



**North Bay-Mattawa Conservation Authority  
Board of Directors Meeting  
April 26, 2023  
4:30pm  
or immediately after the Source Protection Authority meeting  
NBMCA's Natural Classroom  
15 Janey Avenue, North Bay, Ontario**

**AGENDA**

**Procedural Matters**

1. Acknowledgement of Indigenous Traditional and Treaty Lands
2. Delegations
3. Declaration of Pecuniary Interest
4. Approval of the Agenda
5. Adoption of Previous Minutes from March 29, 2023
6. Correspondence

**Verbal Report**

7. Provincial Policy Statement: Relevant Proposed Changes

**Presentations**

8. BDO – Audited Financial Statements
9. NBMCA Flood Forecasting & Warning Program 101

**Business Reports**

10. Section 28 Permits Report **(Report #1)**
11. Annual Report 2022 **(Report #2)**
12. Conservation Authorities Act Timelines **(Report #3)**
13. Phragmites Bio Control **(Report #4)**

**Other Business**

14. Closed Session of Committee of the Whole pertaining to litigation, property, and personnel matters
15. New Business
16. Adjournment

**NORTH BAY-MATTAWA CONSERVATION AUTHORITY  
MINUTES  
of the**

**FOURTH** meeting of the North Bay-Mattawa Conservation Authority held at 4:30 p.m. on April 26, 2023 in the NBMCA’s Marc Charron Boardroom, 15 Janey Avenue, North Bay Ontario.

**MEMBERS PRESENT:**

<b>Bonfield, Township of</b>	-	<b>Steve Featherstone</b>
<b>Callander, Municipality of</b>	-	<b>Irene Smit</b>
<b>Chisholm, Township of</b>	-	<b>Nunzio Scarfone</b>
<b>Mattawan, Municipality of</b>	-	<b>Michelle Lahaye</b>
<b>North Bay, City of</b>	-	<b>Peter Chirico</b>
<b>North Bay, City of</b>	-	<b>Lana Mitchell</b>
<b>North Bay, City of</b>	-	<b>Chris Mayne</b>
<b>Powassan, Municipality of</b>	-	<b>Dave Britton</b>

**MEMBER(S) ABSENT:**

<b>Calvin, Township of</b>	-	<b>Bill Moreton</b>
<b>East Ferris, Municipality of</b>	-	<b>Steve Trahan</b>
<b>Mattawa, Town of</b>	-	<b>Loren Mick</b>
<b>Papineau –Cameron, Township of</b>	-	<b>Shelley Belanger</b>

**ALSO PRESENT:**

**Aaron Loughheed**, Assistant Manager, Finance  
**Adam Whyte**, Acting Manager, Lands & Stewardship  
**Angela Mills**, Water Resources Specialist  
**Chitra Gowda**, Chief Administrative Officer (CAO), Secretary-Treasurer  
**David Ellingwood**, Project Manager, Water Resources  
**Dean Decaire**, BDO  
**Helen Cunningham**, Manager, Finance & Human Resources  
**Joanne Brosseau**, Member of the public  
**Paula Scott**, Director Planning & Development/Deputy CAO  
**Rebecca Morrow**, Executive Assistant  
**Robin Allen**, Manager, On-Site Sewage Systems  
**Sasha Fredette**, Area Supervisor, On-Site Sewage Systems (North Bay)  
**Steve Kirkey**, Member of the NBMSPA Board of Directors  
**Valerie Murphy**, Regulations Officer

**1. Acknowledgement of Indigenous Traditional and Treaty Lands**

Steve Featherstone read a statement acknowledging Indigenous and Treaty Lands.

**2. Delegations**

There were no delegations.

**3. Declaration of Pecuniary Interest**

None declared.

**4. Approval of the Agenda**

After discussion the following resolution was presented:

Resolution No. 53-23, Featherstone-Scarfone

**THAT** the agenda be approved as presented.

**Carried Unanimously**

**5. Adoption of Previous Minutes of March 29, 2023**

After discussion the following resolution was presented:

Resolution No. 54-23, Mitchell-Chirico

**THAT** the minutes of the meetings held on March 29, 2023 be adopted as written.

**Carried Unanimously**

**6. Correspondence**

None.

**7. Provincial Policy Statement: Relevant Proposed Changes**

Paula Scott provided a verbal update to members on the proposed changes to the Provincial Policy Statement. After discussion the members thanked Paula for the update.

**8. BDO – Audited Financial Statement presentation**

Dean Decaire of BDO presented the Draft 2022 Audited Financial statement. After discussion, the members requested that a copy of the presentation be sent to members by email. The members then thanked Dean for his presentation and the following resolution was presented:

Resolution No. 55-23, Mayne-Smit

**THAT** the audited financial statements for the year 2022 be accepted as presented, and;

**THAT** the audited financial statements be appended to the minutes of this meeting.

**Carried Unanimously**

**9. NBMCA Flood Forecasting & Warning Program 101 presentation**

Chitra Gowda, Angela Mills and David Ellingwood presented an overview of the NBMCA's Flood Forecasting and Warning Program. After discussion, the members thanked Chitra, Angela and David for their presentation and work during the spring freshet season.

**10. Section 28 Permits Report**

Valerie Murphy presented the report to the members. After discussion, the members thanked Valerie and the following resolution was presented:

Resolution No. 56-23, Smit-Lahaye

**THAT** the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Permits report is received and appended to the minutes of this meeting.

**Carried Unanimously**

**11. Annual Report 2022**

Chitra Gowda presented to members the 2022 Annual Report and highlighted messages from NBMCA's Chair, Dave Britton and NBMCA's CAO, Chitra Gowda. The report referenced NBMCA's area of jurisdiction and corresponding legislation and NBMCA's key program areas including Corporate Services, Planning & Development, Integrated Watershed Management, Conservation Areas, Lands and Stewardship and Communications and Outreach. After discussion the Members then thanked Chitra for her presentation and the following resolutions were presented:

Resolution No. 57-23, Mayne-Mitchell

**THAT** the staff report 'NBMCA Annual Report 2022' is received and appended to the minutes of this meeting;

**AND THAT** the Board direct staff to complete the AODA related edits and post the NBMCA Annual Report 2022 to the website and share with watershed partners.

**Carried Unanimously**

**12. Conservation Authorities Act Timelines**

Chitra Gowda presented her report to members on the Conservation Authorities Act timelines. After discussion the members thanked Chitra for her report and the following resolution was presented:

Resolution No. 58-23, Mitchell-Featherstone

**THAT** the staff report 'Conservation Authorities Act Implementation Timelines' is received and appended to the minutes of this meeting.

**Carried Unanimously**

**13. Phragmites Bio Control**

Adam Whyte presented the Phragmites Bio Control report to members. After discussion the members thanked Adam for the report and the following resolution was presented:

Resolution No. 59-23, Smit-Scarfone

**THAT** the Board approve of NBMCA staff's recommendation to grant permission for the release of said biocontrol agents for the management of introduced Phragmites in Laurier Woods Conservation Area;

**AND THAT** this report be appended to the minutes of this meeting.

**Carried Unanimously**

**14. Closed Session of Committee of the Whole**

After discussion, the following resolutions were presented:

Resolution No.60-23, Mitchell-Lahaye

**THAT** the meeting move into a closed session of "Committee of the Whole" to discuss litigation, property and personnel matters (6:36pm).

**Carried Unanimously**

Resolution No. 61-23, Lahaye-Chirico

**THAT** the meeting move out of a closed session of “Committee of the Whole” and back into an open meeting.

**Carried Unanimously**

Resolution No. 62-23, Mitchell-Mayne

**THAT** the Board repeal the NBMCA COVID-19 policies;

**AND THAT** training and naloxone kits be provided for staff involved in collection of litter and garbage in conservation areas, to help mitigate risks of exposure.

**Carried Unanimously**

**15. New Business**

None noted.

**Carried Unanimously**

**16. Adjournment (7:33 p.m.)**

As there was no new business, the following resolution was presented:

Resolution No. 63-23, Mayne-Smit

**THAT** the meeting be adjourned, and the next meeting be held at 4:00 pm Wednesday May 24, 2023 or at the call of the Chair.

**Carried Unanimously**



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Dave Britton, Chair



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Chitra Gowda, Chief Administrative Officer,  
Secretary Treasurer



**TO:** The Chairperson and Members  
of the Board of Directors,  
North Bay-Mattawa Conservation Authority

**ORIGIN:** Valerie Murphy, Regulations Officer

**DATE:** April 11, 2023

**SUBJECT:** Report on Development, Interference with Wetlands and Alterations to Shorelines  
and Watercourses Permits

**Background:**

Section 28 of the *Conservation Authorities Act*, and subsequently Ontario Regulation 97/04 empowers each Conservation Authority to establish their own regulation to prevent the loss of life and property due to flooding and erosion, and to conserve and enhance natural resources. On May 4, 2006, the North Bay-Mattawa Conservation Authority (NBMCA) received its regulation entitled the Development, Interference with Wetlands, and Alterations to Shorelines and Watercourse Regulation (Ontario Regulation 177/06). This regulation will continue to be used as the tool by which the NBMCA manages issues related to development in natural hazard areas including areas with floodplains, wetlands, and steep slopes. Within this regulation, a permit may be given by an Authority for development applications within the Authority's jurisdiction for:

28(1)(b) prohibiting, regulating or requiring permission of the authority for straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream or watercourse, or for changing or interfering in any way with a wetland;

28(1)(c) prohibiting, regulating, or requiring the permission of the authority for development if, in the opinion of the authority, the control of flooding, erosion, dynamic beaches or pollution or the conservation of land may be affected by the development (Conservation Authorities Act, R.S.O. 1990, Chapter C.27).

On February 8, 2013, the amended Ontario Regulation 177/06 came into effect. These amendments were approved by the NBMCA Board of Directors on December 19, 2012. One of the amendments that was included, and which was approved by the NBMCA Board of Directors, included the delegation of approvals of permit applications to the following designated employees:

- Chief Administrative Officer, Secretary-Treasurer
- Director, Planning & Development

As such, this Board Report is being presented to the NBMCA Board of Directors for information purposes.

**Analysis:**

Six new permits have been issued by the Conservation Authority since the previously approved minutes as per the policies, procedures, and guidelines of the NBMCA under Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation. A table summarizing the details of these permits is attached to this report.

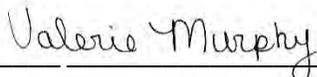
Of the newly issued permits, three were issued for projects of a landscaping nature, two for the installation or replacement of water crossings and one for the removal of permanent dock structures.

**Recommendation:**

**THAT** the members receive and approve the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Permits as presented.

**Recommended Resolution:**

**THAT** the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Permits report is received and appended to the minutes of this meeting.



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**Valerie Murphy, Regulations Officer**

File No.	Name of Applicant	Municipality	Legal Description/ Address	Name of Regulated Feature	Nature of Work	Date Complete Application Received	Development, Interference with Wetlands and Alterations to Shorelines and Watercourses
							Permit No./Date of Issuance
<b>RBO-22-10</b>	Paul Labonte	Bonfield	126 Sunnyside Road	Lake Nosbonsing	Drainage works and reclaim beach area	March 7, 2023	<b>#10-23</b> March 17, 2023
<b>RNB-23-05</b>	David Tremblay	North Bay	64 Gertrude	Lake Nipissing	To repair existing rock wall near shoreline	March 16, 2023	<b>#11-23</b> March 17, 2023
<b>RPH-23-01</b>	Ontario Parks c/o Lisa Edey	Phelps	Crown Land	Cahill Creek	To replace failing culvert under road	March 28, 2023	<b>#12-23</b> April 5, 2023
<b>RNB-23-08</b>	MNRF c/o Mike Ward	North Bay	Crown Land	Hogan Creek	To construct clear span wooden mountain bike bridge	April 3, 2023	<b>#13-23</b> April 5, 2023
<b>RNB-23-09</b>	Tomy Joseph	North Bay	785 Lakeshore Drive	Lake Nipissing	To remove crib docks and undertake landscaping	April 3, 2023	<b>#14-23</b> April 5, 2023

<b>REF-22-17</b>	Randall Blaskiewich	East Ferris	219 Booth Road	Lake Nosbonsing	To complete landscaping near shoreline	March 23, 2023	<b>#15-23</b> April 5, 2023
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**TO:** The Chairperson and Members of the Board of Directors,  
North Bay-Mattawa Conservation Authority

**ORIGIN:** Sue Buckle, Communications Manager  
Chitra Gowda, Chief Administrative Officer, Secretary Treasurer

**DATE:** April 26, 2023

**SUBJECT:** NBMCA Annual Report 2022

**Background**

The North Bay-Mattawa Conservation Authority (NBMCA) had an eventful year in 2022, celebrating its 50<sup>th</sup> anniversary while also recovering from the global pandemic. Staff prepared an Annual Report for 2022, summarizing the highlights of programs and services at NBMCA.

**Analysis**

Through 2022, staff showed resiliency during difficult times and provided excellent customer service through significant increases in planning, Section 28 and septic system permit applications. Staff continued floodplain mapping and erosion control projects and resumed watershed monitoring activities. The Mattawa River Canoe Race was successfully held after a hiatus of two years due to the pandemic. Staff continued to maintain publicly accessible areas for the enjoyment of visitors at the conservation areas while also empathetically managing homeless encampments.

In 2022, the Conservation Authorities Act regulations saw further major changes through four new regulations. Staff began implementing the changes.

**Recommendation:**

Staff recommend that the Board direct staff to carry out AODA checks and related edits, and then post the Annual Report 2022 to the NBMCA website and share with watershed partners.

**Recommended Resolution:**

**THAT** the staff report 'NBMCA Annual Report 2022' is received and appended to the minutes of this meeting;

**AND THAT** the Board direct staff to complete the AODA related edits and post the NBMCA Annual Report 2022 to the website and share with watershed partners.

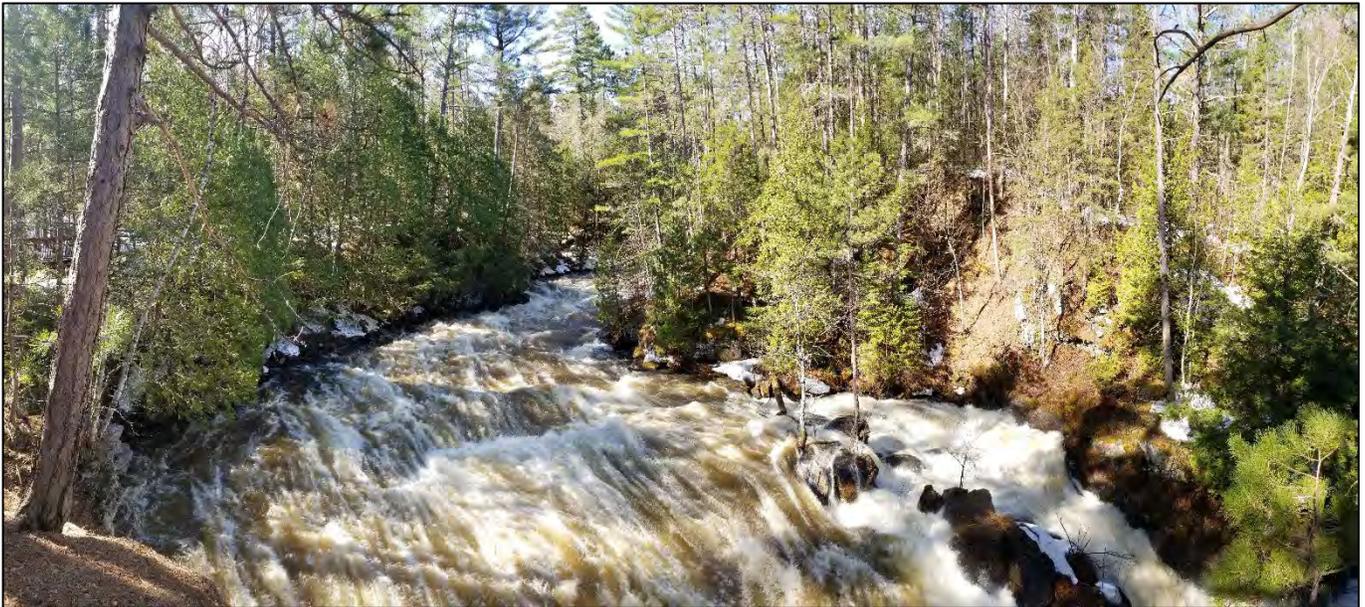
**Submitted By**

**Sue Buckle, Communications Manager**  
**Chitra Gowda, Chief Administrative Officer, Secretary Treasurer**



NORTH BAY - MATTAWA  
**CONSERVATION  
AUTHORITY**

1972-2022 | 50 Years of Conservation



# Annual Report 2022

*Photo "Feel the flow! Eau Claire Gorge Conservation Area"*  
*Photo Credit: David Ellingwood*

## Message from Dave Britton, Board Chair

In 2022, the North Bay Mattawa Conservation Authority (NBMCA) celebrated its 50<sup>th</sup> anniversary of watershed management. The year's events were an opportunity to look at our beginnings, where we are now, and where we are headed with the changing times including an updated Conservation Authorities Act, climate change, and a post-pandemic future.

Our 10 member municipalities rely on NBMCA's science-based expertise and policies to inform decision making surrounding sustainable, well-planned development and the health of our valuable water resources while protecting people and property from natural hazards. Through municipal proclamations, our municipalities honoured NBMCA's 50<sup>th</sup> by acknowledging the expertise, advice, and leadership of NBMCA through the critical services it provides.

Through 2022, I had the opportunity to lead a collaborative, strong governance structure that guided NBMCA through challenging times. We ended 2022 with changes at our Board of Directors table, following the municipal elections. I give thanks to departing Board members for their contribution to the success of NBMCA. We're looking forward to the next term with a healthy mix of seasoned, returning members and new faces keen to fulfill their role under the Conservation Authorities Act.

NBMCA thanked our long-time CAO Brian Tayler who retired in June 2022, leaving a solid foundation for important watershed-based programs. We welcomed Chitra Gowda as the new CAO to help NBMCA navigate legislative and regulatory changes to the operation of conservation authorities in Ontario and move the operations into a new, post pandemic future, while managing a changing climate.

Staff are recognized for their immense efforts to deliver and support our programs throughout Nipissing and Parry Sound districts in NBMCA's jurisdiction. Their strong dedication and hard work in all program areas are applauded, especially through the pandemic and with significantly increased demands.

NBMCA couldn't do the important work of protecting our watershed without collaborating and partnering with community groups, municipalities, agencies, government, environmental stewardship groups, Indigenous organizations, donors, property owners, and dedicated individuals some of whom we had the pleasure of honouring as "Watershed Heroes" during our 50<sup>th</sup> anniversary activities.

Together, our Board, staff, and community partners continue to foster the health of the watersheds and communities within NBMCA's jurisdiction for our future generations.



**Dave Britton, Chair**  
North Bay-Mattawa Conservation Authority

## Message from Chitra Gowda, CAO

The NBMCA works proactively with member municipalities and all levels of government, residents, community groups, the development industry, and many others. Our programs and services support safe development along with watershed management and economic growth by taking a coordinated, collaborative and balanced approach. The NBMCA is built on values of action, collaboration, innovation, transparency and integrity.

I joined the NBMCA mid-year as we emerged from the global pandemic, an unprecedented time. Now, more than ever, it has become clear that our conservation areas are critical for the health and wellbeing of our communities. Staff showed resiliency during difficult times and provided excellent customer service through significant increases in planning, Section 28 and septic system permit applications. Staff continued floodplain mapping and erosion control projects and resumed watershed monitoring activities. Staff changes were made to support increased activities in planning and permitting programs. The Mattawa River Canoe Race was successfully held after a hiatus of two years due to the pandemic. Our 50<sup>th</sup> anniversary activities highlighted the importance of watershed management across the North Bay-Mattawa region. We continued our partnership with the Laurentian Ski Hill and Snowboarding Club.

I am grateful for the leadership and direction provided by the Board of Directors as I came on board; and for the dedication of staff, through changing times and circumstances including climate change. I enjoyed the start of getting to know key stakeholders across the watershed, in an effort to better understand the local environments, needs and priorities.

In 2022, the Conservation Authorities Act regulations saw further changes through four new regulations to enhance transparency, to set up a process for 2024 and beyond to estimate levy amounts, budget and apportionment methods, and to change the role of conservation authorities in plan input and review and Section 28 permitting. Staff have begun working on implementing these changes. The following sections highlight the work and accomplishments of NBMCA staff in 2022.



**Chitra Gowda**  
**Chief Administrative Officer, Secretary Treasurer**  
North Bay-Mattawa Conservation Authority

## **OUR MISSION**

The North Bay-Mattawa Conservation Authority provides leadership through coordination of watershed planning, implementation of resource management programs and promotion of conservation awareness in cooperation with others.

## **OUR VISION**

Providing effective leadership in the management of our watersheds where partners and communities are actively engaged in balancing human needs with the needs of the natural environment.

## **OUR VALUES**

- **Action:** Establish priorities and undertake initiatives based on desired results, ensuring that actions or decisions are undertaken individually and collectively in an accountable and timely manner.
- **Collaboration:** Work together with our partners and communities to strengthen our approach and create synergy for improving watershed management.
- **Innovation:** Be a leader in science-based integrated watershed management that accommodates taking new approaches to our business.
- **Transparency:** Communicate and share information and ideas using appropriate language and outreach techniques to bring about clear understanding.
- **Integrity:** Ensure that actions or decisions do not compromise our fundamental values or principles.



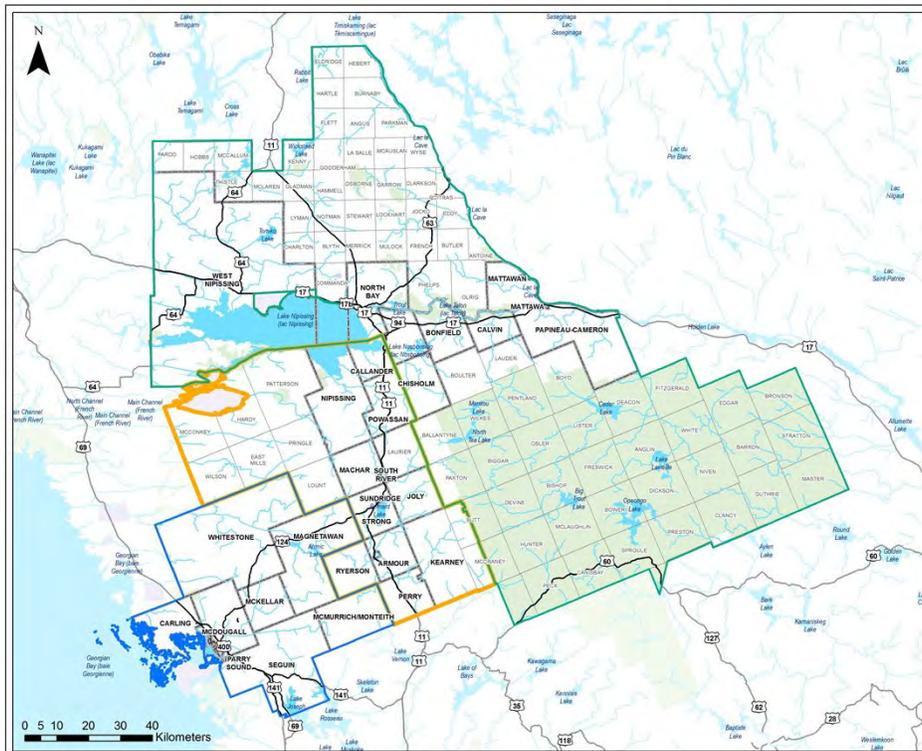
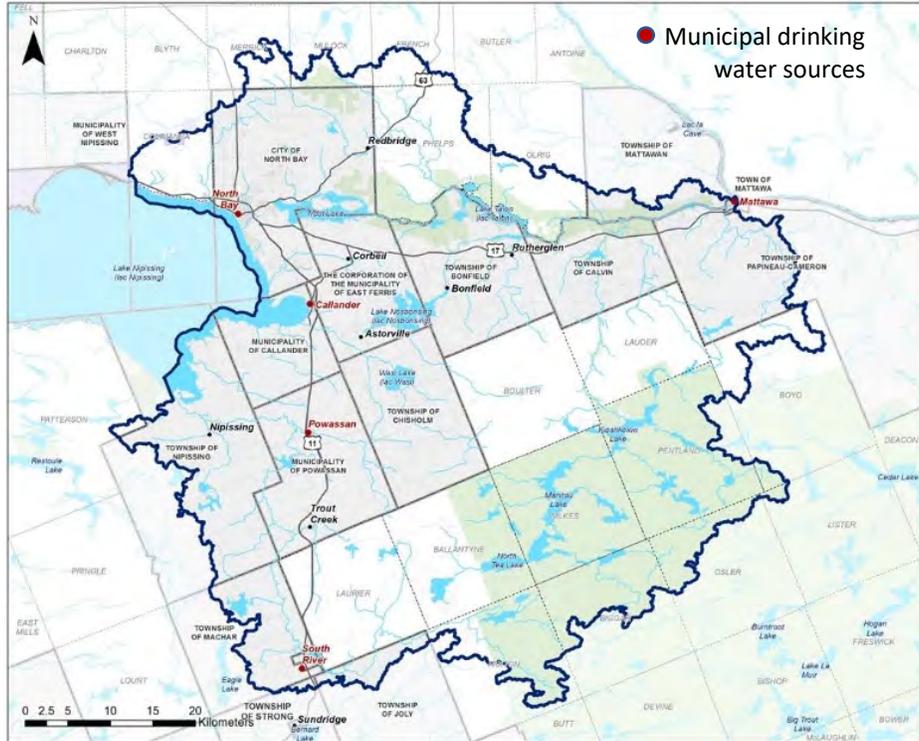
The NBMCA has responsibilities under three legislation:

- Conservation Authorities Act – see jurisdiction in Map 1
- Clean Water Act (2006) – see jurisdiction in Map 2
- Ontario Building Code Part 8 – see jurisdiction in Map 3.

**Map 1: NBMCA Jurisdiction under the Conservation Authorities Act**



**Map 2: NBMCA Jurisdiction under the Clean Water Act, 2006**



## Corporate Services

NBMCA General Information - <https://www.nbmca.ca/about-us/>

Corporate Services supports the whole conservation authority, enabling it to perform its functions and deliver programs in an efficient and cost-effective manner. Corporate Services is comprised of these key elements:

- Administration of staff and operations, including managing changes to the Conservation Authorities Act and related changes
- Governance (Board of Directors, related committees) support
- Strategic Planning
- Finance and Budgeting
- Human Resources
- Geographic Information Systems (GIS)
- Information Technology (IT).

Through 2022, the Corporate Services team managed a budget of approximately \$4.65 million, with a staff complement of around 20 staff plus 3 summer students. The team supported a governance Board of 12 members representing 10 municipalities, as well as its Executive Committee. The Source Protection Authority Board's functions were also supported by staff.

The Corporate Services team continued to manage NBMCA's response to the COVID-19 pandemic through policies, program and budget modifications, remote working, virtual meetings, etc. The team supported sound budgeting and audit processes; and managed human resources needs including successional planning and reassessing staffing complement to meet increased business demands. A pay equity and market wage rate analysis were conducted and implemented. The strategic planning process began with an initial discussion among staff in fall 2022.

The Conservation Authorities Act changes made in 2021 were implemented in 2022 as required by the province, including developing the first draft of an inventory of all our programs and services. As well, NBMCA's CAO provided advice to the Province as a member of the Minister's Conservation Authorities Working Group. More changes were made to the Conservation Authorities Act and through Bill 23. Staff analyzed the proposals and communicated the key points to the Board and municipalities in a timely manner.

GIS staff provide online mapping for both internal use and for the public's convenience. GIS services assist in planning and development, septic systems program applications, lands management, drinking water source protection, floodplain mapping projects, and preparation of the 2023 watershed report cards.

All of NBMCA's information and data were migrated to a new server to provide better storage, security and accessibility for staff and clients. In house IT services provided include software licencing, equipment purchases, troubleshooting, and more.

## Planning & Development

NBMCA Planning & Development <http://www.nbmca.ca/planning-permits/>

NBMCA Planning and Development Services helps protect people and property from flooding and erosion while protecting the health and integrity of our watercourses, wetlands, shorelines and valley lands. In addition to protecting our watershed, NBMCA works with homeowners, developers and municipalities to accommodate our human, economic and social needs through environmentally responsible development.

2022 saw an unprecedented level of permit applications in the on-site sewage system and development permitting programs that repeated the record-breaking demand for services during the COVID-19 Pandemic. Additional staff were hired, and processes were streamlined with the support of new technology and software to ensure our service commitment and timelines continue to be met. Staff also completed 110 mandatory maintenance inspections of septic systems within 120 metres of a watercourse identified in the Source Protection Plan as having a potential impact on a municipal drinking water system.

### 2022 Permit Activity - Member Municipalities

Municipality	Plan Review Comments	DIA Permits Issued	Sewage System Permits Issued
Bonfield	14 ↓	9 ↑	31 ↑
Callander	23 ↓	14 ↑	12 ↓
Calvin	8 ↑	0 ↓	9 ↑
Chisholm	21 ↓	6 ↑	20 ↑
East Ferris	31 ↓	20 ↑	74 ↑
Mattawa	0 ↓	2 ↓	0
Mattawan	2 ↑	1 ↑	6 ↑
North Bay	58 ↓	64 ↑	29 ↑
Papineau-Cameron	19 ↑	4	11 ↓
Powassan	0	0	16 ↓

↓ Decrease from 2021

↑ Increase from 2021

### **Municipal Plan Review Comments**

# of Comments 2022	166	-35.41%
# of Comments 2021	257	
Average # of Comments /yr (1996-2022)	149	
Highest # of Comments/yr (1996-2022)	257 (2021)	

### **OSS Planning Comments**

# of Comments 2022	80	-2.44%
# of Comments 2021	82	
Average # of Comments /yr (1998-2022)	49	
Highest # of Comments/yr (1998-2022)	87(2005)	

### **Section 28 Development Permits**

# of Permits 2022	120	-8.40%
# of Permits 2021	131	
Average # of Permits/yr (1998-2022)	100	
Highest # of Permits/yr (1998-2022)	142 (2004)	

### **NBMCA Sewage System Permits**

# of Permits 2022	910	-18.68%
# Permits 2021	1119	
Average # of Permits/yr (1996-2022)	760	
Highest # of Permits/yr (1996-2022)	1119 (2021)	



## Integrated Watershed Management

NBMCA Watershed Management - <http://www.nbmca.ca/watershed-management/>

NBMCA undertakes an Integrated Watershed Management approach that requires us to manage human activities and natural resources on a watershed basis, taking into consideration the connected interests and needs of the environment, economy and society.



**Floodplain mapping** helps protect people and property from flooding, guides sustainable development and provides a tool for mitigating the impacts of climate change. Several floodplain mapping projects are underway for Chippewa Creek, Parks Creek, Jessups Creek (in North Bay), La Vase River (in East Ferris and Callander), and Kaibuskong River (in Bonfield). Mapping changes are based on new technologies which more accurately portray the topography, land and water features. Funding sources included federal government, provincial government, and municipalities.



**Drinking Water Source Protection** helps protect municipal drinking water sources. A 5-year review of the Assessment Report (scientific information) and Source Protection Plan (policies) was undertaken by staff and the Source Protection Committee under Section 36 of the Clean Water Act, 2006. The drinking water protection zones were reviewed and updated with current data and mapping. This included a review of Callander Bay phosphorus levels. A detailed review of the protective policies helps ensure that risks are managed. This program is currently funded by the province of Ontario.



**Erosion control project** on Chippewa Creek at Oak St. in North Bay significantly improved the channel and regraded the slopes, removed an unused railway bridge and replaced a pedestrian bridge (opening in spring 2023). **Flood control** structure repair was carried out at the Parks Creek in North Bay, where the backflood control structure helps protect around 500 homes. Funding for the projects came from the City of North Bay and the province of Ontario.



**Watershed-wide monitoring and analysis** of surface and ground water quality (21 streams, 23 sites on 8 lakes, 6 wells) helped inform the development of the 2023 Watershed Report Card. The NBMCA samples water as part of the Provincial Water Quality Monitoring Network and Provincial Groundwater Monitoring Network. The NBMCA is also part of the Ontario Lake Partner Program.

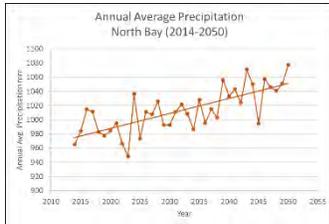


**Flood Forecasting and Warning** continued to take place year-round. Flood management is a shared responsibility in Ontario. Conservation Authorities, including NBMCA, are on the front lines of the Provincial Flood Forecasting and Warning program. NBMCA issued six flood messages in 2022 to municipal emergency management officials, the media and the public through our website and social media. Municipalities then take action to warn local residents. In 2022, four Watershed Conditions Statements – Flood Watch and two Watershed Conditions Statements - Water Safety were issued. There were no **Low Water Statements** issued.



**Snow Surveys** continued as part of NBMCA’s flood forecasting program. Snow depth and snow water content are measured in the Kaibuskong River, Chippewa Creek, and La Vase River watersheds to help forecast the potential impact of snow melt during the spring freshet. The snow survey data is shared with the Ministry of Natural Resources and Forestry Surface Water Monitoring Network.

**Trout Lake Management Plan** is being undertaken by the City of North Bay, Municipality of East Ferris and the NBMCA in consultation with local stakeholders, to prepare a new Watershed Study and Management Plan to protect and preserve Trout Lake, Four Mile Lake and associated inflowing streams. The study is being undertaken to review lake water quality data to understand the health of the lake, determine the effectiveness of the existing management framework and to identify improvements to the framework to ensure that the lake remains healthy, for current and future generations.



**Climate change data** continues to be collected and analyzed and it tells us that precipitation in NBMCA’s watershed is going to continue to increase in the coming decades. Changes in the snow pack quantity and water content, as well as precipitation and water levels, are monitored to alert staff to any risk of flooding all year round. Plans for a new **Climate Monitoring Station** to be installed at the Corbeil Conservation Area in the Municipality of East Ferris in 2023 were confirmed. The CAO joined the Climate Risk Institute’s National Stewardship Committee which is a body of experts and leaders in climate change resilience, adaptation, infrastructure, professional development, and credentialling.

## Conservation Areas, Lands and Stewardship

NBMCA Conservation Areas & Lands - <http://www.nbmca.ca/conservation-areas/>



As people continued to recover from the isolation of the COVID-19 pandemic, the value of NBMCA's 15 Conservation Areas and Trails proved itself again this past year. People came to hike, bike, meditate, snowshoe, photograph, swim, boat and fish with friends and families in these areas. 2022 saw the unveiling of a **new kiosk sign** at the Corbeil Conservation Area, honouring the Corbeil Parents' Association who championed the formation of the Conservation Area more than 40 years ago.



**Information signs**, developed in partnership with the Trout Lake Conservation Association, the City of North Bay, and the Municipality of East Ferris, were installed at four public boat launches promoting sustainable recreational use and stewardship of Trout Lake. **Benches** were installed at Laurier Woods and Eva Wardlaw Conservation Areas thanks to donations made to the NBMCA bench donation program. Donations from Lisa's Doghouse helped supply bags for the **pet waste stations** available to dog walkers at Laurentian Escarpment, Laurier Woods, and Eva Wardlaw Conservation Areas as well as on the Chippewa Creek EcoPath.



**The Parks Creek Backflood Control Structure** on Lakeshore Drive in North Bay protects around 500 properties from flooding when high water occurs on Lake Nipissing. Fortunately, it was not put into operation in 2022; however, a need for improvements to the pumps within the structure was identified. Pump 2 was rebuilt, in addition to fence repairs, gate installation for security. Ice was removed from Parks Creek before the spring freshet to make room for flow and runoff.



Essential **repairs to the tower deck** at NBMCA's Administrative building at 15 Janey Ave began mid-September. After a pause for the winter, the project will be resumed and completed in 2023. The challenge of homelessness is being addressed by communities across the country. **Homeless encampments** set up in NBMCA conservation areas are being addressed in an empathetic manner, maintaining public safety through a protocol developed in partnership with local social services agencies and the City of North Bay.

**Maintenance and improvement projects for trails and conservation areas** included a trail realignment in the Shields McLaren Conservation Area, culvert replacement on the Kate Pace Way in partnership with the City of North Bay, and preliminary work on boardwalk replacements in Laurier Woods Conservation Area in partnership with Friends of Laurier Woods.

As a stewardship initiative, NBMCA partnered with Trees 4 Nipissing and the City of North Bay to plant 300 trees on the former Merrick Landfill site.

## Communications & Outreach

NBMCA Communications & Outreach - <http://www.nbmca.ca/community-outreach-events/>

Since our establishment in 1972, NBMCA has learned that protecting and conserving our watershed relies on collaboration and cooperation with individuals, organizations, and communities. 50<sup>th</sup> Anniversary activities showcased the watershed and celebrated the individuals who share in the stewardship of our natural environment.



The Board launched the 50<sup>th</sup> Anniversary celebrations with the unveiling of a **new logo** which recognizes the flow of water through watersheds regardless of municipal boundaries and the coming together of municipalities and stakeholders to support watershed management throughout NBMCA's jurisdiction. It supports NBMCA's efforts to educate, inform and engage stakeholders through recognition of communication and messaging.



Unique photographs which captured views of the wonders of our watershed were submitted by local photographers in the 50<sup>th</sup> Anniversary **Watershed Wonders Photo Contest**. Nineteen individuals, organizations, businesses and educators were recognized as **Watershed Heroes** for their contributions to the preservation, protection or improvement of the environment in our watershed. Local residents recognized significant people in their life and supported NBMCA's outreach programs through donations to the **Boardwalk of Champions**.

**Academic bursaries** were granted to environmental studies students Nipissing University, Canadore College and the Environmental High Skills Major students at area high schools to honour the future of environmental stewardship in our community.



The **Mattawa River Canoe Race** returned after a two-year hiatus due to COVID-19 with 92 marathon paddlers, following in the footsteps of Voyageurs, paddling 64 km in kayaks, canoes and stand-up paddleboards from North Bay to Mattawa through the spectacular beauty of the Trout Lake, Mattawa River subwatersheds. The day before the race, NBMCA hosted its annual guided hike at historic Eau Claire

Gorge Conservation Area with guest hike guide Laura Kielpinski leading an introduction to Forest Bathing.



In the spirit of Reconciliation, NBMCA partnered with the North Bay Indigenous Friendship Centre and the City of North Bay in the creation of **Miskwaadesi** (Painted Turtle), a granite petroform with four cedar poles marking the four directions and a flag pole for the display of Indigenous flags throughout the year. Miskwaadesi honours Indigenous traditions and our shared respect for water.

Miskwaadesi was made possible with funding from Government of Canada through FedNor as well as the financial support of Creative Industries, North Bay-Parry Sound

District Health Unit, Tourism North Bay, City of North Bay and Larocque Elder Architects which designed the project. Local businesses donated materials and services including Canor Construction, Algonquin Granite, OPC Construction, (list of contractors who donated materials – Canadore College (Welding & Fitting), Canor Construction, G & P Welding, Norgalv Ltd., North Bay Powder Coating, and OCP Construction. Once additional funding is secured, the creation of granite amphitheatre seating will see the completion of the Miskwaadesi as a space for learning, celebration, ceremony and gathering for Indigenous and non-Indigenous peoples along the Chippewa Creek EcoPath in 2023.



NBMCA staff from a variety of program areas returned to NBMCA's tradition of community outreach and education with presentations to the Northern Policy Institute, North Bay Realtors, Powassan "GAP" Program, East Ferris Trade Show, Story Hike with Community Oriented Outdoor Literacy, Callander Cranberry Festival, La Fete Saint-Jean, North Bay Science Festival, Canadore Sustainability Summit, LaPorte's Sunday Community Day, Nipissing University, École secondaire publique Odyssee, Heritage Gardeners and Clean Green Beautiful North Bay.

NBMCA shares information with community stakeholders through our **website, social media, and media releases**. In 2022, 16 media releases were issued. On social media, Facebook – 95 Posts / Reach up 126% over previous 6 months, Instagram - 69 Posts / Reach up 191% over previous 6 months and Twitter – 66 Tweets / 7,437 Impressions / 613 Followers



**TO:** The Chairperson and Members of the Board of Directors,  
North Bay-Mattawa Conservation Authority

**ORIGIN:** Chitra Gowda, Chief Administrative Officer, Secretary Treasurer

**DATE:** April 26, 2023

**SUBJECT:** Conservation Authorities Act Implementation Timelines

### **Background**

The Conservation Authorities Act (CA Act) and its regulations have been amended through several legislation in the past few years, including:

- Bill 108 - More Homes, More Choice Act, 2019
- Bill 229 - Protect, Support and Recover from COVID-19 Act (Budget Measures), 2020
- Bill 23 - More Homes Built Faster Act, 2022.

Implementation of the changes is being carried out in phases, as summarized below.

The **Phase 1** involved these new regulations in 2021:

- Ontario Regulation (O. Reg.) 686/21: Mandatory Programs and Services
- O. Reg. 687/21: Transition Plans and Agreements for Programs and Services Under Section 21.1.2 of the Act.
- O. Reg. 688/21: Rules of Conduct in Conservation Areas (yet to be in effect).

The resulting NBMCA inventory of programs and services (a first draft) as well as a Transition Plan are available at <https://www.nbmca.ca/about-us/conservation-authorities-act-update/>

The **Phase 2** of implementation involves these regulations in 2022:

- O. Reg. 400/22: Information Requirements
- Legislative Amendment – Fee Classes Policy
- O. Reg. 401/22: Determination of Amounts Under Section 27.2 (2) of the Act (amounts owed by specified municipalities)
- O. Reg. 402/22: Budget and Apportionment.

The **Phase 3** includes a changed scope of conservation authority planning and permitting programs, through Bill 23 and the resulting O. Reg. 596/22: Prescribed Acts - Subsections 21.1.1 (1.1) and 21.1.2 (1.1) of the Act. Additional changes to the Section 28 permitting process are anticipated upon proclamation of parts of the CA Act. Further, in April 2023, the proposed Provincial Policy Statement changes were made available for a 60-day public consultation. Staff are analyzing the changes and relevancy to NBMCA.

This report provides an update on CA Act changes implementation timelines at the NBMCA.

**Analysis**

The table and figure below provide a summary of tasks and timelines for implementation of changes to the CA Act. Note that several due dates are based on current known regulations. Timelines may be influenced by issuance of new regulations and other related direction on the CA Act.

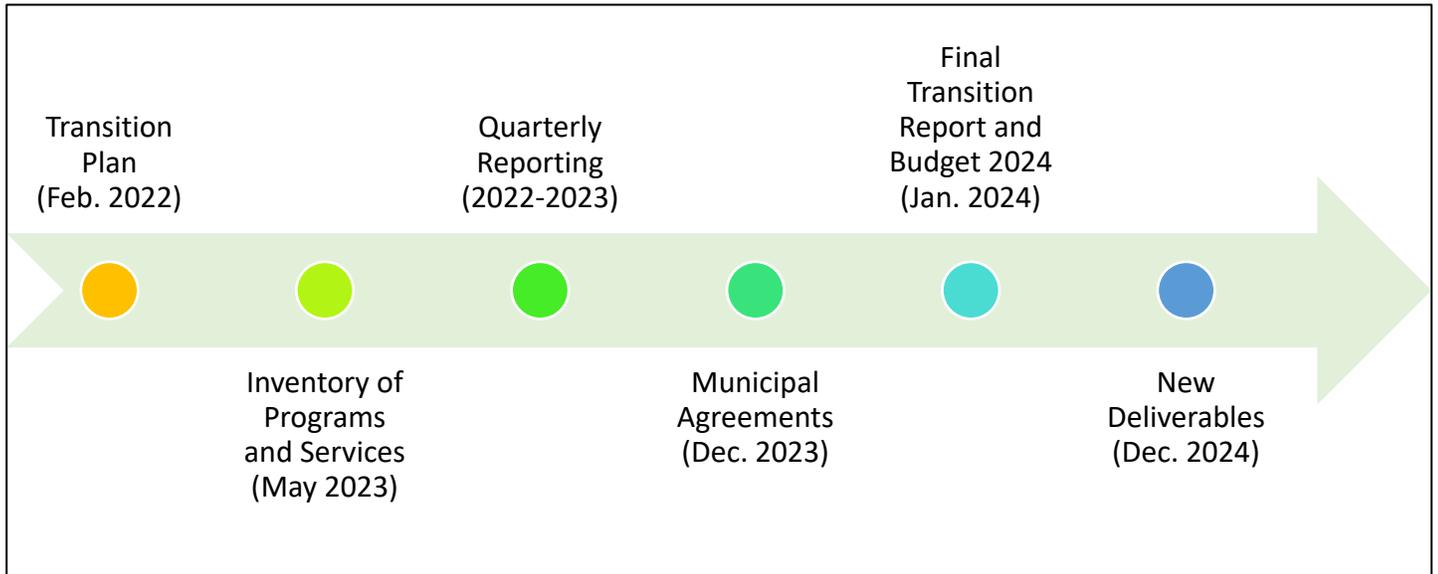
**Table 1: Timeline Summary Chart**

<b>Task</b>	<b>Due Date</b>	<b>Timeline</b>	<b>Status</b>
Development, member approval, circulation, posting Transition Plan	Dec. 31, 2021	Nov. 15 to Dec. 31, 2021	Complete
Development, member approval, circulation, posting Inventory of Programs and Services (first draft)	Feb. 28, 2022	Dec. 15, 2021 to Feb. 28, 2022	Complete
Revisions, member approval of Inventory of Programs and Services** (final)	Not applicable*	Feb. 20 to May 24, 2023	In progress
Prepare Budget 2024 following the new regulations: O. Reg. 401/22 and O. Reg. 402/22	Not specified in legislation	Apr. 3 to Dec. 31, 2023	In progress
Negotiate municipal agreements/ MOUs (Category 2 & 3 programs and services**)	Jan. 1, 2024	Jun. 1 to Dec. 31, 2023	In progress
Quarterly reporting to MECP	Jul. 1, 2022 Oct. 1, 2022 Jan. 1, 2023 Apr. 1, 2023 Jul. 1, 2023 Oct. 1, 2023	Jul. 1, 2022 Oct. 1, 2022 Jan. 1, 2023 Apr. 1, 2023 Jul. 1, 2023 Oct. 1, 2023	Complete (Jul. 2022 to Apr. 2023). In progress (Jul. & Oct. 2023)
Extension of Transition Date	Oct. 1, 2023	Sep. 1, 2023	Only if needed.
Prepare Final Transition Report for MECP and Municipalities	Jan. 30, 2024	Jan. 3 to Jan. 31, 2024	
New deliverables: <ul style="list-style-type: none"> <li>• Natural Hazards Infrastructure Operations Plan</li> <li>• Natural Hazard Asset Management Plan</li> <li>• Conservation Lands Strategy</li> <li>• Conservation Lands Inventory</li> <li>• Ice Management Plan</li> <li>• Watershed-based Resource Management Strategy</li> </ul>	Dec. 31, 2024	Jan. 5, 2023 to Dec. 31, 2024	In progress

\*Although not a requirement, the inventory is being updated due to significant regulatory changes made in early 2023 that influence the scope of mandatory programs and services.

**\*\*Categories of Programs and Services:**

- Category 1: Mandatory programs and services (MOU/agreement not required)
- Category 2: Municipal programs and services provided on behalf of a municipality (through a MOU/agreement)
- Category 3: CA-determined programs and services advisable by the CA to implement in the CA’s jurisdiction (through cost apportionment agreements).



**Figure 1: Overview of Implementation of Changes to the Conservation Authorities Act**

Note that in Figure 1, the “New Deliverables” refers to the same six documents listed in Table 1. Staff will keep the Board of Directors updated on progress in achieving implementation of the CA Act requirements including the new deliverables.

**Recommendation:**

Staff recommend that the Board receive the report for information.

**Recommended Resolution:**

**THAT** the staff report ‘Conservation Authorities Act Implementation Timelines’ is received and appended to the minutes of this meeting.

**Submitted By**  
**Chitra Gowda**  
**Chief Administrative Officer, Secretary Treasurer**



**TO:** The Chairperson and Members of the Board of Directors,  
North Bay-Mattawa Conservation Authority

**ORIGIN:** Adam Whyte, Acting Manager, Lands & Stewardship

**DATE:** April 26, 2023

**SUBJECT:** Phragmites Management in Laurier Woods Conservation Area using Biocontrol

**Background:**

The North Bay-Mattawa Conservation Authority (NBMCA) and the Friends of Laurier Woods Inc are co owners of the Laurier Woods Conservation Area in North Bay. The conservation area is approximately 250 acres, hosts 5.3 km of trails and is open year round.

*Phragmites australis ssp. australis*, commonly known as introduced Phragmites is considered one of the worst introduced invasive species in North America. Dense stands reduce native biodiversity, disrupt ecological processes and create visual obstructions.

Currently we are aware of a number of small patches of introduced Phragmites in Laurier Woods Conservation Area. Over the past two years NBMCA and the Friends of Laurier Woods have been researching different methods of management for this growing problem. Conventional management methods include broad spectrum herbicide treatments, cutting and burning and physical removals. These methods are labour intensive and impact many species other than their intended target.

In March 2023, Dr. Michael McTavish of the University of Toronto presented a research pilot proposal to the Friends of Laurier Woods and NBMCA staff at the Friends of Laurier Woods Annual General Meeting involving a different management strategy: biocontrol.

Biological control (or biocontrol) of introduced Phragmites in North America has been in development for over twenty years. This has resulted in the selection of two moths, *Archanara neurica* and *Lensia geminipuncta*. Both species feed extensively on Phragmites in their native Europe in their larval stage. Attack rates of up to 100% of stems have been observed in Europe, causing stem wilt or mortality. This reduces density, height, biomass and reproductive capacity for Phragmites, allowing native species to become more competitive, and make their way back into the environment.

Host range testing began in 2007, and it was concluded that these agents pose no risk to plants outside of the genus Phragmites and have a strong preference for introduced Phragmites as compared to our native Phragmites. This suggests that the proposed biocontrol poses less risk to native biodiversity than the continued spread of introduced Phragmites.

In 2019, the Canadian Food Inspection Agency issued a release letter granting approval for the release of these two agents in Canada. A pilot program has been implemented in southern Ontario by the

University of Toronto and Agriculture and Agri-Food Canada in collaboration with Ducks Unlimited Canada and the Nature Conservancy of Canada resulting in the release of some 17,000 insects across a network of 13 sites as of March 2023.

**Analysis:**

Laurier Woods Conservation Area is planned to be one of 10-15 new locations to be added to the network of release sites across Ontario in the spring of 2023. The goal is to establish a local population of the biocontrol agent *Archanara neurica* to achieve long-term suppression of introduced Phragmites. The project involves a single release in spring of 2023 followed by a minimum of five years of follow-up monitoring of the biocontrol insects and introduced Phragmites. In May of 2023, up to 400 *A. neurica* eggs and larvae are to be placed in a dense patch of introduced Phragmites near Laurier Avenue.

The release will be followed with non-destructive visual monitoring in June of 2023 to search for feeding damage and wilted stems, with the possibility of additional visual monitoring in the fall. These monitoring protocols are expected to be repeated annually for 5 years to determine if the biocontrol population was able to successfully establish and overwinter.

NBMCA staff have been in contact with Credit Valley Conservation Authority staff who plan to proceed with a similar release in their area of jurisdiction this spring.

The Board of the Friends of Laurier Woods Inc. will be voting on this proposal at their board meeting on April 26<sup>th</sup> 2023. We do anticipate that they will pass a similar resolution to grant Dr. McTavish and the University of Toronto permission for the release of said biocontrol agents for the management of introduced Phragmites in Laurier Woods Conservation Area. If the Friends of Laurier Woods Inc. and NBMCA are to proceed with granting permission for Dr. McTavish and the University of Toronto to use our CA property for their research, the NBMCA will require a form to be filled out indemnifying NBMCA, and insurance such that NBMCA and the Friends of Laurier Woods Inc. are named as additional insured. Proof of WSIB coverage is also required. Time is of the essence on this proposal as the release is planned for May of 2023.

**Recommended Resolution:**

**THAT** the Board approve of NBMCA staff's recommendation to grant permission for the release of said biocontrol agents for the management of introduced Phragmites in Laurier Woods Conservation Area;

**AND THAT** this report be appended to the minutes of this meeting.

**Submitted By**

**Adam Whyte, Acting Manager, Lands & Stewardship**

## Project proposal

**Site:** Laurier Woods

**Activity:** *Phragmites* biocontrol release

### Project rationale and goals

Introduced *Phragmites australis* subsp. *australis* is considered one of the worst weeds in North America. Large, dense populations of introduced *Phragmites* threaten native biodiversity and ecosystem function. There is a critical need for additional tools to help manage invading and expanding populations. This project is testing the first biological control - or biocontrol - program for introduced *Phragmites*, using two stem-boring noctuid moths (*Archanara neurica*, *Lenisa geminipuncta*). Feeding damage from these biocontrol agents is expected to reduce population density and growth of introduced *Phragmites*, allowing other desirable vegetation to become more competitive and reassert itself in the local vegetation community. This program began in Ontario in 2019 and encompasses a total of 13 biocontrol release sites as of fall 2022.

This site is planned as one of ~10-15 new locations to be added to a growing network of release sites across the province in spring 2023. The specific goals for this site are to establish a local population of the biocontrol agent *Archanara neurica* and to achieve long-term suppression of introduced *Phragmites* populations. These goals will be assessed by annually quantifying biocontrol insect feeding damage post-release to determine insect population establishment, growth, and spread, supplemented by additional monitoring of changes in introduced *Phragmites* stem density over time.

### Research methodology

This project is expected to involve a single biocontrol release in spring 2023 followed by a minimum of five years of follow-up monitoring of biocontrol insects and the target weed. In May 2023, ~100-400 *A. neurica* eggs and larvae (with the exact quantity depending on final availability) will be placed in the center of a dense, accessible patch of introduced *Phragmites* that has already been determined based on a preliminary site visit. The release will consist of no more than two each of florist foam blocks loaded with cut *Phragmites* stems inoculated with larvae and plastic cups containing eggs. Blocks and cups will be removed post-release.

In June 2023, non-destructive visual monitoring will be conducted to search for distinctive biocontrol insect feeding damage and wilted *Phragmites* stems. Depending on the time available and interest of local volunteers, this core monitoring may be supplemented by additional detailed monitoring of *Phragmites* population responses (e.g., stem height, stem diameter, panicle development) in the release area in early fall 2023. These monitoring protocols will be repeated annually for an expected duration of 5 years to ascertain whether the biocontrol population was able to successfully establish at the site. This monitoring will

initially focus on the introduced *Phragmites* patch into which biocontrol agents were directly released but will expand in 2024 onwards to include any satellite patches of *Phragmites* on-site to determine whether these had been successfully colonized by dispersing biocontrol agents.

#### Project risk management

Biological control for introduced *Phragmites* has been in development for over 20 years with considerable effort dedicated to testing for the host specificity of the biocontrol agents (i.e., the selected insects will only feed and complete development on the target weed). Both agents were determined to be host specific to introduced *Phragmites* and were permitted for release in Canada by the Canadian Food Inspection Agency in 2019. Biocontrol of *Phragmites* is expected to be more host-specific and have even fewer off-target impacts and risks compared to current best management practices using physical removal or broad-spectrum herbicides.

#### Project contacts

**Dr. Rob Bouchier**, Agriculture and Agri-Food Canada (AAFC), [robert.bouchier@AGR.GC.CA](mailto:robert.bouchier@AGR.GC.CA)

**Dr. Sandy Smith**, University of Toronto, [s.smith.a@utoronto.ca](mailto:s.smith.a@utoronto.ca)

**Dr. Michael McTavish**, University of Toronto, [michael.mctavish@alum.utoronto.ca](mailto:michael.mctavish@alum.utoronto.ca)

**Dr. Ian Jones**, University of Toronto, [i.jones@utoronto.ca](mailto:i.jones@utoronto.ca)

# Project overview: Biological control of introduced *Phragmites* in Ontario

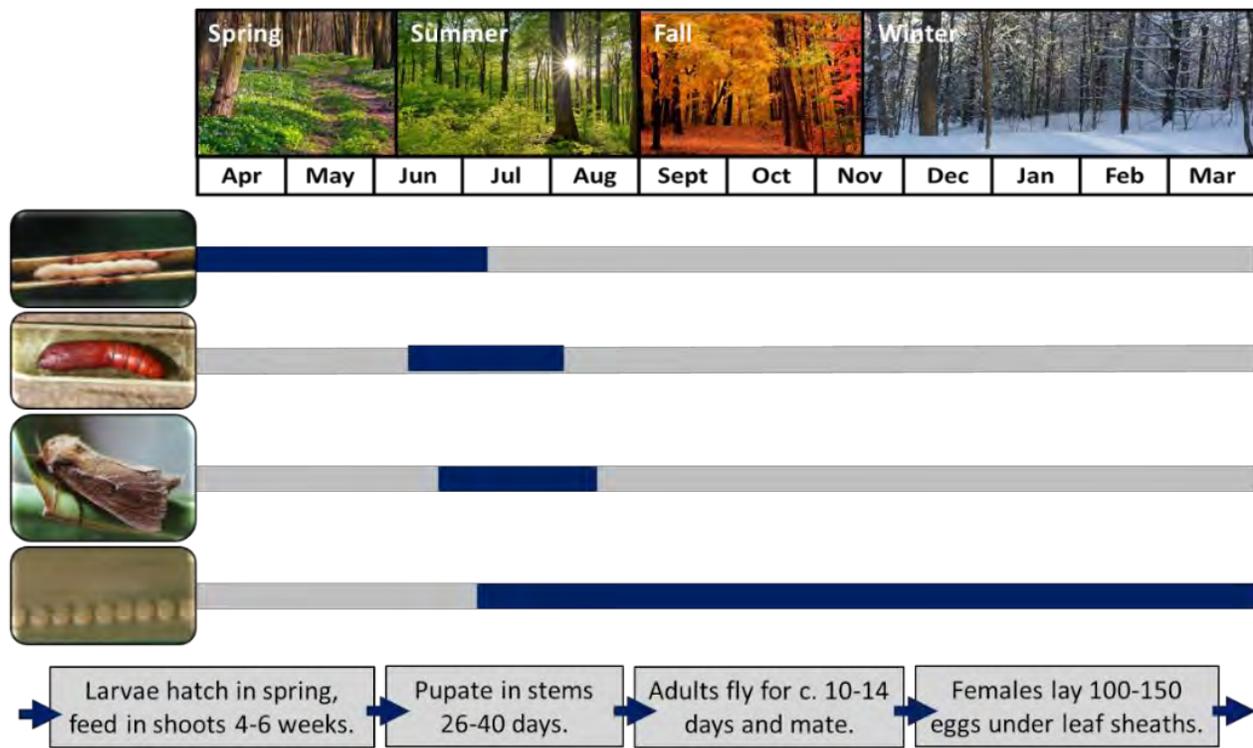
(Prepared January 2021, updated March 2023)

## 1. General background

Introduced common reed (*Phragmites australis* ssp. *australis*, hereafter “introduced *Phragmites*”) is one of the most invasive plants in North America. Dense, nearly monospecific stands can reduce native biodiversity (including the native subspecies *Phragmites australis* ssp. *americanus*, or “native *Phragmites*”), disrupt ecological processes, reduce property values, create visual obstructions, and increase fire risk. Conventional management using herbicides, cutting, and burning is labour-intensive, can pose undesirable off-target environmental impacts, and is often ineffective for all but the smallest populations. The most promising tool to supplement existing options as a part of an integrated pest management (IPM) approach is classical biological control using two European stem-boring noctuid moths (*Archanara neurica* and *Lenisa geminipuncta*).

## 2. Biological control agents overview

*A. neurica* and *L. geminipuncta* are widespread pests of *Phragmites* reed beds in Europe. Both species have similar life histories (see figure below). Eggs overwinter beneath leaf sheaths and larvae emerge in early spring. Larvae feed and pupate in shoots, with short-lived adults emerging in the late summer to mate and lay eggs, producing one generation per year. *A. neurica* and *L. geminipuncta* damage *Phragmites* as larvae feed on the internal tissues of the stems. Attack rates of up to 100% of stems have been observed in Europe, causing stem wilt or mortality, thereby reducing stem density, height, biomass, and reproductive output.



### 3. Biological control program history

Biological control of introduced *Phragmites* in North America has been in development for over 20 years. Initial proposals for the program and explorations for candidate agents were carried out in 1998, resulting in the selection of *A. neurica* and *L. geminipuncta* by 2005. Extensive host range testing of both agents began in 2007, concluding that the agents pose no risk to plants outside of the genus *Phragmites* and have a strong preference for introduced *Phragmites* compared to native *Phragmites*, suggesting that biocontrol poses less risk to native biodiversity than the continued invasion of the introduced subspecies.

A petition for the release of *A. neurica* and *L. geminipuncta* in North America was submitted in 2018. The Canadian Food Inspection Agency (CFIA) issued a release letter in 2019 granting approval for release of the agents in Canada. A pilot biocontrol program is now being implemented in southern Ontario by researchers from the University of Toronto and Agriculture and Agri-Food Canada (AAFC), in collaboration with various organizations including Ducks Unlimited Canada (DUC), the Nature Conservancy of Canada (NCC), local conservation authorities and municipalities, and others.

### 4. Current progress

The initial years of the biocontrol program in Ontario (2019-2023) have led to the development of an operational protocol to rear, release, and monitor *A. neurica* and *L. geminipuncta* as biocontrol agents to help manage introduced *Phragmites*. Using these protocols, as of March 2023, ~17,600 insects have been released across a network of 13 sites. These releases have tested all insect life stages, including eggs, larvae, pupae, and moths.

Monitoring has focused on a mid-summer assessment of insect feeding damage and supplemental measurements of *Phragmites* populations in the early fall (e.g., stem height, panicle development, etc.). Initial monitoring results have been very encouraging and suggest that several initial release sites are on track to become established in the coming years. Preliminary monitoring has detected feeding damage of up to 39% of stems around release points in new release locations, providing a valuable immediate measure of release success. Follow-up monitoring of sites one year or later post-release has continued to detect insect feeding damage, indicating full completion of the insect life cycle, including reproduction, overwintering, and local dispersal.

With a set of operational biocontrol protocols now in place, the new priority for 2023 onwards will be to scale up the rearing and release of biocontrol agents across a broader geographic range in Ontario. “Nurse sites” with robust populations of biocontrol insects will provide valuable sources of insects to support local dispersal, rearing, and redistribution to new sites. This will be accompanied by ongoing monitoring of all sites in the network to assess biocontrol agent establishment, dispersal, and impact on introduced *Phragmites*.

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