



NORTH BAY - MATTAWA
**CONSERVATION
AUTHORITY**



Annual Report 2023

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

Message from Shelley Belanger, Chair



*Left to Right -
Chithra Gowda, CAO, Secretary Treasurer &
Shelley Belanger, Chair*

In 2023, the North Bay Mattawa Conservation Authority (NBMCA) continued its leadership in watershed management, including implementing changes to the Conservation Authorities Act. Our ten member municipalities rely on NBMCA's science-based expertise and policies to inform decision making for sustainable, well-planned development and the health of our valuable water resources while helping to protect people and property from natural hazards.

The NBMCA Board of Directors is a strong governance structure that leads NBMCA through changing times. The 2022 fall municipal elections resulted in 2023 beginning with returning, experienced members and new members eager to fulfill their role under the Conservation Authorities Act. We give deep thanks to Dave Britton for his strong leadership as the Chair for the last two years.

Staff are recognized for their large efforts to deliver our programs throughout the watershed and Nipissing and Parry Sound districts in NBMCA's jurisdiction. Their strong dedication and hard work in all program areas are recognized and celebrated.

I look forward to working with my colleagues including vice-chair Michelle Lahaye, our dedicated staff, member municipalities and stakeholders as we work towards the betterment of the environment in this watershed.

Message from Chithra Gowda, CAO, Secretary Treasurer

The NBMCA works proactively with member municipalities and all levels of government, residents, businesses, community groups, and many others. Our programs and services support safe development along with watershed management and economic growth by taking a collaborative approach.

Through 2023, NBMCA staff continued our strong watershed management role. Our programs and services include flood forecasting and warning, planning and permitting, on-site sewage systems permitting, source water protection, recreational conservation areas, outreach, and more. Strategic, long-range planning for the Mattawa River Canoe Race began with support from paddlers, sports marathon organizations, residents, businesses and others. We produced our five-year Watershed Report Card, continued the creation of the Miskwaadesi (Painted Turtle) petroform in partnership with the North Bay Indigenous Friendship Centre, and continued our partnership with the Laurentian Ski Hill and Snowboarding Club.

The Conservation Authorities Act changes were implemented through a revised programs and services inventory, beginning of the development of legislated deliverables including the watershed strategy and the development of agreements with municipalities. The team also embarked on a related process to estimate levy amounts, budget and apportionment methods to apply from 2024 and beyond.

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

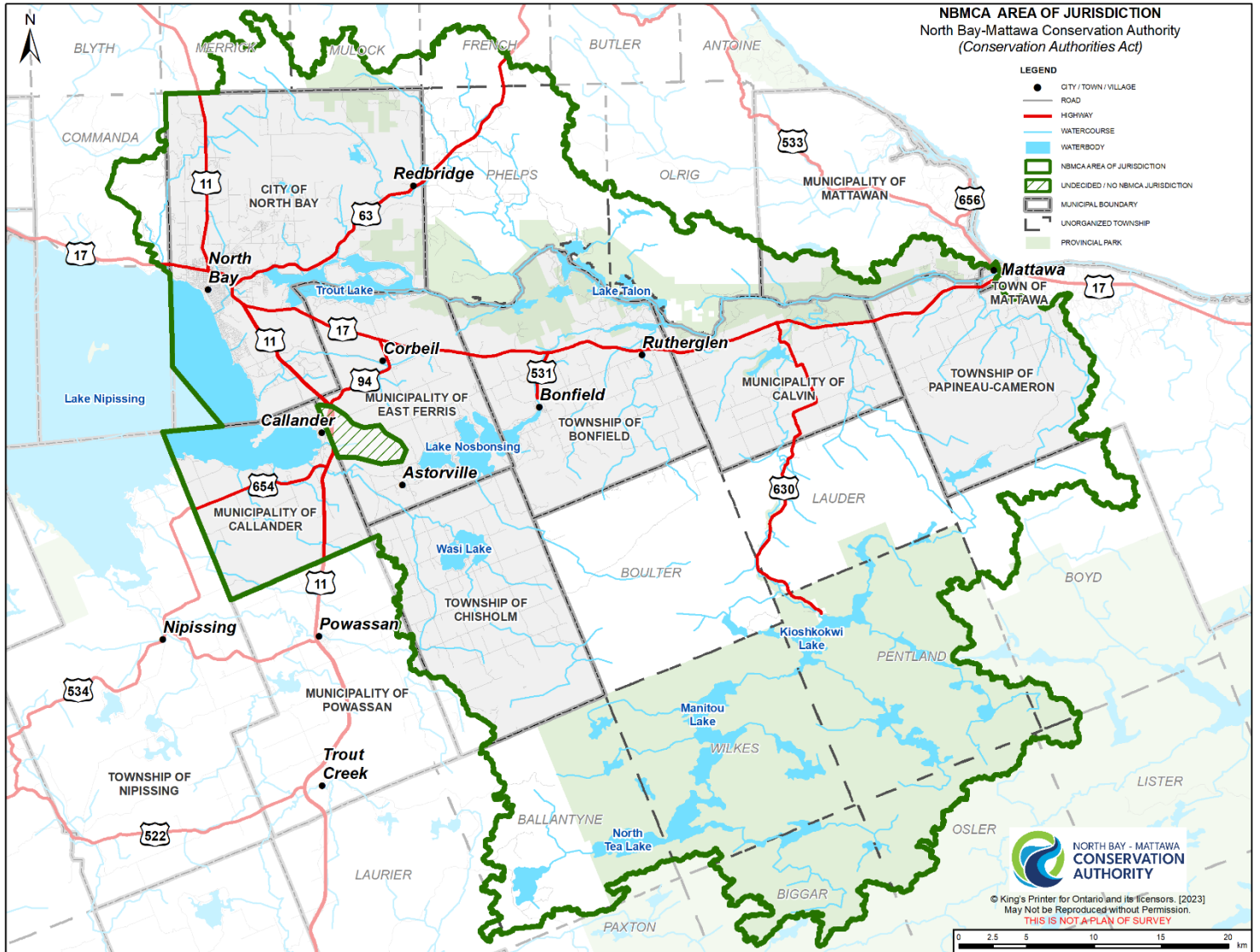
- **Action:** Establish priorities and undertake initiatives based on desired results, ensuring that actions or decisions are undertaken individually and collectively in an accountable and timely manner.
- **Collaboration:** Work together with our partners and communities to strengthen our approach and 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.



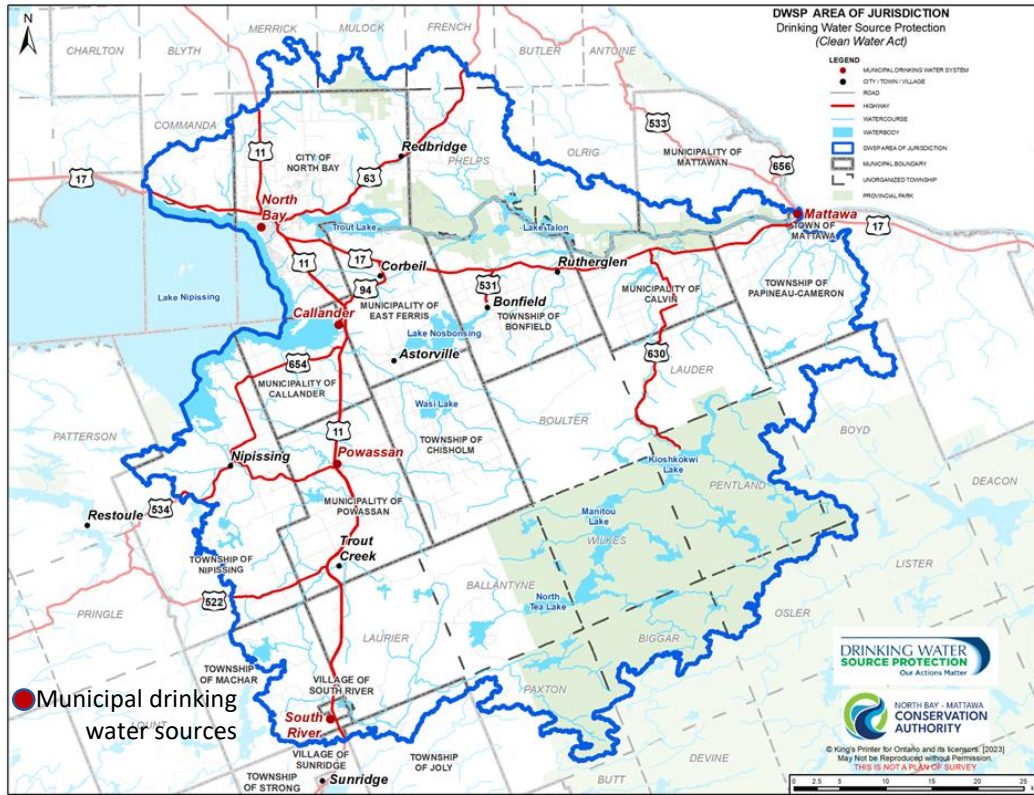
The NBMCA has responsibilities under three legislation:

- 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.

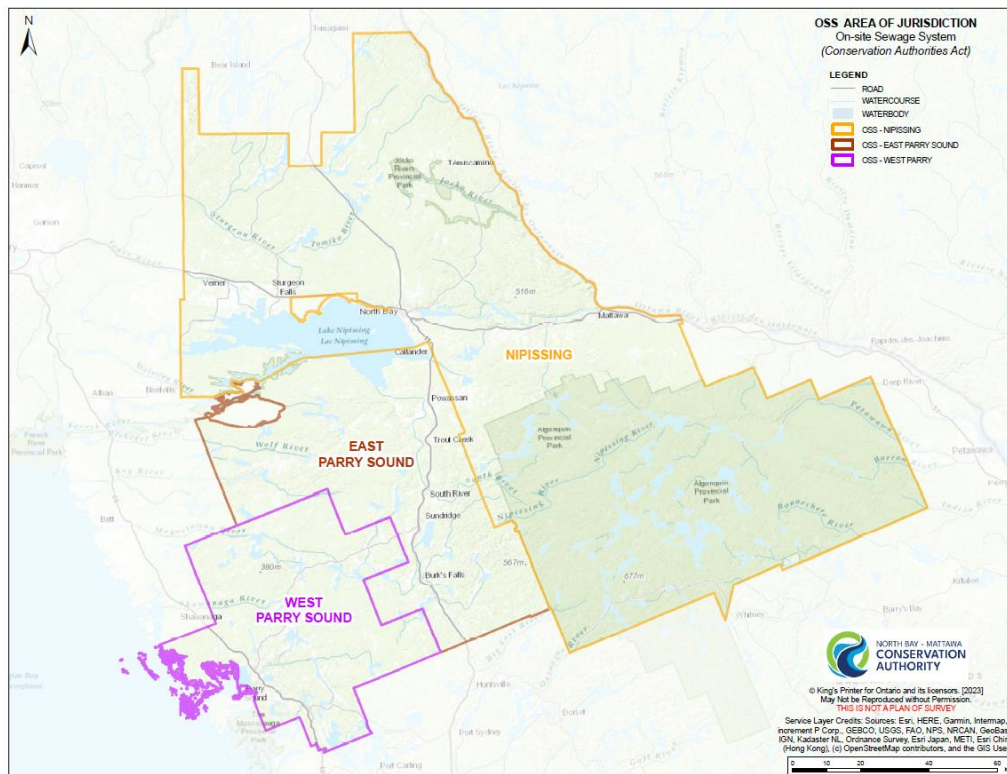
Map 1 - NBMCA Jurisdiction under the Conservation Authorities Act



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



Map 3: NBMCA Jurisdiction under the Ontario Building Code Part 8 (On-site Sewage Systems)



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 2023, the Corporate Services team managed a budget of approximately \$4.71 million, with a staff complement of around 20 staff and four summer students. The team supported a governance Board of 12 members representing 10 municipalities, as well as its Executive Committee and Human Resources Committee. The Source Protection Authority Board's functions were also supported by staff.

The Corporate Services team supported sound budgeting and audit processes; and managed human resources needs including successional planning and reassessing staffing complement to meet increased business demands.

The Conservation Authorities Act changes were implemented in 2023 as required by the province. The inventory of all our programs and services was revised. Municipal agreements to carry out activities delegated by municipalities and non-mandatory activities were developed. From summer through fall, close to 20 meetings were held to discuss these key documents and the draft 2024 budget with our member municipalities. A comprehensive Gantt chart and Project Tracker tool were developed to keep projects and deliverables moving along. Staff analyzed the changes to the Act and communicated the key points to the Board and municipalities in a timely manner. A long-range strategy for the Mattawa River Canoe Race was discussed with paddlers and other partners in April 2023 to plan for 2024 and beyond. Working groups were created to assist in different aspects of the race including fundraising, volunteer recruitment and marketing.

Asset management planning was discussed and a long-term plan developed for the administrative/head office. 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.

NBMCA's information and data are hosted on 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.

In 2023, the trend of a high number of permit applications continued in the on-site sewage system and development permitting programs, higher than pre-pandemic levels. 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 95 mandatory maintenance inspections of septic systems within 120 metres of a watercourse identified in the Source Protection Plan as having a potential impact on the Callander municipal drinking water system.

2023 Permit Activity - Member Municipalities

Municipality	Plan Review Comments	DIA Permits Issued	Sewage System Permits Issued
Bonfield	12 ↓	5 ↓	31 ↑
Callander	39 ↑	9 ↓	16 ↑
Calvin	4 ↓	1 ↑	6 ↓
Chisholm	27 ↑	8 ↑	12 ↓
East Ferris	41 ↑	20 (same)	54 ↓
Mattawa	1 ↑	2 (same)	1 ↑
Mattawan	3 ↑	0 ↓	8 ↑
North Bay	53 ↓	52 ↓	35 ↑
Papineau-Cameron	17 ↓	2 ↓	6 ↓
Phelps	0	1 ↑	4
Powassan	5 ↑	0	16 ↓

↓ Decrease from 2022

↑ Increase from 2022

OSS Planning Comments

# of Comments 2023	86	+7.5%
# of Comments 2022	80	
Average # of Comments/year (1998-2023)	50	
Highest # of Comments/year (1998-2023)	87 (2005)	

Section 28 Development Permits

# of Permits 2023	100	-16.7%
# of Permits 2022	120	
Average # of Permits/year (1998-2023)	101	
Highest # of Permits/year (1998-2023)	142 (2004)	

NBMCA Sewage System Permits

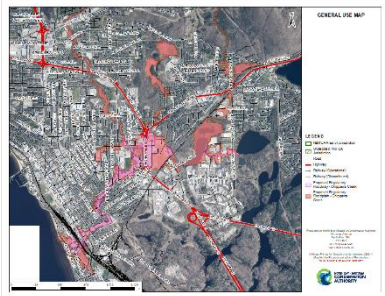
# of Permits 2023	769	-15.5%
# of Permits 2022	910	
Average # of Permits/year (1996-2023)	150	
Highest # of Permits/year (1996-2023)	1119 (2021)	



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 is essential for protecting communities and assets from flooding and guiding sustainable development. Draft maps and reports and analyses have been completed for Chippewa Creek, Parks Creek, Jessups Creek (in North Bay), and Lansdowne Creek (in Callander). Floodplain mapping for La Vase River (in East Ferris and Callander) and Kaibuskong River (in Bonfield) are in progress, utilizing hydrological and hydraulic modeling tools like HEC-HMS and HEC-RAS. These maps consider scenarios from 25-year

to 100-year flows, including regional storms like Timmins, and incorporate updated LIDAR elevation data. Funding is provided by federal, provincial and municipal sources, highlighting a collaborative approach to flood risk management.



Drinking Water Source Protection helps protect municipal drinking water sources. A detailed review and update of the Assessment Report (scientific information) and Source Protection Plan (policies) has been 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 to stabilize slopes on Chippewa Creek at Oak St has been completed and a new pedestrian bridge has been opened.

Meanwhile, a flood control structure capacity study is ongoing at Parks Creek in North Bay, encompassing hydrological and hydraulic analysis. The study includes scenarios involving Lake Nipissing and Parks Creek.

The goal is to improve the operation and potentially enhance the capacity

of the Parks Creek structure, which safeguards approximately 500 homes and businesses.

Funding originates from the City of North Bay and the province of Ontario.



Watershed-wide monitoring and analysis contributed to long-term monitoring datasets for surface water quality (12 streams, 17 sites on 4 lakes) and ground water (3 well for water quality and 6 wells for water quantity). NBMCA samples water as part of the Provincial Water Quality Monitoring Network, and Provincial Groundwater Monitoring Network, and 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 22 flood messages in 2023 to municipal emergency management officials, the media and the public through our website and social media.

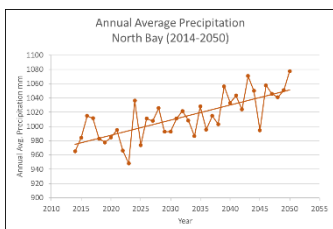
Municipalities then take action to warn residents. In 2023, nine Flood Warning messages, six Flood Watch messages, five Watershed Conditions Statements – Flood Outlook and two Watershed Conditions Statements - Water Safety were issued. There were no Low Water Statements issued.



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 Centre.



Trout Lake Management Plan is being undertaken by the City of North Bay, Municipality of East Ferris and 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 by NBMCA. Models indicate that precipitation in NBMCA’s watershed will increase in the coming decades. NBMCA staff monitor precipitation and water levels year-round, as well as changes in the snowpack quantity and water content, to alert staff to any risk of flooding. Plans for a new **Climate Monitoring Station** to be installed at the Corbeil Conservation Area in the Municipality of East Ferris was confirmed in 2023.

Conservation Areas, Lands and Stewardship

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



Laurier Woods Conservation Area Boardwalks Replacement

The NBMCA are co-owners of the Laurier Woods Conservation Area with the Friends of Laurier Woods Inc. This conservation area is approximately 101 hectares located within the City of North Bay. Boardwalks are key pieces of trail infrastructure located in various sections of the property to bridge water and/or wet areas. The replacement of two main boardwalks that provide essential access to Laurier Woods has been completed. These new boardwalks were constructed with hemlock cribs to enhance lifespan as hemlock is very dense and resistant to rot when in contact with water.



Phragmites Bio Control Project

Laurier Woods Conservation Area was one of 10-15 new locations added to the network of release sites for invasive Phragmites biocontrol across Ontario in the spring of 2023. The goal is to establish a local population of the biocontrol agent *Archanara neurica* larvae to achieve long-term suppression of invasive Phragmites. The project involves a single release of larvae in spring of 2023 followed by a minimum of five years of follow-up monitoring of the biocontrol insects and invasive Phragmites. Monitoring protocols are expected to be repeated annually for 5 years to determine if the biocontrol population was able to successfully establish and overwinter.



Oak Street Bridge Installation including Kinsmen Trail

The 28-metre pedestrian bridge over Chippewa Creek at Oak St, installed as part of the Chippewa Creek Erosion Remediation project, is now complete. A special ribbon cutting ceremony was held on August 25 with North Bay-Mattawa Conservation Authority Chair Dave Britton, North Bay Mayor Peter Chirico, and resident Bill Vrebosch on hand to officially open the bridge and mark the completion of the erosion project.



Interpretive Centre Improvements

Essential structural repairs to the observation tower are now complete. The observation tower has a newly shingled roof as well as a new concrete deck and perimeter railing. In addition, two heating ventilation and air conditioning units have been replaced with flexible and energy efficient equipment. NBMCA has also replaced an older boiler heating system with two new high efficiency boilers.

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.



Watershed Wonders Photo Contest 2022, the overall winners were honored in April 2023. Top **Watershed Heroes 2022** were honored in May 2023 in each category: individual, business, organization and educator.



The first plaques purchased as part of the **Boardwalk of Champions** fundraiser were installed on the Oak Street Bridge, plaques at Eau Claire Gorge Conservation Area will be installed in spring of 2024.



Through NBMCA's partnership with Community Oriented Outdoor Literacy (COOL) a second story hike was installed on the Kate Pace Way. The concept of a book outdoors provides a simple and fun way for families to read and reflect on the story together while enjoying a trail walk.



In collaboration with the Friends of Laurier Woods, a ribbon cutting ceremony was held to re-open **Laurier Woods Conservation Area Trails** after the replacement of two old boardwalks and a two-week closure.



NBMCA staff from a variety of program areas were involved in different projects such as hosting the Duke of Edinburgh Commonwealth Study Conference visitors (photo), filming with Theia Productions for a film on the Boreal Forest and hosting a contractor and municipal conference. Staff attended community events such as Communities in Bloom, North Bay Home & Garden Expo, East Ferris Tradeshow, Callander Funfest, Louise de Kilirine Festival, Callander Cranberry Day and First Lego League Competition.

NBMCA shares information with community stakeholders through our **website, social media, and media releases**. In 2023, **140 media releases** were issued.

Social media

Facebook – 113 Posts / Total post engagements (includes reactions, comments, and shares) 1,297 / Page likes/followers 2,900.

Instagram - 97 Posts / Post likes – 821 / Page followers 713.

X (formerly Twitter) - 85 Posts / Post likes/retweets – 130 / Page followers – 667.



Miskwaadesi (Painted Turtle) project continued through 2023. This is a granite petroform where Indigenous flags will be displayed throughout the year. NBMCA partnered with the North Bay Indigenous Friendship Centre and the City of North Bay for the project which honours Indigenous traditions and our shared respect for water. Miskwaadesi was made possible with funding from Government of Canada through FedNor and from financial support of Creative Industries, the Stockfish Family Foundation, Rotary Club International, North Bay-Parry Sound District Health Unit, Tourism North Bay, City of North Bay and Larocque Elder Architects which designed the project. Local businesses and others who donated materials and services include, Canor Construction, Algonquin Granite, OCP Construction, Canadore College (Welding & Fitting), Canor Construction, G & P Welding, Norgalv Ltd., North Bay Powder Coating.



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