Township of South Frontenac
Lake Ecosystem Advisory Committee
Meeting Agenda

TIME: 6:00 PM,
DATE: Thursday, March 21, 2024
PLACE: Council Chambers/Virtual Via Zoom .

1. *Call to Order*

a) Resolution

2. *Approval of the Agenda*

a) Resolution

3. *Election of Officers*

a) Chairperson Nominations & Election

b) Vice-Chairperson Nominations & Election

4. *Conformation of Minutes*

a) Recommendation 3 - 5

5. *Disclosure of Pecuniary Interest*

6. *Delegations*

7. *Briefings*

8. *Business*

a) Lake Forum Subcommittee Update - members of the committee to provide an update

b) Update on Cataraqui Region Invasive Phragmites Management Area Workshop 6 - 68

c) Lake Ecosystem Grant Policy Update 69 - 75

9. *What is Happening on Our Lakes (Round Table Discussion)*

10. *Motions*

11. *Notices of Motion*

12. *Correspondence*

13. *Questions of Clarity (from the public on outcome of agenda items)*

14. *Date of Next Meeting*

a) June 27, 2024 @ 6:00 p.m.

15. *Adjournment*

a) Resolution

Township of South Frontenac
Lake Ecosystem Advisory Committee
Meeting Minutes

Meeting # 04

Time:6:00 p.m.
Location: Council Chambers / Virtual via Zoom

Present: Janet Brown, Justin Connidis, Holly Evans (virtually), Terry Maur, Councillor Steve Pegrum, Ellie Prepas, Alan Revill, Councillor Randy Ruttan & Tim Upton (virtually), Mayor Vandewal

Absent: Joseph Buckley, Gerrit Buitenhuis

Staff: Christine Woods, Senior Planner, Michelle Hannah - Deputy Clerk

1. Call to Order

2. Approval of the Agenda

a) Resolution

Resolution No. 02
Moved by Terry Maur
Seconded by Steve Pegrum
That the agenda be amended to include a copy of the September 28, 2023 Committee meeting minutes, and approved as amended.

Carried

3. Conformation of Minutes

a) Resolution

Resolution No. 03
Moved by Janet Brown
Seconded by Terry Maur
That the minutes of the September 28, 2023, meeting be approved.

Carried

4. Disclosure of Pecuniary Interest

a) There were none.

5. Delegations

a) There were none.

6. Briefings

a) There were none.

7. Business

a) Annual Report on Projects

Christine Woods provided an overview of the Grant Application awarded.

b) Lake Ecosystem Grant Policy Update

Christine Provided an overview of the Grant Policy update report.

Mayor Vandewal inquired if there is a limit on number of applications per year.

Christine Woods advised that the policy does not speak to how many times an organization can apply to receive the grant. Some groups have applied more than once, but staff check to make sure their first project is completed before moving on to another. She also noted that new users would be considered first.

Christine Woods sought a discussion on changes to the composition of the sub committee and the policy.

Ellie Prepas shared that although Queens University is not a not for profit, they do important work, and an amendment may ensure that they are still eligible.

Mayor Vandewal noted that as long as the research and work is not repetitive, he does not see a problem with Queens University students seeking grant money.

Ellie Prepas shared that it is important to have qualified individuals involved with the research and work. She also noted that there are also other resources like Conservation Authorities and Watersheds Canada that are important to have involved.

Christine Woods offered a solution of a broad definition other than nonprofit.

Justin Connidis shared that it may be beneficial to add a category that a local group partners with an expert group.

c) Forming a Lake Forum Subcommittee to get started on the 2024 forum

Alane Revill noted that the committee is re-formed annually.

Alan Revill, Ellie Prepas, Terry Mauer and Janet Brown volunteered to be members on the subcommittee for the 2024 Lake Ecosystem Forum.

Resolution No. 04
Moved by Justin Connidis
Seconded by Councillor Pegrum
That Alan Revill, Ellie Prepas, Terry Mauer and Janet Brown are the committee members that form the subcommittee for the 2024 Lake Ecosystem Forum and will provide an update of the proposal for the logistics at the March, 2024 Lake Ecosystem Advisory Committee Meeting.

Carried

8. Motions

a)

There were none.

9. Notices of Motion

a)

There were none.

10. Correspondence

a) There was none.

11. Questions of Clarity (from the public on outcome of agenda items)

a) There were none.

12. Date of Next Meeting

a) Date of the next Lake Ecosystem Advisory Committee will be March 21, 2023 (to not interfere with the Easter weekend)

13. Adjournment

a) Resolution

Resolution No. 05
Moved by Councillor Pegrum
Seconded by Justin Connidis
That the December 7, 2023, meeting be adjourned at 6:36 p.m.

Carried

Cataraqui Region Phragmites Management Area Workshop Notes

Date: January 15, 2024

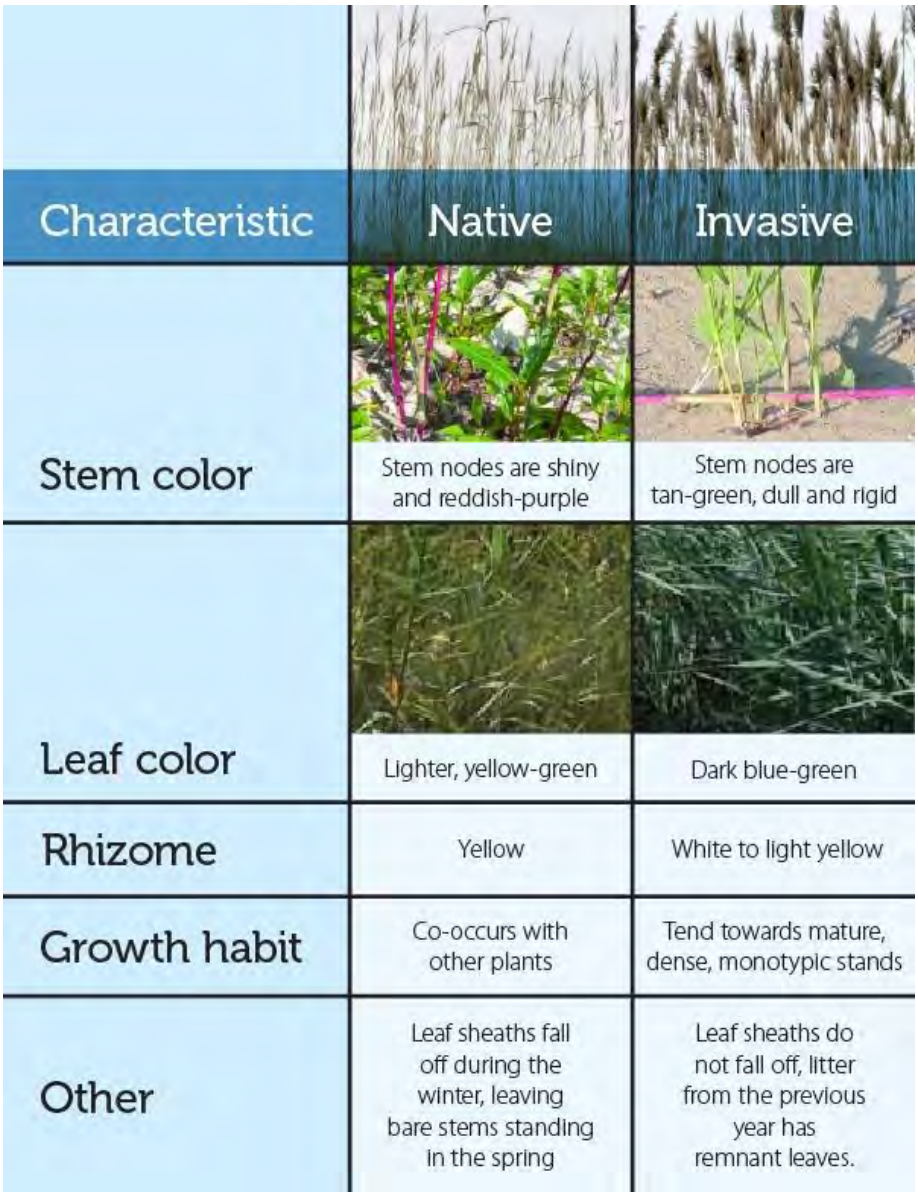
Time: 9:45 AM to 10:00 AM (arrival and information form) 10:00 AM to 2:00 PM (workshop)

Place: Little Cataraqui Creek Outdoor Centre just north of Highway 401 (Exit 617)

1) Welcome and Introductions – Holly Evans, Cataraqui Conservation
   - Holly welcome everyone, provided some information about the meeting facility and the day.
   - It was noted that the focus of the day was to provide information about this invasive species, describe the opportunity to establish a Phragmites Management Area and to build knowledge about local concerns, efforts, and priorities.
   - It was noted this workshop didn't fit some schedules so that there will be additional organizations represented at the next one. If anyone identifies a group that should be invited (e.g., the Thousand Islands Watershed Land Trust), please let Holly know (hevans@crca.ca).
   - An organizational datasheet was circulated with the workshop registration email and provided at the workshop. Participants were encouraged to provide details that will help to know more about invasive Phragmites efforts and concerns in the region. Attachment 1 to these notes is a summary of the information received to date.
   - Participants were encouraged to bring forward topics of interest at the open discussion after lunch and to talk with anyone in the room to learn from each other and start to develop connections that can lead to Phragmites projects and resource sharing.
   - A roundtable of introductions was initiated by Colin Cassin following the, "All About Phragmites and a Phragmites Management Area" presentation where each workshop participant provided their name, organization, and a brief overview of their interest and / or involvement with invasive Phragmites. Attachment 2 to these notes includes a summary of this information.

2) All About Phragmites and a Phragmites Management Area – Holly Evans, Cataraqui Conservation
   - PowerPoint slides were presented – see Attachment 3

- Invasive Phragmites or Common Reed (*Phragmites australis)* is an invasive grass that has spread in Ontario for decades. In the Cataraqui Region it is moving from roadsides into more sensitive areas like wetlands, lakeshore and along streams.
- It is common along highways like the 401 and is a very tall (up to 5 meters) plant with a full seedhead that becomes fluffy in the fall when the seeds are matured and dispersing.
- There is a native Phragmites grass (*Phragmites australis americanus*) which is easier to differentiate from the invasive species when the plants are mature. The following image points out the main differences. The following table is from this website: https://www.greatlakesphragmites.net/phragbasics/native-vs-nonnative/



Characteristic	Native	Invasive
Stem color	Stem nodes are shiny and reddish-purple	Stem nodes are tan-green, dull and rigid
Leaf color	Lighter, yellow-green	Dark blue-green
Rhizome	Yellow	White to light yellow
Growth habit	Co-occurs with other plants	Tend towards mature, dense, monotypic stands
Other	Leaf sheaths fall off during the winter, leaving bare stems standing in the spring	Leaf sheaths do not fall off, litter from the previous year has remnant leaves.

- Consider watching this Webinar: https://youtu.be/RQ7mlow3lDg. Janice Gilbert is a leading expert on invasive Phragmites and control measures.
- There's an opportunity to establish a Phragmites Management Area (PMA) for the Cataraqui Region (same area as the jurisdiction of Cataraqui Conservation) if there is sufficient interest.

- The primary reason for establishing a PMA is to facilitate coordinated projects / project funding to make the most of resources.
- This guidebook outlines PMAs and includes guidance on control and practices to reduce its spread: https://www.greenshovels.ca/wp-content/uploads/2021/08/Ontario-Phragmites-Strategy_DRAFT_Public-Review_WEB.pdf. If you notice that this guidebook could be improved, it is updated annually, and Colin Cassin (Invasive Species Centre - ccassin@invasivespeciescentre.ca) would like to hear your suggestions.

3) An overview of the Green Shovels Collaborative and their efforts to support collaborative responses to invasive Phragmites - Colin Cassin, Invasive Species Centre
   - Colin's presentation is available as Attachment 4 to these notes.
   - Colin works to find an allocate resources to support invasive species projects.
   - In addition, this is a helpful reference for cost-benefit analysis: https://www.greenshovels.ca/wp-content/uploads/2021/08/Ontario-Phragmites-Cost-Benefit-Analysis_DRAFT_Public-Review_WEB.pdf
4) Phragmites Monitoring and Control Approaches on and near Nature Conservancy Properties - Megan Quinn and Ally Belanger, Nature Conservancy of Canada
   - Megan and Ally's presentation is Attachment 5 to these notes.
   - NCC work in eastern Ontario has included invasive Phragmites monitoring and control (11 sites with 9 in the Frontenac Arch area).
5) Guided discussion: sharing local efforts, skill sets, tools, concerns.
   - The participants all agreed that the PMA seems to be a good idea and would be helpful for implementation support.
   - Time was spent with general discuss about resources, questions, concerns, and potential collaborations. Attachment 6 provides a summary of the discussion.
6) Wrap-up / Next Steps – Holly Evans, Cataraqui Conservation
   - There was general support for the establishment of a PMA from workshop participants.
   - There will be a second workshop to build on this one (March 21, 2024) including firming up plans to apply for funding to support a collaborative project that would monitor for the presence and extent of Phragmites in the region.
   - Following the two workshops and confirmed interest, Holly will bring forward a proposal to Cataraqui Conservations Board of Director's to establish a PMA.

For further information contact:
Holly Evans, Cataraqui Conservation, Watershed Planning Coordinator
613-546-4228 ext. 233
hevans@crca.ca

ATTACHMENT 1 – Organization Data Sheet Summary to Date

Organization	Reason for attending the workshop	Top Concerns	Monitor and Report	Removal	Focus of certain conditions	Practices or protocols to prevent of limit the spread	Specific Programs	Specialized training	Equipment and supplies	Biggest obstacle	Other
Dog & Cranberry Lake	Generally, learn more, Access project funding; Regional cooperation and information sharing; Other - to learn more about using the EddMaps App for locating Phragmites	Biodiversity	No	Yes, with the hand tools kits borrowed from Cataraqui Conservation	No	Posted Clean, Drain, Dry signage	No	No	No	Getting a volunteer to lead a Phragmites initiative	Need to know who will remove from public lands, like roadsides/ditches, where is settles and spreads. Since removal efforts are dependent on private landowners taking ac1on, le]ng people know the seriousness of the nega1ve impacts this invasive species is key. If residents are aware that others are very concerned and that organiza1ons such as yours feel it is important enough to take ac1on this will help to convince them. Knowing that money is made available to help is also a factor that may help to bring people on board for removal.
Frontenac Arch Biosphere Reserve	General learning; Regional cooperations and information sharing	Biodiversity	No	No	Wild rice project	No	No	No	No	Lack of funding/capacity	We require the expertise and volunteers to learn how to remove phragmites responsibly and effectively should we decide to

											incorporate this work into our wetland/wild rice (Manoomin) monitoring and restoration work. We are trying to compile information about all the conservation work happening in our region, so at the very least, knowing what is going on is beneficial.
Lamb's Pond	General learning; Regional cooperations and information sharing	Biodiversity; Invasive Phragmites is spreading on properties owned by my organization	Yes, help from Cataraqui Conservation (EDDMapS)	Yes, cut to-drown using raspberry canecutters	Yes, within Lamb's Pond (PSW)	No	No	No	Yes, borrowed from Cataraqui Conservation	Building awareness and support	
Thousand Islands National Park	General learning; Access project funding; Regional cooperation and information sharing; determine volunteer interest	Biodiversity; Fire Risk; Invasive Phragmites is spreading on properties owned by my organization	Yes, ArcGIS Field Maps	Yes, targeted cut-to-drown	Yes, sites within the park boundary and areas near special habitats are prioritized	Yes, Ontario Invasive Plant Council Best Management Plan	No	Yes, exterminator (full and tech)	Yes, raspberry cane cutters, loppers and hand pruners, brush cutter, spray tanks and some various chemical pesticides	Jurisdiction and resources	It is my opinion that TINP would be happy to work towards a partnership on a collaborative project to tackle Phragmites across the Watershed through CRCA. I believe that our organization could benefit from volunteers supporting the removal of Phragmites patches. and funding to support more staff dedicated to invasive removal.
South Frontenac Township	General learning; Regional cooperation	Biodiversity; Transportation issues; Invasive Phragmites is	No	Yes, excavator while ditching	No	Yes, if removed it is dealt with properly	No	No	No	Cost, benefits of removing them, what to do with removed plants	

	and information sharing	spreading on properties owned by my organization									
Nature Conservancy of Canada	General learning; Regional cooperation and information sharing	Biodiversity; Invasive Phragmites is spreading on properties owned by my organization	Yes, GIS (ArcGIS Field Maps), polygons, field staff and technicians	Yes, chemical and manual; community events	Yes, areas of high biodiversity	Yes	Yes, annual monitoring and removal; NCC has a large program across Ontario	Yes, volunteer events; Herbicide license (aquatic and forestry)	Yes, ArcGIS Field Maps, shovels, raspberry cane cutters, backpack sprayers	Conflicting priorities	
Lower Trent Conservation	General learning	No	No	No	No	No	No	No	No	Financial resources	
City of Brockville	General learning	Invasive Phragmites is spreading on properties owned by my organization	No	No	No	No	No	No	No	Lack of Knowledge	Gain understanding / knowledge; Help with best practices
Ontario Ministry of Environment, Conservation and Parks		Biodiversity; Fire Risk; Transportation issues; Invasive Phragmites is spreading on properties owned by my organization	No	No	No	No	No	No	No		
Elizabethtown-Kitley Resident	General learning; Regional cooperation and information sharing	Biodiversity	Yes, photos of Phragmites taken over the years in the ditches near our home and EDD-maps in the past	Yes, cut small amounts in 3 stands near New Dublin over the last 10+ years		Best Management Practise (Ontario Invasive Plant Council)		Learned technique while working with OFIPCG in Oliphant, Lake Huron	Raspberry cane cutters	Looking for support from the municipality +/- conservation authorities to control Phragmites in roadside ditches near New Dublin and other similar sites adjacent to wetlands	
Oliphant Fishing Islands Phragmites Community Group (OFIPCG)	Regional cooperation and information sharing	Biodiversity	Yes, annual surveys by OFIPCG + NCC / NCC and IPCC do mapping	Yes, manual (raspberry cane cutting and Stihl hedge-trimmers); hired Invasive Phragmites Control Centre for densest	Phragmites invading the sensitive coastal wetlands of Lake Huron - Phragmites in water around the islands and	Best Management Practise (Ontario Invasive Plant Council)		OFIPCG volunteers are trained for manual control by senior members of the group, NCC and IPCC are trained by their	OFIPCG own 2 rafts, 2 snowmobile sleds, cane cutters, 3 Stihl saws. IPCC = Truxors for cutting and additional	Very large scale of the affected area (hundreds of acres degraded by Phragmites occupation that has been established for	Present challenge is to have the Phragmites sprayed with herbicide where it is growing along the miles of roadside ditches

				Phragmites in the deepest water - cut and biomass removed by Truxors	offshore from the mainland with highest priority over Phragmites on land			organizations - Janice Gilbert of IPCC provides additional in the water training as needed for OFIPCG volunteers	equipment for herbicide application. Municipality provides backhoe and dump truck for disposal of biomass.	10+ years), considerable expense and human physical effort to continue the long control effort (2024 will be 8th year)	on the miles of mainland. Failing to do this will result in roadside Phragmites spreading back out into the coastal wetlands.
Queen's University Biological Station (QUBS)	General learning; Regional cooperation and information sharing	Biodiversity; Invasive Phragmites is spreading on properties owned by my organization	No	No	No	No	Nothing currently aside from summer students. Developing an invasive species monitoring and management program for the station, with a focus on Dog Strangling Vine. However, increasing our knowledge and abilities to manage other invasives will be an added bonus.	No	No	Labour and funding	Need increased awareness, cooperative partnerships, access to resources including monitoring and management techniques.
Cataraqui Conservation	General learning; Access Funding; Regional cooperation and information sharing	Biodiversity; Invasive Phragmites is spreading on properties owned by my organization	Yes, EDDMapS	Yes, limited hand removals	Yes, smaller in-water patches where cut-to-drown is effective	Yes, BMPs, signage at boat ramps	Yes, hand tool lending kits and limited staff support for work removal bees	No	Yes, hand tools only, but plan to receive a STIHL cutter	Resources and a regional plan	

ATTACHMENT 2 – Roundtable Summary

Name	Organization	Phragmites Comments
Colin Cassin	Invasive Species Centre	Coordinates programs and resources for Phragmites
Holly Evans	Cataraqui Conservation	Responsible for watershed monitoring and report and often works with partners to collaborate on research and projects to improve watershed health and understanding. Started a project last year to raise awareness of invasive Phragmites and will continue this year with lending kit, some hand removal support for community work bees and will start monitoring / identification on conservation lands
Evan Bancroft	South Frontenac Township	Evan administers the weed spraying program for the municipality
Marc Hogan	City of Kingston	Involved with stormwater management and weed control
Janet Brown and Daryl Neve	Dog & Cranberry Lake Association	Have completed some hand removal around the lakes
Sara Baker	Thousand Islands National Park	Most Phragmites work has been related to species at risk
Dan Elwood and Alex Lavigne	City of Brockville	Want to learn more about this topic and how their operations could be modified to help reduce the spread and / or eradicate the species
Christine Grossutti	Frontenac Arch Biosphere Reserve	Want to learn about the PMA and what organizations are doing
Kelsey Guerette	Cataraqui Conservation	Leads the Source Water Protection Program and supports other business areas as possible
Steve Knapton	Cataraqui Conservation	Works in conservation lands and is interested to participate in projects to monitoring and control Phragmites
Greg Faaren	St. Lawerence Commission	Currently not a lot is being done to manage Phragmites, but it is an area that requires attention
Tim Hannah	Ontario Ministry of Environment Conservation and Parks	Is the regional pesticide specialist and is responsible to review applications for in-water pesticide applications
Leslie Wood	Oliphant Fishing Islands Phragmites Community Group (OFIPCG) and Elizabethtown-Kitley resident	Has led invasive Phragmites removal in Lake Huron for years, lives in Elizabethtown-Kitley Township (Lamb's Pond) and knows how to successfully build grassroots interest and organizational momentum to tackle Phragmites.
John Mahoney	Lower Trent Conservation	Works in the conservation lands department and wants to learn more about the PMA and Phragmites monitoring and control
Shelley Gallagher	Lamb's Pond	Coordinated community removal days on Lamb's Pond. One patch was mostly removed (some shoots are coming up again) and there are six other patches around the Provincially Significant wetland.
Bobbi Chiappetta	Lamb's Pond	Part of the group working to remove Phragmites from Lamb's Pond

ATTACHMENT 3 – All About Phragmites and a Phragmites Management Area slides

Cataraqui Region Invasive Phragmites Workshop #1

Little Cataraqui Creek Conservation Area – January 15, 2024

Cataraqui Region Phragmites Management Area Workshop Agenda

Date: January 15, 2024

Time: 9:45 AM to 10:00 AM (arrival and information form) 10:00 AM to 2:00 PM (workshop)

Place: Little Cataraqui Creek Outdoor Centre just north of Highway 401 (Exit 617)

This is the first of two workshops on this topic. The primary objective of this meeting is to introduce the concept of a Phragmites Management Area and start a conversation about collaborative projects to monitor, report and control invasive Phragmites in the Cataraqui Region.

Time	Topic	Presenter / Facilitator
10:00 – 10:10	Welcome and Introductions	Holly Evans, Cataraqui Conservation
10:10 – 10:30	All About Phragmites and a Phragmites Management Area	Holly Evans, Cataraqui Conservation
10:30 – 11:10	An overview of the Green Shovels Collaborative and their efforts to support collaborative responses to invasive Phragmites	Colin Cassin, Invasive Species Centre
11:10 – 11:50	Phragmites Monitoring and Control Approaches on and near Nature Conservancy Properties	Megan Quinn and Ally Belanger, Nature Conservancy of Canada
11:50 – 12:50	Lunch break	
12:50 – 1:45	Guided discussion: sharing local efforts, skill sets, tools, concerns	All
1:45 – 2:00	Wrap-up / Next Steps	Holly Evans, Cataraqui Conservation

Cataraqui conservation

Cataraqui conservation

All About Phragmites and a Phragmites Management Area

Little Cataraqui Creek Conservation Area – January 15, 2024

Presentation Outline

- Invasive Phragmites
  - What is it?
  - Why do we care?
- Phragmites Management Area
  - What is it?
  - Why do it?
  - How does it work?

Cataraqui conservation

Invasive Phragmites Identification

- Grows up to 5 m tall in dense patches.
- Produces seed heads with many seeds
- Dead material remains standing for multiple seasons so dead stalks and seed heads may be visible

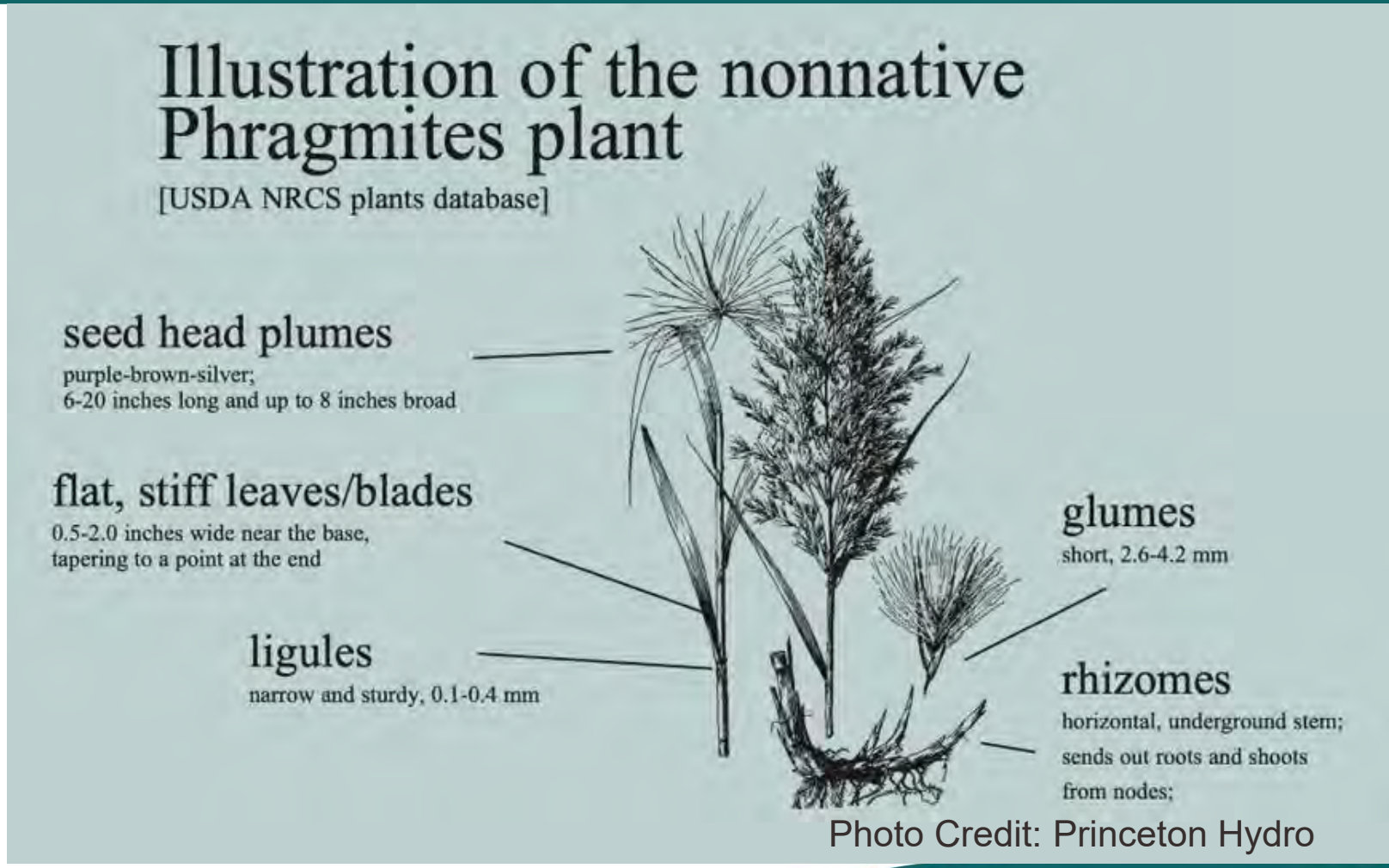


Photo Credit: Princeton Hydro

Cataraqui conservation

Invasive Phragmites Impacts

- Decreases abundance and diversity of native plants
- Disrupt hydrology and nutrient cycling
- Creates fire and driving hazards
- Damages infrastructure
- Decreases property values
- Restricts the movement of animals in the habitat
- Decreases recreational opportunities

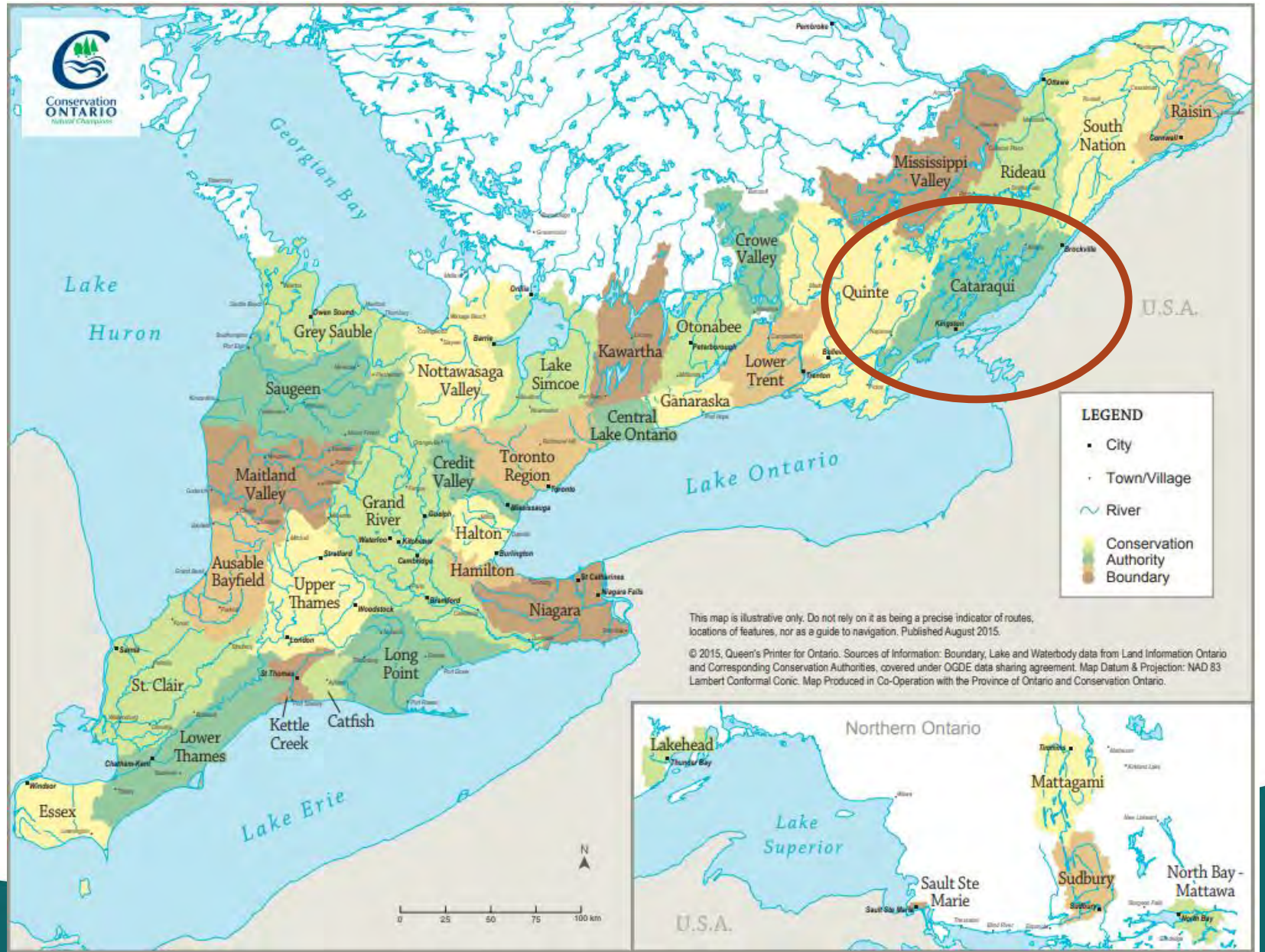
Image Credit: Ernie Lynch


Image Credit: Amy Whitear


Image Credit: Leslie J. Mehrhoff

Cataraqui conservation

Phragmites Management Area (PMA)



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Phragmites Management Area (PMA)

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Phragmites Management Area – Benefits

- Reasons to Establish a PMA:
  - Coordination for an integrated and landscape-approach
  - All stakeholders are aware of collaboration opportunities
  - Funding applications geared to maximize local impact
  - Knowledge sharing

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Phragmites Management Area – How it Works

- Regional Coordinator hosts meetings
- Gathers information and identifies common concerns and potential collaborations
- Receives initial applications for Green Shovels Funding and advises the funder of priorities

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Thank You

Holly Evans

Watershed Planning Coordinator

hevans@crca.ca

Cataraqui conservation

Guided Discussion

1. Is the PMA a good idea?
2. Local efforts
3. Skillsets
4. Equipment
5. Concerns
6. Priorities

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ATTACHMENT 4 – Developing a Coordinated Response to Phragmites Management slides

DEVELOPING A COORDINATED RESPONSE TO PHRAGMITES MANAGEMENT

Supporting Local Action on Phragmites

GREEN SHOVELS COLLABORATIVE

Colin Cassin, Invasive Species Centre

January 15, 2024

www.greenshovels.ca

Together we represent millions of people, with members and supporters who are nature lovers, cottagers, outdoor recreationists, anglers and hunters. We are also land managers, with many hectares of land under ownership or management.

We came together to offer a list of shovel ready projects which would achieve the government's objectives of job creation and economic recovery, along with important benefits to local communities and the environment.

The Problem with Invasive Phragmites

- Pronounced *frag-my-tees*
- Also known as Common or European Reed
- A perennial wetland grass, forms dense monocultures
- Considered *“Canada’s worst invasive plant”*
  - Extensive root system
  - Found in aquatic, semi aquatic, terrestrial environments
  - Prefers standing water (wetlands, stream banks, lakeshores, beaches)
  - Outcompetes native species and reduces biological diversity

- Tolerances:
  - Salt tolerant
  - Susceptible to drought, low oxygen (flooding), water level fluctuations

Habitat and Distribution

- Throughout Ontario
- Especially common in Southern Ontario and along the coastal Great Lakes
- Found in wet or low-lying areas
- A common sight along shorelines, highways and roadways
- Thrives in disturbed areas

Goals of Management

1. Successfully prevent the continued spread or establishment of *Phragmites* populations.

2. Reduce or eradicate existing populations of *Phragmites*

3. Manage *Phragmites* effectively using the most efficient and effective strategies **which create the least possible disturbance to native species.**

The Need for Collaboration

- "Random acts of stewardship" approach simply won't cut it
- Collaboration across the fence is essential for long term success
- Phragmites does not respect property lines
- Important to treat the patch, not just the edge!

The Need for Collaboration

- The impacts of Phragmites are felt across Ontario and beyond.
- Each region has its own unique strengths, challenges and needs.
- Some regions have seen extensive Phragmites growth while others are on the edge of expansion.
- Management needs to consider the bigger provincial picture

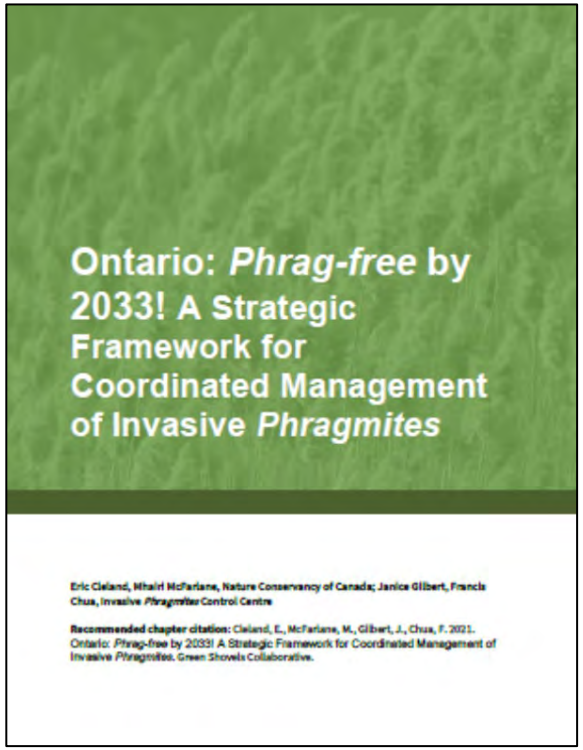
Developing a Coordinated Response

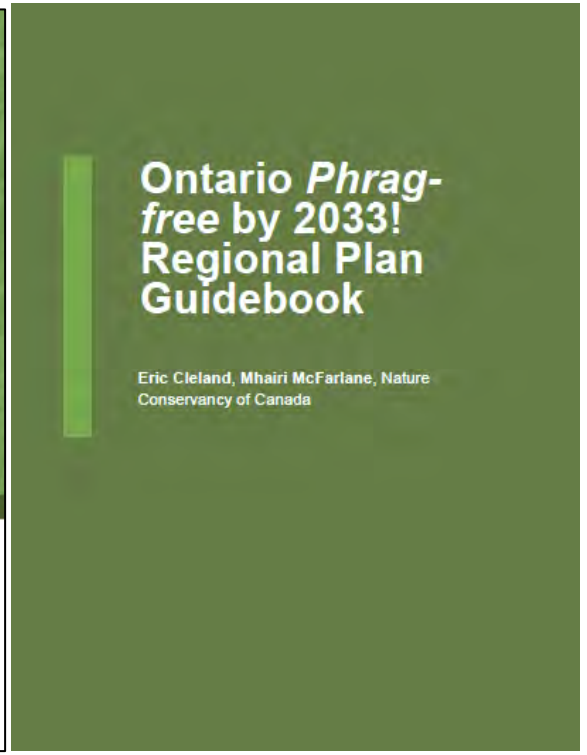
- There are great people doing great work on the landscape!
- Projects are often localized (think site, wetland, property) in scale, and may be occurring alongside other efforts.
- Jurisdictional boundaries can create obstacles or limit implementation by individual groups
- Coordination through regional lens allows the opportunity to leverage available resources, expertise and funds.

To successfully manage Phragmites, an integrated, landscape-scale implementation plan that includes all necessary partners, rights holders and stakeholders within a region is needed.

Guiding Documents for Coordinated Phragmites Control

- **Comprehensive vision for *collaborative* action** - including prioritized actions and program governance
- **Regional Implementation Planning Guidebook** – How-to guide for establishing landscape-scale programs across Ontario
- **Indigenous Engagement Strategy** to support a larger program
- **Communications Strategy** with outreach priorities to ensure public and key sector support/participation
- **Cost-Benefit Analysis** – make sure the numbers add up!
- Provincial input received from the **Inter-ministerial Invasive Species committee (NDMNRF, OMAFRA, MTO, MECP)**



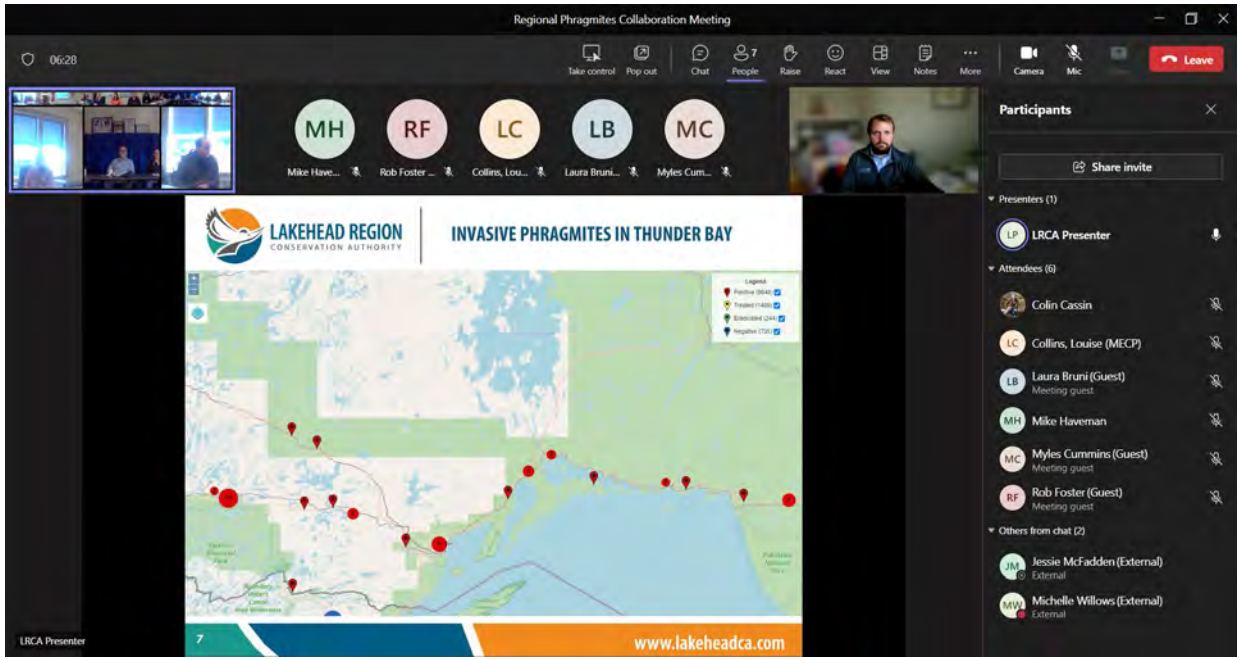


What is a Phragmites Management Area (PMA)?

- Geographic/spatial unit where Phragmites control and planning is coordinated across a range of partners interested in mapping and controlling invasive Phragmites
- Boundaries are flexible depending on the right fit for the geography and existing Phragmites efforts but by could use 1) watersheds, 2) municipal 3) MNRF Districts or other jurisdictional boundaries
- PMA's are an approach to coordinate partners within a local/regional area where Phragmites management will take place, reduce overlap and maximise collaboration
- PMA's allow local partners, rights holders and stakeholders to leverage their collective effort for landscape-scale implementation
- PMA's can connect the "Random Acts of Stewardship" that may be occurring alongside eachother, leveraging the success and return on investment of their individual efforts!

Establishing a PMA Working Group

- Pulling together people with a combined interest in Phrag management is helpful:
  - Bring diverse skillsets
  - Access to equipment
  - Personnel
  - Expertise and buy-in
- Meant to be inclusive collaborations that recognize Phragmites is of interest to a wide range of people
- Imperative to identify and include rights holders from the outset:
  - First Nations and Indigenous communities have constitutionally-protected rights



Upcoming Events and Workshops

A Few Opportunities to Learn More about Phragmites

- OPWG Annual Meeting | Online | Jan 25 | www.ontarioinvasiveplants.ca
  - Cost: $120
  - Green Shovels partner update
    - Guidebook Update
    - PMAWG Pilot Implementation
    - Genetic testing – FY24 and future plans
    - Invasive Phragmites Control Fund FY24 – MNRF investment, key project spotlights and collective impact
- ISC Annual Forum | Online | Feb 12-15 | www.invasivespeciescentre.ca/forum
  - Cost: free
  - Invasive Phragmites Control Fund Standout Recipient Celebration (Feb 12)
  - Biological Control Agent Update
- Developing a Phrag Working Group Workshop | Online | TBD: Late Feb & Early May | www.greenshovels.ca
  - Cost: free
  - Dates TBD – (late Feb/early May)
  - Provide an overview of the Phragmites Regional Plan Guidebook

Part 2: Funding the Fight on Phrag

- Thanks to Ontario Ministry of Natural Resources and Forestry, the ISC has administered the Invasive Phragmites Control Fund for 4+ years
  - 2023-24: 21+ projects totalling $250,000
- Annual call for proposals has typically been posted in May, with notifications delivered in June.
- We plan to run another cycle in the spring, with established PMAWG's receiving priority consideration
- Although the budget for the next cycle has yet to be determined, we hope to continue to grow the size of the pot to support more excellent community led work
- More information will be made available through:
  - www.invasivespeciescentre.ca/grants
  - www.greenshovels.ca

Invasive Phragmites Control Fund

2023/24 Project Spotlight

Shawanaga First Nation

Conserving wetlands in Shawanaga First Nation's Traditional Territory from Invasive Phragmites

"Our Lands and Resource Department started an Indigenous Phragmites Control Unit to combat, address, and manage the spread of Phragmites and other invasives in the Shawanaga traditional territory"

Town of Ajax

Ajax Invasive Phragmites Strategic Management Plan

"The Ajax Invasive Phragmites Strategic Management Plan will map existing locations of invasive Phragmites across the Town and prioritize these locations for strategic, realistic, and effective control"

Severn Sound Environmental Assn

Severn Sound Watershed Roadside Invasive Phragmites Mapping Initiative

"SSEA surveyed ~2,000km of municipal roadways for invasive phragmites and created a comprehensive map that can better inform future municipal Phragmites management"

Joint Submission to Future IPCF Cycle

- Issue: limited/incomplete Phragmites inventory across a PMA
  - Municipal roads have outdated inventories. Municipal parks have no data
  - Some CA & Land Trust properties have recent monitoring data, others lacking
  - College & University manage large lands but lack monitoring data
- Solution: A collaborative proposal is submitted to a spring cycle of the Invasive Phragmites Control Fund on behalf of PMAWG
  - One member applies for salary $ to cover 2 summer technicians to map all Phragmites on PMAWG submitted public lands
    - All roads are flagged by municipality, 3 municipal parks are flagged, 6 CA properties and 3 Land Trust properties are also flagged. The College and University each request inventories
  - The proposal covers a rental vehicle for the season, fuel, a tablet and software to map Phragmites under suggested format.
  - The proposal also allows PMAWG to review the inventory map in mid summer and identify 3 priority Phragmites control projects on public lands
  - The proposal includes contractor control costs to manage the 3 sites (estimated at time of submission)
- Future Opportunity: this inventory becomes the backbone of collaborative efforts for the next few years
  - The inventory will support a larger control proposal in the next IPCF cycle, with touch up control projects completed at the original 3 management sites
  - Additional data can be added to the inventory in the future as unknown populations are discovered and control projects completed

Solo Submission to Future IPCF Cycle

- Issue: limited/incomplete Phragmites inventory within a particular part of a PMAWG
  - Municipal roads have outdated inventories. Municipal parks have no data
  - Most CA & Land Trust properties have recent monitoring data and seasonal staff that have updates on their workplan
  - College & University manage large lands but lack monitoring data. Other barriers prevent engagement on PMAWG at this time
- Solution: A proposal is submitted to a spring cycle of the Invasive Phragmites Control Fund on behalf of municipality
  - Municipality applies for salary $ and vehicle costs to support portion of planned seasonal staff workplan to allow them to complete inventory of all municipal properties (roads, parks, etc.) for Phragmites
  - The proposal covers a rental vehicle for the season, fuel, a tablet and software to map Phragmites under suggested format
  - Mapping information will be made available to PMAWG/public database to support future collaboration and shared action

Thank You!

Colin Cassin

ccassin@invasivespeciescentre.ca

ATTACHMENT 5 – Phragmites Monitoring and Control Approaches on and near Nature Conservancy Properties slides

Phragmites Monitoring and Control Approaches

Nature Conservancy of Canada

Megan Quinn & Ally Belanger

15th January 2024

NCC's Eastern Ontario Team

Megan Quinn
Coordinator, Conservation Biology
Eastern Ontario

Ally Belanger
Assistant, Conservation Biology
Eastern Ontario

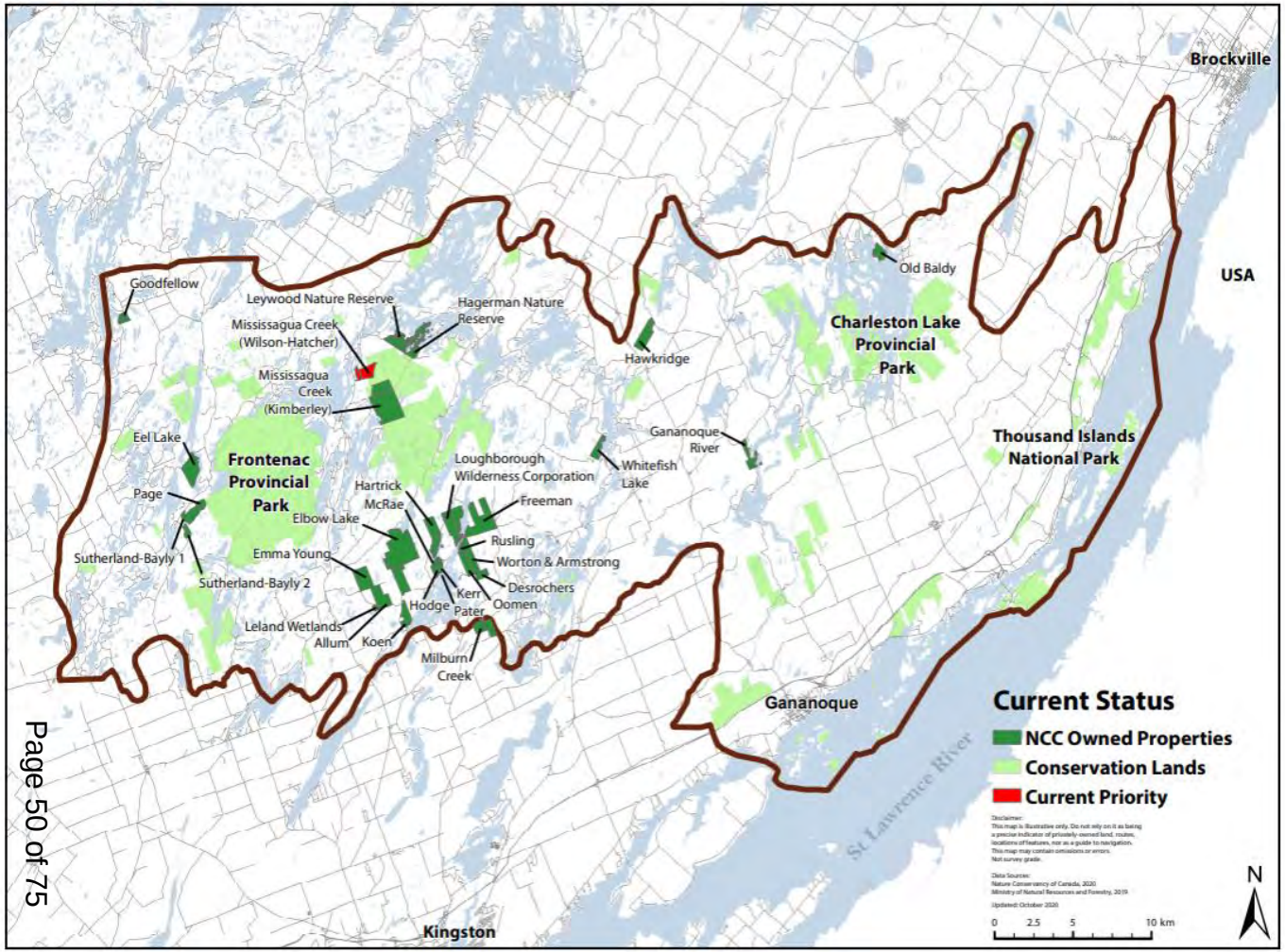
Rob McRae
Program Director
Eastern Ontario

Outline

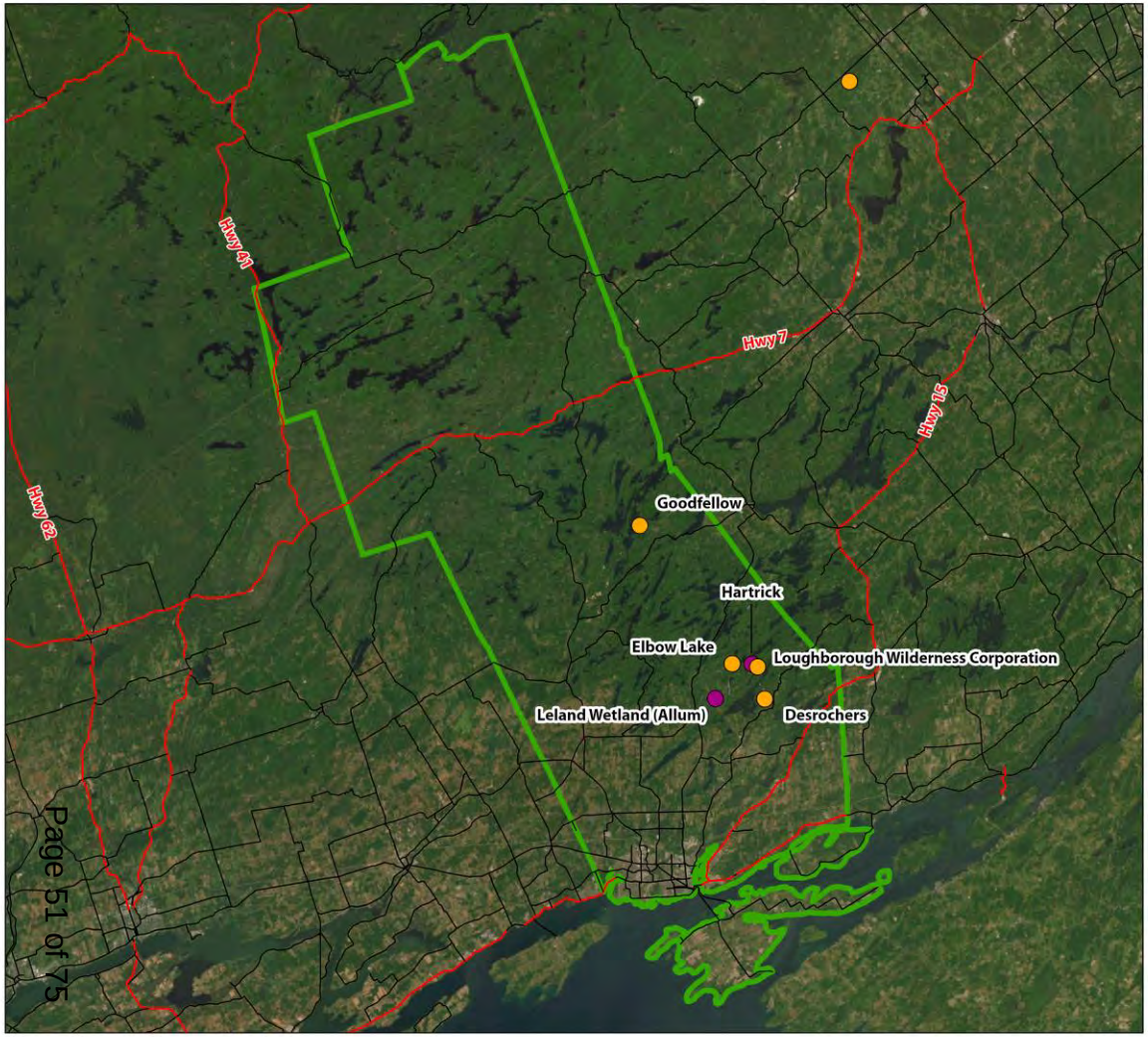
- Who We Are
- Property Context
- NCC Phragmites Control Sites
- Phragmites Mapping
- Working on Private Lands
- Control:
  - Chemical
  - Manual
  - Community outreach
- Phragmites Monitoring
- Successes
- Lessons Learned
- Looking Ahead:
  - Landscape scale mapping
  - Private lands & partnerships
- Questions

Where We Work: Ontario Region

NCC Accomplishments - Frontenac Arch Natural Area



Where We Work: Frontenac Arch



County of Frontenac Phragmites Control (Manual)

- County of Frontenac
- Untreated Phragmites Location
- 2022 Treatment Area (Manual)
- Expressway / Highway
- Road

0 5 10 20
Kilometers

N
W E
S

This map is illustrative only. Do not rely on it as being a precise indicator of privately-owned land, routes, locations of features, nor as a guide to navigation. This map may contain omissions or errors. Not survey grade.

Data Sources:
Nature Conservancy of Canada - Ontario Region, 2023
Ontario Ministry of Natural Resources and Forestry. 2022
ESRI - Maxar, 2017

January 26, 2023

NATURE CONSERVANCY CANADA

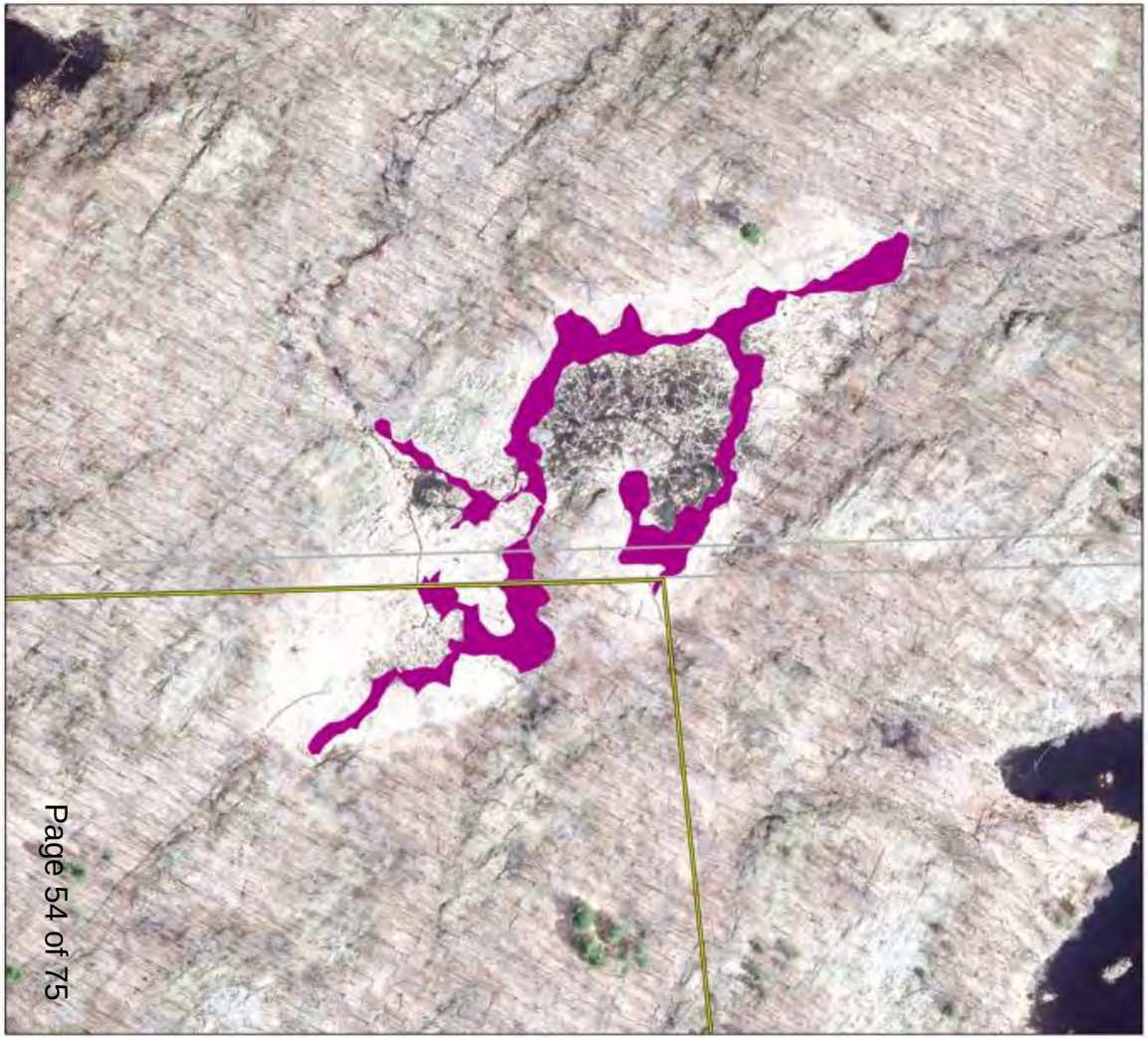
Phragmites Mapping

Phragmites Mapping

2010

2019

2021



County of Frontenac
Hartrick
Phragmites Australis

- Hartrick
- Other NCC Property
- Ownership Parcel
- Phragmites (5400 m²)

GPS Coordinates:
4927736°N, 389210°E
NAD83, UTM Zone 18 N

0 15 30 60
Meters

N
W E
S

This map is illustrative only. Do not rely on it as being a precise indicator of privately-owned land, routes, locations of features, nor as a guide to navigation. This map may contain omissions or errors. Not survey grade.

Data Sources:
Nature Conservancy of Canada - Ontario Region, 2023.
Ontario Ministry of Natural Resources and Forestry, 2022
OMAFE, 2019

January 26, 2023

NATURE CONSERVANCY CANADA

LANDOWNER CONSENT & RELEASE

for INVASIVE SPECIES CONTROL

Property Owner: _____ (please print name)

Email Address: _____

Phone Number: _____

Property Address: _____ (the "Property")

I am the / an owner of the Property, in consideration of The Nature Conservancy of Canada's (the "NCC") assistance in controlling invasive plant species on the Property I hereby grant, authorize and release the NCC as follows:

1. I grant the NCC and its contractors permission to access the Property in order to identify the following invasive plants: **Common Reed (Phragmites australis)** and to cut and remove for the purpose of controlling or eliminating the above referenced invasive plants (the "Control Actions").

2. The NCC and its contractors shall be required to adhere to all licensing, regulatory, and best practices requirements when conducting the Control Actions on the Property.

3. I may revoke the Property access permissions given by this document at any time. The permissions given here shall, unless otherwise revoked, continue from **March 31, 2023, until March 15, 2024.**

4. I, on behalf of myself and any other owner of the Property, release and forever discharge the NCC, its employees and its contractors from all claims, causes of action, costs and expenses, which I or other owners may have, by reason of any loss, damage or injury caused directly or indirectly by the Control Actions agreed to be permitted in this consent and release. This release shall survive the completion of the Control Actions.

5. I represent and warrant that I am an owner of the Property and have the authority to provide this consent and release and if there are other owners that I have discussed this matter with each of them and am authorized to sign this consent and release on their behalf.

Dated this _____ day of _____, 2023, by:

_____

Property owner signature

Working on Private Lands

Monitoring: Use of Drones

Control Methods: Chemical

Control Methods: Manual

Control Methods: Community Outreach

Nature conservancy goes after invasive phragmites in Kingston area

Elliot Ferguson

Published Sep 25, 2023 • 2 minute read

Join the conversation

Ale[illegible]szczyszyn a conservation technician with the Nature Conservancy of Canada, removes a phragmites plant from a ditch along Opinicon Road near Chaffey's Lock on Monday. PHOTO BY ELLIOT FERGUSON /The Whig-Standard

CHAFFEY'S LOCK — Using shovels and a little physical labour, about a dozen volunteers and staff with the Nature Conservancy of Canada tackled a small part of what is a growing problem in wild and rural parts of Canada.

Phragmites Monitoring

- Initial mapping
- Control
- Follow up monitoring

Successes

Successes

Lessons Learned

- Plan ahead
- Reach out for help/resources
- Have clear and flexible expectations when it comes to manual control
- Quality equipment (sharpen shovels)

Looking Ahead

- Internal resource sharing in 2024
- Landscape scale mapping and control
- Private landowner partnerships
- Working with partners

NATURE CONSERVANCY CANADA

Questions?

Megan.quinn@natureconservancy.ca

613 876 1416

ATTACHMENT 6 – Summary of Guided Discussion

The following list was displayed on a slide to stimulate group discussion:

1. Is the PMA a good idea?
2. Local efforts
3. Skillsets
4. Equipment
5. Concerns
6. Priorities

- The group was asked whether establishing a PMA seems like a good idea and everyone agreed that that it does.
- Question: Are there any international groups efforts to control Phragmites?
    - Answer: Colin Cassin – Not like PMAs. There is a PAMF (Phragmites Management Area Framework)https://www.greatlakesphragmites.net/pamf/ and in the US that have different approaches in each state for invasive species work, but nothing Phragmites specific.
- Question: Is moving effective to control the spread of Phragmites?
    - Answer: Leslie Wood – Phragmites a grass so mowing won't get rid of it. Mowing before the seeds mature and disperse can help to reduce the spread. Phragmites along roadsides generally requires herbicide to eradicate it. Municipalities and road authorities can consider selective spraying since roadside populations can migrate into nearby sensitive areas.
    - Holly Evans: A future meeting could provide information on best practices for municipal roads departments.
    - Marc Hogan: Municipal involvement is important. In the City of Kingston, spraying is a very sensitive topic, and it would be a challenge to implement this control method in the City.
    - Tim Hannah: Municipalities do have roadside spraying programs; however, the pesticides currently being used may not be the right compound for Phragmites.
    - Collin Cassin: Noted that when he speaks to people, he indicates using an integrated pest management approach. This means using pesticides as necessary. It's important for people to hear about successful control projects to build momentum and sometimes pesticides are needed.
    - Leslie Wood: Mentioned how in her area some people were against spraying and only wanted her on their property if she was removing by hand, but after seeing how quickly the Phragmites was spreading, they have shifted to saying spraying is okay.
- Leslie Wood - Oliphant Fishing Islands Phragmites Community Group (OFIPCG): Informing and involving municipal councils is crucial to success.
- Holly Evans: Cataraqui Conservation knows that there is Phragmites on some of our conservation lands. This year we plan to do some removal (in-water by hand) of known smaller

patches. There's an opportunity to talk with talk with municipalities that do roadside spraying to see if they could target Phragmites areas, especially around areas that may be more vulnerable (near wetlands, etc.). There's a need to have a more complete inventory of where Phragmites is on our properties and throughout the region.

- Collin Cassin: Asked how people feel about working together on monitoring as the first project collaboration for the PMA. He added that it could be a good opportunity to ask for funding and an educational tour for municipal councilors could be incorporated. The Nature Conservancy of Canda site on Leland Road, where they have coordinated with private landowners and South Frontenac Township, could be included.
- Sara Baker: Asked if there's an opportunity to do a workshop on their properties and noted that it's more effective to do workshops with all age groups (especially youth). There are some patches of Phragmites in Thousand Islands National Park that could be removed for a success story.
- Bobbie Chiappetta – St Lawrence River projects could be a good place to start (tourism, property owners along the water)
- Holly Evans: Coordinated data management for inventory and tracking control efforts is a big consideration for Phragmites work. Maybe this could be included as a specific discussion topic at the next meeting.
- Alex Lavigne: If we can show the data showing where there's a lot of Phragmites is, that could be helpful for working with and gaining municipal interest as well as interest from other groups.
- Janet Brown and Alex Lavigne: Including observations and help from the OFATV (Ontario Federation of ATVers) and the OFAH (Ontario Federation of Anglers and Hunters would increase coverage in the region. Is it possible to include a number to call or a link to submit a text within the app that ATVers already use?
- Collin Cassin: Project idea – Year 1 = Figure out where Phragmites is and create partnerships; Year 2 = Communicate findings and start to build a management plan with costs and resources per type of control (e.g., wetlands, roads, trails, railways, etc.); Year 3+ = finalize plan and work on management.
- Question: Can Phragmites be identified on aerial images?
    - Answer: Phragmites looks different throughout the year, so it's challenging
    - The Nature Conservancy is working with the University of Waterloo to see if AI will be effective to identify Phragmites using aerial images (NCC's confirmed field data are being used as training sites for the AI).
- Question: Is anyone at Queen's University doing Phragmites research
    - Answer: Note sure yet. A person from the Queen's Biological Station plans to attend the next meeting.
- Question: Could NCC provide a list of the fields that are included in their ArcGIS Fild Mapping app?
    - Yes

- Sara Baker: Thousand Islands National Park uses iNaturalist and you can create project groups so that there could be a Cataraqui Region Phragmites Group. However, you can't create polygons to illustrate the area of Phragmites at each location.
- Collin Cassin: There's a potential opportunity for GIS/mapping sharing through funding (i.e., purchase additional licenses for ArcGIS Fild Mapping). This will be confirmed for the next workshop.
- An idea is being explored by the Invasive Species Centre (Collin Cassin) to consolidate mapping apps to maximize the efficiencies of each program. Colin expects to be able to report on this within a year.

Township of South Frontenac

Staff Report

To:	Lake Ecosystem Advisory Committee
Prepared by:	Development Services Department
Date of Meeting:	March 21, 2024
Subject:	**Lake Ecosystem Grant Policy Update**

Summary

This report provides the Lake Ecosystem Advisory Committee with a summary of the Lake Ecosystem Grant Program, and outlines proposed revisions to the program policy for discussion.

Recommendation

The Lake Ecosystem Advisory Committee recommend Council approve the revised Lake Ecosystem Grant program policy as attached to this report.

Background

The Lake Ecosystem Grant program was established in 2021. The program was modeled after the Township's successful Community Grant Program. The Lake Ecosystem Grant program supports and encourages the preservation, restoration, monitoring and analysis of lake ecosystems within the Township. It places priority on projects that have the greatest positive impact on the health and welfare of lake ecosystems, with consideration of four objectives, which are to:

1. Reduce or limit diffuse or point source runoff primarily caused by human disturbance of the land
2. Create or increase buffer zones along the lakeshore and/or banks of creeks and streams that drain into the lake
3. Protect or enhance wildlife habitat
4. Enable or perform monitoring and/or inventories of the lake environment and its contributing watershed in order to fill knowledge gaps

The grant program funds projects up to $10,000. On an exceptional basis, larger requests may be considered.

The Lake Ecosystem Advisory Committee developed criteria for evaluating submissions. These criteria relate to meeting grant program objectives; the project deliverables, workplan and feasibility; environmental benefits and challenges; and organization stability.

Submissions are reviewed by a subcommittee of the Committee, plus a non-voting Township staff member. Staff assist the subcommittee in reviewing the applications and making a recommendation to the full Lake Ecosystem Advisory Committee, which would then recommend a list of grant recipients to Council for final approval, similar to the Community Grants and Private Lane Assistance Grants processes. There is supposed to be annual reporting to Council summarizing the results and key learnings from projects.

Discussion

The Lake Ecosystem Grant Program Policy was established at the onset of the program. It needs to be reviewed based on the subcommittee's experience using the document and the types of applicants and applications received. The document should be updated before next year's application intake.

A 2024 draft program policy is attached. The following changes are proposed to the policy.

1. Criteria for applicant eligibility

   The definition of a non-profit organization would be expanded to include unincorporated groups and registered charitable organizations, and to remove the bullet regarding how much of the organization's budget can come from government grants.

2. General criteria

   Text would be added to clarify that an organization with an active grant for a project will not be considered for a subsequent grant for a new or different project until the active project is complete. Text would also be added to clarify that the organization cannot receive other Township funding for the same project.

3. Subcommittee composition

   The subcommittee would be revised to require a minimum of three members, and majority support for an application.

4. Annual reporting

   Text would be added to clarify that the annual reporting to Council would be for completed projects.

Staff welcome feedback on these matters, and any others that the Committee feels warrants review and revision in the Lake Ecosystem Grant Program Policy.

Attachment: 2024 Draft Lake Ecosystem Grant Program Policy

Report Prepared By:
Christine Woods, RPP, MCIP, Senior Planner

Township of South Frontenac
Lake Ecosystem Grant Program
Project Evaluation

Criteria

	Details	Weight
Grant Objectives	Project meets one or more of the Grant Objectives (i.e. runoff, buffer zone, wildlife habitat, monitoring).	20%
Project Deliverables, Workplan and Feasibility	Scope of project is defined by clear goals and activities. Work tasks and deliverables are clearly defined and are appropriate and achievable in the specified timelines. The proposal outlines how the project outputs, best practices and key learnings will be communicated to the public/target audience. “Funding provided by the Township of South Frontenac” is acknowledged. Project team has the knowledge and experience to complete the project. Adequate staff or volunteers to complete the project. Sufficient budgetary detail is provided. The project is cost effective.	35%
Environmental Benefits and Challenges	Proposal demonstrates how the lake ecosystem and/or community will directly benefit from the project.	25%
Organization Stability	The organization shows long-term sustainability through a robust volunteer base and stable financial governance. There is a demonstration of a long-term commitment to lake stewardship.	20%

Scoring

4 – 5 Exceeds expectations
3 Meets expectations
1 – 2 Does not meet expectations

DRAFT
March 2024

Township of South Frontenac
Lake Ecosystem Grant Program Policy

1. Purpose

This policy is to establish a grant process that supports and encourages the preservation, restoration, monitoring and analysis of lake ecosystems within the Township of South Frontenac.

2. Policy

The Township on a yearly basis will solicit applications from non-profit organizations for projects that support the purpose of this grant policy. The total amount available within a calendar year will be based on what has been set within the year's operating budget. Individual allocations to organizations will be based on a pre-determined structure. Being approved in one year does not guarantee funding in the following year.

3. Definitions

Buffer zone: A corridor of mostly undisturbed, permanently vegetated areas of land. They are transitional areas that reduce the impact of development and site alteration on adjacent natural features such as a lake.

Lake ecosystem: Lakes are inland bodies of water that lack any direct contact with an ocean. Lake ecosystems include living plants, animals and micro-organisms, as well as non-living physical (e.g. light, temperature and wind) and chemical reactions.

Non-profit organization: a not for profit organization including unincorporated groups or registered charitable organizations that:

- have an interest in lake ecosystems within the geographic boundaries of the Township of South Frontenac,
- has the ability to show long-term sustainability through a robust volunteer base and stable financial governance, and
- can demonstrate a long-term commitment to lake stewardship.

Wildlife habitat: means areas where plants, animals and other organisms live, and find adequate amounts of food, water, shelter and space needed to sustain their populations.

4. Guidelines

a. Funding Priorities

Priority will be given to those projects that have the greatest positive impact on the health and welfare of lake ecosystems. Projects could impact an entire lake, but could

also include another lake or other upstream or downstream components. Projects should incorporate one or more of the following objectives.

A. Reduces or limits diffuse or point source runoff primarily caused by human disturbance of the land
B. Creates or increases buffer zones along the lakeshore and/or banks of creeks and streams that drain into the lake
C. Protects or enhances wildlife habitat
D. Enables or performs monitoring and/or inventories of the lake environment and its contributing watershed in order to fill knowledge gaps

Projects that do not directly incorporate one or more of the above objectives will also be accepted for consideration.

b. Project Scope

This grant program is designed to fund projects up to $10,000. On an exceptional basis, larger requests will be considered. There is no minimum value for a project.

5. General Criteria for Grant Recipients and Submissions

All grant recipients and their submissions must meet the following criteria.

1. Submissions must have a well-defined plan with measurable results and take place/be completed within 12 months of receiving the grant.
2. The organization must be able to fund 25% of the total project requirements.
3. Grant recipients will receive 75% of their allotted funds at the beginning of the project and the remainder upon receipt of the final report.
4. Submissions must incorporate an outreach component to educate the community and build awareness of the key learnings and results of the project.
5. Final reports from any previous year's funding must have been received in order to be considered for the current year for a new or different project.
6. Financial statements from the previous calendar year should be included with the applicant's Letter of Intent, along with a list of current officers.
7. Unspent funds must be returned to the Township following completion of the project.
8. Applicants cannot be in receipt of other program-specific Township funding for the proposed project.

6. Review Process

All submissions will be reviewed by a subcommittee composed of at least three citizen representatives from the Lake Ecosystem Advisory Committee, plus a non-voting Township staff member. A majority of the subcommittee members must be in agreement in order for a submission to be accepted. The submissions will be reviewed against a set of evaluation criteria.

The subcommittee will bring its recommendations to the Lake Ecosystem Advisory Committee for approval. Once this is completed, the list of proposed Grant Recipients and associated documentation will be submitted to Council for final approval.

7. Annual Reporting

The Lake Ecosystem Advisory Committee will provide Council an annual report summarizing the results and key learnings of each completed project that received funding through the Lake Ecosystem Grant.