Ontario Phragmites Working Group

February 15, 2017

Meeting Minutes

10:00 am. Welcome / Overview of Agenda / Meeting Objectives

1.0 Attendees

- Kellie Sherman, OIPC
- Janice Gilbert, Co-Chair, OPWG
- Karen Alexander, Senior Program Specialist with Great Lakes Commission & Co-Chair OPWG
- Michelle Hay, Lambton Shores *Phragmites* Community Group Board Member & Project Coordinator
- Kristen Vincent, City of Toronto, hasn't done *Phragmites* treatment yet
- Diana Shermet, CLOCA, invasive species management program, just stated *Phragmites* control,
- Anne Lennox, Grey Sauble, starting more stewardship and *Phragmites* control
- Mike Hence, landowner and Councilor with Dunwich Township, representing a newly formed group in West Elgin who are just getting organized to start control work
- Marg Hulls, Elgin *Phragmites* Working Group, went to Council and brought them on board to control locally
- Isabel Ried, landowner, Elgin *Phragmites* Working Group,
- Leslie Wood, private citizen from Brockville, 1000s islands and Bruce Peninsula, is very concerned, trying to activate community
- Sarah Yuckin, University of Waterloo, Masters candidate working with Dr. R. Rooney
- Courtney Robichaud, University of Waterloo, Masters with Dr. R. Rooney: investigating the effects of *Phragmites* on bird communities
- Graham Howell, University of Waterloo, Masters candidate working with Dr. R. Rooney: control treatments and restoration
- Albert Hovingh, Environmental Planner with Region of Waterloo
- Jo-Anne Harbinson, Saugeen Conservation, Water Resources and Stewardship Services, encouraging municipalities more and providing tools to public works, hosting workshop for public works on March 16
- Sarah Fleischhauer, Restoration Technician, Maitland Valley Conservation Authority, hosting a workshop this year, TBD
- Francine MacDonald, Ontario Ministry of Natural Resources and Forestry (OMNRF), working on emergency registration of glyphosate
- Michael Irvine, OMNRF, Ontario Invasive Plant Council, OVMA Board, working on emergency registration of glyphosate
- Kevin Tuptamna, Grand River Conservation Authority, Natural Heritage Specialist, involved in Phragmites project where the Country's largest Virginia Mallow population is threated by *Phragmites*

- Matt Hoy, Executive Director of the Lake Huron Centre for Coastal Conservation, with Hannah Lacroix, Rhiannon Moore, working on coastal initiatives along Lake Huron that involves *Phragmites* management and education
- Lynn Short, coastal landowner in Tiny Township, Humber College professor, 15 years work at Wymbolwood beach
- Tim Nelson & Dan Hopkin, Zimmer air service, specialists in aerial application with Dan Hopkin
- Kelly Killoran, Georgian Bay Association
- Gurpreet Mangat**,** Canadian Wildlife Service, Environment Canada, filling for Leslie Carpenter, involved with *Phragmites* control at Long Point and St. Clair Wildlife Refuge
- Christina Lawrence, Point Pelee National Park, annual management of *Phragmites*
- Tarra G **LAST NAME**, same as above
- Paul Johnson, county of wellington, operations manager, 4 years of Phragmites management with Steve Ford and Green Streams
- Mike Cairns, Township of Archipelago, working on management within transportation network
- Steve Ford, Green Stream, contractor, working on Phragmites management in ditches all over Ontario
- Scott Hodgins, Herbicide Solutions, BASF
- Jake **LAST NAME**, University of Waterloo, undergrad thesis on *Phragmites* management
- Rachel Green, program coordinator Halton Peel region rep irish cottage association
- Dan Lebydyk, Essex Region Conservation Authority
- Linda Warren**,** Long Point World Biosphere Reserve
- Jill Crosthwaite, Nature Conservancy Canada
- Briannon McClaughlin, Credit Valley Conservation Authority, Invasive Species Technician, working on *Phragmites* management since 2009
- Luke Charbeannau, Deputy Mayor of Saugeen Shores, Chairman of Saugeen Conservation Authority, actively lobbying
- Derek Sholten, Colvoy equipment, supplier, products help manage *Phragmites*, from Brantford
- Mike Fair, Director of Community Services of Huron-Kinloss, since 2002 works with Coastal Centre, beach management agreement with MNRF
- Laura McClennan, biological consulting firm, works with *Phragmites* regularly
- Heather Sergeant, Georgian Bay Forever, community based initiatives
- David Sweetnam, Georgian Bay Forever
- Andrew Russell with Monsanto

2.0 Summary Notes from Presenters:

Francine MacDonald, OMNRF, Emergency Use Registration (EUR)

- Intending to submit another emergency use registration again in 2017
- Monsanto has agreed to this and can supply product for 1000 ha at Long Point and Rondeau Bay
- Currently waiting for MOECC to provide another letter of support, but do not anticipate any issues

- The formulation of chemical that was/is used is glyphosate and the surfactant is aqua surf, product name is Round-Up Custom
- What is the strategy after the expansion? What point do you move beyond emergency registration nationwide?
- OMNRF is not responsible for full-use registration, the Pesticide Management and Regulatory Agency (PMRA) is
- The need for a full use registration has been identified to the PMRA
- The manufacturer is responsible for applying for a full-use registration. Monsanto manufactures Round-up Custom
- OMNRF has been trying to bring all relevant organizations together; A meeting was held with all relevant organizations last week to discuss the fact that these products are needed

Jill Crosthwaite, Nature Conservancy Canada (NCC)

- NCC has several ongoing initiatives related to *Phragmites*
- Long Point has been the focus due to its biodiversity, certain environmental designations etc. and also a strong interest from the community
- There is also a Natural Area Conservation Plan for Southern Norfolk Sand Plain
- NCC has assisted with the Emergency Use application (NCC was a partner on this but did not lead it – I believe the demo site is a product of the Long Point Phragmites Action Alliance and MNRF)
- Fixed-wing aircraft and aerial photography was used to identify phrag patches at Long Point and Rondeau
- There are limitations as to what can be sprayed aerially versus on the ground
- NCC has a marsh master that can enter sensitive areas for ground spraying with minimal damage and wants to make this available for others in future years
- NCC recently received a Collective Impact grant from the Trillium Foundation to create a centralized *Phragmites* management plan for the Long Point region and hopes is to qualify for more money in future years to support more projects across the province; meetings planned to discuss partnerships and how to create a sustainable management model
- NCC also manages *Phragmites* on their own properties in Georgian Bay, Pelee Island, Port Franks, etc but the focus is Long Point
- Aerial spraying boundary was determined by GIS mapping, helicopter limited to spraying minimum 7x17 m polygons – anything smaller must be done by ground-based methods
- (I'm really not sure what is included in this – I know they are expanding it and Turkey Point marsh (privately owned, not provincial park) is being considered, but probably better to check with Francine as to what will actually be in the next EUR)
- There is no replanting or restoration as there is not a lot of evidence that that's needed, native seed bank comes back quickly, next year usually has a good response

Andrew Russel, Monsanto-Glyphosate Herbicide Projects

- Monsanto is pleased that the OMNRF have been successful in securing an emergency use permit for an aquatic formulation of our Roundup brand chemistry (Roundup Custom) in support of the

current research being conducted. Monsanto is engaged and fully supportive of an emergency registration of Roundup Custom as part of a Pilot Project and want to see this project/research completed before making any longer-term decision about full registration of this product

- Monsanto recognizes both the importance of controlling invasive plant species in Canada and the current lack of aquatic herbicides presently registered to address this problem. Phragmites is a serious problem for the conservation of wetlands and we are pleased that we have product that provides a potential solution to this problem
- PMRA approves emergency use registrations as a short-term solution to a problem with the expectation that a long-term solution is found
- Typically, Monsanto is terrestrial/agriculture focused with the herbicide solutions available in Canada
- There are several factors for Monsanto to explore before making a final decision about moving forward with full registration:
    - Bayer acquisition of Monsanto – until the acquisition is finalized and the amalgamation of the two companies is complete, we are operating in a time of business uncertainty
    - Although invasive aquatic weeds are recognized as a significant problem for sensitive wetland areas, the long-term demand and fit for this product is uncertain
    - Regulatory data requirements are expected to be significant (i.e. time, people and financial resources, research etc.)
- Monsanto is currently seeking clarification of the Canadian data requirements for a full product registration and will move forward with making a pre-submission consultation request to explore further
- At an Aquatic Herbicide workshop held February 9th, 2017 PMRA and Environmental Protection Agency (EPA) came together and discussed the data requirements to register aquatic herbicides in Canada
- The registration of Aquatic herbicides is very new to PMRA
- Diquat is an already registered aquatic herbicide but is not registered for use on *Phragmites*

Scott Hodgins, BASF

- BASF has been working with Phragmites for a long time and with OPWG since its inception
- Engaged in the project because it is the right thing to do from an environmental and community sustainability standpoint
- 2016: BASF expanded the label of Arsenal Powerline (Imazapyr formulated with surfactant) to include Phragmites in non-aquatic areas
- 2016: BASF supported emergency use of Habitat Aqua (Imazapyr formulated without surfactant) for control of Spartina in coastal flats of BC
- 2016: BASF supported emergency use of Habitat Aqua for control of Flowering Rush in aquatic area in Alberta
- 2016-4th quarter: BASF submitted Habitat Aqua for national registration

Murray Purcell, Roadside Control Discussion, Ontario Ministry of Transportation

***presentation delivered by Janice Gilbert**

- 6000 ha of roadside vegetation in his region (Southwest Ontario)
- Western Region, starting to get other folks from other regions engaged
- North of 402 and 401 under control
- Targeting in 2017 – tender all 402, 401 from Windsor to Manning Road, touching up 401, Cambridge to Colonel Talbot Rd., west of London
- Hwy 11 patch beside a river that flows north to James Bay – MTO will be meeting to discuss further provincial strategies
- Webinar contacted Ottawa region Representative - Ottawa group is getting together with other people to follow Murray's model
- No arsenal yet; currently using Weathermax

Steve Ford, Green Streams, Contractor perspective and advice

- Roadside focus, aquatic herbicide control with regent or reward added as a surfactant
- More protocol now, more tools in the toolbox as well, safer application and safer chemicals
- We need: strict applications, more technology to apply chemicals without waste, need to document exactly how much active ingredient is used
- Currently we can spray roadsides with anything, no restrictions under cosmetic ban for public works, right-of-way's, utilities etc.
- Two ways for signage: apply and ask director if it is ok if we use an alternative notification, such as a newspaper add 2 weeks before application, then no signs are needed anywhere unless specific openings of trails. Along County roads, you don't necessarily need signs, county can put something on web page, if not then you do have to post a sign every hundred meters
- Largely based on broadcast spraying because it is the most economical and feasible
- Value added to Townships = wet blade technology. May be beneficial in cases with small budgets, but unless your cutting new stands, you're also hitting a lot of dead stuff, wasting herbicide, if you're going to use wet blade with high buffer restrictions, in an area where there's a lot of people, it looks better people think they you just cutting
- CP rail uses (what?) on sightline crossings
- Cutting alone isn't effective, but ok temporarily if for safety reasons
- Going to see more MTO mowing before treatment re: safety areas like right-of-way's
- Wellington County weed audit – 689 km of roads, followed weeds list from OMAFRA, figured out which areas to focus on which provided good justification to apply management. *Phragmites* has been decreased in Wellington to less than a 1000 m2 in some areas. This is a great approach, but not everywhere can always depend on summer students to map roadside areas
- Why after 3 years of treatment, there is still a lot of *Phragmites*?
  Wellington county, didn't spray Municipality and Township roads, so it keeps spreading that way, we can't spray drains, we can't spray areas where we are not contracted to spray, we can't spray private land. The lower tier's might say were doing it only by cutting etc., largely due to not getting everything at the right time, *Phragmites* doesn't recognize boundaries
- What is your experience with a direct hit on an established area with full label rate?

With prescribed rates used + surfactant, if you put it down at exact volume and time, you could get 100% control in a year. This is harder in large stands. The label parameters are good. Re-growth is more likely due to applicator error

- MSO is a good surfactant, non-ionic means it doesn't have stickiness
- Do we have Wet blade kill rates?
  #1 method = broadcast spraying, mixed results from wet blade, mostly due to *old biomass*, sharpness of blades etc., better control with arsenal & wet blade, benefits for Township is cutting vegetation while using herbicide to control re-growth, Rob Steingina at the County of Lambton could provide non-bias judgement. In Kingsville, there was a 40% kill, but some patches showing resistance to glyphosate
- RE: old biomass, What about mowing and then treating re-sprouts with wet blade?
  There is not usually enough regrowth, because we need to get enough chemical down to roots, to do that you need more leaf surface for more chemical. It is always better to broadcast spray anyway than any wet blade regardless
- The best approach is currently: cutting then let grow then broadcast spray, with multiple years of control
- Kellie Sherman gave an update on the road BMP's. They are available online and they are currently being tested by various partners to evaluate the efficacy and challenges related to keeping equipment clean in the field

Dr. Rebecca Rooney, Emergency Use Program Monitoring Update

- Monitoring picked up effects in both Rondeau and Long Point
- Rondeau had an extensive infestation, Long Point crown marsh was worse with Phragmites covering 70% of the management unit
- Monitoring for the efficacy of herbicide and the fate of herbicides in the marshes as well as the efficacy and encouraging the recovery of native veg
- Fate and effects: pose a risk to biota? How far does the herbicide spread?
- Only collected baseline data thus far, 40 sampling locations across both sites. Half were in an area to be treated and half the sampling sites were not
- We now have baseline data, next summer we will repeat monitor and get the first sense of how system is responding, with follow-up monitoring planned for 2019 and 2021
- There is definitely *Phragmites* seeds in seedbank that is viable
- Not spatially comprehensive, we can't say this is where a patch survived and needs revisiting
- Recommended systematic survey next year
- Dispersal/degradation
- Concentrations of chemical and surfactant? In surface water and sediment.
- Did herbicides ever reach a risk threat? No
- Peak observed was a lot lower than a threshold value you would see at a chronic level and below drinking water standards
- Low sediment levels as well
- Concentrations over time: within 24 hours there was an increase, but this caused no concern because the levels went back to baseline within a month

- At one site in Rondeau, the herbicide concentration in Phragmites went up, monitor site again in spring to see if concentrations have gone back down, probably an issue of flushing
- Some sediment in crown pond remained elevated, will monitor this as well
- How far did it go?
- Ecotox experiment
- Exposed hyallala to crown marsh, no real difference in survival from plain water and sprayed water and sediment
- Preliminary results in presentation
- Could data be used by Monsanto?
  This study does meet standards for publication, but won't be published yet. PMRA does accept lit under review.
- Were other species out of seedbank, big discrepancy from last year
- Viable seeds, minimal under 5 probably
- No phrag seedlings in sites

Kate Monk, Ausable Bayfield CA/Conservation Authorities

***Presented by Janice Gilbert**

- 2014 County of Huron wanted to begin managing Phragmites along roads managed by the County of Huron. The CA offered a fee for service to County. All roadside populations are under control, with minor touch ups every year
- Ipperwash community: starting a new project to educate private landowners, they can contact St. Clair for fee for service to remove *Phragmites*

Huron hosting international plowing match, plans to cut every inch of *Phragmites* along roadside, have an opportunity to follow-up with spraying

Lambton Shores Phragmites Community Group

Presented by Michelle Hay

- Lambton shores coastal wetland enhancement funding, 3-year funding project beginning July 2016
- Workshop: Stop the Spread had 52 attendees total, one from as far away as Hydro Quebec in Montreal., door knocker, citizen scientist workshop, attended by 42 participants which will require 10 hours of monitoring per year, 23 registered so far as of Feb 15
- Workshop: Marsh Monitoring Program – Bird Studies Canada.
- Lambton Shores started control in 2011
- LSPCG has been working with industry to create a cutting barge and a transportation barge made of dock blocks
- Follow Clean Equipment Protocols for cleaning
- 146 acres of wetland system to date
- Cost per hectare is estimated at $1000

Lynn Short, Humber College, Spading Method Research Update

- Began at Wymbolwood Beach, has been teaching others on other beach areas in Tiny Township
- Lynn and her hired students now clear 25 private beachfront properties/yr using this technique
- Where they started, the patches are now do-able by the landowner so no need for extra hands from students and they can move on to other sites; continued removal of a few stalks each year maintains control
- Spade has a straight edge – and must be sharp!
- The technique is a straight in and straight out jab – being careful to sever the stalk without disturbing the surrounding native plants or soil. The stalks are either piled and burned, or bagged and removed from the site
- Two research sites to investigate timing, and number of digs for optimal results. Measuring height, stem diameter, stem density, and presence of native plants
- Preliminary results suggest that fewer stalks regrow and native plants recover faster with more spade removals in a season

David Sweetnam, Georgian Bay Forever – Manual removal of *Phragmites*

- Dead stalks are pipes and living shoots produce air pressure and pump air into roots, defense mechanism for flood resistance
- Low water levels provided a great opportunity to cut Phragmites along the Georgian Bay coast
- NASA project, what happens when water levels decline compared to veg diversity, as water levels decline = new wetlands. In South Georgian bay = loss of wetlands with development
- GBF created a phrag. Busters group of volunteers and paid staff who go out and cut the Phragmites during the 1st and 2nd weekends in august, before seeds appear
- They work with NVCA etc, Collingwood, etc
- 6 town staff people from Collingwood and equipment are provided, haul cut material to Simcoe County composting facility (near Barrie)
- Hard to reach areas, they use a barge and incinerate in the fall
- As a charity, providing training to leaders of communities
- Georgian Bay town just administered new program for GBA to run to approve projects and ensure coordination and effectiveness of projects
- GBA video (Link to video?)
- Honey harbor 18-foot-tall site in PSW
- Talking to parks, citizens, townships etc
- Get pics for online and presentations

Open discussion: *Phragmites* control program updates

- Market mechanism for biomass?
  We don't want to create a commodity for it, potential for spread, someone will plant it, they don't want to access it piece by piece, too many residual impacts, over 1 million investments for digesters? More from Steve ford, potential for char? But can't sell or transport under new Act
- Letter campaign

Targeting is a good suggestion, make sure you are targeting right groups, the fed group is not the right target - they register herbicides they don't instigate an application, applications come from BASF and Monsanto
PMRA can expedite BASF'S current application? Send letter to Monsanto?
PMRA does not have a vested interest in registering an herbicide, PMRA would never ask for a registration from Monsanto. The Provincial Government can ask for support and the OMNRF made the need known through the request for an emergency use permit. In the end for full product registration its Monsanto or registrant that would make the formal application to PMRA, if you're directing focus at government that won't be effective

- What is cost for Monsanto to apply?
  Just submit and then see what PMRA does
- Any company that produces herbicides, if they know there is a need and they have a formulation and a data set, it still depends on the complexity of the application: for a new product never registered it could be up to 2 years, costs set aside, if a current active ingredient is already registered it could be less time, maybe 16-18 months. It is best to know what data is required from the PMRA before an application is submitted

Karen Alexander, Great Lakes Commission (GLC), Great Lakes Phragmites Collaborative (GLPC) and the Phragmites Adaptive Management Framework (PAMF)

- Great Lakes Commission is an interagency compact written into US law. www.glc.org

Great Lakes Phragmites Collaborative (GLPC)

- GLPC started in 2012 in response to the identified need to collaborate. OPWG is a type of collaboration
- Dr. Janice Gilbert has represented Ontario on the GLPC since 2012 and still participates today as a member of the Advisory Committee. Owen Wilson from the OIPC has been involved in the GLPC as well
- GLPC is rooted in the theory of Collective Impact. The GLC is the neutral backbone for the GLPC. The GLC does not participate in management of *Phragmites* – the GLC coordinates and administers the GLPC and has recently completed the Common Agenda which identified specific working groups and priority actions for each group. The GLPC also organized members into these groups based on their interest areas and organizational strengths. The next steps under the Collective Impact approach is to generate shared measures that can be used to measure the impact of these priorities across the basin
- OPWG could consider a Collective Impact approach. The neutral backbone could be the OIPC who would administer and coordinate the collaborative. OIPC would additional require staff support, which would require some additional funds
- The OWPG could also align to the GLPC Collective Impact priorities by developing specific objectives that help forward those priorities, rather than take on a full collect impact approach
- Elaine Ferrier, past co-chair of the OPWG is currently the coordinator of the GLPC. Reach out to her if you would like to deliver a webinar, use ListServ to reach 600+ Phragmites managers across the basin, to submit a case study, or use the GLPC social media to expand the reach of your projects

Phragmites Adaptive Management Framework (PAMF)

- The GLPC is also working on a new strategy for managing *Phragmites* in the Great Lakes basin called the *Phragmites* Adaptive Management Framework (PAMF). A PAMF video was shared with the group: https://www.usgs.gov/media/videos/phragmites-adaptive-management-framework-pamf
- Dr. Janice Gilbert and Dr. Rebecca Rooney participate on the Technical Working Group – a group of 12 professionals from across the basin who are working directly with the core science team to develop the components of the framework
- Components include: predictive models, standardized monitoring protocols, and a centralized database or Web Hub
- Once developed, PAMF will require participation from land mangers across the basin
- Participants will be asked to enroll sites into the Web Hub, receive treatment guidance from the models and apply any treatment they like, use the standardized monitoring protocols and report the outcomes of management to the Web Hub. And repeat the cycle until *Phragmites* is successfully controlled
- The purpose of PAMF is to combine and interpret individual management outcomes from across the Training materials, webinars, and workshops will be scheduled. Karen would like to host one or two workshops in Ontario – or work directly with several key participants who would like to contribute their management data to a basin-wide adaptive management strategy

Kellie Sherman, Ontario Invasive Plant Council, OPWG Public Education Working Group

Kellie gave an update on the activities completed by the OPWG Public Education Working Group. The Working Group used some of the funds to complete a Communications Strategy. The group is currently working on content for a commercial and billboard campaign targeting the general public.

Letter Campaign Update

- Re-used the same letter
- Given Monsanto is being bought by Bayer, the president of Bayer should receive a letter
- Minister of Environment letter with Nancy's group for all 14 local municipalities
- Construct the letter to make it about being sustainable and helping communities, be a solid citizen, we will advertise for them, solidify our environment for future generations, etc.
- Letters are being received, making a difference, succeeded in communicated to OMNRF that this is a big issue
- Think about a letter that is targeted to PMRA & the head from BASF urging the PMRA to register Imazapyr. George and Scott said a request to Ontario Provincial Governments is more powerful because even if they get it registered in Canada, they still need to go through permitting process in Ontario, which will require MOECCs support

OPWG Discussion

- Common agenda could make a big difference now, would need to search out funds and ID proper backbone agency
- OGRA, conference is at the end of Feb. The Premier and Ministers are there. Steve Ford is sharing a booth with Janice and Nancy

- AMO, we need a bigger push on this
- Support from Ontario Federation of Agriculture, currently they won't push to go on noxious weed without tools
- We need education plan in place, we need to educate people that herbicides are OK for the purposes of conservation – defer to OPWG Public Education Working Group
- Andrew (Monsanto) could use maps, charts and acreage of *Phragmites* across Canada to help build a good case for registering glyphosate in Canada
    - Could we start with mapping information from Pat Chow Fraser?