

# NOTICE TO

## CLOCA BOARD OF DIRECTORS

Please find enclosed the **agenda** and supporting documents for the **CLOCA Board of Directors Meeting** on **Tuesday, June 17, 2025, at 5:00 p.m.** This meeting will be a **Hybrid meeting**. Members can join either virtual through TEAMS or attend in-person at the Authority's Administrative Office - 100 Whiting Avenue, Oshawa

The list below outlines upcoming meetings and events for your information.

### UPCOMING MEETINGS & EVENTS

DATE	TIME	EVENT	LOCATION
Tuesday, June 17/25	5:00 p.m.	CLOCA Board of Directors Meeting	Hybrid Meeting
Tuesday, June 17/25	Immediately following the CLOCA Meeting	CLOCA Fund Board of Directors Meeting	Hybrid Meeting
Friday, June 20/25	9:00 p.m. to 10:40 p.m.	Summer Solstice/Firefly Hike	Purple Woods Conservation Area 38 Coates Road East, Oshawa
Tuesday, July 15/25	5:00 p.m.	CLOCA Board of Directors Meeting	Hybrid Meeting
Tuesday, September 16/25	5:00 p.m.	CLOCA Board of Directors Meeting	Hybrid Meeting
Tuesday, October 21/25	5:00 p.m.	CLOCA Board of Directors Meeting	Hybrid Meeting
Tuesday, November 18/25	5:00 p.m.	CLOCA Board of Directors Meeting	Hybrid Meeting
Tuesday, December 16/25	5:00 p.m.	CLOCA Board of Directors Meeting	Hybrid Meeting

**\*Prior Tuesday meeting due to Monday being a statutory holiday**

### LATEST NEWS

Check Out our website! [www.cloca.com](http://www.cloca.com) Discover your local Conservation Area.

***"Healthy Watersheds for Today and Tomorrow"***

# CENTRAL LAKE ONTARIO CONSERVATION AUTHORITY

## A G E N D A

### AUTHORITY MEETING

Tuesday, June 17, 2025 - 5:00 P.M.

**HYBRID MEETING LOCATION:** VIRTUAL THROUGH TEAMS (ACCESS DETAILS TO BE PROVIDED)  
OR 100 WHITING AVENUE, OSHAWA, AUTHORITY'S ADMINISTRATIVE OFFICE, BOARDROOM

**Authority Members:** Bob Chapman, Chair  
Rhonda Mulcahy, Vice Chair  
Marilyn Crawford  
Sami Elhajjeh  
Ron Hooper  
Rick Kerr  
Tito-Dante Marimpietri  
Ian McDougall  
John Neal  
David Pickles  
Elizabeth Roy  
Maleeha Shahid  
Corinna Traill  
Steve Yamada

**Authority Staff:** C. Darling, Chief Administrative Officer  
B. Boardman, Senior Executive/Accounting Administrator  
R. Catulli, Director, Corporate Services  
J. Davidson, Director, Watershed Planning & Natural Heritage  
C. Gregory, Coordinator, Conservation Education  
L. Hastings, Communications Specialist  
D. Hipple, Director, Engineering  
D. Hope, Director, Land Operations & Education  
C. Jones, Director, Planning & Regulation  
L. Vaja, Executive Assistant/Health & Safety Administrator/ Recording Secretary  
R. Wilmot, Information Management & Technology Manager

**Others:**

#### AGENDA ITEM:

#### SUPPORTING DOCUMENTS

#### 1. CHAIR'S WELCOME

We acknowledge that our watershed is located on the Lands of the Great Mississauga Nations who are signatories to the Williams Treaties. These communities include the Mississaugas of Scugog Island, First Nations of Alderville, Beausoleil, Curve Lake, Hiawatha, Chippewas of Georgina Island and Rama. We believe it is important that we learn, and work to reconcile the impact we, and those before us, have had on the original inhabitants. On behalf of CLOCA, we want to thank them for sharing this land and all its resources. At CLOCA, our goal is to respectfully share in the responsibility of the stewardship and protection of these ancestral lands and waters and continue towards truth and reconciliation as we move forward as friends and allies with all First Nations, Inuit, and Metis people.

#### 2. DECLARATIONS of interest by members on any matters herein contained.

#### 3. ADOPTION OF MINUTES of May 13, 2025

pg. 1

#### 4. PRESENTATIONS – None

#### 5. CORRESPONDENCE – None

#### 6. DIRECTOR, PLANNING & REGULATION

(1) Staff Report #5936-25

pg. 23

Re: Permits Issued for Development, Interference with Wetlands, and Alteration to Shorelines and Watercourses – May 1 to 31, 2025

Cont'd

**7. DIRECTOR, WATERSHED PLANNING & NATURAL HERITAGE – *None***

**8. DIRECTOR, ENGINEERING – *None***

**9. DIRECTOR, LAND OPERATIONS & EDUCATION – *None***

- (1) Staff Report #5937-25 pg. **25**  
Re: Conservation Education Update – December 2024 to June 2025 - ***Staff Presentation***

**10. DIRECTOR, CORPORATE SERVICES**

- (1) Staff Report #5938-25 pg. **36**  
Re: Draft 2024 Audited Financial Statements

**11. CHIEF ADMINISTRATIVE OFFICER**

- (1) Staff Report #5939-25 pg. **59**  
Re: Oak Ridges Moraine Groundwater Program (ORMGP) 2024 Annual Report and 2025 Work Plan

**12. NEW AND UNFINISHED BUSINESS – *None***

**13. ADJOURNMENT**

# **A G E N D A**

## **SUPPORTING DOCUMENTS**

<b>MEETING OF:</b>	Authority
<b>DATE:</b>	Tuesday, June 17, 2025
<b>TIME:</b>	5:00 p.m.
<b>LOCATION:</b>	Hybrid – Virtual (TEAMS) or In-person - 100 Whiting Ave, Oshawa



CENTRAL LAKE ONTARIO CONSERVATION AUTHORITY

MINUTES NO. 4

AUTHORITY MEETING

Tuesday, May 13, 2025 - 5:00 P.M.

**HYBRID MEETING LOCATION:** VIRTUAL THROUGH TEAMS (ACCESS DETAILS TO BE PROVIDED)  
OR 100 WHITING AVENUE, OSHAWA, AUTHORITY'S ADMINISTRATIVE OFFICE, BOARDROOM

**Authority Members:** Bob Chapman, Chair  
Rhonda Mulcahy, Vice Chair  
Marilyn Crawford  
Sami Elhajjeh  
Bruce Garrod  
Ron Hooper  
Rick Kerr  
John Neal  
David Pickles  
Elizabeth Roy  
Maleeha Shahid  
Steve Yamada

**Authority Staff:** C. Darling, Chief Administrative Officer  
B. Boardman, Senior Executive/Accounting Administrator  
R. Catulli, Director, Corporate Services  
J. Davidson, Director, Watershed Planning & Natural Heritage  
L. Hastings, Communications Specialist  
D. Hipple, Director, Engineering  
D. Hope, Director, Land Operations & Education  
C. Jones, Director, Planning & Regulation  
D. Moore, Senior Ecologist, Environmental Monitoring & Ecosystem Science  
L. Vaja, Executive Assistant/Health & Safety Administrator/ Recording Secretary  
R. Wilmot, Information Management & Technology Manager

**Absent:** Tito-Dante Marimpietri  
Ian McDougall  
Corinna Trill

**Others:** S. Provenzano, Guest

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The Chair called the meeting to order at 5:00 p.m.

**LAND ACKNOWLEDGEMENT STATEMENT**

Chair Chapman recited the Land Acknowledgement Statement.

S.Elhajjeh joined virtually at 5:00 p.m.

**DECLARATIONS** of interest by members on any matters herein contained - *None*

**ADOPTION OF MINUTES** (Agenda pg. 1)

Res. #35 Moved by D. Pickles  
Seconded by M. Shahid

***THAT the Authority minutes of April 15, 2025, be adopted as circulated.***  
**CARRIED**

**PRESENTATIONS** - *None*

**CORRESPONDENCE** – *None*

**DIRECTOR, PLANNING & REGULATION**

- (1) Staff Report #5930-25 (Agenda pg. 4)  
Re: Permits Issued for Development, Interference with Wetlands, and Alteration to Shorelines and Watercourses – April 1 to 30, 2025

Res. #36 Moved by S. Elhajjeh  
Seconded by M. Crawford

***THAT Staff Report #5930-25 be received for information.***  
**CARRIED**

**DIRECTOR, WATERSHED PLANNING & NATURAL HERITAGE**

- (1) Staff Report #5933-25 (Agenda pg. 6)  
Re: Provincial Proposal to Repeal the Current Endangered Species Act and Replace it With a Proposed Species Conservation Act.

Res. #37 Moved by B. Garrod  
Seconded by R. Hooper

***THAT the Central Lake Ontario Conservation Authority endorse the comments contained in Staff Report #5933-25 and that they be submitted in response to Environmental Registry of Ontario posting #025-0380 (repeal the Endangered Species Act, 2007 (ESA) and replace it with a new Species Conservation Act).***  
**CARRIED**

S. Yamada joined virtually at 5:03 p.m.  
E. Roy joined virtually at 5:06 p.m.

- (2) Staff Report #5932-25 (Agenda pg. 9)  
Re: 2024 Integrated Watershed Monitoring Program Update (Staff Presentation Enclosed)

Res. #38 Moved by R. Hooper  
Seconded by R. Kerr

***THAT Staff Report #5932-25 be received for information.***  
**CARRIED**

M. Shahid leaves the meeting at 5:28 p.m.

**DIRECTOR, ENGINEERING – None**

**DIRECTOR, LAND OPERATIONS & EDUCATION**

- (1) Staff Report #5935-25 (Agenda pg. H1)  
Re: Conservation Areas – Payment Technology System Update

Res. #39 Moved by E. Roy  
Seconded by R. Hooper

***THAT Staff Report #5935-25 be received for information.***  
**CARRIED**

**DIRECTOR, CORPORATE SERVICES**

(1) Staff Report #5934-25 (Agenda pg. 14)  
Re: 2025 Budget

Res. #40 Moved by R. Mulcahy  
Seconded by D. Pickles

***THAT the recommended 2025 budget be approved, as presented;  
THAT copies of the 2025 Budget Report, as approved, be circulated to the Region of Durham; and  
THAT a copy of the approved budget be posted on the Authority's website.***  
**CARRIED**

**CHIEF ADMINISTRATIVE OFFICER**

(1) Staff Report #5931-25 (Agenda pg. 62)  
Re: Conservation Ontario 2024 Annual Report

Res. #41 Moved by M. Crawford  
Seconded by B. Garrod

***THAT Staff Report #5931-25 be received for information.***  
**CARRIED**

**CONFIDENTIAL MATTERS – None**

**NEW AND UNFINISHED BUSINESS – None**

**ADJOURNMENT**

Res. #42 Moved by J. Neal  
Seconded by D. Pickles

***THAT the meeting adjourns.***  
**CARRIED**

The meeting adjourned at 5:34 p.m.

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BOB CHAPMAN, CHAIR

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CHRIS DARLING, CHIEF ADMINISTRATIVE OFFICER



# Integrated Watershed Monitoring Program Update







# Purpose of the Integrated Watershed Monitoring Program

*How is ecosystem health responding as changes in CLOCA's watersheds occur?*





# Ecosystems we monitor



Streams

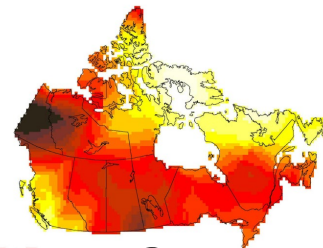


Coastal  
Wetlands



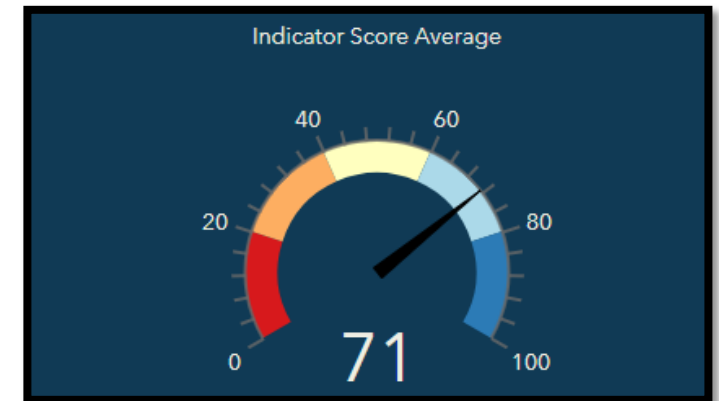
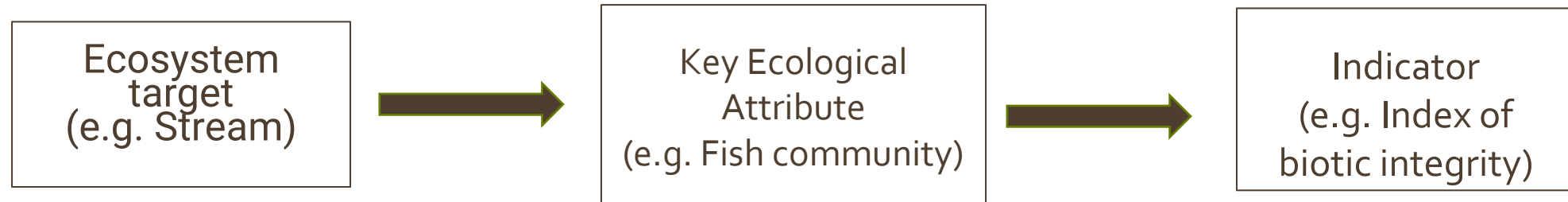
Forests

Climate and  
groundwater  
data





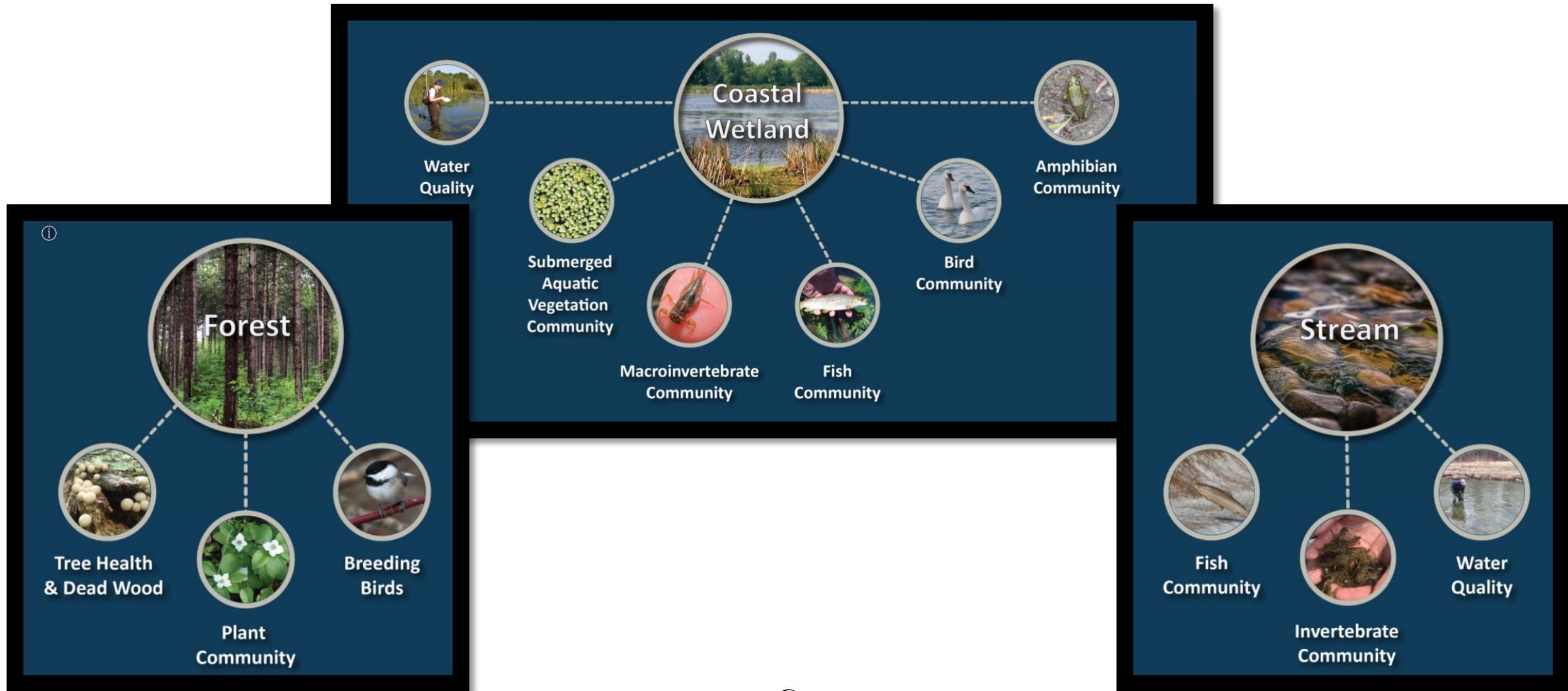
# How we measure ecosystem health







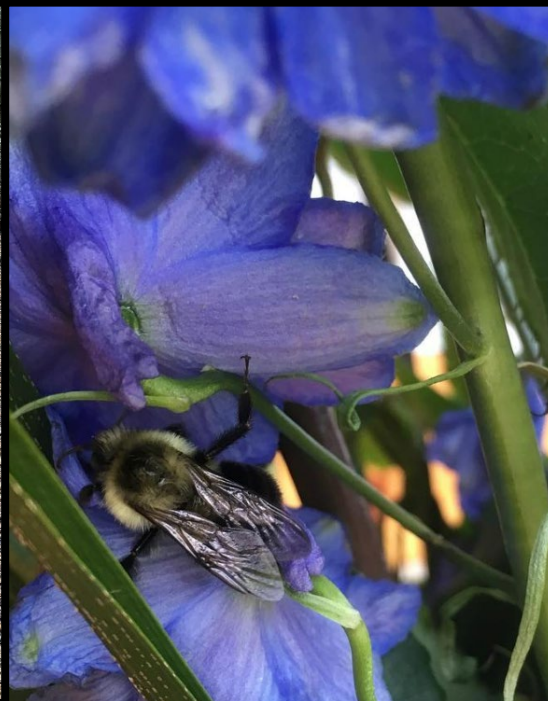
# Ecosystems we monitor







# Why monitor?



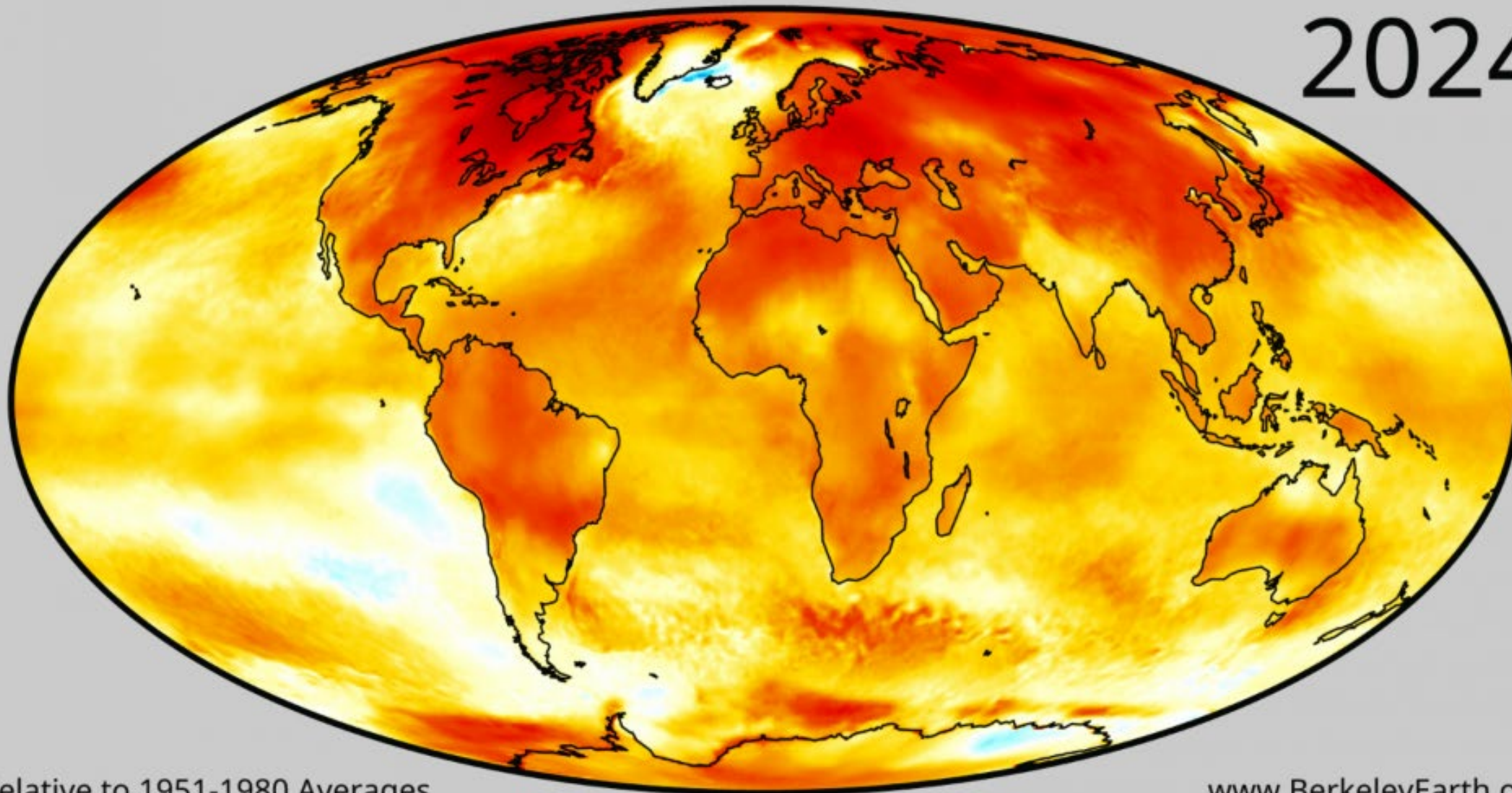
Determine Ecosystem Health  
Important Ecosystems and Species  
Changing conditions?  
Enhance Resilience







2024



Relative to 1951-1980 Averages

[www.BerkeleyEarth.org](http://www.BerkeleyEarth.org)



Temperature  
Anomaly ( $^{\circ}\text{C}$ )



# Impacts of Climate Change

## Increasing Temperature



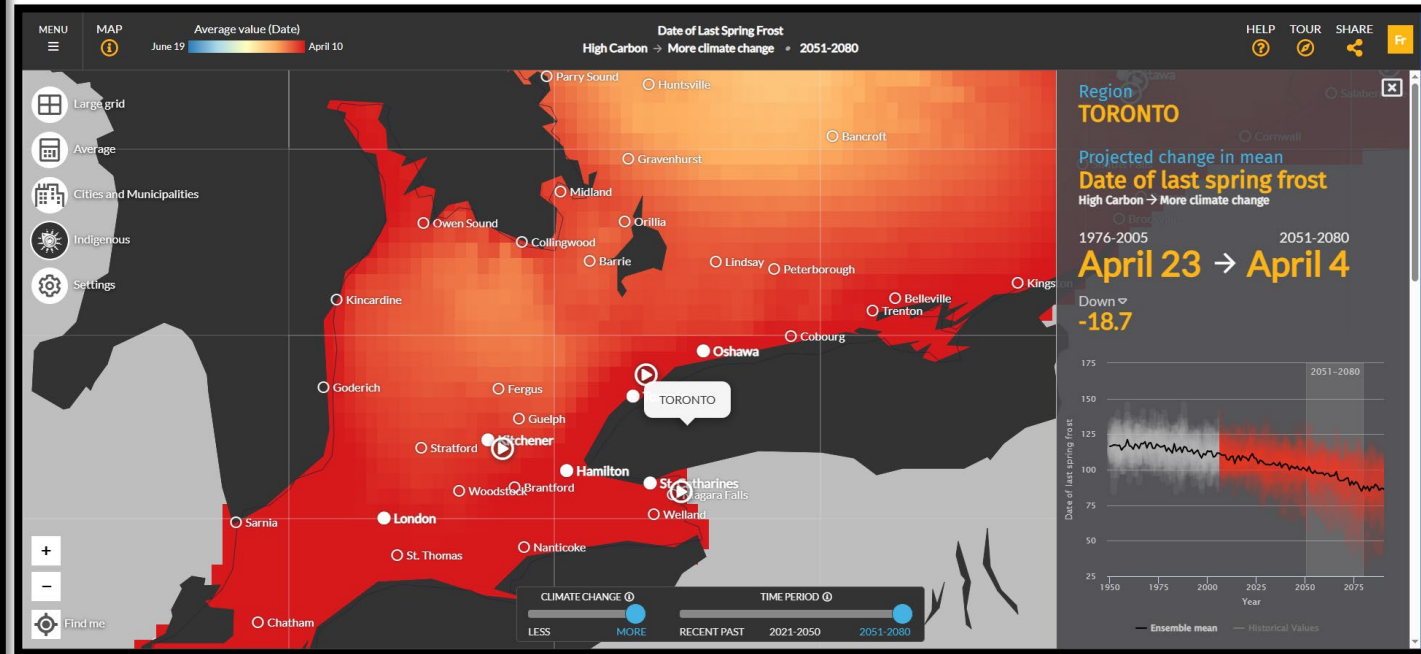
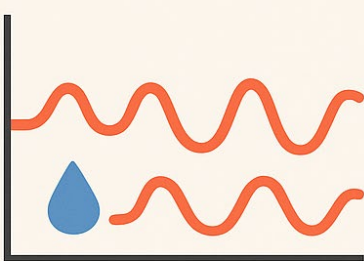
## Shifting Seasons



## More Variable Precipitation



## Increase in Freeze-Thaw Events



[https://climateatlas.ca/map/canada/precip20\\_2030\\_85#z=8&lat=43.87&lng=-78.75&grid=291](https://climateatlas.ca/map/canada/precip20_2030_85#z=8&lat=43.87&lng=-78.75&grid=291)





British Dragonfly Society



Appalachian History

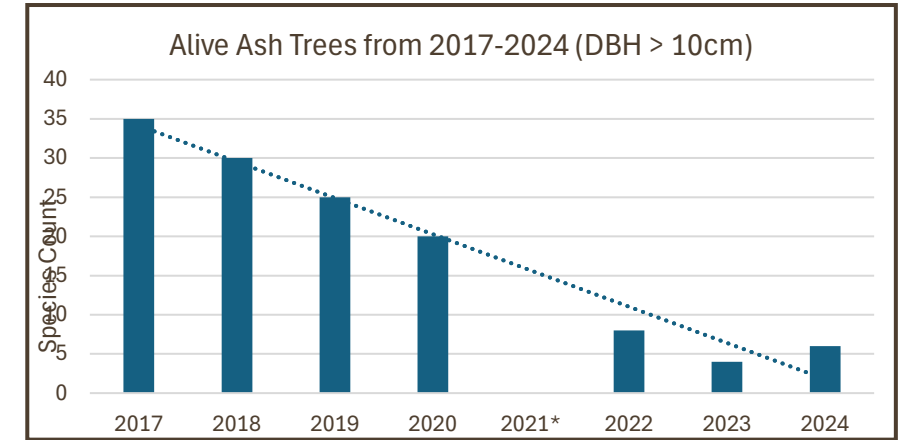


Wikipedia



# What we found - FORESTS

- Fair to Good Scores
- Bird Community continues to show a declining trend
- Invasive species (e.g. Emerald Ash Borer) impacts



Ecosystem	Health Score 2024	Trend
Forest Health	FAIR	Stable
Bird Community	FAIR	Decline
Tree Health	GOOD	Stable
Plant Community	GOOD	Stable





# The State of Canada's Birds

A partnership between



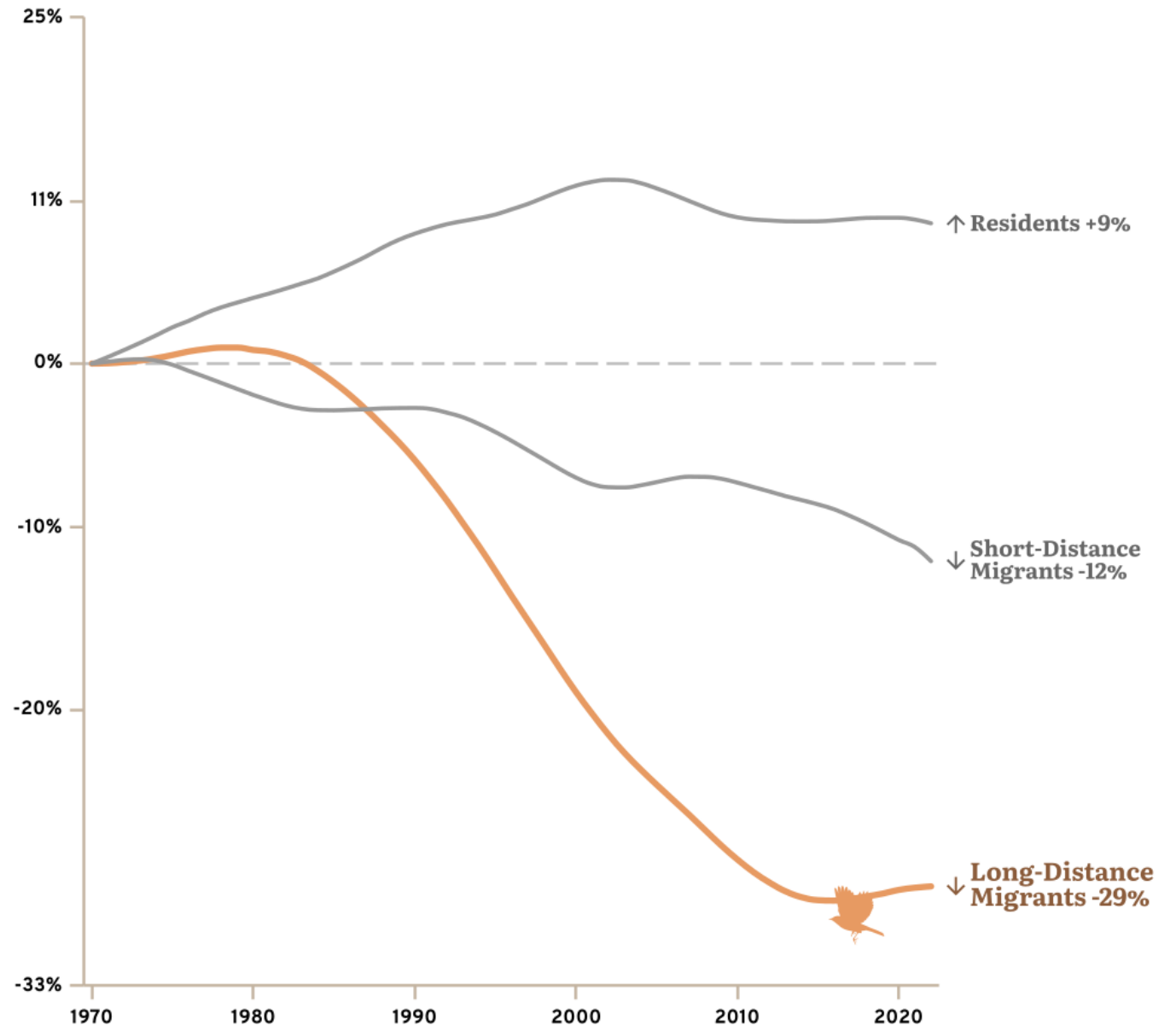
ENVIRONMENT  
AND CLIMATE  
CHANGE CANADA

Climate change isn't the whole story. Threats and challenges to migrant birds include:

- Habitat loss and degradation at stopover sites and at over-wintering locations
- Window collisions
- Light pollution
- Hunting
- Introduced predators (cats)
- Extreme weather events (may be exacerbated by climate change)

<https://naturecounts.ca/nc/socb-epoc/report/2024/en/#long-distance-migrants>

Population change since 1970





# What we found - STREAMS

- Poor to Good Scores, generally stable trend
- Continue to see long-term increase in water quality
- Over 3300 fish, 11,000 invertebrates, and 576 water quality samples taken



Ecosystem	Health Score 2024	Trend
Stream Health	FAIR	Stable
Fish	POOR	Stable
Benthic Invertebrates	FAIR	Stable
Water Quality	GOOD	Improving





# Stressed Systems Limit Native Species

- Chloride impacts
- Temperature increases
- Habitat structure degradation







# What we found - WETLANDS

- Poor to Fair Scores, generally stable or increasing trend
- Lots of challenges and opportunities for these important features

Ecosystem	Health Score 2024	Trend
Wetland Health	FAIR	Stable
Fish	POOR	Stable
Benthic Invertebrates	FAIR	Stable
Water Quality	POOR	Increasing
Birds	FAIR	Stable
Aquatic Vegetation	POOR	Increasing





# Lynde Shores Restoration and Resilience Planning







## Next Steps

### **\$2.1 Million Grant Received Through The Great Lakes Freshwater Ecosystem Initiative**

Central Lake Ontario Conservation Authority (CLOCA) is pleased to announce that it has been approved for \$2,177,000 in funding from Environment and Climate Change Canada (ECCC) over the next four years through [The Great Lakes Freshwater Ecosystem Initiative](#). This funding aims to address significant environmental challenges affecting Great Lakes water quality and ecosystem health, aligning with Canada's commitments under the Great Lakes Water Quality Agreement, that includes restoring and protecting critically important coastal areas, including wetlands.















**DATE:** June 17, 2025

**FILE:** RPRG3974

**S.R.:** 5936-25

**APPROVED BY C.A.O.**



**TO:** Chair and Members, CLOCA Board of Directors

**FROM:** Chris Jones, Director, Planning and Regulation

**SUBJECT: Permits Issued under Part VI of the Conservation Authorities Act for development activities, interference with watercourses and wetlands – May 1 to 31, 2025**

Attached are Development, Interference with Watercourse and/or Wetland applications made pursuant to Part VI of the Conservation Authorities Act and Ontario Regulation 41/24, as approved by staff and presented for the members' information.

**RECOMMENDATION:**

***THAT Staff Report #5936-25 be received for information.***

**Attach.**

**PERMITS ISSUED UNDER PART VI OF THE CONSERVATION AUTHORITIES ACT, FROM MAY 1 TO 31 2025**

Row	Municipality	Owner Applicant	Street Lot Con	Permit No	Description
1	CLARINGTON	TRIBUTE (KING) STREET LIMITED / WSP	1588 BLOOR STREET / LOT 31 & 32 / CON 02	C25-073-AG	DEVELOPMENT INCLUDING SITE ALTERATION ACTIVITIES ASSOCIATED WITH TRIBUTE COURTYARD SUBDIVISION, AS PER DRAWINGS AND TECHNICAL REPORT.
2	CLARINGTON	SAVANNAH LAND CORPORATION / GHD LIMITED	330 KING STREET EAST / LOT 08 / CON 01	C25-076-B	DEVELOPMENT ACTIVITIES ASSOCIATED WITH INSTALLATION OF WATER SERVICING, UTILITY SHED/WATER METER ROOM, AND SANITARY MANHOLES
3	CLARINGTON	PROPERTY OWNER	1688 TAUNTON ROAD / LOT 30 / CON 05	C25-078-ABG	DEVELOPMENT ACTIVITIES ASSOCIATED WITH INSTALLATION OF A SLAB ON GRADE ENGINEERING BUILDING
4	CLARINGTON	HYDRO ONE NETWORKS INC	CONSESSION ROAD 7 (BOWMANVILLE AVENUE TO LANDMAID ROAD) / LOT 17-32 / CON 06 & 07	C25-085-B	DEVELOPMENT ACTIVITIES ASSOCIATED WITH INSTALLATION OF HYDRO ONE POLES AND ANCHORS WHICH REQUIRE FORESTRY WORK AND EXCAVATION
5	OSHAWA	PROPERTY OWNER	85 HALL STREET / LOT 11 / CON 01	O23-204-B	EXTENSION - DEVELOPMENT ACTIVITIES ASSOCIATED WITH RENOVATIONS TO AN EXISTING DWELLING
6	OSHAWA	PROPERTY OWNER	3030 RITSON ROAD NORTH / LOT 09 / CON 06	O25-074-BG	DEVELOPMENT ACTIVITIES ASSOCIATED WITH CONSTRUCTING AN ADDITIONAL ACCESSORY BUILDING
7	OSHAWA	PROPERTY OWNER	640 LANSOWNE DRIVE / LOT 06 / CON 02	O25-075-R	DEVELOPMENT ACTIVITIES ASSOCIATED WITH CREATING A LEGAL BASEMENT APARTMENT IN AN EXISTING DWELLING
8	OSHAWA	PROPERTY OWNER	125 OVERBANK DRIVE / LOT 17 / CON 02	O25-080-R	DEVELOPMENT ACTIVITIES ASSOCIATED WITH RENOVATING AN EXISTING BASEMENT TO ADD AN ADDITIONAL DWELLING UNIT
9	OSHAWA	CITY OF OSHAWA	WARNE PARK (430 GRENFELL STREET) / LOT 13 / CON 01	O25-081-BFG	DEVELOPMENT ACTIVITIES ASSOCIATED WITH THE INSTALLATION OF PARK IMPROVEMENTS
10	OSHAWA	CITY OF OSHAWA	OSHAWA CREEK TRAIL / LOT 10 & 11 / CON BF	O25-082-ABG	DEVELOPMENT ACTIVITIES ASSOCIATED WITH REPLACEMENT OF CONCRETE PADS AND RELATED STRUCTURES
11	OSHAWA	ENBRIDGE PIPELINES INC / DILLON CONSULTING LTD	THORNTON ROAD NORTH (SOUTH OF GATINEAU HYDRO CORRIDOR) / LOT / CON	O25-083-AFG	DEVELOPMENT ACTIVITIES ASSOCIATED WITH REGULAR PREVENTATIVE MAINTENANCE ACTIVITIES
12	OSHAWA	TRANSCANADA PIPELINES LIMITED / TC ENERGY	NEAR 2869 THORNTON ROAD NORTH / LOT 16 / CON 06	O25-086-G	DEVELOPMENT ACTIVITIES ASSOCIATED WITH INTEGRITY DIGS ON AN EXISTING NATURAL GAS PIPELINE
13	OSHAWA	PROPERTY OWNER	751 STONE STREET / LOT 12 / CON BF	O25-087-G	DEVELOPMENT ACTIVITIES ASSOCIATED WITH INSTALLATION OF CONCRETE-SLAB WALKWAY
14	OSHAWA	ROGERS COMMUNICATIONS CANADA INC	560 FAIRGLEN AVENUE / LOT 15 / CON 03	O25-089-BG	DEVELOPMENT ACTIVITIES ASSOCIATED WITH DIRECTIONAL BORE AND INSTALLATION OF NEW CONDUIT
15	OSHAWA	DURHAM REGION / PROPERTY OWNER	STEVENSON ROAD SOUTH (BETWEEN GIBB STREET AND LAVAL DRIVE) / LOT 14 & 15 / CON 01	O25-091-BFG	DEVELOPMENT ACTIVITIES ASSOCIATED WITH PLACING MULTIPLE BOXES AND CONDUITS
16	WHITBY	FIELDGATE DEVELOPMENTS	625 COLUMBUS ROAD WEST / LOT 27 & 28 / CON 06	W23-082-GW	EXTENDED - DEVELOPMENT ACTIVITIES ASSOCIATED WITH FILL IMPORTATION AND STOCKPILING IN PREPARATION FOR RESIDENTIAL SUBDIVISION
17	WHITBY	PROPERTY OWNER / AQUAMATIC INC	539 TAUNTON ROAD EAST / LOT 22 / CON 03	W25-077-BG	DEVELOPMENT ACTIVITIES ASSOCIATED WITH INSTALLING A SEPTIC SYSTEM
18	WHITBY	BROOKLYN VALLEY DEVELOPMENTS NORTHEAST CR INC. / CANDEVON EAST LTD	400 COLUMBUS ROAD EAST / LOT 19 & 20 / CON 07	W25-079-BG	DEVELOPMENT ACTIVITIES ASSOCIATED WITH RE: PHASE 1 - ROUGH GRADING WORKS OF RESIDENTIAL DEVELOPMENT
19	WHITBY	PROPERTY OWNER	14 ARNOLD CRESCENT / LOT 22 / CON 05	W25-084-BF	DEVELOPMENT ACTIVITIES ASSOCIATED WITH DECK WITH ROOF
20	WHITBY	PROPERTY OWNER	6 WILLIAM DAVIDSON STREET / LOT 18 / CON 03	W25-088-ABG	DEVELOPMENT ACTIVITIES ASSOCIATED WITH BUILDING A DECK
21	WHITBY	ENBRIDGE GAS ONTARIO / ENBRIDGE GAS INC.	BALDWIN STREET NORTH AND COLUMBUS ROAD EAST / LOT 22 / CON 07	W25-090-BG	DEVELOPMENT ACTIVITIES ASSOCIATED WITH THE INSTALLATION OF GAS SERVICE TO NEW SUBDIVISION



# REPORT

## CENTRAL LAKE ONTARIO CONSERVATION AUTHORITY


**DATE:** June 17, 2025

**FILE:** ACEI8

**S.R.:** 5937-25

**TO:** Chair and Members, CLOCA Board of Directors

**FROM:** Dan Hope, Director, Land Operations and Education  
Cara Gregory, Conservation Education Coordinator

APPROVED BY C.A.O. 

**SUBJECT: Conservation Education Update – December 2024 to June 2025**

### Background:

Since 1988, Central Lake Ontario Conservation (CLOCA) has delivered formal and informal education programs to share our watershed story and inspire our community to be watershed champions by taking action for real change. Our education programs are an important deliverable designed to fulfill CLOCA's fourth goal in its Strategic Plan (2021-2025), *to create a more knowledgeable and connected watershed through community engagement and education*. This includes connecting people with nature, culture and greenspace to promote environmental awareness, appreciation, and action; increase school participation in environmental education and stewardship; provide programs that respond to and reflect a diverse community; and communicate a recognized brand that reflects our corporate culture, our goals, and strategic actions to our watershed audiences. Our suite of innovative education programs informs and raises awareness about the value of healthy watersheds, educating diverse audiences about CLOCA, what we do and who we are.

We continue our commitment to provide a variety of programs and services that are important to our local watershed community, including curriculum based outdoor education programs. Updates on CLOCA's educational programs are provided to the Board of Directors bi-annually.

### School Year 2024/2025: In Your Watershed Program

#### **Watershed Connections**

Our Conservation Areas are not only places where we protect ecologically significant land within our watershed, but also where we educate and inspire future generations. Connecting students with nature and exploring our Conservation Areas is invaluable. They learn that they are part of a watershed community, and what we do on the land has an impact on the quality of our drinking water, and on aquatic habitats. They will realize that we have a responsibility to recognize and manage our impacts to keep our watershed healthy.

#### **Kindergarten to Grade 12**

The sooner children become active and engaged in the outdoors, the stronger and more lasting their bond will be with the natural environment. That is why we start our conservation education programming at the kindergarten level. We offer programming to schools within our watershed from the following four school boards: Durham District School Board, Durham Catholic District School Board, Kawartha Pineridge District School Board and Peterborough Victoria Northumberland Clarington Catholic District School Board. We also offer programming to home-school and Montessori groups. It is important to nurture and strengthen that bond as children age, so we continue the learning through to Grade 12. All our school programs are connected to the current Ontario curriculum.

Cont'd

## Number of Visiting Students

Time Period (Fall 2024)	Visiting Student Numbers (approx.)	Duration		
November	522	4FD	9HD	
December	121	1FD	3HD	1SHSM
January	352	1FD	7HD	1NN
February	282	3FD	5HD	3NN 2 SHSM
March/April – Sugar Bush Tours	1899 (2239 w/o weather cancellations)			
April	173	3FD	1HD	
May	802	8FD	11HD	
June (anticipated)	817	12FD	5HD	
<b>Total for all 8 months</b>	<b>4 968</b>	<b>32 FD</b>	<b>31HD</b>	<b>3 SHSM 4 NN</b>

**Note:** FD stands for Full Day program (3 hrs) and HD stands for Half Day program (1.5hrs), NN represents a HD Nature Nook booking added to make HD bookings a full day visit. SHSM represents a Specialist High Skills Major Certification Program (3hrs).

Visiting students come from four local school boards and Montessori and homeschool groups in our watershed. We have also had schools from the Toronto District School Board visit on occasion. From the beginning of November to the end of May **4 151 students** have participated in our *In your Watershed* program and **another 817** are scheduled to participate in June 2025! We had a fully booked *maple syrup season* with **1899 students** receiving a sugar bush tour. Had we not had to cancel some of the sugar bush tours due to the weather, that number would have been **2239**. Numbers include four scout/guide evening programs in February, April and May, totaling **59 students**, the two classes (35 students) participating in the Bring Back the Salmon Program bringing us to a grand total of **4968 student connections to our conservation areas and education programing**. In comparison, in 2023/24 we saw a total of 4814 students, so our numbers continue to climb. We have already received booking requests for the 2025/26 school year.

## Nature Nook Bookings

Our Nature Nook play space at Enniskillen C.A. continues to gain popularity with teachers and we have seen a continued increase in bookings as word about this space spreads thought the education community. We have only received positive feedback from teachers who have used this space.

## Specialist High Skills Major (SHSM) Program Certifications

We delivered another successful GPS SHSM certification in December and ICE (Innovation, Creativity and Entrepreneurship) SHSM certification in February.

This is a specialized program that allows students to gain credits toward their Ontario Secondary School Diploma and focus their learning on a specific economic sector at the same time. The SHSM is a Ministry of Education approved program. Students receive the SHSM seal on their diploma when they complete a specific bundle of 8-10 courses in the student's selected field, earn industry certifications, and gain important skills on the job through cooperative education placements.

## Exploring your Watershed – Primary Orienteering

This spring we had our first booking and delivery of our new primary Orienteering program. It involves the use of table-top maps to help young students find their way to different locations marked on the map. This curriculum-based program helps develop map reading skills, that students will continue to improve upon during their school career. Good map reading skills help give students the confidence to get outdoors and explore our conservation areas and other natural areas in our watershed. The program was a success and feedback from teachers was positive. We look forward to continuing to deliver this program and anticipate that it will be popular.

### **Grade 12 Biology – Population Dynamics – Invasive Species Program**

The past 3 years we have delivered an Invasive Species Program to grade 12 biology students at Uxbridge and Durham Christian High schools aligning with the course's population dynamics unit. Both Education and Natural Heritage staff have worked collaboratively on this initiative. Durham Christian High School has done a plant stem count and a percent species cover for 9 quadrats or subplots in the same 20m squared area at Purple Woods C.A. for three years now followed by removing/pulling garlic mustard in that area. Results for each year have been recorded, compared and analyzed by each year's biology class to monitor the impact their efforts have had. This year there was a marked increase in the number of native plants growing in the plots and a significant decrease in the garlic mustard.

### **New Education Animal – Eastern Fox Snake**



An Eastern Fox Snake, born August 2024, arrived at CLOCA in December. It is native to Ontario and is listed as Endangered under the federal Species at Risk Act. It makes an excellent ambassador for the snakes in our watershed to teach the community about the threats they face. Being a constrictor and tree climber of a docile nature, the snake is easy to handle and suitable for interaction with visitors. Named *Waagoosh*, an Anishinaabemowin name for 'fox'. *Waagoosh* has been a wonderful addition to our education team and has been busy meeting many visiting students and other members of our community.

### **Ministry of the Environment Conservation and Parks (MECP) Great Lakes Student Conference Grant**

MECP and the Ministry of Education (MOE) created a model for Great Lakes partners to work with school boards and teachers to co-create new learning opportunities for students. Their hope is to expand the reach of Great Lakes partners, enable teachers from all subjects to involve their students and support multiple Ontario priorities. CLOCA was chosen as the next recipient of the \$20,000 grant from MECP to work with school board leads and teachers to co-create an experiential Great Lakes learning opportunity for secondary school students. As part of this grant, we organized and hosted a successful teacher tour of our watershed in November and held a Great Lakes Student Conference in our watershed this April.

### **Teacher Tour (DDSB, DCDSB, KPDSB and PVNCCDSB) – November 15<sup>th</sup>, 2024**

57 high school teachers from the four school boards we service enjoyed a guided tour of our watershed from CLOCA staff, travelling from outlet to headwaters and back. The tour highlighted authentic experiential learning opportunities that teachers can access in their school communities and provided an opportunity for teachers to explore how the Great Lakes can anchor the curriculum in engaging and impactful lessons. We received positive feedback from teachers on the tour. It gave education staff an opportunity to network and share information with high school teachers about our existing secondary school programs and collaborate on new ideas as well. It also showcased the great work that CLOCA does. The MECP staff member who attended this event commented on how impressed they were with the number of CLOCA staff that came together as a team to make this event such a success.

### **Great Lakes Student Conference – April 25<sup>th</sup>, 2025**

A secondary school student conference was organized by CLOCA with support from the four local school boards we service, the Ministry of the Environment Conservation and Parks. It was held at the Town of Whitby's Heydenshore Pavillion and was opened in a good way by James Carpenter, an Anishinaabe Healer, with assistance from James Costello (Durham Community Health Centre – Indigenous Health Promoter).

CLOCA and eleven local community partners ran interactive stations for students that connected to the work they are involved in related to the Great Lakes, and stressed the importance of taking actions to help keep our watershed healthy. Students learned about available volunteer and work opportunities related to the Great Lakes that help to maintain lake health and educate the community on their value. Mayor Roy (Town of Whitby), Chris Darling (CLOCA CAO), and Elizabeth Everhardus (Ministry of the Environment Conservation and Parks) presented to students on local initiatives towards lake health and the importance of the Great Lakes both economically and environmentally. An in-person pre-visit by a CLOCA education staff member to each participating class helped further educate students about watershed health and the value of the Great Lakes as well as helping them prepare for the event.

**Community Partners:**

Ontario Power Generation	Friends of Second Marsh	Ducks Unlimited Canada
Water Rangers	Durham Region Waste Management	Ontario Federation of Anglers and Hunters
Ontario Nature	Ontario Parks	Durham Farm Connections
Pollution Probe	Soul-led Wellness	

Positive feedback was received from MECP community partners, participating students and their teachers:

Congratulations to you and your team for delivering such a successful event. I was impressed with how smoothly everything went. I spent time visiting each of the stations, which were also very impressive. Your boards leads were blown away with the community connections that you provided for students. You have laid a strong foundation to take the Great Lakes to the next level. I think your boards will be willing partners in many future projects.

**Elizabeth Everhardus – MECP**

Thank you for the opportunity to participate in the Great Lakes Student Conference. I found it to be an incredible experience, offering students the chance to engage with professionals from a range of industries. It was truly valuable to connect with both students and fellow community partners.

**Leah Bourgeois – OPG**

Thank you again for the opportunity to join you on Friday! It was an amazing event, and we had a great time interacting with the students and meeting all the other community partners.

**Melissa De Young – Pollution Probe**

Thanks again so much for the invitation to attend this year's Great Lakes Student Conference! It was a successful day on my end and great to meet some students in the Whitby area. Thanks for all your hard work organizing the event.

**Emily Green – Ontario Nature**

I enjoyed learning this way because I was not just being talked at. I got to be hands-on.

I liked to learn how I as an individual can help prevent climate change in my community and worldwide.

What I liked most was getting to interact with people in the industry. I enjoyed the diversity of stations/activities. I liked not being stuck in one place all day.

We are fortunate to live around the Great Lakes. They play a crucial part in our daily lives, ecosystems and cities. We need to protect them, and wetlands, at all costs.

**Participating Students – Durham Catholic District School Board**





### CLOCA Community Events

Event Title	Date (2025 if not stated)	Location	Brief Description	Attendance
Bird Count for Kids	November 30 <sup>th</sup> , 2024	Enniskillen C.A.	Young bird fans were introduced to bird watching and bird counting for science while hiking on the trails with binoculars. This year we had local falconer Amanda Keizebrink join us with a live birds of prey presentation at the Russ Powell Nature Centre.	29
Evening Snowshoe Hike	February 14 <sup>th</sup>	Enniskillen C.A.	Participants enjoyed a walk on snowshoes along candlelit trails and learned about their night vision and that of nocturnal animals. The event was divided into two time frames; one for families and one for couples. CLOCA provided snowshoes.	Family: 43 Couples: 47
Mother's Day Wildflower Hike and Tea	May 10 <sup>th</sup>	Purple Woods C.A.	Participants celebrated Mother's Day with a guided woodland wildflower hike (spring ephemerals) followed by tea and scones.	38
Summer Solstice Firefly Hike	June 20 <sup>th</sup>	Purple Woods C.A.	Participants will celebrate the summer solstice by enjoying a strawberry treat followed by a guided hike including interpretive stops on nocturnal creatures and a walk through the meadow lit by glowing fireflies.	80 Registered

Below: Participants enjoying the snowshoe hike event at Enniskillen on Valentine's Day.



Cont'd

### Corporate Outreach

CLOCA partnered again this school year with Ontario Power Generation (OPG) and the Ontario Federation of Anglers and Hunters (OFAH) for the Bring Back the Salmon Program. A grade ¾ class from GJ MacGillivray P.S. in Courtice was selected this year to participate in this program. It included the hatchery/launch set-up (**January 27<sup>th</sup>, 2025**) an Earth Day hike/garbage clean-up (**April 22<sup>nd</sup>, 2025**), the delivery of our Watershed Wishes program (**May 6<sup>th</sup>, 2025**), and a fry release (**May 27<sup>th</sup>, 2025**) done together with the municipality of Clarington and Valleys 2000 – The Valleys of Bowmanville.



Above: Watershed Wishes Mural at G.L. MacGillivray P.S. (Courtice) and the salmon fry release into the Bowmanville Creek.

### Community Outreach

Event Title	Date (2025)	Location	Brief Description	Attendance
CLOCA Maple Syrup Production	January 13 <sup>th</sup>	Durham College Corporate Training Services (Whitby)	An interactive presentation on CLOCA's maple syrup production given to visiting professors from Scotland Universities.	12
Heros for Wildlife	February 21 <sup>st</sup> – 23 <sup>rd</sup>	Garnet B. Rickard Complex, Bowmanville	Event for families with falconer, local live wildlife, and bee keeper presentations in addition to interactive learning tables on topics related to wildlife. Promoted CLOCA's watershed, conservation areas, and our turtle cover program.	~ 40
Big Drum Social	April 26 <sup>th</sup>	Children's Arena, Oshawa	Hosted by the Indigenous Initiatives Team from the Durham Community Health Centre. Many were drawn to our interactive touch table that featured local animal furs and skulls. The event offered a vibrant celebration of Indigenous culture through traditional dance, art, and meaningful community connections.	Over 50

Eco-Extravaganza	May 1 <sup>st</sup>	R.H. Cornish P.S. – Port Perry	Event encouraging ecologically sustainable practices and getting outdoors. Station with watershed model explaining good stewardship, who we are and what we do as well as our education animals promoting habitat protection.	70
Sustainable Neighbourhood Action Program (SNAP) Event	May 8 <sup>th</sup>	Whitby – West Lynde P.S. and St. Margarite Deville C.S.	Joined SNAP staff at a table at two school events. Participant interaction with education animals enhanced the experience and supported the need for sustainable neighborhood initiatives.	30
Oshawa Garden Club Plant Sale	May 24 <sup>th</sup>	South Oshawa Community Centre	Joined other community organizations at this event to share information with the watershed community about our C.A.s and to promote planting native species, butterfly and bird gardens, our tree program and invasive species removal.	70
Indigenous Cultural Celebration (Education and Natural Heritage Staff - CLOCA table/display)	May 31 <sup>st</sup> , 2025	Oshawa	Staff were proud to participate in this event, connecting with attendees through our always-popular interactive touch table display. The event showcased the richness and diversity of Indigenous cultures with a lineup of performances, including traditional dancing, hand drumming, spoken word, and storytelling. Visitors also took part in hands-on workshops led by First Nations, Inuit, and Métis presenters and Knowledge Keepers, creating space for learning, reflection, and community connection.	Over 50

### **Turtle Cover Program**

Our turtle cover program is in operation again this year. Covers were placed at Lynde Shores, Heber Down, Enniskillen, and Bowmanville Westside C.A.s on May 16<sup>th</sup>, 2024. Conservation Area Trail Stewards (CATS) were informed about the program and will be helping again this year to place covers, monitor and report on covers and hatchlings, and return the turtle covers in the fall. The QR code signs leading visitors to a survey were placed out with the turtle covers again this year to gather data to help us evaluate the success of the program. The survey also helps to keep track of the cover locations which is helpful for Areas staff collecting the covers in the fall. A dashboard has been created to efficiently display survey information as a reference for staff.



### **Conservation Area Trail Stewards (CATS)**

We currently have 116 active Conservation Area Trail Stewards volunteers who have been instrumental in monitoring and reporting various conditions across our trails.

Their observations have included:

- Downed trees
- Dogs both on and off leash
- Vehicles parked with and without permits
- Sightings of hungry raccoons
- Unauthorized motorized vehicles on trails
- Trail conditions ranging from muddy and icy to clear
- Numerous expressions of gratitude from the public

Year-to-Date Impact (as of June 6<sup>th</sup>, 2025):

- 292 reports submitted
- 628 volunteer-public interactions recorded
- 233 bags of garbage collected

**February 26<sup>th</sup>, 2025** – CATS volunteers helped CLOCA Education staff clean out approximately 50 bird boxes at Enniskillen C.A. to prepare them for nesting by birds in the upcoming spring. They also recorded observations on the nests found in the boxes (species that nested in the boxes) and indicated any that were empty had bird fatalities or evidence of wasp activity.



**May 13<sup>th</sup>, 2025** – Education staff lead a spring wildflower hike at Stephen's Gulch C.A. for CATS in appreciation of the volunteer work they do in our C.A.s



**June 5<sup>th</sup>, 2025** – A garlic mustard pull was hosted by CLOCA at Purple Woods C.A. This is an invasive species of plant growing there and crowding out the many treasured native plant species. Members of the CATS were invited to participate in this event as they had been looking for opportunities to help reduce invasive plant species numbers in our C.A.s. 13 CATS participated in this event. Our CATS volunteers continue to play a vital role in maintaining safe, welcoming, and well-monitored trails for everyone to enjoy.

Cont'd



### **2025 Purple Woods Maple Syrup Festival (PWMSF) – Celebrating 50 years of Maple Syrup**

The 2025 festival season was a wonderful success, with strong community engagement, enthusiastic participation, and a variety of new and returning features that contributed to a memorable experience for all.

#### **Attendance and Admissions**

This year, we welcomed 7,470 participants, showing a slight increase from 2024's total of 7,431 visitors.

#### **Pancake Program**

We were pleased to host six community groups as part of the Pancake Program:

- Girls Inc. of Durham
- The Animal Guardian Society
- 30th Oshawa Scout Group
- Humane Society of Durham Region
- YMCA of Greater Toronto Area
- Whitby Yacht Club & 30th Oshawa Venturer Rover Scout Group

#### **Kitchen Operations**

Berry Hill Food Company provided catering services for both the festival and accompanying education programs.

#### **Staffing**

We employed 12 seasonal staff members, with the majority being returning team members and only three new hires.

#### **Special Guests and New Additions**

This year featured contributions from several valued partners and new presenters, including:

- Oshawa Museum
- Scugog Shores Museum
- Soper Creek Wildlife Rescue
- Oshawa Public Library
- Durham Region Waste Management
- Bawaajigewin Community Circle members
- TRACKS Youth Program

#### **Sponsorship**

We received \$26,500 in sponsorships, generously contributed by:

- Boyle Excavating Ltd – \$10,000
- Tribute Communities – \$5,000
- Fieldgate Homes – \$5,000
- Vickery Technical Services – \$5,000
- Pure Mechanical – \$500
- Durham Kubota – \$500
- Ontario Motor Sales – \$500

#### **Volunteer Contributions**

A total of 69 high school students and community volunteers contributed 886 hours of support, playing a vital role in the festival's overall success.

### First Tapping Event

- We were honoured to host the Ontario Maple Syrup Producers' Association (OMSPA) Haliburton-Kawartha local chapter's First Tapping Event. OMSPA, representing over 600 sugar makers across 11 Ontario districts, selects a host sugar bush for the ceremonial first tapping each spring.
- In a significant step toward recognizing the history of maple syrup production, this year's festival included the acknowledgment and celebration of First Nations practices associated with the sugaring season. First Nations special guests opened the first tapping "in a good way," sharing traditional knowledge, stories, and practices, marking the beginning of a new and respectful tradition rooted in truth and reconciliation.
- The first tap was put in the maple tree by Bob Gilbank who has been with the festival since year one, offering horse and wagon rides to visitors. Sadly, this was his last year working the festival and a huge thank you to the Gilbank family for supporting the festival for 50 years.
- Beautiful, beaded cabochon pins were made by Janet Dugan, boasting our Celebrating 50 years logo, were handed out and worn for the event. Janet Dugan is a proud member of the Munsee Delaware First Nation (Leni Lanape) Wolf Clan.



Above: Bob Gilbank



### Tipi Set-up

A few CLOCA staff participated in a tipi set-up lead by James Carpenter, an Anishinaabe Healer, with assistance from James Costello (Durham Community Health Centre – Indigenous Health Promoter). We were so grateful for their help. The tipi was a valued part of this year's festival.



### **Lantern Hike**

The popular Lantern Hike welcomed 100 participants who enjoyed Maple long johns made by Crave Doughnuts and had the opportunity to sample two syrup grades: amber and dark. Along the lantern lit self-guided trail, interpretive staff educated visitors on the history of maple syrup making and the processes involved in the making of CLOCA's maple syrup.

### **50th Anniversary - Maple Sips and Savouries**

We proudly celebrated 50 years of maple syrup production, marking a significant milestone in our program history with the Maple Sips and Savouries event. To commemorate the occasion, we partnered with Whitby's Town Brewery to craft a special maple cream ale featuring our own Purple Woods maple syrup. Guests enjoyed this unique brew alongside maple-inspired tapas prepared by Stuttering John's Smokehouse.

The event welcomed 120 participants who gathered in Heritage Hall for an evening of live acoustic music, followed by a twilight stroll through the illuminated sugarbush to the fragrant sugar shack. The evening concluded around the fire with DIY s'mores and a warm-up station offering specialty coffee, tea, and hot chocolate, provided by Tall Pines Coffee.



### **RECOMMENDATION:**

***THAT Staff Report # 5937-25 be received for information.***

# REPORT

## CENTRAL LAKE ONTARIO CONSERVATION AUTHORITY

**DATE:** June 17, 2025

**FILE:** AFNA43

**S.R.:** 5938-25

**TO:** Chair and Members, CLOCA Board of Directors

**FROM:** Rose Catulli, Director, Corporate Services

**SUBJECT:** **Draft 2024 Audited Financial Statements**

APPROVED BY C.A.O. 

Under separate cover for your information and approval are the Authority's 2024 Financial Statements, prepared by staff and audited by BDO Canada, the Auditor's letter to the Board of Directors and the Management letter.

The accumulated surplus of \$41,084,049 (2023 – \$38,582,197) is made up of investments in tangible capital assets \$34,770,425 (2023 - \$32,507,613) and reserves \$6,313,624 (2023 - \$6,074,584). The reserve number is net of encumbrances for employee future benefits and vacation pay liability.

The Statement of Operations shows an Annual Surplus of \$2,501,852 (2023 - \$1,465,148) which accounts for all reserve transactions approved by the Board, encumbrances for Employee Future Benefits and Vacation Pay Liability and additions, disposals, and amortization of tangible capital assets.

Demand for planning services in 2024 decreased over 2023 based on the readiness of large-scale residential development projects to proceed across the watershed. Permit revenue was ahead of budget \$147k based on high demand for approvals related to personal property improvements. There were no large fill fees during the year due to fewer proposals for large fill sites in the watershed. We are not anticipating large fill to be a significant revenue stream for CLOCA in the future.

Deferred plan review fees are at \$1,173,128 (2023 - \$1,229,541); this is attributed to a large volume of planning applications for which the majority of CLOCA technical review will be required in subsequent years.

The Non-Consolidated Statement of Operations expenses have been adjusted to reflect the capitalization of all tangible assets during the year and as such have decreased the 2024 budget accordingly (\$2.7M). Corporate Services expenses include year-end adjustments for Employee Future Benefits (\$24k), sick leave entitlements (-\$700) and vacation pay liability (\$47k) totalling \$71k. C.A. land management expenses include the land acquisition of the Graham Tract (\$1.4M), the Hubble Tract (\$150k), the Cowan Tract (\$222,900), the Byers Road Tract (\$330,720) and the Darlington Tract (\$260k).

CLOCA ended the year with an operational deficit (exclusive of any Canadian public sector accounting standards established by the Public Sector Accounting Board for financial statement presentation purposes) of \$27,816 (2023 - \$484,358); additional entries totalling \$71k representing employee future benefits increased the operation deficit to \$98,930.

In the Auditor's Report, the following matter has been identified:

1. The Authority exercises control over the Central Lake Ontario Conservation Fund and as such, the financial statements have been prepared on a non-consolidated basis, which constitutes a departure from Canadian public sector accounting standards.

Cont'd

**RECOMMENDATION:**

***THAT the Auditor's Letter to the Board letter be received; and,  
THAT the Audited Financial Statements for the year ended December 31, 2024, be approved as presented;  
THAT a copy of the Audited Financial Statement be posted on CLOCA's website and a copy be sent to the Ministry of Environment, Conservation and Parks; and,  
THAT BDO Canada be appointed as CLOCA Auditors for the year ending December 31, 2025.***

**Attach.**

RC/lv  
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**Central Lake Ontario Conservation Authority**  
**Non-Consolidated Financial Statements**  
For the year ended December 31, 2024

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## MANAGEMENT'S RESPONSIBILITY FOR THE FINANCIAL STATEMENTS

The accompanying financial statements of Central Lake Ontario Conservation Authority (the "Authority") are the responsibility of the Authority's management and have been prepared in compliance with legislation, and in accordance with generally accepted accounting principles for local governments established by the Public Sector Accounting Board of The Chartered Professional Accountants of Canada. A summary of the significant accounting policies are described in Note 1 to the financial statements. The preparation of financial statements necessarily involves the use of estimates based on management's judgment, particularly when transactions affecting the current accounting period cannot be finalized with certainty until future periods.

The Authority's management maintains a system of internal controls designed to provide reasonable assurance that assets are safeguarded, transactions are properly authorized and recorded in compliance with legislative and regulatory requirements, and reliable financial information is available on a timely basis for preparation of the financial statements. These systems are monitored and evaluated by Management.

Members meet with Management and the external auditors to review the financial statements and discuss any significant financial reporting or internal control matters prior to their approval of the financial statements.

The financial statements have been audited by BDO Canada LLP, independent external auditors appointed by the Authority. The accompanying Independent Auditor's Report outlines their responsibilities, the scope of their examination and their opinion on the Authority's financial statements.

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Chair  
Elizabeth Roy

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Vice Chair  
Bob Chapman

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## Independent Auditor's Report

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To the Members of Central Lake Ontario Conservation Authority

### Qualified Opinion

We have audited the non-consolidated financial statements of Central Lake Ontario Conservation Authority (the Authority), which comprise the non-consolidated statement of financial position as at December 31, 2024, and the non-consolidated statements of operations, changes in net financial assets and cash flows for the year then ended, a summary of significant accounting policies and notes to the non-consolidated financial statements.

In our opinion, except for the effects of the matter described in the *Basis for Qualified Opinion* section of our report, the accompanying non-consolidated financial statements present fairly, in all material respects, the non-consolidated financial position of the Authority as at December 31, 2024, and its non-consolidated results of operations, non-consolidated changes in net financial assets and its non-consolidated cash flows for the year then ended in accordance with Canadian public sector accounting standards.

### Basis for Qualified Opinion

As explained in Note 9 to the non-consolidated financial statements, the Authority exercises control over Central Lake Ontario Conservation Fund. These financial statements have been prepared on a non-consolidated basis, which constitutes a departure from Canadian public sector accounting standards. This is a result of a decision taken by management in a prior year. If these financial statements had been prepared on a consolidated basis, cash would have been increased by \$2,404,240 (2023 - \$340,602), temporary investments would have been increased by \$13,650 (2023 - \$1,454,773), accounts receivable would have been increased by \$87 (2023 - \$201), accounts payable would have been increased by \$15,564 (2023 - \$18,470), deferred revenue would have been increased by \$23,301 (2023 - \$23,301), deferred contributions would have been increased by \$882,200 (2023 - \$270,546), accumulated surplus would have been increased by \$1,483,262 (2023 - \$1,483,259), revenue would have been increased by \$100,750 (2023 - \$71,539) and expenses would have been increased by \$100,747 (2023 - \$81,842). Our opinion on the non-consolidated financial statements for the year ended December 31, 2024 was modified accordingly because of the effects of this departure from Canadian public sector accounting standards.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the non-consolidated Financial Statements* section of our report. We are independent of the Authority in accordance with the ethical requirements that are relevant to our audit of the non-consolidated financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our qualified audit opinion.

### Responsibilities of Management and Those Charged with Governance for the non-consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these non-consolidated financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of non-consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the non-consolidated financial statements, management is responsible for assessing the Authority's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Authority or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Authority's financial reporting process.

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## Independent Auditor's Report (continued)

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### Auditor's Responsibilities for the Audit of the non-consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the non-consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these non-consolidated financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the non-consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Authority's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the non-consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Authority to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the non-consolidated financial statements, including the disclosures, and whether the non-consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Chartered Professional Accountants, Licensed Public Accountants

Barrie, Ontario  
June 18, 2025

# Central Lake Ontario Conservation Authority

## Non-Consolidated Statement of Financial Position

December 31 2024 2023

### Financial assets

Cash and temporary investments (Note 2)	\$ 5,140,557	\$ 6,055,790
Short-term investments (Note 2)	3,870,569	2,260,699
Accounts receivable		
Government grants and projects	561,548	986,426
Other	391,902	275,825
	9,964,576	9,578,740

### Liabilities

Accounts payable and accrued liabilities	615,452	604,908
Deferred revenue (Note 3)	1,700,620	1,610,662
Employee future benefits payable (Note 4)	905,135	880,735
Vacation pay liability	171,996	124,583
Sick leave entitlements (Note 5)	364,222	364,922
	3,757,425	3,585,810

### Net Financial Assets

6,207,151 5,992,930

### Non-financial assets

Prepaid expenses	106,473	81,654
Tangible capital assets (Note 11)	34,749,021	32,473,819
Construction in progress	21,404	33,794
	34,876,898	32,589,267

### Accumulated surplus (Note 6)

\$ 41,084,049 \$ 38,582,197

On behalf of the Board:

\_\_\_\_\_ Director

\_\_\_\_\_ Director



## Central Lake Ontario Conservation Authority Non-Consolidated Statement of Operations

For the year ended December 31	2024 Budget (Note 7)	2024 Actual	2023 Actual
<b>Revenue</b>			
Government grants			
Municipal levy	\$ 4,620,240	\$ 4,620,240	\$ 4,380,990
Special regional levy	1,470,025	1,225,974	582,684
Federal	356,900	294,610	84,201
Transfer payments	64,445	64,445	64,445
Other grants	50,680	62,924	81,347
Provincial other	34,825	43,906	43,018
Authority generated	5,829,685	5,738,949	5,510,539
Gain on disposition of tangible capital assets	-	6,380	-
	<u>12,426,800</u>	<u>12,057,428</u>	<u>10,747,224</u>
<b>Expenses (Note 12)</b>			
C.A. land management	1,362,730	1,548,969	1,581,735
Environmental plan review and regulations	2,249,960	2,500,857	2,350,728
Corporate services	2,110,660	2,239,858	2,098,398
Watershed management and monitoring	1,850,505	1,683,822	1,633,155
Oak Ridges Moraine Groundwater Program	1,084,400	990,813	961,906
Community engagement	586,435	591,257	656,154
	<u>9,244,690</u>	<u>9,555,576</u>	<u>9,282,076</u>
<b>Annual surplus (deficit)</b>	<u>\$ 3,182,110</u>	<u>\$ 2,501,852</u>	<u>\$ 1,465,148</u>
<b>Accumulated surplus, beginning of year</b>		<u>\$ 38,582,197</u>	<u>\$ 37,117,049</u>
<b>Accumulated surplus, end of year</b>		<u>\$ 41,084,049</u>	<u>\$ 38,582,197</u>

The accompanying notes are an integral part of these non-consolidated financial statements.

## Central Lake Ontario Conservation Authority Non-Consolidated Statement of Changes in Net Financial Assets

For the year ended December 31	2024 Budget (Note 7)	2024 Actual	2023 Actual
<b>Annual Surplus (deficit)</b>	\$ 3,182,110	\$ 2,501,852	\$ 1,465,148
Acquisition of tangible capital assets	(3,182,110)	(2,767,288)	(1,092,014)
Amortization	-	491,808	480,081
Proceeds on disposal of tangible capital assets	-	6,658	-
Gain on disposition of tangible capital assets	-	(6,380)	-
Construction in progress	-	12,390	(2,951)
	(3,182,110)	(2,262,812)	(614,884)
Change in prepaid expenses	-	(24,819)	7,400
<b>Change in net financial assets</b>	-	214,221	857,664
<b>Net financial assets, beginning of year</b>	5,992,930	5,992,930	5,135,266
<b>Net financial assets, end of year</b>	\$ 5,992,930	\$ 6,207,151	\$ 5,992,930

## Central Lake Ontario Conservation Authority Non-Consolidated Statement of Cash Flows

For the year ended December 31 2024 2023

### Cash provided by (used in)

#### Cash flows from operating activities

Annual surplus	\$ 2,501,852	\$ 1,465,148
Items not involving cash		
Amortization	491,808	480,081
Gain on disposition of tangible capital assets	(6,380)	-
Changes in non-cash operating balances		
Accounts receivable		
Government grants and projects	424,878	581,858
Other	(116,077)	417,833
Prepaid expenses	(24,819)	7,400
Accounts payable and accrued liabilities	10,544	(54,904)
Deferred revenue	89,958	(279,712)
Employee future benefits payable	24,400	9,902
Vacation pay liability	47,413	1,735
Sick leave entitlements	(700)	(11,064)

	3,442,877	2,618,277
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#### Capital transactions

Acquisition of tangible capital assets	(2,767,288)	(1,092,014)
Proceeds on disposition of tangible capital assets	6,658	-
Construction in progress	12,390	(2,951)

	(2,748,240)	(1,094,965)
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#### Cash flows from investing activity

Sale (purchase) of investments	(1,609,870)	1,489,061
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#### Cash flows from financing activity

Repayment of vehicle loan	-	(9,988)
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#### Net change in cash and cash equivalents

	(915,233)	3,002,385
--	-----------	-----------

#### Cash and cash equivalents, beginning of year

	6,055,790	3,053,405
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#### Cash and cash equivalents, end of year

	\$ 5,140,557	\$ 6,055,790
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#### Represented by:

Cash	\$ 2,140,557	\$ 3,055,790
Short-term deposits with maturities of three months or less (Note 1)	3,000,000	3,000,000
	\$ 5,140,557	\$ 6,055,790

The accompanying notes are an integral part of these non-consolidated financial statements.

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# Central Lake Ontario Conservation Authority

## Notes to Non-Consolidated Financial Statements

December 31, 2024

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### 1. Significant Accounting Policies

#### Management Responsibility and Basis of Presentation

The non-consolidated financial statements of the entity are the responsibility of management. They have been prepared in accordance with Canadian public sector accounting standards established by the Public Sector Accounting Board.

#### Nature of Business

The Central Lake Ontario Conservation Authority was established on July 17, 1958 by Order-in-Council No. 2389/58 in accordance with the Conservation Authorities Act of Ontario. The objects of the Authority as stated by the Conservation Authorities Act R.S.O. 1990 are "to establish and undertake, in the area over which it has jurisdiction, a program designed to further the conservation, restoration, development and management of natural resources other than gas, oil, coal and minerals".

#### Cash and Cash Equivalents

Cash and cash equivalents consist of cash on hand, bank balances and investments in commercial paper from chartered banks with maturities of three months or less.

#### Tangible Capital Assets

Tangible capital assets are recorded at cost less accumulated amortization. Cost includes all costs directly attributable to acquisition or construction of tangible capital assets. Contributed tangible capital assets are recorded at fair value at the time of the donation, with a corresponding amount recorded as revenue. Amortization is recorded on a straight-line basis over the estimated life of the tangible capital asset as follows:

Land improvements	5 - 50 years
Building and building improvements	5 - 50 years
Infrastructure	8 - 50 years
Machinery and equipment	3 - 25 years
Computer hardware and software	3 - 10 years
Vehicles	5 - 15 years
Furniture and fixtures	10 years

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## Central Lake Ontario Conservation Authority Notes to Non-Consolidated Financial Statements

**December 31, 2024**

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### **1. Significant Accounting Policies (continued)**

<b>Reserves</b>	Certain amounts, as approved by the Board of Directors, are set aside in reserves for future operating and capital purposes. Transfers to and/or from reserves are an adjustment to the respective reserve when approved.
<b>Revenue Recognition</b>	<p>Municipal revenues are recognized in the year they are levied to member municipalities. Revenue from transactions with performance obligations is recognized when (at a point in time) or as (over a period of time) the organization satisfies the performance obligations, which occurs when control of the benefits associated with the promised goods or services has passed to the payor.</p> <p>Other grants, donations and contributions, investment income and authority-generated revenue including permit fees are recognized when the related services are performed.</p>
<b>Government Transfers</b>	Government transfers are recognized as revenue in the financial statements when the transfer is authorized and any eligibility criteria are met, except to the extent that transfer stipulations give rise to an obligation that meets the definition of a liability. Transfers are recognized as deferred revenue when transfer stipulations give rise to a liability. Transfer revenue is recognized in the statement of operations as the stipulation liabilities are settled.
<b>Use of Estimates</b>	The preparation of non-consolidated financial statements in accordance with Canadian public sector accounting standards requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenditures during the year. The principal estimates and judgments used in the preparation of these non-consolidated financial statements are the estimated useful life of tangible capital assets, impairment of tangible capital assets and the estimates involved in employee future benefits and sick leave entitlements. Actual results could differ from management's best estimates as additional information becomes available in the future.

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## Central Lake Ontario Conservation Authority Notes to Non-Consolidated Financial Statements

December 31, 2024

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### 1. Significant Accounting Policies (continued)

#### Employee Future Benefits

The Authority provides defined retirement and other future benefits to specified employee groups. These benefits include pension, life insurance and health care benefits for retirees. The Authority has adopted the following policies with respect to accounting for these employee benefits:

(i) The costs of employee future benefit plans are actuarially determined using their professional estimate of salary escalation, insurance and health care cost trends, long-term inflation rates and discount rates.

For employee future benefits that vest or accumulate over the periods of service provided by employees, such as life insurance and health benefits for retirees, the cost is actuarially determined using the projected benefit method prorated on service. Under this method, the benefit costs are recognized over the expected average service life of the employee group.

(ii) The Authority is an employer member of the Ontario Municipal Employees Retirement System (OMERS), which is a multi-employer, defined benefit pension plan. The Board of Trustees, representing plan members and employers, is responsible for overseeing the management of the pension plan, including investment of the assets and administration of the benefits. The Authority has adopted defined contribution plan accounting principles for this Plan because insufficient information is available to apply defined benefit plan accounting principles. The Authority records as pension expense the current service cost, amortization of past service costs and interest costs related to the future employer contributions to the Plan for past employee service.



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## Central Lake Ontario Conservation Authority

### Notes to Non-Consolidated Financial Statements

December 31, 2024

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#### 1. Significant Accounting Policies (continued)

##### Asset Retirement Obligation

A liability for an asset retirement obligation is recognized when there is a legal obligation to incur retirement costs in relation to a tangible capital asset; the past transaction or event giving rise to the liability has occurred; it is expected that future economic benefits will be given up; and a reasonable estimate of the amount can be made. The liability is recorded at an amount that is the best estimate of the expenditure required to retire a tangible capital asset at the financial statement date. This liability is subsequently reviewed at each financial reporting date and adjusted for the passage of time and for any revisions to the timing, amount required to settle the obligation or the discount rate. Upon the initial measurement of an asset retirement obligation, a corresponding asset retirement cost is added to the carrying value of the related tangible capital asset if it is still in productive use. This cost is amortized over the useful life of the tangible capital asset. If the related tangible capital asset is unrecognized or no longer in productive use, the asset retirement costs are expensed.

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#### 2. Investments

Temporary investments are comprised of a Guaranteed Investment Certificate from a chartered bank with an effective interest rate of 3.45% which matures in less than three months from year end.

Short-term investments are Guaranteed Investment Certificates held at December 31, 2024 from a chartered bank with effective interest rates between 3.23% and 3.35% which mature within a year from the current year end.

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## Central Lake Ontario Conservation Authority Notes to Non-Consolidated Financial Statements

December 31, 2024

### 3. Deferred Revenue

At the year end, the Authority had received but not earned revenue in the amount of \$1,700,620.

	2024	2023
Balance, beginning of year	\$ 1,610,662	\$ 1,890,374
Contributions received	618,518	545,716
Amounts recognized to revenue	(528,560)	(825,428)
Balance, end of year	<u>\$ 1,700,620</u>	<u>\$ 1,610,662</u>

Year end balances consist of the following:

	2024	2023
Facility fees and deposits	\$ 27,959	\$ 5,150
Fill Sites	167,565	167,565
YPDT - CTC	68,163	76,968
Plan review fees	1,173,128	1,229,541
Other	263,805	131,438
	<u>\$ 1,700,620</u>	<u>\$ 1,610,662</u>

Fill sites are defined as the importation of excess soil that has been excavated or removed, mainly during construction activities, that must be moved off site. Revenue is recognized as excess soil is placed throughout the watershed.

Plan review fees are received by the Authority as part of the land use planning system in partnership with local municipalities and the Region of Durham. The Authority reviews land use plans to provide formal comments that address environmental and public safety considerations. These amounts are recognized as revenue as directly related expenses are incurred.

# Central Lake Ontario Conservation Authority

## Notes to Non-Consolidated Financial Statements

December 31, 2024

### 4. Employee Future Benefits Payable

At December 31, 2024, the Authority's accrued benefit liability relating to post retirement benefit plans is as follows:

	2024	2023
Accrued benefit liability, beginning of year	\$ 880,735	\$ 870,833
Current service costs	41,200	37,426
Interest cost on obligation	29,300	28,601
Employer contribution	(22,400)	(27,746)
Amortized gains and losses	(23,700)	(28,379)
Accrued benefit liability, end of year	\$ 905,135	\$ 880,735

#### (i) Retirement Life Insurance and Health Care Benefits

The Authority continues to provide life insurance (reduced by 50% for retirees), dental and health care benefits to certain employee groups after retirement for 5 years or age 65, whichever comes first. The Authority provides these benefits through an unfunded defined benefit plan. The benefit costs and liabilities related to this plan are based on an actuarial valuation prepared by an independent firm. The date of the last actuarial valuation was as at December 31, 2024.

These actuarial valuations were based on assumptions about future events. The economic assumptions used in these valuations are the Authority's best estimates of expected rates of:

	2024	2023
Salary escalation (*)	3.50%	3.50%
Insurance and health care costs escalation	5.50-4.00%	6.5 - 4.00%
Discount on accrued benefit obligations	4.60-4.05%	2.75-5.00%

(\*) Salary escalation is based on long-term projections for inflation, real wages and increases for merit. Actual salaries are paid according to a payroll grid. The overall grid rates increased by 1.50% (2023 - 1.75%) over the prior year.

# Central Lake Ontario Conservation Authority

## Notes to Non-Consolidated Financial Statements

December 31, 2024

### 4. Employee Future Benefits Payable (continued)

#### (ii) Ontario Municipal Employees Retirement System (OMERS)

The Authority makes contributions to the Ontario Municipal Employees' Retirement System ("OMERS"), which is a multi-employer plan, on behalf of all full-time members of its staff. The plan is a defined benefit plan, which specifies that amount of the retirement benefit to be received by the employees based on the length of service and rates of pay. The Board of Trustees, representing plan members and employers, is responsible for overseeing the management of the pension plan, including the investment of assets and administration of benefits. OMERS provides pension services to more than 500,000 active and retired members and approximately 1,000 employees.

Each year an independent actuary determines the status of OMERS Primary Pension Plan (the Plan) by comparing the actuarial value of invested assets to the estimated present value of all pension benefits that members have earned to date. The most recent actuarial valuation of the Plan was conducted at December 31, 2024. The results of this valuation disclosed total actuarial liabilities of \$142.5 billion in respect of benefits accrued for service with actuarial assets at that date of \$139.6 billion indicating an actuarial deficit of \$2.9 billion. Because OMERS is a multi-employer plan, any pension plan surpluses or deficits are a joint responsibility of Ontario municipal organizations and their employees. As a result, the Authority does not recognize any share of the OMERS pension surplus or deficit. Contributions made by the Authority to OMERS for 2024 were \$523,483 (2023 - \$521,283).

### 5. Sick Leave Entitlements

The Authority provides permanent employees with sick leave credits of 1.5 days per month of service, which accumulates if unused and is available for use in the event that the employee becomes ill. No benefits are payable on retirement or termination of employment. The sick leave entitlement estimates the use of accumulated sick leave prior to retirement.

At December 31, 2024, the Authority's accrued sick leave entitlement is as follows:

	2024	2023
<b>Sick leave entitlements, beginning of year</b>	<b>\$ 364,922</b>	<b>\$ 375,986</b>
Current service costs	16,100	14,738
Interest cost on obligation	12,400	12,967
Benefits paid during the year	(20,600)	(28,513)
Amortized gains and losses	(8,600)	(10,526)
<b>Sick leave entitlements, end of year</b>	<b>\$ 364,222</b>	<b>\$ 364,922</b>

## Central Lake Ontario Conservation Authority Notes to Non-Consolidated Financial Statements

December 31, 2024

### 6. Accumulated Surplus

The Authority segregates its accumulated surplus into the following categories:

	2024	2023
Surplus - investment in tangible capital assets (a)	\$ 34,749,021	\$ 32,473,819
Surplus - investment in asset under construction	21,404	33,794
	<u>34,770,425</u>	<u>32,507,613</u>
Reserve funds:		
Working capital (b)	4,173,886	4,239,635
Vehicles and equipment (c)	913,778	838,778
Land operations (d)	524,735	524,735
Land acquisition (e)	69,070	54,070
Forest management (f)	259,497	124,497
Rogers capital project (g)	233,994	171,341
Schillings land acquisition (h)	15,830	15,087
Natural heritage (i)	122,834	106,441
Total reserves	<u>6,313,624</u>	<u>6,074,584</u>
Accumulated surplus	<u>\$ 41,084,049</u>	<u>\$ 38,582,197</u>

#### a) Investment in Tangible Capital Assets

The investment in tangible capital assets represents amounts already spent and invested in infrastructure and other non-financial assets.

#### b) Reserve for Working Capital

This reserve was established to provide operating funds. No provincial funds are included in this reserve.

#### c) Reserve for Replacement of Vehicles and Equipment

This reserve was established for the purchase and replacement of vehicles and equipment. No provincial funds are included in this reserve.

#### d) Reserve for Land Operations

This reserve was established from the surplus from construction contracts. The funds will be used towards future land operations. There are no provincial funds included in this reserve.

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## Central Lake Ontario Conservation Authority Notes to Non-Consolidated Financial Statements

December 31, 2024

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### 6. Accumulated Surplus (continued)

#### e) Reserve for Land Acquisition

This reserve was established from the sale of properties in the Municipality of Clarington. No provincial funds are included in this reserve.

#### f) Forest Management Reserve

The reserve was established from the net revenue from timber sales on Authority properties for future management costs relating to Authority forest properties.

#### g) Reserve for Rogers Capital Project

The reserve was established from the surplus from the Rogers project. The funds will be used towards future capital improvements to the Rogers project.

#### h) Reserve for Schillings Land Acquisition

A condition of the Nature Conservancy of Canada/OQO funding agreement requires CLOCA to establish an endowment fund for the property equivalent to 15% of the land value (\$13,500). The endowment fund is to be invested in such a way as to produce an investment return in the capital which will be used for stewardship of the land.

#### i) Reserve for Natural Heritage

This reserve was established from the administration fee/net surplus from natural heritage, stewardship, and restoration projects. The funds will be used to support future watershed health improvement programs, projects and services.

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### 7. Budget Figures (Unaudited)

The 2024 budget amounts approved by the Board of Directors on June 18, 2024 were not prepared on a basis consistent with that used to report actual results under Public Sector Accounting Standards. The budget was prepared on a modified accrual basis while Public Sector Accounting Standards now require full accrual basis. The budget figures anticipated use of surpluses accumulated in previous years to reduce current year expenditures in excess of current revenues to \$Nil. In addition, the budget expensed all tangible capital expenditures rather than including amortization expense. As a result, the budget figures presented in the statement of operations and changes in net financial assets represent the budget adopted by the Authority on June 18, 2024 adjusted for the acquisition of tangible capital assets of \$3,182,110.

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## Central Lake Ontario Conservation Authority Notes to Non-Consolidated Financial Statements

December 31, 2024

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### 8. Reporting Entity

The Authority exercises control over the Central Lake Ontario Conservation Fund (the "Fund") by virtue of its common board members. The Fund was established to raise funds and obtain resources for the exclusive use of the Authority. The Fund is incorporated without share capital and is a registered charity under the Income Tax Act. Included in accounts receivable at December 31, 2024 is \$18,293 (2023 - \$18,470) owing from the Fund.

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### 9. Segmented Reporting

The Public Sector Accounting Handbook Section PS 2700, Segment Disclosures, establishes standards on defining and disclosing segments in a government's financial statements. Government organizations that apply these standards are encouraged to provide the disclosures established by this section when their operations are diverse enough to warrant such disclosures. The Authority's operations are not diverse enough to warrant these disclosures.

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### 10. Comparative Figures

Certain comparative figures have been reclassified to conform with current year presentation.

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# Central Lake Ontario Conservation Authority Notes to Non-Consolidated Financial Statements

December 31, 2024

## 11. Tangible Capital Assets

	2024								
	Land	Land Improvements	Building & Building Improvements	Infrastructure	Machinery & Equipment	Computer Hardware & Software	Vehicles	Furniture & Fixtures	Total
Cost, beginning of year	\$ 26,273,122	\$ 1,588,348	\$ 6,108,117	\$ 2,008,643	\$ 1,260,771	\$ 669,649	\$ 612,149	\$ 122,301	\$ 38,643,100
Additions	2,448,812	-	62,357	119,991	53,298	40,328	42,502	-	2,767,288
Disposals	-	-	(600)	-	(22,704)	-	(3,663)	-	(26,967)
Cost, end of year	28,721,934	1,588,348	6,169,874	2,128,634	1,291,365	709,977	650,988	122,301	41,383,421
Accumulated amortization, beginning of year	-	1,140,045	2,158,250	915,411	822,624	573,204	440,202	119,545	6,169,281
Amortization	-	57,723	143,734	103,062	80,516	36,679	69,224	870	491,808
Disposals	-	-	(323)	-	(22,704)	-	(3,663)	-	(26,690)
Accumulated amortization, end of year	-	1,197,768	2,301,661	1,018,473	880,436	609,883	505,763	120,415	6,634,399
Net carrying amount, end of year	\$ 28,721,934	\$ 390,580	\$ 3,868,213	\$ 1,110,161	\$ 410,929	\$ 100,094	\$ 145,225	\$ 1,886	\$ 34,749,021

**Central Lake Ontario Conservation Authority**  
**Notes to Non-Consolidated Financial Statements**

**December 31, 2024**

**11. Tangible Capital Assets (continued)**

									2023
	Land	Land Improvements	Building & Building Improvements	Infrastructure	Machinery & Equipment	Computer Hardware & Software	Vehicles	Furniture & Fixtures	Total
Cost, beginning of year	\$ 25,489,136	\$ 1,588,348	\$ 6,030,668	\$ 1,911,413	\$ 1,175,865	\$ 651,206	\$ 612,149	\$ 122,301	\$37,581,086
Additions	783,986	-	107,449	97,230	84,906	18,443	-	-	1,092,014
Disposals	-	-	(30,000)	-	-	-	-	-	(30,000)
Cost, end of year	26,273,122	1,588,348	6,108,117	2,008,643	1,260,771	669,649	612,149	122,301	38,643,100
Accumulated amortization, beginning of year	-	1,079,561	2,055,459	821,007	747,509	531,447	365,542	118,675	5,719,200
Amortization	-	60,484	132,791	94,404	75,115	41,757	74,660	870	480,081
Disposals	-	-	(30,000)	-	-	-	-	-	(30,000)
Accumulated amortization, end of year	-	1,140,045	2,158,250	915,411	822,624	573,204	440,202	119,545	6,169,281
Net carrying amount, end of year	\$ 26,273,122	\$ 448,303	\$ 3,949,867	\$ 1,093,232	\$ 438,147	\$ 96,445	\$ 171,947	\$ 2,756	\$32,473,819

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## Central Lake Ontario Conservation Authority Notes to Non-Consolidated Financial Statements

December 31, 2024

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### 12. Expenses by Object

	2024	2023
Wages and benefits	\$ 6,619,288	\$ 6,419,697
Program related expenses	729,768	880,952
Amortization	491,808	480,081
Conservation area maintenance and planning	131,484	178,414
Professional fees and insurance	987,762	765,758
Property management	281,975	253,228
Head office utilities and office maintenance	105,849	97,782
Vehicle and equipment	87,430	81,880
Computer and geomatics	62,339	66,640
Office equipment and supplies	38,051	35,672
Corporate communications	10,675	13,318
Members' expense	9,147	8,654
	<u>\$ 9,555,576</u>	<u>\$ 9,282,076</u>

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# REPORT

## CENTRAL LAKE ONTARIO CONSERVATION AUTHORITY

**DATE:** June 17, 2025

**FILE:** ACAD10

**S.R.:** 5939-25

**TO:** Chair and Members, CLOCA Board of Directors

**FROM:** Steve Holysh, Senior Hydrologist - Oak Ridges Moraine Groundwater Program (ORMGP)  
Rick Gerber, Senior Hydrologist - Oak Ridges Moraine Groundwater Program (ORMGP)

**SUBJECT:** **Oak Ridges Moraine Groundwater Program (ORMGP) 2024 Annual Report and 2025 Work Plan**

APPROVED BY C.A.O. 

Attached is the Oak Ridges Moraine Groundwater Program (ORMGP) 2024 Annual Report and 2025 Work Plan. The ORMGP was initiated in 2001 and is a coalition working together to better understand and manage groundwater resources. The Oak Ridges Moraine focused program stretches from the Halton and Nottawasaga Watersheds in the west to the Trent River in the east and reaches from the shores of Lake Ontario northwards to beyond Lake Simcoe and the Kawartha Lakes. The Program provides a multi-agency, collaborative approach to collecting, analysing and disseminating water resource knowledge as a basis for effective stewardship of water resources. Agencies and consultants look to the program to provide the regional geological and hydrogeological context for their ongoing technical studies and management initiatives.

**RECOMMENDATION:**

***THAT Staff Report # 5939-25 be received for information.***

**Attach.**

SH/RG//lv  
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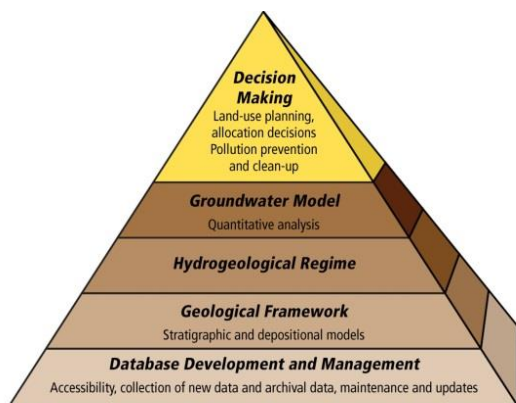


## ANNUAL PROGRAM OVERVIEW (2024) & WORK PLAN (2025)

TO: ORMGP Executive Steering Team  
 FROM: Steve Holysh and Rick Gerber  
 DATE: June 9, 2025  
 RE: **2024 Overview/2025 Work Plan – Oak Ridges Moraine Groundwater Program (ORMGP)**

### Background

The Oak Ridges Moraine Groundwater Program (ORMGP) was initiated in 2001, driven by the encroachment of development onto the Oak Ridges Moraine and the recognition of an absence of high-quality environmental data and analyses, particularly with respect to groundwater. Since inception, the program has provided partner agencies with an actively managed water-related database and the regional geological and groundwater context for on-going day-to-day water resource management activities (e.g., development review, PTTW review, watershed management, source water protection, etc.). The framework for the program is succinctly summarized in the adjacent figure, taken from the Council of Canadian Academies 2009 report: The Sustainable Management of Groundwater in Canada.



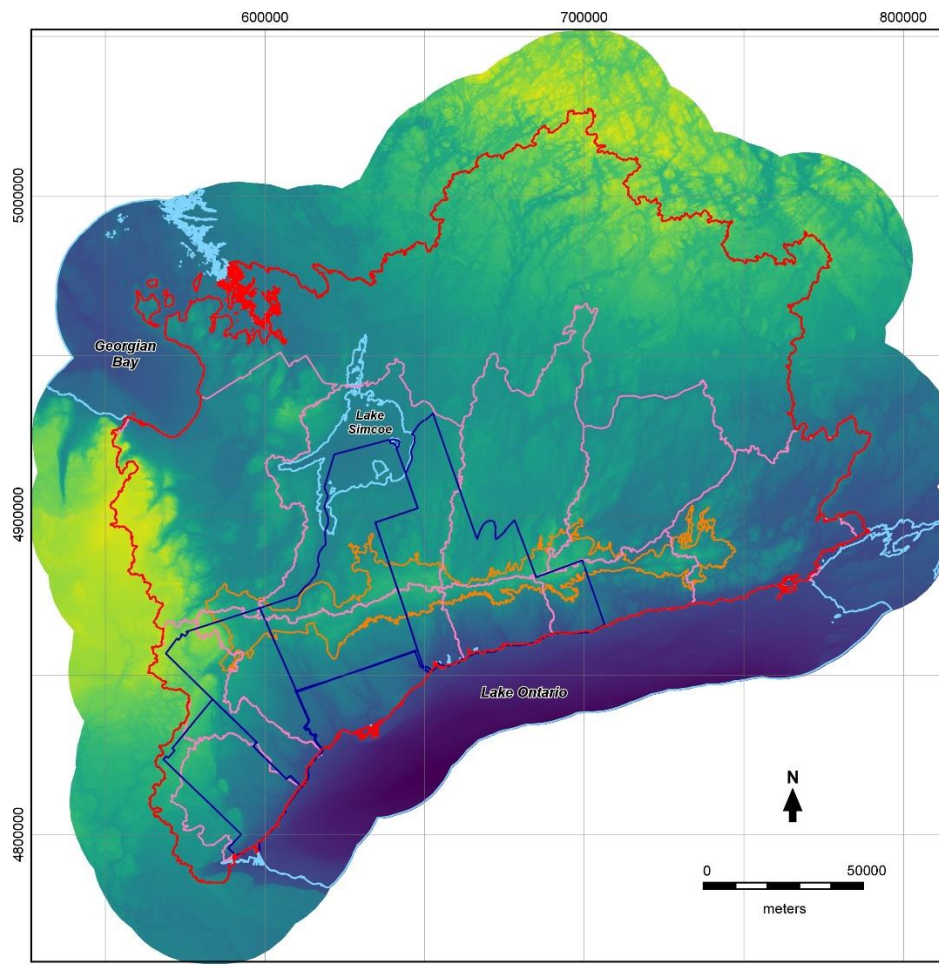
### Mandate

*The mandate of the ORMGP partnership is to provide a multi-agency, collaborative approach to collecting, analyzing and disseminating water resource data as a basis for effective stewardship of water resources. The ORMGP builds, maintains and provides to partnered agencies the regional geological and hydrogeological context for ongoing groundwater studies and management initiatives within the partnership area.*

*As such the program will:*

- *Build and maintain a master database of water-related information that is accessible to all partner agencies;*
- *Build and maintain a digital geological construction of the interpreted subsurface layers that is accessible to all partner agencies;*
- *Build, maintain and disseminate numerical groundwater flow models that can be used to address any number of issues that arise at any of the partner agencies;*
- *Coordinate and lead investigations to acquire new field data that will strategically infill key data gaps;*
- *Provide technical support to Drinking Water Source Protection teams to ensure that interpretations used in source protection technical work are consistent with the current regional understanding;*
- *Provide technical support to planning authorities to ensure that Official Plan policies are developed in a manner which makes them consistent with up-to-date groundwater science as derived from the project;*
- *Provide technical support to all partnered agencies for addressing other Provincial legislation.*

Further information regarding the program can be found at [oakridgeswater.ca](http://oakridgeswater.ca).



*Program area - Note that for data management purposes the program area comprises: 1) the entirety of three Source Water Protection (SWP) Regions: a) Credit Valley/Toronto and Region/Central Lake Ontario (CTC); b) South Georgian Bay - Lake Simcoe (SGBLS); and c) Trent Conservation Coalition (TCC); and 2) the Halton Region and Conservation Halton portion of the Hamilton Halton SWP area. Focus of work is largely directed to the GTA municipalities (York, Peel, Durham, Halton and Toronto) and their associated Conservation Authorities.*

Review – 2024 Highlights

1. Database & Web

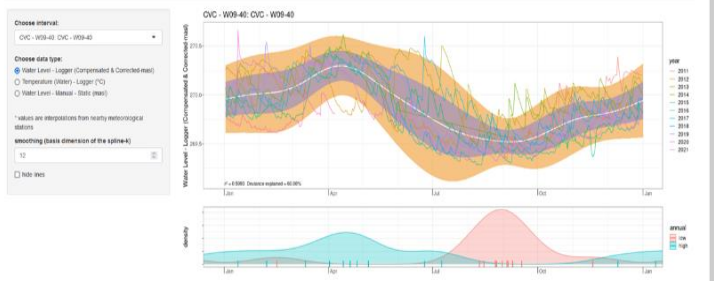


- added this year – over 93,000 location records; 593 reports; over 17 million temporal records;
- 2024 website mapping sessions: Consultants >100,000; Agency Staff >97,000; Public = 5,396
- linking of wells to provincial water taking permits to refine and more easily access water takings;
- worked with INTENT, a creative communications agency, to revamp web site (on-line January 2025);

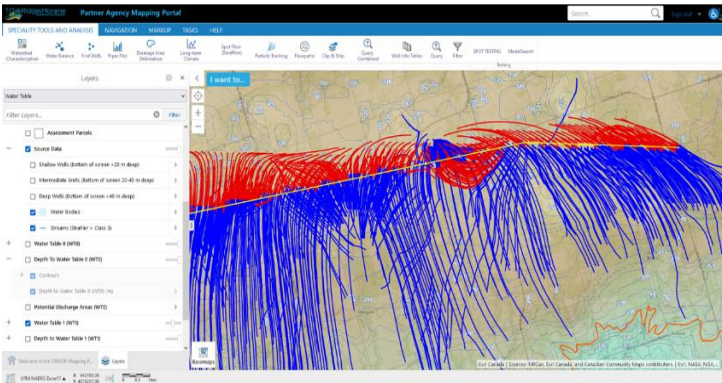
2. Analysis & Modelling

- assist with technical input, including steering committees, for modelling studies in Midland, Orangeville, Erin, Springwater & Willow Creek, CLOCA SWP water budget, Alliston, and Barrie;
- Borehole and groundwater level data gap infill to improve geologic and water table mapping;
- Utilizing the recently developed Durham Model to update the CLOCA SPA water budget report;

Annual variability/High-Low Occurrence



3. Other



- Source Water Protection municipal water supply water quality and water quantity stress assessment screening tools;
- Started direct groundwater discharge quantity and quality study to Lake Ontario with MECP and researchers at U of Western Ontario and Environment Canada;
- Presented at various conferences including CWRA, CGS/IAH-CNC, IAGLR, and OWWA;
- Continued collaborative partnerships with consultants (28 firms in 2024);

4. Budget

- program delivered within available funds. Cost of living increase planned for 2025;

Program Component	2024
Staff Costs (Wages + Benefits)	\$783,727
Office Costs + Disbursements	\$52,183
Computer + Software	\$38,228
Consultant/Services	\$50,454
Administration	\$31,934
Total	\$956,526





## Review – 2024 (Detailed Summary)

The following provides a more detailed overview of activities undertaken through the Oak Ridges Moraine Groundwater Program through 2024.

### 1. DATABASE/WEBSITE

Through 2024 the program's database structure/schema remained robust. Work was initiated regarding schema update for a planned rollout in 2025/26, to allow for more efficient data storage and management. The information contained within the database was refined and improved through 2024 with continued use of SQL 2016 to facilitate database management. The discussion of database and website issues has been broken into four categories: Additions; Corrections; Accessibility and Software/Hardware Management.

#### 1a Additions

- An updated WWIS database was obtained in March 2024 from the MECP and 92,070 new well records (including decommissioning records and well upgrades) were brought into the database – at the time of this import the MECP wells were up to date as of about June 2023;
- New wells/boreholes (208 no.) from the City of Toronto, in addition to the MECP wells, were added in 2024;
- 593 new documents were brought into the library over 2024;
- 299 new surface water locations were added, most of them being spot-flow stations supplied by the CVC and TRCA;
- 456 new climate stations were added to the database in 2024 to allow for better climate statistical analyses and extrapolations to be conducted for the study area plus a suitable buffer;
- In total approximately 17.9 million temporal records (chemistry, water levels, climate, stream flow, etc.) were added in 2024 – this number reflects the import of regional data (from York, Peel, Durham and Halton), updating of the PGMN water levels and chemistry, as well as the updating of climate and stream flow data from Environment and Climate Change Canada;
- Surface water quality data from the Provincial Water Quality Monitoring Network (PWQMN) was a part of the above data import into the database;
- To test the adaptability of the database template/schema and web linkage and mapping tools provincial water wells were incorporated into the database for the City of Ottawa. The City of Ottawa staff been interested in the ORMGP database and visualization tools for over a decade, and now are able to utilize some of the ORMGP mapping and analysis tools.

#### 1b Corrections

- In moving forward with a review and update of the geological and hydrogeological surfaces, program staff continued to review and correct MECP wells with respect to: i) discrepancy between metric and imperial units and ii) poor geological interpretations; iii) checking to ensure decommissioning records were properly identified (not misidentified as wells) and iv) incorrect location coordinates. Most of the unit issues have been corrected, however it is expected that future wells with more subtle unit issues will reveal themselves as they are inspected. This task emphasizes an important aspect of the ORMGP program and that is the use of data – errors and the resultant corrections are only found when staff make use of the data. If the data is not used, then no errors would be found or corrected.

#### 1c Accessibility

- Through 2024, 24 consultant companies were partnered with the ORMGP under consultant agreements (Arcadis, Aqua Insight, Azimuth, Bara Group, Dillon, exp consulting, Gaman, GEM Services Inc., Gemtec, GHD, Hatch Ltd., Jacobs, Matrix, R.J. Burnside, S.S. Papadopoulos, Salas O'Brien, SLR, Soil Engineering Ltd., Stantec, Terraprobe/Englobe, Thurber, Toronto Inspection, Watermark, WSP);
- 641 individual accounts now exist for consultant partners this is an increase from 585 last year);
- user accounts for partner/technical agency staff also jumped slightly up to 496 accounts compared with 427 last year - several staff turnovers/moves have resulted in a small number of accounts deleted and others created; several staff from local municipalities, primarily in York Region (Vaughan, Richmond Hill, etc.) have requested accounts to the ORGMP website and have been periodically using the site;
- similar to past years, the 2<sup>nd</sup> year engineering course in Water Resources Engineering at the University of Guelph used the ORMGP website for required hydrology assignments. Temporary student accounts were created so that students could access the site to complete assignments. Staff continue to investigate ways to expand this student/University interaction;
- Tracking website use, with a focus on the mapping portal, was undertaken through 2024. In total, the consultants logged into the ORMGP website 3,292 times, with a total of 100,694 map 'requests'. Technical staff from the partner agencies had 4,190 logins to the ORMGP website, and a total of 97,811 map 'requests'. The public mapping portal was accessed 6,913 times in 2024, by 1,963 different users. The website continues to be used by a wide range of technical staff to acquire data and information needed to inform decision making;
- Building upon the introduction of non-MECP (MOE) BH logs in .PDF format (go to Boreholes Map – choose "Boreholes with Supplementary Log") to the website, around 360 new PDFs were uploaded and added in 2024 with the total of available non-MECP BH logs now reaching 5,346. This initiative allows for these consultant logs and other older logs from GSC or OGS staff to be readily accessed on the website;
- In 2023, the process of building a new tool to allow for staff at partner agencies to import logger data into the master database was initiated. Testing with logger files, conducted in 2024, has been successful and the tool is now being used to import ORMGP logger files into the database;
- The many 'R' based statistical tools available for groundwater level hydrograph analyses, piper plots, as well as for climate and surface water analyses on the website have continued to be adjusted and refined to deliver high quality analyses to technical staff visiting the ORMGP website. Of particular note was the addition, at the request of CTC SWP staff, water chemistry tools that allow users to quickly gain insights into groundwater quality at municipal wells. In 2024, to assist with data analysis and retrieval tools a contractor was retained on a part time basis;
- Also being worked on by this contractor, and of particular importance to the program, is the direction being taken to migrate the program away from the SiteFx program as a software interface. SiteFx is no longer supported by the software developer and continues to rely on an outdated version of Microsoft Access. There is a considerable vulnerability to the program should Sitefx fail to function owing to a Microsoft rollout of an incompatible software update;
- The Citrix Xendesktop platform, which allows for partner agency staff and ORMGP staff to access the program's database and ORMGP files continues to be one of the main ways for staff to interact and update the ORMGP database;
- 2024 also saw continued development of metadata and information sheets (built in GitHub to allow for easy updating and editing) that describe maps and analyses available on the ORMGP website (see [ORMGP Metadata and Information](#)).

## **1d Software/Hardware Management**

In order to keep the database up-to-date and readily accessible to the partner agencies there is continual maintenance and review of the program's software and hardware capabilities. The many software licences required to maintain the program were all renewed as required throughout 2024.

The following tasks continue to be undertaken with respect to the program's software and hardware management:

- database management workflows that were reconfigured to work within Citrix platform in 2017 have continued to be used through the 2024 calendar year. As in the past, the backing up of the database continues to be a focus of the program:
  - the database resides on a server at CLOCA which is continually backed up through VEEAM backup system server software – should there be a power failure or database glitch, the database can be restored from a short-term backup in very short order; the VEEAM software stores multiple versions of the database which are eventually overwritten with subsequent, more recent backups;
  - on a weekly basis (every Sunday) the following steps are automatically transacted:
    - the database is backed up and is held as a separate user-accessible temporary dataset that may be accessed by the partners through the ORMGP Citrix machines. This 'weekly' database has both read and write permissions and is used for training and testing purposes. All changes made are discarded when it is replaced by the next active backup.
    - a copy of this backup is placed on a separate ORMGP server that functions as a central storage facility holding database versions dating back in time. These older backups are available on either a monthly basis (for the previous two years) or a half-yearly basis (more than two years). The previous four (to eight) weekly backups are also stored here. An active version is kept on this alternative server and can be used by ORMGP staff to review and compare against alternate datasets without impinging upon the master database.
    - this database backup is also transferred to an ORMGP server offsite and held as a secondary backup.
- The primary numerical model archive (part of the model custodianship program) is held on a server at CLOCA. A duplicate archive is kept off site and synchronized regularly. For added redundancy, two additional copies of the archive are also kept in separate locations off-site, however they are synchronized less regularly.
- To ensure partner agencies can review/access/QA/evaluate their data held in the ORMGP database, a cut of each partner agency data set is distributed (in SQL and/or Access format) at the ORMGP technical meetings (i.e., usually twice per year or more often if requested). In 2024 this database access was provided remotely using Drop Box.

## **2. ANALYSIS & MODELLING**

### **Technical Modelling Contributions**

Through 2024, in addition to the numerous analyses highlighted below, ORMGP staff continue to communicate with software developers to discuss modelling code, at a high technical level, and to provide input regarding suggested fixes and/or improvements to existing software codes (e.g., discussions continue to be held with the developers of Geocortex, GSFLOW, HydroGeoSphere, Raven, and CSHS HydRology).

### **Town of Erin, Springwater Township, City of Barrie, Alliston, Midland, Town of Orangeville, CLOCA SWP water budget, Lake Dalrymple Numerical Modelling Studies**

Through various partner agencies, ORMGP staff have been asked to assist several numerical modelling studies that are taking place across the study area. With the exception of the Lake Dalrymple work, the studies were/are being led by various consulting firms, with ORMGP staff assisting to provide technical input and direction and/or by serving on the technical steering committees for these studies. As necessary, some of these modelling initiatives will carry on into 2025. The final modeling files will be imported and managed through the numerical model custodianship program. The Lake Dalrymple water budget analysis was conducted to assist Kawartha Conservation with preparation of a water budget for the lake. Depending upon the nature of ORMGP involvement, the database in some of the areas subjected to updated modelling was also refined (e.g., well location/naming checking, temporal data checking and updating).

### **Numerical Model Custodianship Program**

100 numerical models now exist within the ORMGP model custodianship program. Nearly all of these models have complete file sets for reuse should the need arise, plus accompanying original documentation of model construction. Eight models were shared with partners during 2024.

### **Storage of Gridded Data (FEWS)**

Work within the Delft-FEWS environment progressed through 2024 with efforts advanced in refining water budgets in preparation for updates to the water budget tool, and in being able to directly read/display FEWS results via the website. The program's ability to manage gridded sets of information continued to improve in 2024.

### **Subwatershed Modelling**

Enhancement of the 10 km<sup>2</sup> subwatershed delineation mapping to incorporate recent climate and streamflow data. A new [script/tool](#) was prepared that allows for the land use and surficial soil characterization of the drainage area that contributes to any selected subwatershed. The script also illustrates the flow water takes from any of the subwatersheds down towards one of the great lakes.

### **Water Budget Modelling**

The ORMGP in house water budget modelling tool was enhanced throughout 2024. The model, considered to be an integrated groundwater/surface water model, simulates high resolution hydrological processes over the regional ORMGP area, including the estimation of groundwater recharge distribution. Work was also started to analyse and incorporate the Raven hydrological modelling framework for comparison purposes to the ORMGP in-house modelling tool. The initial modelling results and a description of the model can be [found here](#). The Raven modelling framework is developed and supported by researchers at the University of Waterloo. ORMGP staff are part of the Raven training team. This modeling initiative was presented to the model subcommittee in the summer.

### **Particle Tracking Data Snapshot**

A new [Particle Tracking data snapshot](#) was added to the website.

### **Time Series/sHydrology Analyses**



Through 2024 the groundwater, surface water and climate time series analysis packages, including the graphs and statistics, that are currently running on the program's website have been continually enhanced and refined, based on the recommendations and needs of partner agencies.

In 2023 - 2024 work was undertaken by staff from CVC and the CTC SWP program to investigate longer term trends in water quality at various municipal wells. Using both the generalized additive model (GAM) as well as more conventional statistics, municipal drinking water supply wells were assessed to investigate the likelihood of wells exceeding certain drinking water criteria, notably sodium, chloride and nitrate. Recognizing the broad use of the ORMGP website, staff were approached to see if the ORMGP website could be a vehicle for highlighting, and making accessible, the results of this work. This analysis was incorporated into a [new 'data snapshot'](#) on the ORMGP website.

Stream flow and climate data from Environment and Climate Change Canada's (ECC) website continues to be regularly uploaded into the program's database. In 2024, the ORMGP program has accessed various partner (e.g. CVC, LSRCA, TRCA, York, Peel,) datasets through API development, thus allowing for automated data import into the program's database. As new data are regularly added nightly, the statistical analyses are automatically updated. Users continue to be able to select a stream gauge or climate station location and then undertake a wide variety of analyses of the data (e.g., seasonal and monthly trend analyses, baseflow analysis, return period, flow frequency, etc.).

Through the FEWS work, and the incorporation of radar data into the analyses, interpolated climate is also available, even at locations distant from climate stations. One example of the applicability of this work is the ability of website visitors to now quickly determine whether, at any given location, the previous month was wetter/drier than the long-term average. This allows users to readily assess whether well complaints (no water or poor production) might be climate/weather related. To assist with improving hydrologic model calibration in the Bay of Quinte area, in 2023, ECC and LTRCA sought the assistance of ORMGP staff to expand the FEWS climate analyses system slightly east of the ORMGP boundary. This work has continued throughout 2024.

### **Geological Layer Harmonization**

Continued work on the geological surfaces in 2024 was aimed at regenerating the geological surfaces in Surfer software, with a focus on regenerating the bedrock surface, the completion of which is expected in 2025. In 2024, draft bedrock topography (as well as draft water table surfaces), along with source data, were posted on the website, thereby allowing partner agency staff to review and provide input on the work prior to finalization of these surfaces.

### **Groundwater eBook**

Through 2024 work continued on an Oak Ridges Moraine focused eBook to be submitted to an international entity known as the "Groundwater Project" (see [Groundwater Project](#)). The Oak Ridges Moraine will be the only Canadian contribution to the Aquifers of the World section of the Project. The Groundwater Project is an international effort led by Dr. John Cherry to provide free educational groundwater related materials to the global community. The eBook provides an opportunity to showcase the collective ORMGP efforts to a broad global audience. In 2024, the eBook underwent a comprehensive second round of review from four external reviewers. The book will undergo one final review (by one person who provides the final edit of all Groundwater Project published books) in early 2025 and is anticipated to be published/released in 2025. The final review is conducted.

### **Miscellaneous technical support**

Support and communication with partner agency staff was conducted through in-person or on-line meetings in 2024.

### **York**

- Met early in 2024 to exchange ideas and update each other on ongoing projects that are of mutual interest;
- Updated/synchronized groundwater levels and chemistry between York database and ORMGP database
- Assisted in analysis of hydrogeological testing (groundwater levels, pumping test analyses) from Nobleton BHs;
- Meeting to discuss transient electromagnetic (TEM) geophysics equipment (TEM Company from Denmark)

### **Peel**

- Coordinated with Peel staff to ensure real time monitoring data is being transferred into the ORMGP database;
- Along with Peel staff, coordinated the review, correction and updating of pumping/chemistry/water level data for Peel's groundwater-based communities;
- Meetings to discuss proposed quarry operations in Caledon;
- Met on several occasions to review the geological interpretation of different communities and wells in Peel

### **Durham**

- assisted consultant to Durham Region working on Cannington area updates;
- Met to discuss Sitefx and various database issues;
- Attended broader public works meeting at Durham Region to discuss program and exchange ideas and insights on projects and topics of mutual interest;
- continued support to Region and Burnside staff to ensure process for migration of monitoring data into database is working and accessible for uploading of data;

### **Toronto**

- extensive addition of new wells along with groundwater levels to fill in data gaps which will improve the water table (and depth to water table) mapping for the City;
- Lunch & Learn with City of Toronto (Water Infrastructure Management – WIM group)
- Meeting to discuss use of ORMGP mapping to assist in issue of houses with deep underground footprints ('iceberg houses')

### **Halton**

- meeting with Aqua Insight to discuss water level database for Halton and the incorporation of historical WL data into ORMGP database;
- field visit to support drilling of bedrock valley in Limehouse area;

### **TRCA**

- prepared figures and short write up for project to highlight potential areas for Aquifer Thermal Energy Storage (ATES) geothermal development within TRCA jurisdiction;
- continued to link to TRCA database thus allowing all TRCA surface water stations to have statistical analyses performed via the program website;

### **CLOCA**

- initiated work to update the water budget for CLOCA watersheds

### **Conservation Halton**

- Assistance with scientific paper on Halton streamflow prepared by Queen's University with CH staff input;

- Initial meetings to discuss possible projects of mutual interest and water budget modelling in particular

#### **CVC**

- Work to incorporate GAM analysis of municipal water quality as ORMGP Data Snapshot
- meeting with various staff to inform them of the wide breadth of ORMGP data/analyses and utility of ORMGP.

#### **NVCA**

- identify and properly name many of the municipal wells in the Midhurst model area so that WL data can be imported to ORMGP database

#### **LSRCA**

- meeting to discuss potential on-line stress assessment project.

#### **GRCA**

- Met to discuss Geo AI initiative which was presented at fall ORMGP meeting.

#### **Kawartha Conservation**

- assist with water budgeting work for Lake Dalrymple
- meeting with staff to provide opportunity to hear about ORMGP and to share ideas for working more closely together
- presented overview of ORMGP to board of directors

#### **Barrie**

- participated as a member of the Technical Advisory Committee for the numerical modelling study;

#### **CTC Source Water Protection**

- worked with CTC/CVC staff to prepare a non-municipal well risk screening report for the CTC source protection area;
- worked with CLOCA staff to update the SWP water budget report. Incorporated updated water budget estimates from the recently completed Durham Region modelling update (2021);
- worked with CVC staff to develop water chemistry analysis tools that work interactively with the ORMGP database to highlight trends in municipal well water quality.

#### **SGBLS Source Water Protection**

- along with LSRCA staff, initiated an on-line watershed water quantity stress assessment tool that will be run on the ORMGP website to check/analyse stress levels at any time. Part of the work involves updating of database to link wells with provincial permits to take water.

#### **TCC Source Water Protection**

- Work with TCC staff to extend climate analysis tools eastward to cover Bay of Quinte and Prince Edward County area.

### **3. OTHER PROGRAM INITIATIVES**

Over the course of 2024 several other initiatives also formed part of the overall ORMGP work program.

**Website** – Partnership agreements with consulting firms were initiated in early 2018 and have continued, with the end of 2024 marking the sixth year of this program. Through 2024 there were 24 consulting firms partnered with the ORMGP whose staff are now actively using the password protected side of the website to aide in their

consulting practice. ORMGP staff track the number of consultant logins to the website by each consulting firm and provide that information back to the consulting firm so they can be kept apprised of the value they receive from their ORMGP partnership.

The ongoing partnership between ORMGP and the GIS staff from Central Lake Ontario Conservation Authority (CLOCA) continued with a focus in 2024 on migrating to a new version of VertiGIS/Geocortex, the software that runs the website's mapping portal. Enhancements to the mapping interface on the website continue to improve the ability of users to efficiently explore the vast data and information sets assembled under the program.

In 2024, some of the more significant updates to the website included the following:

- incorporation of high-resolution DEM (LIDAR) into the mapping tools on the website;
- although the revised ORMGP website was unveiled in early 2025, it was during 2024 that most of the development work was done to re-imagine and re-design the website so that it could better function to lead visitors to more easily find answers to questions they might have regarding groundwater resources.
- along with Intent, developed longer-term communication strategies for ORMGP;

**Report Library** – 593 reports were added to the program library over 2024.

**Field Work** – Staff continue to monitor a suite of approximately 40 wells to help in characterizing specific hydrogeological settings that have been identified across the study area. Some of these monitoring locations have continuous measurements extending back to 1994.

**Elmvale Groundwater Study** – ORMGP staff were invited to join a proposed long term study on groundwater being proposed by researchers at the University of Guelph and the University of Alberta. The study area occurs within the Nottawasaga Valley Conservation Authority (NVCA) jurisdiction. Other partners include the NVCA and the South Georgian Bay/Lake Simcoe Source Water Protection team. The study is to determine the reason for the exceptional water quality that has been determined in the vicinity of the community of Elmvale. The project team will make use of ORMGP resources to facilitate research into the area and to see if other similar geological settings might exist elsewhere in the ORMGP study area. Further details can be found in a eBook published through The Groundwater Project ([The Elmvale Groundwater Observatory | The Groundwater Project](#)).

**Ontario Climate Advisory Committee** – as part of the task of considering the future use and updating of the available groundwater flow models across the program study area, in 2024 staff continued to attend and contribute to this working group that advocates for best management practices in terms of collecting, managing, and distributing climate information in Ontario.

### **Communications/Analyses**

In 2024 ORMGP staff were invited to present or meet with various external agencies on behalf of the partner agencies.

- ORMGP staff assisted with the overall organization and presented a paper at the annual Ontario Geological Survey (OGS)/Geological Survey of Canada (GSC)/Conservation Authority Open House held in February 2024;
- Continued to be active in SoSmart, a collective that looks to make stream related data available to practitioners working on southern Ontario streams;
- Assisted with TA training and set up ORMGP website accounts for students at University of Guelph enrolled in a fall 2024 engineering hydrology course;
- Provided in person or on-line 'Lunch and Learn' or similar talks to the following groups to promote increased use of the ORMGP website: City of Hamilton, GEMTEC, Montrose Environmental Group,
- Invited to present to Toronto Water at the City of Toronto;



- Invited to present at the Conservation Authority Collaborative Information Sessions (CACIS) annual conference;
- Invited to present at the Ministry of Environment, Conservation and Parks training day for technical staff from across the province;
- Invited to present to the Canadian Chapter of the International Association of Hydrogeologists evening lecture series;
- Invited to present a talk on the management of numerical models to the Ontario Water Work Association (OWWA);
- Invited by MECP to provide a work plan to support Source Water Protection initiatives in the ORMGP area – MECP ultimately decided to go in a different direction;
- Provided technical overviews and training on the ORMGP program and its products to staff at: i) Kawartha Conservation with a follow up overview of the ORMGP to the Kawartha Conservation Board of Directors
- Presented a talk to STORM in support of their Moraine Watch initiative;
- Presented a paper at the International Association for Great Lakes Research (IAGLR) conference in Windsor;
- Met with City of Ottawa staff to provide technical support to their Geological Information Project (GIP) and imported Ottawa well records into ORMGP database as a pilot project;
- Continued to contribute to the Greenbelt Foundation by serving on the Advisory Committee that reviews incoming proposals.
- In 2024 also assisted Greenbelt Foundation in preparing for the 10-year review of the Greenbelt/Oak Ridges Moraine/Niagara Escarpment Plans scheduled for 2025. Staff assisted in helping the Greenbelt address water management and water policies and how the Provincial government might best be approached to achieve positive outcomes for longer-term water management;
- Continued participation in Canadian Hydrological Model Stewardship (CHyMS): a Canadian collaboration/web server hosted by the National Research Council Canada to assist in the development of the Raven model;
- Participated in the creation of a Greenbelt funded [video on groundwater and the Oak Ridges Moraine](#) which was released in the summer of 2024;
- Continued support for various consultant partners. For example, met with EXP consultants to discuss technical aspects of the Yonge Street Subway extension. Also met with staff at Aqua Insight regarding several modelling studies in Midhurst, Barrie and Halton. These meetings generally lead to data exchanges and enhancement of the ORMGP database;
- met with MECP staff to provide suggestions and ideas for the province to move forward on a new web site to present Provincial Groundwater Monitoring Network data to the public;
- Semi-annual (Spring & Fall) Technical Steering Committee meetings to provide update and progress reports on ORMGP activities. Slides and meeting minutes are always distributed and posted on the ORMGP web portal;
- Met with Dr. John Cherry, an eminent Canadian hydrogeologist, to establish a relationship with [The Groundwater Project](#) which is a global education outreach initiative.

#### **4. BUDGET SUMMARY**

In 2024 the five senior partners (City of Toronto, Regional Municipalities of York, Peel, Durham, and Halton) each contributed \$175,000, and in addition, the program received \$97,401 from consultant subscriptions to the ORMGP website, resulting in a total revenue of \$972,401 to the program. The program's expenses for the 2024 are summarized below. 2023 costs, as well as estimated 2025 costs are also provided.

<b>Program Component</b>	<b>2023</b>	<b>2024</b>	<b>2025 (est.)</b>
Staff Costs (Wages + Benefits)	\$764,324	\$783,727	\$807,300
Office + Disbursements	\$ 73,922	\$ 52,183	\$ 60,000
Computer + Software	\$ 34,702	\$ 38,228	\$ 40,000
Consultant/Services	\$ 61,875	\$ 50,454	\$ 55,000
Administration	\$ 34,783	\$ 31,934	\$ 32,000
<b>Total</b>	<b>\$969,606</b>	<b>\$956,526</b>	<b>\$994,300</b>

The program was completed within an acceptable budget in 2024. Program costs were similar in 2024 to 2023. The budget estimate for 2025 is projecting a slight increase in costs over 2024. Given the tight budget conditions, i.e., a surplus of revenues over expenditures of only about \$16,000, and a reliance on the consultant subscriptions to meet the budget, since 2020 ORMGP staff have been advocating for a cost-of-living increase to be added to the ORMGP budget for each of the five funding partners. This has been implemented for 2025, with the five senior partners (Toronto, York, Peel, Durham and Halton) each contributing \$180,000.

## 2025 WORK PLAN – ONGOING/UPCOMING TASKS

As in previous years, key initiatives for 2025 will relate to enhancing: i) the program's database; ii) refinement of technical interpretive products (e.g., geologic/hydrostratigraphy layers), and iii) communication and outreach. Tasks will generally focus on continued enhancement of the program's website to deliver data, information, and knowledge in an easily accessible manner. The long-term goal for the website is to build upon earlier successes by offering newer and better ways to access, view and analyze data, all to benefit technical staff in improving decision making. The technical content currently available on the website will continue to be enhanced by providing additional insight pieces that succinctly summarize different hydrogeological analyses that have made effective use of the vast store of data in the database. An ongoing goal of the program's website continues to be to reduce the need for extensive knowledge of various individual specialized software packages (e.g., Sitefx, GIS, SQL Management Studio, etc.).

With no suggestions as to the order of importance, through 2025 work will take place on the following aspects of the program.

### **Work Area 1 - Continued improvement and expansion to the database and report library**

The database is now over 100 gigabytes in size and continues to grow as new information is appended. Up-to-date climate and streamflow data are regularly acquired from Environment and Climate Change Canada and from various partners and input to the database. As updates are made available from the Province, the WWIS, PGMN, PWQMN data and PTTW will be updated through 2025. Temporal data from the partner agencies will also be updated through the year. Once data is added into the database, then all of the statistics available on the website (e.g., climate, streamflow, groundwater levels) are automatically updated within a week. The ORMGP will look to add Environmental Activity and Sector Registry (EASR) data to the database. This data set captures short-term water takings of less than 400,000 L/d.

In 2025 program staff will continue to input additional reports into the library. In addition, ORMGP staff encourage partner agencies to retain students to process technical consulting reports to assist in advancing the long-term vision of the ORMGP. ORMGP staff are available to assist with training and data management of consulting or other relevant reports. Data capture from library reports into the database will also continue through 2025 as time permits.

Another area of database focus in 2025 involves linking individual wells to provincial permits to take water, thereby improving the overall understanding of water usage.

In 2025 work will advance on a redesign of the ORMGP database. As the program transitions away from the Sitefx software, opportunities arise to streamline the database so that many of the superfluous tables, as well as superfluous fields within retained tables, can be removed. Work is underway to develop a new interface to the new database structure so that everyday database tasks (e.g. new data entry, corrections, deletions, comparisons, etc.) can proceed in an efficient manner.

- **Benefits:** Improved data quality and additional data input to the database is reflected in the long-term statistics available on the website and enhances the overall understanding of subsurface information and flow systems across the program area. Data mining from the report library enhances the database with key borehole and well locations, along with groundwater levels and chemistry. This new data facilitates the updating of interpretive products such as geologic layer and water table/potentiometric surfaces. The capture of water use will allow for Source Water Protection water quantity stress assessments to be automated with new tools being developed.

All of the above supports one of the program's long-term goals, that of striving for data-driven decision making, the foundation of which is the ORMGP database. Work undertaken in the ORMGP area, whether it is in support of partner agency initiatives, Source Water Protection, development, construction activities, or other will benefit from increased data and ease of access to that data.

### **Work Area 2 – Fostering and Enhancement of Website Use**

Over the course of 2025, with the revised website, and new tools available to track usage, staff will monitor partner agency and consultant use of the ORMGP website and encourage further use of the site. This feedback will assist with focussing improvement efforts relating to information accessibility and analysis tools that are made available on the website. In 2025, with improvements to the website response times, staff will be exploring means (on-line or face to face) for developing and implementing additional training for technical staff at both consulting companies and partner agencies. Staff will continue to encourage other companies to join the partnership. Partner agency staff are also urged to encourage consulting companies to make use of the ORMGP. With recent changes to planning approvals in Ontario (i.e. a transition of more responsibilities to local municipalities), efforts will be undertaken in 2025 to engage local municipalities in the ORMGP. It is expected that local municipalities will be looking for water and subsurface hydrogeology related information to assist them in making better planning decisions.

- **Benefits:** Training/education initiatives, will help to ensure that consultant partners remain engaged in the program in a meaningful way, allowing them to maximize their use of the information and data available through the website and to contribute back to the program. Engaging additional agencies in the program and in making use of the website will help with the overall ORMGP goal of improving decision-making.

### **Work Area 3 – Numerical Modelling Assistance**

Through 2025 several consultant-led numerical modelling projects for various partner agencies will be ongoing. The ORMGP provides model files and/or model building block information (e.g., data, interpretive products) to support these projects. Also, by serving on the technical steering committee for several of these projects, ORMGP staff will contribute expertise to ensure that the modelling teams do not overlook any data or analyses that can be gleaned from the ORMGP. Modelling studies that will be ongoing through 2025 include studies in Orangeville, Town of Erin, Halton Region, Conservation Halton, CLOCA, and Barrie.

- **Benefits:** By providing data, models and/or expertise to these various modelling studies, it is anticipated that the costs for these studies might be reduced and that the studies will be technically enhanced. In addition, data and information will be received back to the ORMGP following study completion, resulting in updates to ORMGP database and website analyses (e.g., hydrographs, pumping quantities and water quality graphs, etc.) for future use. Also, improved understanding of groundwater flow systems in the modelled areas will be incorporated into the overall ORMGP water resources understanding.

### **Work Area 4 – Geological Layer Harmonization**

100 numerical models have been generated across the geographical study area of the program, and staff continue to work towards a single “authoritative” geologic/hydrostratigraphic framework across the study area by incorporating insights from these modelling studies. With the consolidation of all the geological picks in 2024, ORMGP staff are now in a better position to bring together geological insights across the broad ORMGP study area. In 2025, it is anticipated that work will be focused on updating the bedrock surface, with a focus on bedrock valleys and their orientation. This will involve a rigorous checking of water well records, and in particular their position. Poorly located wells are often detected when they don't fit into the regional bedrock valley interpretation. Such corrections have been found to alter bedrock valley thalwegs.



In 2025 staff will continue conversations with staff from the Ontario Geological Survey as well as the Geological Survey of Canada to discuss and possibly incorporate geological layers from the 2020 OGS South Simcoe study, as well as the bedrock geological layering from the recent geological work undertaken by the OGS and the GSC. As needed, OGS and GSC staff will be brought into discussions regarding various partner projects and initiatives

- **Benefits:** This task continues efforts to consolidate geological frameworks from various initiatives as well as new data into an “authoritative” set of surfaces that will extend across the entirety of the study area. For each agency, this will continue to prove to be a significant benefit in that they can confidently provide a set of interpretive geological layers to any ongoing capital works project that involves subsurface excavation or tunneling. When provided to consultants, the set of layers allows for all parties (including staff and consultants working in adjacent agencies) to speak with a common language when referring to the subsurface stratigraphy.

### **Work Area 5 – Addition/Refinement of Mapping Web Portal**

Over the course of 2025 several planned initiatives will be moved forward to enhance the mapping portal on the ORMGP website. Ideas that will be explored include:

- In 2025 ORMGP staff will review the chemistry data in the ORMGP database to ensure that it is properly reflecting the results from laboratory data sheets. It has been found that in some cases, particularly with respect to organic parameters that are either not detected or that are found below detection limit, that the import to the database was incomplete or difficult to interpret. This will be worked on to improve the way these results appear in the database.
- **Groundwater Level Variability** – Building upon the Groundwater Level Variability Data Snapshot, ORMGP staff will look to link certain hydrogeologic behaviours observed at different wells situated within various hydrogeological settings. The long-term goal is to better understand the expected groundwater response in different settings to both seasonal water availability as well as single storm events. These insights would then be transferred to the website either at the well level (different coloured wells) and/or at the landscape scale;
- **Water Budget** – in 2025, making use of the Delft FEWS system, efforts will be extended to finalize a revised water budget tool that will extend water budget coverage westward through the Halton area;
- **Online Model Insights** – Interest continues in ensuring that hydrogeological insights from the numerical models developed over recent years are made available for more widespread use. Towards this goal ORMGP will continue to explore additional ways that will allow partners to take advantage of the past investments in numerical modelling. The above cited particle tracking tool that provides the ability to show forward and reverse particle tracking is a good example of this initiative. Some new ideas to consider include allowing for users to explore well drawdown via the ORMGP mapping portal. This could enable non-modellers to develop a basic understanding of aquifer response due to changes in aquifer stressors;
- **Dynamic Maps** – In 2025, expanding upon the introduction of the “Data Snapshots”, ORMGP will look to create more of these linked database-mapping products
- **Source Water Protection (SWP) water quantity stress assessment** – by linking permitted water takings to actual supply wells, water use information can be enhanced and various assessments such as SWP water quantity stress assessments can be updated, automated and mapped;
- **Verti-GIS** is the software that is used on the web site mapping portal. This software has recently released an updated version. The ORMGP team has been working on updating to this new software version with anticipated release in 2025.

**Benefits:** all actions directed to the website will be focused on providing smarter and easier ways to explore the data within the database and associated analyses/estimates, thereby reducing the time needed to acquire data and interpretations necessary for decision making.

### **Work Area 6 – Interpretive Mapping (Time Permitting)**

There has been an indication from partner agencies that interpretive mapping has been beneficial. Mapping of groundwater “Areas of Concern”, (i.e., those areas where subsurface construction works could lead to considerable problems and excessive costs), was initiated in 2019. In 2025 ORMGP will focus on trying to make available on the website some of the key analyses that are synthesized into these reports. This will be on a regional scale across the entirety of the ORMGP study area. At the same time work will begin on mapping the City of Markham, in concert with York Region staff.

Also, in past discussions with planners, it has become apparent that the ORMGP mapping portal, with its many different themed maps, offers the possibility to assist planners with making better land use change decisions from a water management perspective. By overlaying maps, for example surficial geology, depth to water table, and flowing wells it may be possible to colour code certain areas as being either more or less suitable for different types of land use change proposals. ORMGP staff will investigate the possibility of developing an effective planning themed map that can be accessed on the website.

ORMGP will also investigate the possibility of adding to the website some of the analyses that are currently being utilized in a groundwater risk mapping project looking at non-municipal water supplies.

- **Benefits:** Understanding subsurface conditions prior to any project commencement, can assist in a wide variety of planning related decisions, providing preliminary input or screening for project design and costing.

### **Work Area 7 – eBook**

In 2025 work will wrap up on the ORMGP eBook contribution to the Groundwater Project, with anticipated publication of the digital eBook ([gw-project.org](http://gw-project.org)). The book is subject to a final peer review in the spring prior to publication. The eBook will synthesize much of the hydrogeology of the Oak Ridges Moraine area and will be unique in that it will directly link to the ORMGP website allowing readers to explore data as they read through the book.

- **Benefits:** As the only Canadian contribution to the Groundwater Project’s overview eBooks on major global aquifers, the opportunity exists to showcase the work of the program and partner agency staff that have contributed to the program over the years.

### **Work Area 8 – Website Metadata**

The past few years have seen the development and build out of ORMGP’s metadata using GitHub. 2025 will see the continued development and refinement of the writeups, and to improve upon the organization of the information.

- **Benefits:** having metadata available on the website allows users to see data sources and how various analytical maps and graphs have been created. This will provide additional confidence and support to website users such that they can rely on, and defend, the use of ORMGP website products.

### **Work Area 9 – Communication Strategy**

With the support of the Greenbelt, in 2025 ORMGP staff will continue to engage with Intent, a marketing/strategic communications firm, to move forward with an overall communication strategy. Phase 1 funding from the Greenbelt was utilized to revamp the program’s website and launch in January 2025. A proposal has been submitted to obtain Phase 2 funding from the Greenbelt Foundation for further communication outreach work in 2025/2026.

- **Benefits:** with stronger more effective communication, both through marketing materials and through the ORMGP website, the program will entice additional companies and individuals to use the program’s data and interpretations to improve decision making.

### **Work Area 10 – Scientific Outreach**

In 2025 ORMGP staff will continue to attend and assist with scientific outreach activities at various conferences and workshops. This involves being on the organizing committee for the annual Ontario Groundwater Geoscience Open House held in Waterloo and showcasing the work of various academics and staff at the Geological Survey of Canada, the Ontario Geological Survey, Conservation Authorities, and the United States Geologic Survey. In May of 2025 ORMGP staff will provide two talks and chair a session (Groundwater Data Management) at the annual International Association of Hydrogeologists (Canadian National Chapter). Attendance and technical paper presentation are also planned for the annual Canadian Water Resources Association conference.

- **Benefits:** The presence of staff at scientific conferences and the presentation of papers on the ORMGP's unique water management approaches, provides for on-going peer review and scientific exposure of the program's various technical initiatives. On-going educational and discussion opportunities are also important for staff technical development and competence.

### **Work Area 11 – Program Succession Planning**

Ongoing considerations for a transition of the program to new leadership will continue in 2025. It is envisioned that a multi-year plan will be put in place to oversee the transition of the program to new leadership as the current leadership begins to consider retirement.

- **Benefits:** effective, smooth transitioning of the program to new leadership will help to ensure the long-term viability of the program for the benefit of Ontario.