dealing with invasive species is more definitely a Department of Environment issue. HRM has no recreational programming on Little Albro and it's not a land-use or stormwater issue. HRM is involved in a pilot because the Department of Environment hasn't been willing to engage on this and we're afraid of the implications to other Dartmouth lakes and recreation if the Floating Yellow Heart eventually spreads. Province should ban sale of Floating Yellow Heart if they haven't already since it got into Little Albro as an ornamental garden plant. If pilot program works, the municipality will likely seek cooperation from the Province to broaden the effort.

Lake Monitoring: HRM is looking at bringing back a monitoring program for the lakes. A consultant will prepare a report this year which will look at what HRM should be monitoring and for what purposes. There is some tension here as there is a need for more general science to happen in our lakes, but that really is a Department of Environment responsibility.

So to sum up, Lake Banook action is very much in HRM's wheelhouse, but monitoring and Little Albro are a bit more of a stretch and spaces that HRM is really only in because of the lack of any Provincial programming or ownership.

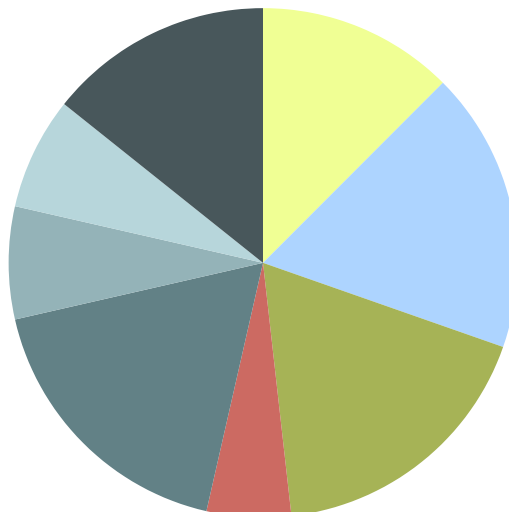
What actions should the Province take to help save our lakes?

Everyone in the room took 20 minutes to think about how they want the Provincial government to act.

Here are the results according to the community:



- Clarify jurisdiction (12.50%)
- Develop policy/regulations (17.86%)
- Environmental mandate (17.86%)
- Enforcement (5.36%)
- Allocate resources/funding (17.86%)
- Training/education (7.14%)
- Communications strategy (7.14%)
- Form another governing body (14.29%)



Conclusion.

Based on the above information, our key asks of the Minister are:

- To immediately convene an Urban Lakes Commission comprised of key stakeholders, experts, community members, and all three levels of government that would:
 - Use a time-bound approach to provide a set of recommendations aimed at addressing the challenges facing our urban lakes
 - Provide recommendations to the Minister of Environment to require the department to report regularly regarding its progress on the recommendations
- To enhance staffing and increase training and resourcing of front line Department of Environment staff
- Mandate response times to complaints
- A public awareness campaign either independently or in concert with similar HRM initiatives about what residents can do to protect nearby lakes

What can you do?



1

Sign the petition.

Download and print

from claudiachender.ca/dartmouth-lakes-petition-2019 or drop into either Claudia or Susan's MLA office.

Deadline: We will be collecting all signatures for September 25th.

2

Be conscious of our environment.

- Pick up litter around lakes.
- Pick up after your dog.
- Refrain from using fertilizers.
- Keep to designated paths around lakes..

3

Support your local lake organization.

There are many concerned and organized people in our communities already advocating for the health of Dartmouth lakes. Reach out to the one nearest you or start your own.

Contacts.

Elected Officials.

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Government Departments.

PROVINCIAL

Nova Scotia Environment

www.novascotia.ca/nse

902-424-7773

Conservation Enforcement:

www.novascotia.ca/nse/conservation-enforcement

MUNICIPAL

Halifax Water

902-420-9287

www.halifaxwater.ca

FEDERAL

Department of Fisheries and Oceans

Fishing/habitat violations: 1-800-222-8477 (24/7)

Fisheries Officer Burnside: 902-426-9010

Manager, Fisheries Protection Program: 902-802-0740

www.inter.dfo-mpo.gc.ca/Maritimes/Contact-Us

Environment Canada & Climate Change

Enforcement 1-800-668-6767

Lakes Organizations.

Oathill Lake Conservation Society

www.oathilllake.ca

Facebook: Oathill Lake Conservation Society

Penhorn Lake Area Trail Association (PLATA)

Facebook: @penhornlake

Portland Estates & Hills Residents' Association (PEHRA)

www.pehra.info

Facebook: PEHRA - Portland Estates & Hills Residents' Association

Russell Lake West Community Group

Facebook: Russell Lake West Community Group

Shubenacadie Canal Commission

www.shubenacadiecanal.ca

Facebook: @shubiecanal

What follows is a record of every sticky note we collected at the Dartmouth Lakes meeting, representing the feedback given by the community.

Question 1: Challenges

What are the most important challenges facing our lakes?

- Construction run-off: Silt burdens entering the lakes from exposed construction sites by storm sewers and direct run-off
- Development
- Traffic and building infrastructure for new development such as Waverley Road, 107, Lake Charles
- Silt runoff from 107 and Conrad Pit into Lake Charles
- Developers and single home builders should not have an 'as of right' to do whatever they want
- Developers have to be held responsible
- Hold developers accountable
- Visual assault from commercial, retail, and industry: Dartmouth Crossing, Burnside
- Stop our councillors from giving into developers and ignoring the planning bylaws they should use to prevent harm to our lakes. Excuses, after the approvals are given, are becoming pathetic.
- HRM offloading responsibility to province and feds (total lack of and accountability). It must be possible to clearly define who is responsible for lakes at all levels.
- HRM take responsibility for stormwater treatment
- More HRM environmental staff
- HRM must be lead for lake protection
- Speed up HRM adoption of stormwater management bylaw, especially quality
- Pass water quality monitoring functional plan
- HRM act more quickly to enact a stormwater bylaw
- HRM is not taking responsibility. Need to give us point of contact and advising committee and enforcement
- Better bylaws around development with monitoring
- Lot creep
- Sawmill River daylighting
- Legislation
- All levels of government should provide shared stewardship
- Hire a team of people from HRM and Province to tackle water quality issues in Dartmouth lakes
- Integration of resources by all levels of government
- Proactive government resource allocation
- Need more leadership and responsibility
- "Who's first?" syndrome: Province, city, federal need to meet to agree on effective approaches
- Buck-passing between levels of government, especially around development and land use
- Government cooperation
- Collaboration between levels of government and other organizations and the public
- Governmental departments just pass the buck. We report issues and our concerns are ignored
- Green the Red and White Books
- Red and White books (municipal and provincial) rules and regulations books need to be updated to include environmental protection
- Create new regulations as needed to keep lakes safe
- Someone has to take ownership of the problem
- What have other provinces or municipalities done successfully and how did they go about it?
- Clear roles of responsibility and environmental planning
- Rules governing what weed control citizens can attempt
- Government taking responsibility and taking action

- Government accountability, clear structure of who is responsible for what
 - Clarify who is responsible for what
 - Provincial and HRM need to meet and figure out who is responsible for what regulation-wise ASAP. Need to work together to make things happen instead of “passing the buck”
 - Lack of clarity around responsibility and jurisdiction at various government levels
 - Clarify the jurisdictional roles of all three levels of government
 - Lack of clarity by government re responsibility: unclear regulations or not strong enough
 - Re-instate Lakes Advisory Board
 - Lake Advisory Committee
 - We need monitoring of water quality in lakes (phosphorous, nutrients...) (Lake Washington)
 - Develop action plans to actively remediate issues rather than shutting down lakes and waiting for it to naturally clear
 - We need a cohesive management plan for our watersheds
 - Watershed planning
 - Lack of plan for preservation eg: buffer zones on all lakes of 50m
 - Monitoring
 - The lakes could be graded for the severity of the problems
 - Tired of hearing “If we had only known” when we have brought these concerns forward
 - Boat speed regulations (Lake Mic Mac)
 - Lack of enforcement against tree buffer removals
 - Enforce existing regulations
 - Enforcement: who has responsibility? Own it.
 - Strengthen regulations
 - Significant deterrents (fines) for dumping, development on or in the lakes
 - HRM needs to hire people to manage and enforce water quality standards
 - Enforcement: holding industry accountable
 - Enforcement: more education and consistent regulatory enforcement
 - Enforcing development regulations
 - Enforce existing regulations with developers
 - Enforcement
 - Appropriate consequences: fines, deterrents
 - Governments (municipal/provincial) need to take ownership and enforce regulations already in place to protect Dartmouth Lakes
 - Policies and education and positive enforcement for behaviour change
 - Boat safety enforcement
 - Province should: water quality: regulatory body and compliance
 - Enforcement/empowerment
 - Waterfowl restrictions and control
 - Lack of controls regarding residential property owners: clearing land of native trees and grasses, etc, replacing with hard surfaces, over-fertilized grass, massive docks
 - Apathy and indifference - whole community involvement and awareness
 - Access to information
 - Education re: regulations/attitudes
 - Forget about the support of the government: We can see it’s not working. Need a citizen level movement.
 - Awareness around lake issues
 - Awareness - public education about regulations and what individuals can do to promote healthy lakes
 - Access to information and clarity of roles from government
 - Language is important: “pristine” = spectrum. “Threat” = cause vs symptoms - focus on literacy here
 - Educate lake homeowners re: adverse effects of lawn fertilizers
 - Show stormwater “deltas” in Banook and Sullivan’s Pond with a drone (made my students realize)
 - Lack of understanding of issues and effects - how truly harmful are the issues
-

APPENDIX 1: STICKIES

Question 1: Challenges

24

- Testing labs need to be local for shorter turnaround times
 - Reinstate water quality testing
 - Not enough science to understand issues
 - Can we get more science to figure out how to tackle the weeds?
 - Water quality
 - Water quality: Ecoli
 - Lowering nutrients in water
 - Stormwater treatment
 - Stormwater runoff into lakes
 - Better stormwater management
 - Stormwater and wastewater runoff
 - Stormwater runoff into lakes
 - Lack of stormwater treatment
 - Stormwater runoff
 - Outfalls
 - Water quality from tributaries that travel through industrial and city storm sewer routes causing silting, weed growth, water quality, and usability
 - Runoff
 - Pollution
 - Sewer pipes emptying in lakes - very evident 30 feet out from Cottage Cafe shore. Easily viewed at Birch Cove
 - Silt control and remediation
 - Water quality affected by too many unnatural nutrients (fertilizer, dog poo, etc.)
 - Water flow through watershed: beaver dams, construction
 - Use of salt for snow and ice removal (city, residents)
 - No direct discharge
 - Invasive species: Floating Yellow Heart (affects recreation)
 - Weeds
 - Weeds, algae in lakes making them unusable or limiting use (why is this happening? What can we all do?)
 - Blue green algae
 - Algae
 - Blue-Green algae (Mic Mac)
 - Weed growth
 - Yellow Floating Heart
 - Control waterfowl
 - Fix the problems: algae, yellow heart. Funding needed for solutions
 - Yellow floating heart has deemed lake totally unusable
 - Address presence and growth of invasive weeds
 - Invasive species removal
 - Weeds, algae, etc
 - Climate change: weed growth, algae, other pollutants
 - Chemicals, E-coli, dog poop, ducks/geese, runoff
 - Dogs off-leash: bacterial/viral pollution, nutrient loading
 - Dog poop
 - Dog park at Shubie
 - Wildlife: birds, invasive fish
 - Geese and ducks: swimmer's itch, defecating, increasing problem
 - Hire engineering firm for solution
 - Vegetated buffer zones
 - Leave greenspace around lakes
 - Protect areas already developed around lakes where possible
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- Removal of natural wastewater barriers
 - Green ash border
 - Oil grit separator
 - Groundwater recharge
 - TDML [Total Daily Maximum Load]
 - Lake Banook beaches
 - Environment
 - Limit the usage of gas-powered outboard motorcraft
 - Sunscreen
 - Watershed approach "slow it down, cool it down, keep it clean"
 - Add iron
 - Floating "plant" islands
 - Clean for swimming and wildlife
 - Destruction of natural animals and plants that can help with cleaning up the water
 - Beach closures
 - Are we moving into a water quality crisis situation?
 - Age of sewer infrastructure and where it goes
 - Quadruple HRM water quality budget - increase staffing
 - Fund water quality monitoring functional plan (existing)
 - Private funding where possible (business close to lakes)
 - Event money to be spent on lake quality
 - Economic impact
 - Health concerns about swimming in lakes
 - Is it safe for our children to swim in Dartmouth lakes?
 - Better control over water flow - Lake Charles a high point - more flow through the lock system needed
 - Include all speakers and contact numbers in follow up e-mail to attendees so we know who to approach to deal with this situation
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Question 2: Solutions

What actions should the Province take to help save our lakes?

- Province comes to the table to participate
- Province is best suited to govern lakes
- Province monitor HRM programs
- Someone (province?) take responsibility
- NS Province should assume the leadership role in organizing itself and other jurisdictions to be effective.
- Province should give HRM the responsibility and standards for Dartmouth (and Halifax, etc) lakes
- Province should fund HRM so HRM can properly oversee the lakes (with a department that includes a more robust team of experts)
- DOE should be proactive rather than complaints-driven
- Province implement water for life strategy
- Provincial monitoring of lakes
- The province should develop a water governance model similar in scope to DivertNS (formerly the Resource Recovery Board). Funding through water utility fees and well and septic (toilets, sinks, etc. tax) DAWN has a model.
- Develop a long term plan (50 years)
- Define provincial responsibilities
- Jurisdiction: province needs to clarify jurisdiction. HRM officials need direction from province. Build relationships with DFO - share jurisdiction because water quality and fish habitat overlap.
- Concentrate authority in one agency
- Accountability of all departments of the province and city
- Transfer responsibility and funding to HRM
- Transfer responsibility and funding to HRM
- Province to monitor HRM programs to protect lakes
- Legislation that is effective and long term
- Meet and coordinate with HRM and create a workable policy structure for lake use and health
- If fertilizer is causing high phosphorous levels in our lakes, then fertilizers have to be regulated/banned (?)
- Prioritize the environment (Environmental Bill of Rights)!!
- Legal authority for watercourses under Canadian constitution
- Develop stronger policies and regulation and ensure they are enforced
- Develop policies for healthy urban lakes
- Develop statement of provincial interest on water quality (broader than drinking water)
- Greater ownership of environment file: policy, regulations, training
- Develop set of policies for healthy urban lakes
- Province has to make water quality a priority and assign resources to it
- Take action to preserve natural habitat, including embankments
- Take action to prevent further expansion of Canada Geese
- Dedicated and inclusive custodianship
- Follow federal AOC framework
- Phoslock: study to consider allowing use
- Produce actionable studies
- Regular testing with faster turnaround time using a local lab
- Priority needs to be on Dartmouth lakes currently used for recreation ie: Morris Lake is home to 1) Kiwanis Swim Park, 2) MacDonald Beach (used by military families in HRM), 3) Boat derbies (fishing competitions), 4) First Nations Reserve

- Lake surveys can be assisted by Navy divers who have skills in bottom surveys and have remote vehicles with sensors. Also defence research for surveys.
 - NSE needs to significantly increase enforcement budget. DOI need to add prosecutorial resources specific to environmental enforcement
 - Police future developments (and re-developments) to ensure adherence to environmental regulations
 - Enforcement - more trained staff who can work to address regulatory violations
 - Designate resources to regular lake monitoring either provincially or delegate to the city
 - Create a paid position (provincially/municipally) that will employ a person who has the expertise and can provide logical solutions to this crisis (cooperation and coordination)
 - Provide a tax rebate to those who volunteer for waterways advocacy in the HRM
 - If there is no one who has the expertise currently... hire someone - find someone - with the slippery slope we're on, we don't have long to fix this situation. Action speaks.
 - Funding
 - Province could delegate power and give money to HRM to test water quality
 - Provide resources and support for community lake organizations and larger coalition/network
 - More money for issue/specific actions
 - Provide funding to municipal government to update stormwater infrastructure
 - Event money for water quality
 - Train staff on provincial responsibility for the urban lakes and provincial policy and structure for care of lakes.
 - Province has to train its staff
 - People assigned to manage water issues need to be properly trained/educated
 - Educate: inspectors, community, the public
 - Public education
 - Awareness to the fragility of our lake ecosystems not just to developers and those who have an immediate usage (sporting events, concerts), but to all stakeholders
 - Education: define this issue in a way that can be clearly and concisely communicated to the public in a way that will engage people because they understand how they can take action.
 - Provide more and reliable resources to provide to the public regarding waterfront/shoreline development procedures
 - Form an intergovernmental committee: Halifax Water, HRM, NS Department of Environment, DFO, Public Health, etc.
 - Coordinate a citizen action plan for monitoring using volunteers (human resources), led by specialists and university
 - Work with those that have money: DFO and ECCC
 - A lake commission
 - Support citizens' groups
 - Provide funding to community organizations who work on protecting aquatic areas
 - Lake advisory council (bylaws)
 - Break down the silos and build relationships, foster cooperation between three levels of government. Greater communication and cooperation will increase the amount of resources that can be directed to addressing this issue.
 - HRM needs to demand the power from the province, along with funding and expertise
 - HRM: close the dog park in Shubie. Enforce off-leash dogs in now-off-leash areas.
 - HRM: close boat launch on Lake Mic Mac
 - Cameron Deacoff needs more staff/funding and needs to liaise with the province.
 - Underlying theme: Dartmouth is touted as the "city of lakes." Let's step up to that moniker and do what needs to be done.
 - Identify problem - monitor - make info available - act
 - Sunscreen
 - Is it too late?
 - Province: work to impose speed limits on Lakes Mic Mac
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