



Toronto and Region Conservation Authority

Board of Directors Meeting Agenda

April 30, 2021
9:45 A.M.

The meeting will be conducted via a video conference
Members of the public may view the livestream at the following link:
<https://video.isilive.ca/trca/live.html>

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1. ACKNOWLEDGEMENT OF INDIGENOUS TERRITORY
2. MINUTES OF BOARD OF DIRECTORS MEETING HELD ON MARCH 26, 2021
[Meeting Minutes Link](#)
3. DISCLOSURE OF PECUNIARY INTEREST AND THE GENERAL NATURE THEREOF
4. DELEGATIONS
 - 4.1. Mr. Tony Moracci, Resident, in regard to Item 7.1 - Request for Tender for the Claireville North Multi-Use Trail Project
 - 4.2. Ms. Cynthia Sri Pragash, Resident, in regard to Item 7.1 - Request for Tender for the Claireville North Multi-Use Trail Project
 - 4.3. Ms. Dayle Laing, Secretary, BikeBrampton, in regard to Item 7.1 - Request for Tender for the Claireville North Multi-Use Trail Project
5. PRESENTATIONS
 - 5.1. Waterfront Toronto, in regard to Item 8.1 - Port Lands Flood Protection and Enabling Infrastructure Project Updates
6. CORRESPONDENCE

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9.	MATERIAL FROM EXECUTIVE COMMITTEE MEETING HELD ON APRIL 9, 2021 Meeting Minutes Link	
9.1.	SECTION I – ITEMS FOR BOARD OF DIRECTORS ACTION	

9.1.1. 2021 BUDGET

Approval of Toronto and Region Conservation Authority's (TRCA) 2021 Budget, including municipal general (operating), capital levies, grants, donations, contract services, application fees, user fees and other revenues.

(Executive Committee RES.#B19/21)

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9.1.2. 2021 UNFUNDED PRIORITIES

Approval of Toronto and Region Conservation Authority's (TRCA) list of 2021 Unfunded Priorities and the allocation of unrestricted reserves as recommended by Senior Leadership Team (SLT).

(Executive Committee RES.#B20/21)

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9.1.3. GREENSPACE ACQUISITION PROJECT FOR 2021-2030 (COUGS (DUFFINS VILLAGE) LTD.)

Acquisition of property located east of Church Street and north of Rossland Road, in the Town of Ajax, Regional Municipality of Durham, under the "Greenspace Acquisition Project for 2021-2030", Flood Plain and Conservation Component, Duffins Creek watershed (CFN 64683).

(Executive Committee RES.#B21/21)

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9.1.4. GREENLANDS ACQUISITION PROJECT FOR 2021-2030 (DEFRIES DEVELOPMENTS LIMITED)

Flood Plain and Conservation Component, Don River Watershed Defries Developments Limited. Acquisition of property located south of

Dundas Street East and west of Bayview Avenue, municipally known as 1-25 Defries Street, in the City of Toronto, under the "Greenland Acquisition Project for 2021-2030," Flood Plain and Conservation Component, Don River watershed (CFN 63986).

(Executive Committee RES.#B22/21)

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9.1.5. GREENSPACE ACQUISITION PROJECT FOR 2021-2030 (RIVERSIDE (BRISCOE) INC.)

Flood Plain and Conservation Component, Duffins Creek watershed Riverside (Briscoe) Inc. Acquisition of property located south of Rossland Road W. and east of Riverside Drive, in the Town of Ajax, Regional Municipality of Durham, under the "Greenspace Acquisition Project for 2021-2030," Duffins Creek watershed (CFN 64534).

(Executive Committee RES.#B23/21)

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9.1.6. GREENSPACE ACQUISITION PROJECT FOR 2021-2030 (THREE RIVERS REALTY INC.)

Flood Plain and Conservation Component, Mimico Creek Watershed
Three Rivers Realty Inc. Acquisition of property located north of Burnhamthorpe Road and east of Martin Grove Road, municipally known as 21 Lorraine Gardens, in the City of Toronto, under the "Greenspace Acquisition Project for 2021-2030," Mimico Creek watershed (CFN 64535).

(Executive Committee RES.#B24/21)

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9.1.7. ASSIGNMENT OF LEASE AGREEMENT (PART OF LOT 17, CONCESSION 2, CITY OF VAUGHAN)

Request from Shoresh Jewish Environmental Programs to assign the existing rental agreement to York Region Food Network, for the land located at 145 Lebovic Campus Drive, City of Vaughan, Regional Municipality of York, for the operation of a community garden.

(Executive Committee RES.#B25/21)

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9.1.8. STRABAG INC.

Proposal from Strabag Inc. to exercise the option to extend their lease for an additional 5 year period on Toronto and Region Conservation

Authority-owned land for the purpose of temporary storage of Strabag Inc.'s equipment and materials located east of Sideline 16 and north of Concession Road 5, municipally known as 3205 Sideline 16, City of Pickering, Regional Municipality of Durham, Duffins Creek watershed (CFN 50429).

(Executive Committee RES.#B26/21)

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9.1.9. TEMPORARY SALES OFFICE PAVILION (3966 EBENEZER ROAD, CITY OF BRAMPTON)

Proposal to terminate the current TRCA rental agreement with Highcastle Homes and enter into a new rental agreement with 2652367 Ontario Inc., for the land located at 3966 Ebenezer Road, City of Brampton, Regional Municipality of Peel for the operation of a temporary sales office pavilion, for a five (5) year term.

(Executive Committee RES.#B27/21)

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9.1.10. CITY OF TORONTO

Receipt of a request from the City of Toronto, for a permanent easement of Toronto and Region Conservation Authority-owned lands located north of Catherine Street and west of Old Mill Drive, in the City of Toronto, required for the Basement Flooding Protection Area 5 Program, Humber River watershed (CFN 64684).

(Executive Committee RES.#B28/21)

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9.1.11. AMENDMENT TO SIGNING OFFICERS POLICY RELATED TO AMENDING AND TERMINATING AGREEMENTS

Approval of amendment to Toronto and Region Conservation Authority's (TRCA) Signing Officers Policy to expressly provide for authority to amend, extend, or terminate agreements.

(Executive Committee RES.#B29/21)

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9.2. SECTION II - ITEMS FOR EXECUTIVE ACTION (BOARD INFORMATION)

9.2.1. APPLICATION FOR PERMITS PURSUANT TO S.28.0.1 OF THE CONSERVATION AUTHORITIES ACT (MINISTER'S ZONING ORDERS)

Conmar (Fenmarcon Inc.), Lorwood Holdings Inc. and Fleur de Cap Developments/Cuenca Developments Inc. CFNs: 63914 & 63915.

Issuance of permission pursuant to Section 28.0.1. of the Conservation Authorities Act to remove and relocate three Provincially Significant

Wetlands to a corridor on an adjacent site, and allow topsoil stripping in preparation for the construction of a local road located at 11110 & 10980 Jane Street and 3180 Teston Road, in the City of Vaughan, Region of York.

(Executive Committee RES.#B30/21 through RES.#B32/21)

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9.2.2. APPOINTMENT OF ADMINISTRATIVE ENFORCEMENT OFFICERS

Zack Carlan, Caroline Mugo, Harsimrat Pruthi. Recommended appointment of Administrative Enforcement Officers for the purposes of

signing authority in the administration of the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation (Ontario Regulation 166/06, as amended).

(Executive Committee RES.#B33/21)

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9.3. SECTION III - ITEMS FOR THE INFORMATION OF THE BOARD

9.3.1. PROCUREMENT SUMMARY

2020 Annual Summary. Receipt of the 2020 summary of procurements approved by the Chief Executive Officer or Designate, Executive

Committee, or the Board of Directors.

(Executive Committee RES.#B34/21)

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9.4. SECTION IV - ONTARIO REGULATION 166/06, AS AMENDED

Receipt of Ontario Regulation 166/06, as amended, for application 10.1, which were received at the March 5, 2021 Executive Committee Meeting.

(Executive Committee RES.#B35/21)

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10. CLOSED SESSION

(Closed Session report will be circulated to Board Members separately)

10.1. PORT LANDS FLOOD PROTECTION AND ENABLING INFRASTRUCTURE PROJECT (PLFPEI)

Property Ownership Recommendation (CFN 62893)

Pursuant to subsection C.4.(2)(l) of TRCA's Board of Directors Administrative By-Law, as the subject matter pertains to a position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of TRCA.

11. NEW BUSINESS

**NEXT MEETING OF THE BOARD OF DIRECTORS TO BE HELD ON MAY 28, 2021
VIA VIDEOCONFERENCE**

John MacKenzie, Chief Executive Officer

/am

Section I – Items for Board of Directors Action

TO: Chair and Members of the Board of Directors
Friday, April 30, 2021 Meeting

FROM: Anil Wijesooriya, Director, Restoration and Infrastructure

RE: **REQUEST FOR TENDER FOR THE FABRICATION AND INSTALLATION OF TWO PEDESTRIAN BRIDGES, HELICAL PILE BOARDWALK APPROACHES AND RAMPS - CLAIREVILLE NORTH MULTI-USE TRAIL PROJECT**
RFT No. 10035559

KEY ISSUE

Award of Request for Tender (RFT) No. 10035559 for the fabrication and installation of two pedestrian bridges, helical pile boardwalk approaches and ramps to facilitate the completion of the Claireville North Multi-Use Trail project.

RECOMMENDATION

WHEREAS Toronto and Region Conservation Authority (TRCA) staff were authorized to proceed with the construction of the Claireville Inter-regional Trail in accordance with the approved Claireville Conservation Area (CCA) Management Plan at Authority Board Meeting #7/11 held on July 29, 2011;

WHEREAS the approved inter-regional trail alignment requires the installation of two pedestrian bridges to facilitate the completion of the Claireville North Multi-use Trail Project;

AND WHEREAS TRCA solicited tenders through a publicly advertised process;

THEREFORE, LET IT BE RESOLVED THAT Request for Tender (RFT) No. 10035559 for the Claireville North Multi-use Trail Project be awarded to CSL Group Ltd. at a total cost not to exceed \$782,583, plus applicable taxes, to be expended as authorized by TRCA staff;

THAT TRCA staff be authorized to approve additional expenditures to a maximum of \$78,258 (10% of the project cost), plus applicable taxes, in excess of the contract cost as a contingency allowance if deemed necessary;

THAT should TRCA staff be unable to negotiate a contract with the above-mentioned proponent, staff be authorized to enter into and conclude contract negotiations with other Proponents that submitted quotations, beginning with the next lowest bid meeting TRCA specifications;

AND FURTHER THAT authorized TRCA officials be directed to take whatever action may be required to implement the contract, including the obtaining of necessary approvals and the signing and execution of any documents.

BACKGROUND

The Claireville North Multi-use Trail Project (formally known as the Claireville Inter-regional Trail) is a partnership project with the City of Brampton ("the City") that will create approximately 3.9 kilometres of new multi-use trail within CCA. When complete, the trail system will provide

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enhanced recreation opportunities and improved active transportation in the area. Ultimately, the trail will become a part of the West Humber Trail System and accomplish key objectives of the Province-wide Cycling Network, the City's Active Transportation Master Plan (2019), the TRCA Trail Strategy (2019) and the CCA Management Plan Update (2011). The trail forms a critical backbone to many approved management plans, master plans and strategies (see Figure 1).



Figure 1: Planning Initiatives Timeline

The Claireville North Multi-Use Trail project was developed through extensive public consultation between 1997 and 2011. In 2011, the City and TRCA conducted additional targeted site walks and public meetings to attempt to address local comments and concerns brought forward both in support and against components of the trail. As a result, many changes were undertaken in response to input received during public consultation. The final alignment, including the need for two pedestrian bridges was approved at the TRCA Authority Board Meeting (#7/11) on July 29, 2011, and staff were directed to commence with trail implementation.

On February 3, 2021, TRCA notified residents of the commencement of construction of the approved Claireville North Multi-Use Trail, and to invite them to a March 15, 2021 Public Engagement Webinar. TRCA and the City hosted 76 people covering a range of user groups. While 75% of respondents who attended the webinar indicated their interest in the trail, TRCA and the City understand that some residents have concerns with the vista block connections to the main trail. At the webinar, as well as at a March 12, 2021 site walk with local residents, TRCA and City staff, along with City Councillor Charmaine Williams, committed to additional consultation on the vista block connections this Spring.

TRCA and the City have planned targeted community consultations with the Valleycreek community to discuss the vista block connections. This consultation will obtain feedback to address concerns and inform any updates to the redesign of the vista blocks and connections to the main trail. Consultation will include two public engagement webinars and an online survey. This consultation is scheduled for Spring/Summer 2021 and is unrelated to the implementation of the approved main trail and installation of the two pedestrian bridges. Implementation of the vista block connections are not scheduled until the winter/spring 2021-2022.

In 2012, TRCA retained the services of Jewell Engineering Inc. to design two pedestrian bridges and complete a geotechnical investigation to inform their placement. The conceptual inter-regional trail alignment and general location of each bridge was previously brought to the TRCA Board and subsequently approved at Authority Board Meeting #7/11 held on July 29, 2011. A map of the proposed trail system and associated pedestrian bridge sites is included as Attachment 1. In 2020, Jewell Engineering Inc. revised the designs at the direction of TRCA to meet updated flood modelling forecasts, to follow prescribed erosion and sediment controls identified in the MECP Overall Benefit Permit for the project, and to update to current TRCA typical bridge specifications and standards.

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RATIONALE

Since 2012, TRCA have been undertaking the required works to secure all necessary permits and approvals. CCA is situated on the West Humber River and includes habitat for Redside Dace which is protected under the Endangered Species Act. To meet deadlines associated with the Ministry of Environment, Conservation and Parks (MECP) Overall Benefit Permit and Department of Fisheries and Oceans (DFO) permits secured to implement the bridge projects, the Award of Contract needs to be awarded immediately. All major works must commence by July 1, 2021 and must be completed by September 15, 2021 to meet the permit conditions and avoid a one-year delay of the project.

Accordingly, a Request for Pre-Qualification (RFPQ) for general contractors was publicly advertised on the public procurement website www.biddingo.com on February 11, 2021 and closed on February 26, 2021. General contractors interested in pre-qualifying were advised that to receive a tender package they must meet criteria evaluated through the submission of the following documents:

- 2019 Contractor's Qualification Statement (CCDC 11);
- Project Specific Experience;
- Construction Management Experience;
- Bonding Verification;
- Insurance Verification;
- Health and Safety Policy Document;
- WSIB Clearance;
- A signed Pre-Qualification Form.

A total of 37 firms downloaded the procurement documents. 10 pre-qualification submissions were received from the following Proponents:

1. Bronte Construction
2. Canada Construction Limited
3. CSL Group Ltd.
4. Dynex Construction Inc.
5. Enscon Ltd.
6. Ferdom Construction
7. Loc-Pave Construction
8. McPherson-Andrews Contracting Limited
9. Metric Contracting Services Corporation
10. Urgiles Brothers Excavating Inc.

The submission from both Enscon Ltd. and Urgiles Brothers Excavating Inc. were disqualified because they failed to submit CCDC 11 supporting documentation. The submission from Ferdom Construction failed to meet minimum scoring requirements and were disqualified.

An Evaluation Committee comprised of staff from Restoration & Resource Management and Project Management Office reviewed the pre-qualification documents based on the criteria above. Based on the evaluation results, RFT documents were issued on March 25, 2021 to the following seven proponents:

1. Bronte Construction
2. Canada Construction Limited

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3. CSL Group Ltd.
4. Dynex Construction Inc.
5. Loc-Pave Construction
6. McPherson-Andrews Contracting Limited
7. Metric Contracting Services Corporation

A mandatory site meeting was held on April 1, 2021. The RFT closed on April 21, 2021.

Dynex Construction Inc. and Loc-Pave Construction were disqualified from submitting bids because they failed to attend the mandatory site meeting.

Three (3) addenda were issued to respond to questions, clarify scope of work activities, qualify suppliers, and to extend the closing date following initial feedback and the recent Rogers Wireless service outage.

The Procurement Opening Committee opened the Tenders on April 21, 2021 at 12:00pm with the following results:

Proponent	Fee (excluding HST)
CSL Group Ltd.	\$782,583
Canada Construction Limited	\$792,000
McPherson-Andrews Contracting Limited	\$876,312
Bronte Construction	\$933,136
Metric Contracting Services Corporation	\$1,240,277

Staff reviewed the bid received from CSL Group Ltd. against its own cost estimate and has determined that the bid is of reasonable value and meets the requirements as outlined in the RFT documents. Therefore, it is recommended that contract No. 10035559 be awarded to CSL Group Ltd. at a total cost not to exceed \$782,583, plus 10% contingency, plus applicable taxes, it being the lowest bid meeting TRCA's specifications.

Relationship to Building the Living City, the TRCA 2013-2022 Strategic Plan

This report supports the following strategic priorities in the TRCA 2013-2022 Strategic Plan:

Strategy 7 – Build partnerships and new business models.

Strategy 3 – Rethink greenspace to maximize its value

Strategy 4 – Create complete communities that integrate nature and the built environment

FINANCIAL DETAILS

Funds for the contract are fully recoverable under letter Agreement with the City.

Report prepared by Adam Dembe, extension 5939.

Emails: adam.dembe@trca.ca

For Information contact: Adam Dembe, extension 5939; Chris Ellis, extension 5641;

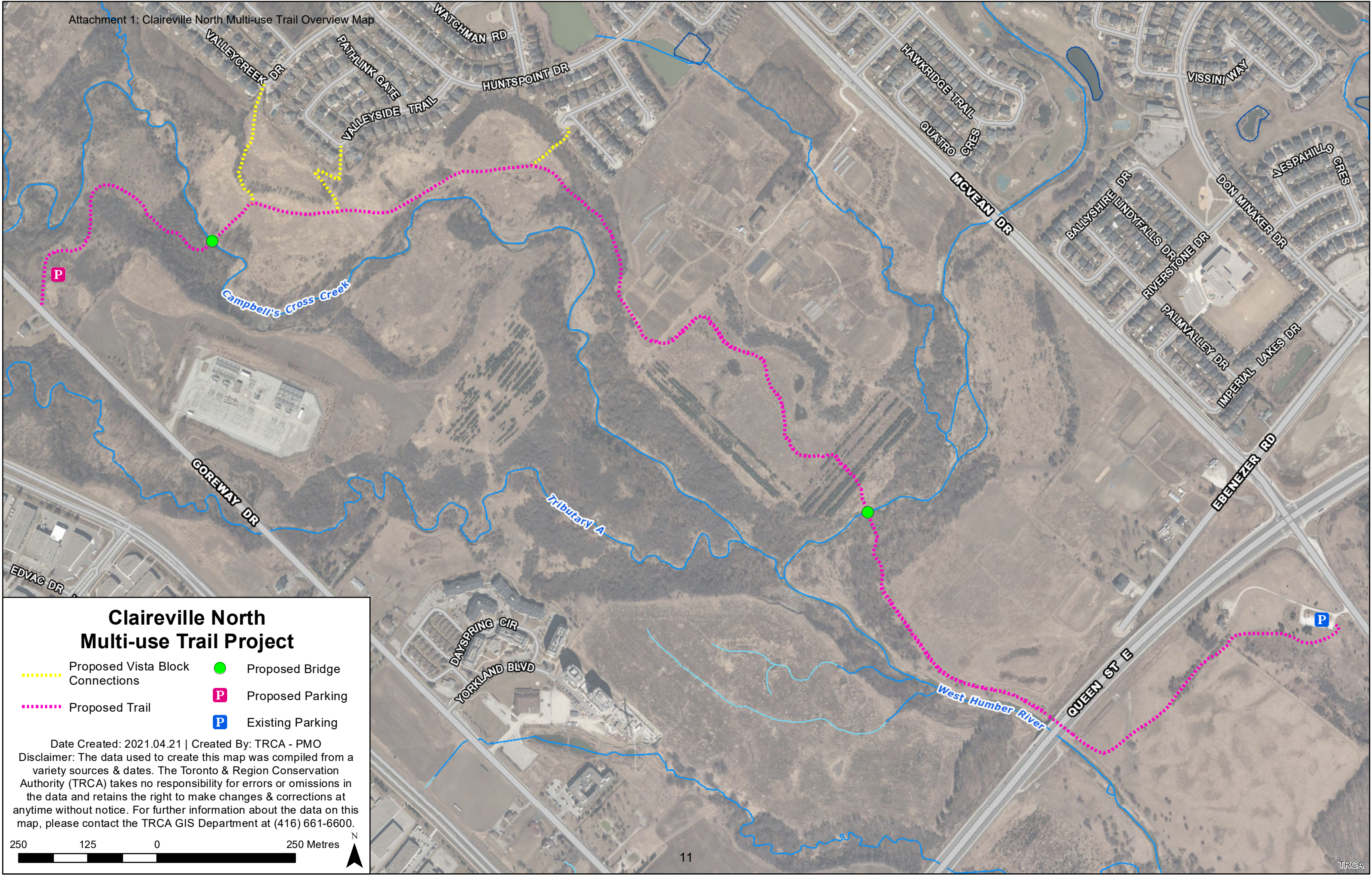
Caitlin Harrigan, extension 5267

Emails: adam.dembe@trca.ca; chris.ellis@trca.ca; caitlin.harrigan@trca.ca

Date: April 22, 2021

Attachments: 1

Attachment 1: Claireville North Multi-use Trail Overview Map



Claireville North Multi-use Trail Project

- Proposed Vista Block Connections
- Proposed Trail
- Proposed Bridge Connections
- Proposed Parking
- Existing Parking

Date Created: 2021.04.21 | Created By: TRCA - PMO
Disclaimer: The data used to create this map was compiled from a variety sources & dates. The Toronto & Region Conservation Authority (TRCA) takes no responsibility for errors or omissions in the data and retains the right to make changes & corrections at anytime without notice. For further information about the data on this map, please contact the TRCA GIS Department at (416) 661-6600.



Section I – Items for Board of Directors Action

TO: Chair and Members of the Board of Directors
Friday, April 30, 2021 Meeting

FROM: Sameer Dhalla, Director, Development and Engineering Services

RE: **DELEGATED AUTHORITY TO AWARD CONTRACT No. 10035896 FOR TRCA SHORELINE HAZARD MAPPING UPDATE**

KEY ISSUE

Request for delegated authority to the Chief Executive Officer to award RFP No. 10035896 for required consulting services to support the Shoreline Hazard Mapping update study and work underway related to the National Disaster Mitigation Program (NDMP) Intake 6 project funding deadlines.

RECOMMENDATION

WHEREAS Toronto and Region Conservation Authority (TRCA) is pursuing NDMP Intake 6 funded projects that require consulting services;

AND WHEREAS TRCA is currently soliciting proposals through a publicly advertised process and will evaluate the proposals based on pre-established criteria, meeting all TRCA procurement requirements;

THEREFORE, LET IT BE RESOLVED THAT the Chief Executive Officer be granted delegated authority to award the contract, plus appropriate contingency, in order to expedite the Shoreline Hazard Mapping Update study timelines, prior to the May 2021 Board of Directors meeting;

THAT should TRCA staff be unable to negotiate a contract with the successful Proponent, staff be authorized to enter into and conclude contract negotiations with other Proponents that submitted proposals, beginning with the next highest ranked proponent meeting TRCA specifications;

THAT authorized TRCA officials be directed to take whatever action may be required to implement the contract, including the obtaining of necessary approvals and the signing and execution of any documents;

AND FURTHER THAT TRCA staff report back on the contract award to at a future Board of Directors meeting.

BACKGROUND

Shoreline hazard studies are used to identify hazards such as lake-based flooding, shoreline erosion, and dynamic beaches. These studies help define TRCA's regulation mapping and assist with land use, infrastructure, and emergency management planning along the Lake Ontario shoreline.

The current shoreline flood hazard standards were developed using information from the Ministry of Natural Resources in 1989, making them over 30 years old. Since 1989, multiple significant events have occurred which necessitates an update to the flood hazard limit. In 2017 and 2019 record water levels in Lake Ontario were greater than the 100-year limit established in

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1989. Also, the International Joint Commission (IJC) implemented a new regulation plan for the St. Lawrence Seaway and Lake Ontario in 2017. The plan is known as Plan 2014, is expected to result in a broader range of water levels, depending on the return period considered. Taken together, these factors would produce higher return period lake levels and larger flood hazard limits than those previously calculated. This is also an opportunity for TRCA to update shoreline erosion and dynamic beach hazard mapping with the new lake level information and new base mapping information based on LiDAR, and incorporate information from site-specific studies supporting remedial erosion works. All calculations and procedures would be consistent with provincial technical guidelines and regulations. The combination of updated flood, erosion, and dynamic beach hazards would enable TRCA to update regulation mapping along the entire Lake Ontario shoreline.

Completion of this project would create new shoreline hazard information incorporating the latest data, and technologies to better support land use, infrastructure and emergency management planning, and engineering standards development. Ultimately this would serve to better protect people and property from flooding, erosion, and dynamic beach hazards on the Lake. The member municipalities with shorelines in TRCA's jurisdiction, the City of Toronto and Durham Region, have provided letters of support for this project.

RATIONALE

TRCA is anticipating that funding will be approved through Intake 6 of the NDMP to conduct this work. Earlier NDMP projects were given two years to complete, however Intake 6 projects are required to be completed within a year (by April 2022), which is an aggressive timeline for a project of this scope. To meet this timeline, TRCA staff request delegated authority to award the contract in an expedited manner to enable the selected consultant to initiate the work as soon as possible.

Relationship to Building the Living City, the TRCA 2013-2022 Strategic Plan

This report supports the following strategic priority set forth in the TRCA 2013-2022 Strategic Plan:

Strategy 7 – Build partnerships and new business models

Strategy 2 – Manage our regional water resources for current and future generations

FINANCIAL DETAILS

Assuming the successful federal funding commitment, the NDMP will fund 50% of the project costs and remaining costs will be funded through TRCA's Flood Protection and Remedial Studies program account 107-02, supported by funding from the City of Toronto, as well as funding from the Region of Durham. Funds will be tracked in account 107-18.

As TRCA staff are currently working through the procurement process, detailed cost information will be provided at a future Board of Directors meeting.

DETAILS OF WORK TO BE DONE

The key phases of the project are outlined below:

- Release and award of the RFP for external technical support services and execution of a consulting services agreement with the successful consulting team (May 2021)
- Complete background review and data gap analysis, and basemap development
- Complete detailed hazard characterization assessments and the creation of shoreline hazard maps (March 2022)
- Project reporting and closing (April 2022)
- Summary of findings report to the Board (Summer 2022)

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Report prepared by: Nick Lorrain, extension 5278, and Robert Chan, extension 5728

Emails: nick.lorrain@trca.ca, robert.chan@trca.ca

For Information contact: Nick Lorrain, extension 5278

Emails: nick.lorrain@trca.ca

Date: April 30, 2021

Section I – Items for Board of Directors Action

TO: Chair and Members of the Board of Directors
Friday, April 30, 2021 Meeting

FROM: Laurie Nelson, Director, Policy Planning

RE: **MEMORANDUM OF UNDERSTANDING, OAK RIDGES MORaine
GROUNDWATER PROGRAM**

KEY ISSUE

The 2020 annual program overview and 2021 workplan for the Oak Ridges Moraine Groundwater Program (ORMGP) has been released and a new Memorandum of Understanding (MOU) has been developed for this program. The previous MOU expired on December 31, 2020.

RECOMMENDATION

WHEREAS an updated Memorandum of Understanding (MOU) has been developed for the collection, maintenance, and distribution of data by the Oak Ridges Moraine Groundwater Program (ORMGP);

AND WHEREAS the terms and conditions of the MOU are satisfactory to Toronto and Region Conservation Authority (TRCA) staff'

THEREFORE, LET IT BE RESOLVED THAT the 2020 Annual Program Overview and 2021 Workplan for the ORMGP be received;

AND FURTHER THAT authorized officials be directed to take the necessary action to implement the updated MOU for the ORMGP, including the signing and execution of documents.

BACKGROUND

The [ORMGP](#) was initiated in 1999 and previously referred to as the York Peel Durham Toronto (YPDT) and Conservation Authorities Moraine Coalition (CAMC) Groundwater Management Program. This unique program reflects the interests of nine conservation authorities and four municipalities that are working together to better understand groundwater issues across the Greater Toronto Area. The ORM groundwater initiative continues to contribute insightful, practical deliverables to the partner agencies. The key focus areas of the groundwater program continue to be data management, geological understanding, numerical groundwater modeling and policy development. A large part of the program's success has been the delivery of data and tools at a practical level to partner agency staff and their consultants who are charged with understanding the groundwater system for a variety of day-to-day issues (e.g., development and infrastructure plan review, source water protection, etc.).

An important theme of the ORMGP initiative is that the major technical components assembled for the project including the database, hydrogeological interpretation, and numerical groundwater flow model, have been designed as a comprehensive groundwater analysis system. Each of the component parts are to be refined and updated on a continual basis. It is the goal of the partnered agencies that the project be maintained as a long-term initiative to continually build on the early development work that has now largely been completed.

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The Annual Program Overview for 2020 and Workplan for 2021 is attached, (Attachment 2), which provides further details on the vital work of this multi-agency collaborative.

After years of program development, the partners determined that there was a need to clearly define the terms and conditions for data collection, storage and sharing. A Memorandum of Understanding was prepared to address these issues, which expired December 31, 2020. An updated MOU, (Attachment 1), was approved by the ORMGP Technical Steering Committee in November 2020, with the understanding that the document would be submitted to all partner agencies for their review and signature.

RATIONALE

The *Memorandum of Understanding for the Collection, Maintenance, and Distribution of Groundwater Data and Information* includes the following key aspects:

- project and MOU objectives;
- data collection, storage and maintenance;
- interpretation of data and maintenance of such information;
- distribution of data and interpreted information;
- liability and insurance; and
- term of agreement, amendments, and termination.

This MOU reflects the outcome of a multi-year process that was initiated through the YPDT-CAMC Technical Steering Committee and culminated with the dedicated work of a legal team from the regional municipalities of Peel, York and Durham. It reflects the commitment of the partner agencies to, as much as possible, share the data and information that has been developed through the YPDT-CAMC Program.

Relationship to Building the Living City, the TRCA 2013-2022 Strategic Plan

This report supports the following strategies set forth in the TRCA 2013-2022 Strategic Plan:

Strategy 2 – Manage our regional water resources for current and future generations

Strategy 10 – Accelerate innovation

FINANCIAL DETAILS

The ORMGP is supported equally by the City of Toronto, and the Regions of Peel, York, and Durham through account code 104-90.

DETAILS OF WORK TO BE DONE

The MOU requires a signature by an authorized representative of TRCA.

Report prepared by: Don Ford, extension 5369

Emails: don.ford@trca.ca

For Information contact: Don Ford, extension 5369

Emails: don.ford@trca.ca

Date: April 12, 2021

Attachments: 2

Attachment 1: Memorandum of Understanding for the Collection, Maintenance, and distribution of Program Data and Information

Attachment 2: Annual Program Overview (2020) and Workplan (2021); Oak Ridges Moraine Groundwater Program



OAK RIDGES MORaine GROUNDWATER PROGRAM

Previously Referred to as:
YORK PEEL DURHAM TORONTO (YPDT) AND
CONSERVATION AUTHORITIES MORaine COALITION (CAMC)
GROUNDWATER MANAGEMENT PROGRAM

MEMORANDUM OF UNDERSTANDING FOR THE COLLECTION, MAINTENANCE, AND DISTRIBUTION OF PROGRAM DATA AND INFORMATION

THE FOLLOWING HAS BEEN AGREED TO BY:

CITY OF TORONTO

THE REGIONAL MUNICIPALITY OF DURHAM

THE REGIONAL MUNICIPALITY OF PEEL

THE REGIONAL MUNICIPALITY OF YORK

CENTRAL LAKE ONTARIO CONSERVATION AUTHORITY

CREDIT VALLEY CONSERVATION AUTHORITY

GANARASKA REGION CONSERVATION AUTHORITY

KAWARTHA CONSERVATION AUTHORITY

LAKE SIMCOE REGION CONSERVATION AUTHORITY

LOWER TRENT REGION CONSERVATION AUTHORITY

NOTTAWASAGA VALLEY CONSERVATION AUTHORITY

OTONABEE REGION CONSERVATION AUTHORITY

TORONTO AND REGION CONSERVATION AUTHORITY

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- 9) Distribution of Data (Non Web-Based)
- 10) Distribution of Information (Non Web-Based)
- 11) Distribution of Data and Information (Web-Based)
- 12) Liability and Insurance
- 13) Terms, Amendments, Termination
- 14) General
- 15) Schedules/Appendices:
 - 1) Contact Details
 - 2) Data and Information Sharing Agreement
 - 3) Numerical Model Sharing Agreement
 - 4) Secondary Partner Agreement
 - 5) Consultant Member Agreement
 - 6) Consultant-Client Waiver to Provide Data to ORMGP
 - 7) Accessibility of Data and Information
 - 8) ORMGP Data Provision Clause for Incorporation into Terms of Reference Document
 - 9) Website Disclaimer

1.0 BACKGROUND

- A. In the late 1990's, the Toronto and Region Conservation Authority was instrumental in initiating discussions with staff of The Regional Municipality of Peel and The Regional Municipality of York on groundwater management issues. Similarly, in 1999 the Central Lake Ontario Conservation Authority initiated discussions with The Regional Municipality of Durham to create a consistent approach to groundwater understanding and management across municipal and watershed boundaries, and proposed the establishment of partnerships with conservation authorities, municipalities and provincial agencies. The ensuing discussions resulted in a partnership between the three regional municipalities, the City of Toronto, and six conservation authorities to undertake a Groundwater Management Strategy Study.
- B. In a parallel process, the Regional Municipalities of Durham, Peel, and York, in partnership with the City of Toronto and the Conservation Authorities Moraine Coalition (i.e. the nine Conservation Authorities having jurisdiction within the Oak Ridges Moraine) began to address public concerns about the protection of the Oak Ridges Moraine, as well as the growing public interest in the protection of water resources in general.
- C. These two initiatives were brought together when in 2001, the Conservation Authorities agreed to retain a project manager under its direction to move forward with the York-Peel-Durham-Toronto Groundwater Management Study.
- D. In 2017, with the transition of the Conservation Authorities Moraine Coalition to a broader Greater Golden Horseshoe Coalition model, the program was rebranded to the Oak Ridges Moraine Groundwater Program (ORMGP). As such, as of 2017, the former YPDT-CAMC name is no longer actively used and has been supplanted with the ORMGP label.
- E. This is the third Memorandum of Understanding (MOU) agreed to by this coalition, the first having expired in 2010 and the second set to expire at the end of 2020.
- F. In light of the continued achievements of the ORMGP, which have demonstrated the success of multi-agency collaboration in the collection, analysis and sharing of Data and Information related to groundwater management, the City of Toronto, pursuant to its powers of a natural person under section 7 of the *City of Toronto Act, 2006*, S.O. 2006. c. 11, Sch. A, as amended, and The Regional Municipalities of Durham, Peel, and York, pursuant to their powers of a natural person under section 9 of the *Municipal Act, 2001*, S.O. 2000, c. 25, as amended, the said municipalities have agreed to continue the initiative as a long-term sustained program with the nine conservation authorities which were formerly partners in the Conservation Authorities Moraine Coalition, and as a joint undertaking among themselves pursuant to section 16 of the said *City of Toronto Act, 2006*, and section 20 of the said *Municipal Act, 2001*. The conservation authorities pursuant to their powers under section 21 of the *Conservation Authorities Act*, R.S.O. 1990, c. C.27, as amended, have also agreed to continue the initiative as a long-term sustained program with the said municipalities.

THEREFORE the parties to this MOU agree as follows:

2.0 DEFINITIONS

In this MOU, unless the context requires otherwise,

- (a) “**CAMC**” means an informal association composed of Conservation Authorities under the name of the Conservation Authorities Moraine Coalition (the association was active and regularly met from 1999 through to 2017);
- (b) “**CLOCA**” means the Central Lake Ontario Conservation Authority;
- (c) “**Conservation Authority**” means Central Lake Ontario Conservation Authority, Credit Valley Conservation Authority, Ganaraska Region Conservation Authority, Kawartha Conservation Authority, Lake Simcoe Region Conservation Authority, Lower Trent Region Conservation Authority, Nottawasaga Valley Conservation Authority, Otonabee Region Conservation Authority, Toronto and Region Conservation Authority;
- (d) “**Consultant Members**” means any consulting firm that has signed and agreed to the “Consultant Agreement”, substantially in the form of the agreement contained in Schedule 5 to this MOU.
- (e) “**Consultant Member Agreement**” means an agreement substantially in the form of the agreement contained in Schedule 5 to this MOU.
- (f) “**Data**” means: i) a collected measurement (e.g. water levels, geology, pumping rates, etc.) pertaining to an individual location (well, climate, stream flow); or ii) digitized scanned hydrogeological (or other water or geological related) reports that contain relevant water or geology related Data and/or interpretation;
- (g) “**Database**” means the accumulated body of Data and Information contributed from Primary Partner Agencies or collected by ORMGP staff from others and assembled in a coordinated manner through the ORMGP including numerical models as well as geological and hydrogeological maps constructed from the Data points by ORMGP staff or consultants to the program and deposited in electronic format in a central location administered and maintained by ORMGP staff under the oversight of CLOCA in accordance with the ORMGP initiative;
- (h) “**Data and Information Sharing Agreement**” means an agreement substantially in the form of the agreement contained in Schedule 2 to this MOU;
- (i) “**Executive Steering Committee**” means the group of individuals who from time to time hold the positions responsible for the operation of water supply and distribution systems in each Municipality, and the chief administrative officers, or individuals who hold positions having similar responsibilities, of each Conservation Authority, and includes the authorized designates of such individuals;
- (j) “**Information**” means interpretations of the Data in the Database or other Data including without limitation, numerical models, reports or maps prepared by Partner Agencies, ORMGP staff or consultants to the program;

- (k) **“Municipality”** means the City of Toronto, The Regional Municipality of Durham, The Regional Municipality of Peel, and The Regional Municipality of York;
- (l) **“Numerical Models”** means collectively, all digital files necessary to run a specified numerical modelling code (e.g. Modflow, FeFlow, MikeShe, GSFlow, etc.). This would include: i) the database; ii) all necessary interpreted digital input files needed to run the model; and iii) results or output files needed to prepare any figures or results delivered with the numerical model report.
- (m) **“Numerical Model Sharing Agreement”** means an agreement substantially in the form of the agreement contained in Schedule 3 to this MOU;
- (n) **“ORMGP”** means the Oak Ridges Moraine Groundwater Program, all Primary Partner Agencies working together as an informal association in furtherance of the ORMGP;
- (o) **“ORMGP Staff”** means those staff members currently employed by CLOCA (or in the future, upon approval of the Executive Steering Committee, employed by any of the Primary Partner Agencies) for the explicit purposes of managing or technically contributing to the ORMGP;
- (p) **“Primary Partner Agency”** means an original funding and/or technically contributing agency partner, including one of the nine Conservation Authorities or a Municipality. Over the period covered by this MOU, additional Primary Partner Agencies can be added with the approval of the Executive Steering Committee;
- (q) **“Secondary Partner Agency”** means a Local Municipality or incorporated government agency that has signed and agreed to the Secondary Partnership Agreement.

Over the period covered by this MOU, upon request, additional Secondary Partner Agencies can be added by ORMGP staff with notification to the Technical Steering Committee and signing of the Secondary Partnership Agreement;
- (r) **“Secondary Partner Agreement”** means an agreement substantially in the form of the agreement contained in Schedule 4 to this MOU;
- (s) **“Technical Steering Committee”** means the group of individuals from each Primary Partner Agency who are designated by members of the Executive Steering Committee to provide technical liaison between the Primary Partner Agency and the ORMGP and to assist in guiding the program forward.
- (t) **“YPDT/CAMC”** (2001 through 2017) historically meant the Conservation Authorities and Municipalities working together as an informal association in furtherance of the YPDT-CAMC Groundwater Management Program.
- (u) **“YPDT/CAMC Program”** (2001 through 2017) historically meant the overall collective program as carried out by staff on behalf of the Primary Partner Agencies.

3.0 PROGRAM DESCRIPTION

The ORMGP is a joint undertaking by the Primary Partner Agencies for the purpose of providing a multi-agency, collaborative approach to collecting, analyzing and disseminating water resource Data and Information as a basis for effective stewardship and management of water resources. The program boundary incorporates the entirety of three Source Water Protection (SWP) Regions (i) Credit Valley, Toronto and Region, and Central Lake Ontario; ii) South Georgian Bay – Lake Simcoe; and iii) Trent Conservation Coalition), allowing for consistency in approach across the SWP Regions. These SWP Regions encompass the areas of jurisdiction of the Primary Partner Agencies.

3.1 Primary Objectives

The primary objectives of the ORMGP are to:

- (a) maintain an up to date hydrogeological analysis system, comprised of: i) a Database; ii) a 3-D digital geological representation; and iii) numerical groundwater flow model(s), that can be used by any Partner Agency to address issues related to water management;
- (b) maintain a password protected web-based portal where technical staff from i) Primary Partner Agencies; ii) Secondary Partner Agencies; iii) Consultant Members; and iv) others as agreed to from time to time (e.g. Federal and Provincial Agencies and Universities), are able to quickly and easily gain access to (and where possible to upload and/or download) program Data and Information;
- (c) coordinate access to the ORMGP password protected web-based portal by technical staff from: i) Primary Partner Agencies; ii) Secondary Partner Agencies; iii) Consultant Members; and iv) others as agreed to by the Technical Steering Committee from time to time (e.g. Federal and Provincial Agencies and Universities); including the creation and maintenance of web-based accounts as needed, the establishment and setting of any agreed to fees, and the collection of such fees (through Central Lake Ontario Conservation Authority);
- (d) maintain an open web-based portal where members of the public can quickly and easily gain access to limited parts of the ORMGP Data and Information;
- (e) continue to develop improvements in the ORMGP web-based portal to ensure that knowledge and insights gained from the past are presented in a manner that assists water related decision making into the future;
- (f) maintain an inventory of numerical models that, upon the signing of the ORMGP “Numerical Model Sharing Agreement”, as substantially in the form contained in Schedule 3 to this MOU, can be used in addressing/exploring water management issues/opportunities;
- (g) develop consistency in water management approaches at the Primary Partner Agencies;

- (h) coordinate water management approaches and techniques across the boundaries of the Primary Partner Agencies;
- (i) liaise with the federal government and provincial governments for the purposes of:
 - a. incorporating relevant datasets into the ORMGP (and signing any agreements on behalf of the Primary Partner Agencies for the purposes of fulfilling responsibilities of carrying out the program);
 - b. working with provincial and federal agencies to seek agreement for widespread distribution and use of federal and provincial Data and Information sets beyond the Primary Partner Agencies;
 - c. promoting the overall water management approach to the upper levels of government; and
 - d. seeking additional sources of funding for the ORMGP;
- (j) liaise with Secondary Partner Agencies and Consultant Members and others as agreed to from time to time (e.g. Federal and Provincial Agencies and Universities) for the purposes of:
 - a. incorporating relevant datasets into the ORMGP (and signing any agreements on behalf of the Primary Partner Agencies for the purposes of fulfilling responsibilities of carrying out the program);
 - b. ensuring that technical staff from all Secondary Partner Agencies and Consultant Members are able to readily provide Data and Information to ORMGP staff beyond what is available from the Primary Partner Agencies;

4.0 COLLECTION OF DATA

- 4.1** Each Primary Partner Agency will collect water related Data in accordance with its requirements as determined by its responsible officers and/or management personnel, subject to the policies and/or direction of the Council of the Municipality or Board of the Conservation Authority, as the case may be. A Primary Partner Agency is not obligated to collect any type of Data or Information by virtue of agreeing to participate in the ORMGP or by agreeing to act in accordance with this MOU.
- 4.2** The ORMGP may establish non-binding protocols for the collection of Data for the purpose of providing organization and formatting standards which will permit the convenient and effective incorporation and utilization of high quality Data by the Partnered Agencies. Such protocols could be wide ranging, including addressing the issues of: coordination of Data collection efforts by the Primary Partner Agencies; technical requirements for measurement and testing activities; and procedures for adding new Data to the Database. In addition, specific projects could be proposed to deal with such matters as the coordination of funding for specific Data collection initiatives.

5.0 DEPOSIT OF DATA

- 5.1** Each Primary Partner Agency will deposit Data which it has collected into the Database (or make it available to ORMGP staff for incorporation into the Database)

within a reasonable time after the Data has been collected and compiled by the Primary Partner Agency in a readily accessible and understandable manner and format, and has been reviewed by its responsible officers and/or management personnel.

- 5.2** Notwithstanding section 5.1, a Primary Partner Agency is not obligated by this MOU to deposit any Data into the Database. For example, if the Primary Partner Agency in its absolute discretion is of the opinion that specific categories or items of Data include “personal information”, as defined in the *Municipal Freedom of Information and Protection of Privacy Act*, R.S.O. 1990, c. M.56, as amended, or information of a general nature which the Primary Partner Agency may refuse to disclose in accordance with sections 6, 7, 8, 9, 10, 11, 12, 13, or 15 of the said Act, the Primary Partner Agency may determine not to contribute the Data to the Database.

6.0 MAINTENANCE OF DATA

- 6.1** ORMGP staff, under the oversight of CLOCA will act as the custodian of the Database. The responsibilities of the ORMGP will include without limitation:

- Coordination with Primary Partner Agencies, for the deposit of new Data into the Database;
- Provision of a high quality of oversight with respect to the quality of the Data being deposited into the Database, to ensure that the Data is within a reasonable range of results, in accordance with generally accepted standards of analysis;
- Acquisition and incorporation into the Database of new Data from any relevant source, which could be obtained from, for example, historical consultant reports, universities, consultants, the Government of Canada, the Province of Ontario or of another province or territory in Canada, the government of a foreign country or state, or from an agency of any such government or any international organization of states or a body of such an organization;
- Incorporation of Data into the Database in a manner that will facilitate fast and convenient access by Primary Partner Agencies;
- Development and maintenance of a metadata process to track the origin and quality of Data in the Database;
- Serve as the custodian and manager of numerical models that have been used by Primary Partner Agencies to make water management or land use decisions. Management of these numerical models includes ensuring that all files necessary to run the numerical model to completion have been delivered to the Primary Partner Agency from a consultant.
- Maintain an inventory of numerical models that are available, upon the signing of the ORMGP Numerical Model Sharing Agreement, for future use.

- Security and maintenance of the computer hardware and related equipment, and software which is necessary for the efficient functioning of the Database;
- Provision of a copy of updated Data to Primary Partner Agencies on a regular schedule with an interval of one year as the proposed target; and
- Any other responsibilities relating to the program as approved by the Executive Steering Committee and agreed to by CLOCA.

7.0 INTERPRETATION OF DATA

7.1 ORMGP staff, in cooperation and collaboration with Primary Partner Agency staff, will interpret Data (or retain consultants to interpret Data) from the Database to derive Information. Interpretation will largely be in the form of digital geological and hydrogeological maps, numerical models, technical graphs, as well as reports. Each Primary Partner Agency, either independently or with the participation of consultants, may also interpret Data from the Database to derive information.

8.0 MAINTENANCE OF INFORMATION

ORMGP staff, under the oversight of CLOCA, will be the custodian of the Information. The responsibilities of ORMGP will include without limitation:

- Provision of an updated suite of interpreted maps to Primary Partner Agencies on a regular schedule with an interval of one year as the proposed target;
- Coordination with Primary Partner Agencies for the incorporation of changes and new interpretations into the information sets;
- Security and maintenance of the computer hardware and related equipment, and software which is necessary for the efficient interpretation and distribution of the information.

9.0 DISTRIBUTION OF DATA (NON WEB-BASED)

9.1 Upon request to ORMGP staff, each Primary Partner Agency shall have access to Data for locations within its boundaries or area of jurisdiction, plus a buffer area of five kilometres beyond its boundaries or its area of jurisdiction, without restrictions of any kind, except where the Primary or Secondary Partner Agency or Consultant Member has deposited Data into the Database and has imposed restrictions on access to its Data by other Primary or Secondary Partner Agencies or Consultant Members.

9.2 Notwithstanding section 9.1, upon request to ORMGP staff, each Primary Partner Agency shall have access to Data for locations which are more than five kilometres beyond its boundaries or its area of jurisdiction, without restrictions of any kind, if the Primary Partner Agency which is requesting access is responsible for the planning, development, or operation of a facility, program, or project that is located in whole or in part within the boundaries or the area of jurisdiction of another Primary Partner

Agency, unless the Primary or Secondary Partner Agency or Consultant Member has deposited Data into the Database and has imposed restrictions on access to its Data by other Primary or Secondary Partner Agencies or Consultant Members.

- 9.3** Each Primary Partner Agency may use any Data which it has accessed from the Database, for any purpose which the Primary Partner Agency in its absolute discretion sees fit except where the Primary Partner Agency which has deposited the Data into the Database has imposed restrictions upon the purposes for which the Data may be used by other Primary Partner Agencies.
- 9.4** In cases where large ORMGP derived data sets are required for use by a third party, (e.g. in support of projects administered by a Primary Partner Agency), a Data and Information Sharing Agreement can be used. The Primary Partner Agency which has jurisdiction of the geographical area in question will be informed of the request prior to the release of any Data or Information and, it is at the discretion of that Primary Partner Agency as to whether such a Data and Information Sharing Agreement is required. Regardless of whether a Data and Information Sharing Agreement has been signed, each Primary Partner Agency may disclose any Data that it has accessed from the Database to any person as the Primary Partner Agency in its absolute discretion sees fit, except where the Primary Partner Agency which has deposited the Data has imposed restrictions upon the disclosure of specific categories or items of Data or upon the purposes for which Data may be disclosed or has requested a Data and Information Sharing Agreement be used. As requested, ORMGP staff will assist with the logistics of such large data transactions.
- 9.5** In the cases of data transfer as outlined in section 9.4, each Primary Partner Agency shall ensure that any person who requests access to Data agrees to provide any Data that the person collects about locations, within the area to which the Data which is disclosed relates, back to the Primary Partner Agency for incorporation into the Database.
- 9.6** If required, Data and Information Sharing Agreements (see Schedule 2) shall be administered by the Primary Partner Agency to whom a request for access to Data is made. Upon request, this can also be undertaken by ORMGP staff.
- 9.7** Subject to any agreement between a Primary Partner Agency and the Province of Ontario or the Government of Canada, or agencies thereof the Primary Partner Agencies commit to the principle of making fully accessible to the consulting community and the general public, as much of the Data collected under the ORMGP as possible.
- 9.8** Nothing in this MOU requires a Primary Partner Agency that has accessed Data from the ORMGP to disclose any categories or items of Data to any person, if the Primary Partner Agency is of the opinion on reasonable grounds that to do so would prejudice the economic interests, legal interests or the competitive position of any Primary Partner Agency, or of a person, group of persons, or an organization, including the Government of Canada, the government of a province or territory in Canada or of a foreign country or state, or an international organization of states, or an agency of any such government or organization.

- 9.9** Nothing in this MOU restricts the ability of a Primary Partner Agency to disclose Data which it has deposited to the ORMGP to any person upon such terms and conditions as the Primary Partner Agency considers appropriate.
- 9.10** Nothing in this MOU restricts the obligation of a Primary Partner Agency to disclose any category or item of Data as required by law.
- 10.0 DISTRIBUTION OF INFORMATION (NON WEB-BASED)**
- 10.1** Upon request to ORMGP staff, each Primary Partner Agency shall have access to Information for locations within its boundaries or area of jurisdiction plus a buffer area of five kilometres beyond its boundaries or its area of jurisdiction, without restrictions of any kind.
- 10.2** Notwithstanding section 10.1, upon request to ORMGP staff, each Primary Partner Agency shall have access to Information for locations that are more than five kilometres beyond its boundaries or its area of jurisdiction, without restrictions of any kind, if the Primary Partner Agency which is requesting access is responsible for the planning, development, or operation of a facility, program, or project which is located in whole or in part within the boundaries or the area of jurisdiction of another Primary Partner Agency, unless the Primary or Secondary Partner Agency or Consultant Member has deposited Information into the Database and has imposed restrictions on access to its Information by other Partner Agencies.
- 10.3** Each Primary Partner Agency may use any Information which it has accessed from the ORMGP for any purpose which the Primary Partner Agency in its absolute discretion sees fit.
- 10.4** In cases where extensive ORMGP derived Information products are required for use by a third party, (e.g. in support of projects administered by a Primary Partner Agency), a Data and Information Sharing Agreement can be used. On a case by case basis, it is at the discretion of the Primary Partner Agency as to whether such a Data and Information Agreement is required. Regardless of whether a Data and Information Agreement has been signed, each Primary Partner Agency may disclose any Information that it has accessed from the ORMGP to any person as the Primary Partner Agency in its absolute discretion sees fit. If requested, ORMGP staff will assist with the logistics of such large data transactions.
- 10.5** In the cases of Data transfer as outlined in section 10.4, each Primary Partner Agency shall ensure that any person who requests access to Information agrees to provide any insights/changes required regarding the Information provided, within the area to which the Information which is disclosed relates, back to the Primary Partner Agency, for the purposes of having ORMGP staff improve future renditions of the Information.
- 10.6** If deemed to be required, Data and Information Sharing Agreements shall be administered by the Primary Partner Agency to whom a request for access to Information is made. Upon request, this can also be undertaken by ORMGP staff.

- 10.7** The Primary Partner Agencies commit to the principle of making fully accessible to the consulting community and the general public, the Information compiled under the ORMGP.
- 10.8** Nothing in this Memorandum of Understanding requires a Primary Partner Agency which has obtained Information from the Program to disclose said Information to any person, if the Primary Partner Agency is of the opinion on reasonable grounds that to do so would prejudice the economic interests, legal interests or the competitive position of any Primary Partner Agency, or of a person, group of persons, or an organization, including the Government of Canada, the government of a province or territory in Canada or of a foreign country or state, or an international organization of states, or an agency of any such government or organization.
- 10.9** Nothing in this Memorandum of Understanding restricts the ability of a Primary Partner Agency to disclose Information which it has deposited to the program to any person upon such terms and conditions as the Primary Partner Agency considers appropriate.
- 10.10** Nothing in this Memorandum of Understanding restricts the obligation of a Primary Partner Agency to disclose any category or item of Information as required by law.
- 11.0 DISTRIBUTION OF DATA AND INFORMATION – WEB-BASED**
- 11.1** With respect to sections 9.7 and 10.7, ORMGP will maintain a program website, that discusses the overall program, scientific technical aspects related to the program, and provides a web-based portal to allow for fast and convenient access to the program's Data and Information. The web-based portal will be designed such that there is: i) an open area where the general public can view Data and Information; and ii) a password protected area where specific technical Data and/or Information from the program will only be available to technical staff from Partner Agencies and Consultant Members.
- 11.2** Upon request, any staff member from a Primary Partner Agency will be provided with access to the password protected part of the web-portal.
- 11.3** Technical staff from both Secondary Partner Agencies as well as from Consultant Members will be allowed access to the ORMGP's Data and Information via the password protected web portal upon the signing of an agreement (see Schedule 4 and/or 5) with the ORMGP and the payment of any fees as set from time to time by ORMGP staff in consultation with the Technical Steering Committee. Over the period covered by this MOU, upon request additional Secondary Partner Agencies or Consultant Members can be added by ORMGP staff with notification to the Technical Steering Committee.
- 11.4** Each Primary Partner Agency can decide which of their data or information (if any) is to be reserved for access through the password protected portal only.
- 11.5** No Data Sharing Agreements are required for web-based access to ORMGP Data and/or Information.
- 12.0 LIABILITY AND INSURANCE**

Each of the Primary Partner Agencies during the term of this MOU shall maintain in force adequate policies of comprehensive general liability insurance in an amount of not less \$1,000,000 per occurrence, in respect of any claims or causes of action which may arise as a result of the Primary Partner Agency's participation in the ORMGP. Such amount of coverage may be increased from time to time during the term of the MOU to accord with the general practice of the Primary Partner Agencies.

13.0 TERM, AMENDMENTS, TERMINATION

13.1 This MOU comes into effect on the date when it has been executed by all of the Primary Partner Agencies. The MOU will continue in effect until December 31, 2030, and may be extended for successive additional periods of not more than ten years by the written agreement of the Primary Partner Agencies, upon the same terms and conditions as those set out in this MOU.

13.2 Each Primary Partner Agency agrees that it is making a commitment to participating in the program in accordance with the provisions of this MOU. A Primary Partner Agency may withdraw from the program by giving not less than six months notice in writing to ORMGP staff as well as to each of the other Primary Partner Agencies at the addresses and to the designated contact persons or positions set out in Schedule 1.

14. GENERAL

14.1 Notice

Any notice made or given under this MOU shall be in writing and may be delivered to other Primary Partner Agencies by prepaid registered mail, at the addresses set out in Schedule 1, or at such other addresses as to the other Primary Partner Agencies may designate from time to time in writing. The notice will be deemed to have been received on the day following three consecutive business days after the day of mailing in the absence of any strike or other interruption in postal service.

14.2 Interpretation

- (a) Words in the singular include the plural, and words in the plural include the singular, as the context requires.
- (b) This MOU sets out the fundamental elements of the understanding among the Primary Partner Agencies concerning the administration and operation of the ORMGP.

14.3 Non-Enforceable Obligations

The provisions of MOU are not intended to create obligations which are capable of being enforced before a court of law by one Primary Partner Agency against another Primary Partner Agency.

14.4 Applicable Laws

The Primary Partner Agencies shall comply with all applicable laws in carrying out their activities relating to the ORMGP.

14.5 Intellectual Property

If CLOCA, its officers, directors, employees, contractors or agents create any Intellectual Property in the course of carrying out their responsibilities under this MOU, the Primary Partner Agencies shall be deemed to be the owners of such Property in equal shares, in the absence of any agreement among the Primary Partner Agencies which provides otherwise.

14.6 No Agency

Nothing in this MOU is to be construed as authorizing any one of the Primary Partner Agencies to contract for or incur any obligation on behalf of or to act as agent for one or more of the other Primary Partner Agencies.

14.7 Additional Documents and Actions

The parties agree to execute and deliver such further documents or do such other things as may reasonably be required from time to time by the Executive Steering Committee to give effect to this MOU. The Primary Partner Agencies agree to work together in a spirit of co-operation to make the ORMGP work as effectively as possible.

14.8 No Assignment

The rights and responsibilities of a Primary Partner Agency under this MOU may not be assigned to any other person.

14.9 Counterparts and Signatures

This MOU may be executed in two or more counterparts that together shall constitute one and the same MOU. The parties may sign this MOU by fax or electronic transmission and delivered to each Primary Partner Agency at the addresses set out in Schedule 1.

IN WITNESS WHEREOF the parties hereto have executed this MOU under the hands of their respective officers duly authorized on their behalf.

CITY OF TORONTO

By: _____	By: _____
Name:	Name:
Title:	Title:
Dated:	

I/We have authority to bind the corporation

THE REGIONAL MUNICIPALITY OF DURHAM

By: _____	By: _____
Name:	Name:
Title:	Title:
Dated:	

I/We have authority to bind the corporation

THE REGIONAL MUNICIPALITY OF PEEL

By: _____	By: _____
Name:	Name:
Title:	Title:
Dated:	

I/We have authority to bind the corporation

THE REGIONAL MUNICIPALITY OF YORK

By: _____ By: _____

Name: Name:

Title: Title:

Dated:

I/We have authority to bind the corporation

CENTRAL LAKE ONTARIO CONSERVATION AUTHORITY

By: _____ By: _____

Name: Name:

Title: Title:

Dated:

I/We have authority to bind the corporation

CREDIT VALLEY CONSERVATION AUTHORITY

By: _____ By: _____

Name: Name:

Title: Title:

Dated:

I/We have authority to bind the corporation

GANARASKA REGION CONSERVATION AUTHORITY

By: _____ By: _____

Name: _____ Name: _____

Title: _____ Title: _____

Dated: _____

I/We have authority to bind the corporation

KAWARTHA CONSERVATION AUTHORITY

By: _____ By: _____

Name: _____ Name: _____

Title: _____ Title: _____

Dated: _____

I/We have authority to bind the corporation

LAKE SIMCOE REGION CONSERVATION AUTHORITY

By: _____ By: _____

Name: _____ Name: _____

Title: _____ Title: _____

Dated: _____

I/We have authority to bind the corporation

LOWER TRENT REGION CONSERVATION AUTHORITY

By: _____ By: _____

Name: _____ Name: _____

Title: _____ Title: _____

Dated: _____

I/We have authority to bind the corporation

NOTTAWASAGA VALLEY CONSERVATION AUTHORITY

By: _____ By: _____

Name: _____ Name: _____

Title: _____ Title: _____

Dated: _____

I/We have authority to bind the corporation

OTONABEE REGION CONSERVATION AUTHORITY

By: _____ By: _____

Name: _____ Name: _____

Title: _____ Title: _____

Dated: _____

I/We have authority to bind the corporation

TORONTO AND REGION CONSERVATION AUTHORITY

By: _____ By: _____

Name: Name:

Title: Title:

Dated:

I/We have authority to bind the corporation

APPENDED SCHEDULES

The following Schedules, which, over the period covered by this MOU, may be updated from time to time by ORMGP staff in consultation with the Technical Steering Committee, are attached to, and form part of this MOU:

Schedule 1 - Contact Details

Schedule 2 - Data and Information Sharing Agreement

Schedule 3 – Numerical Model Sharing Agreement

Schedule 4 – Secondary Partner Agreement

Schedule 5 – Consultant Member Agreement

Schedule 6 – Consultant – Client Waiver to Provide Data to ORMGP

Schedule 7 - Accessibility of Data and Information

Schedule 8 – ORMGP Data Provision Clause for Incorporation into a
Hydrogeological/Hydrological/Geotechnical Terms of Reference
Document

Schedule 9 – Website Disclaimer

Schedule 10 – Financial Framework

Contact Details

Municipalities' and Conservation Authorities' Designated Contact Person or Position, Business Addresses, email Addresses

City of Toronto
Contact: Mr William Snodgrass; Ph: 416-392-9746
Metro Hall, Stn. 1180, 18th Floor
55 John Street
Toronto Ontario
M5V 3C6
wsnodgr@toronto.ca

The Regional Municipality of York
Contact: Mr. Mike Fairbanks; Ph: 877-464-9675 x75523
17250 Yonge Street
Newmarket, Ontario
L3Y 6Z1
Mike.Fairbanks@york.ca

The Regional Municipality of Peel
Contact: Mr. Luis Lasso; Ph: 905-791-7800 x 4646
10 Peel Centre Drive
Brampton, Ontario
L6T 4B9
Luis.Lasso@peelregion.ca

The Regional Municipality of Durham
Contact: Ms. Beata Golas; Ph: 800-372-1103 x3447
605 Rossland Rd. E.
Whitby Ontario
L1N 6A3
Beata.Golas@Durham.ca

Toronto and Region Conservation
Authority

Contact: Mr. Don Ford; Ph: 416-661-6600 x5369
5 Shoreham Drive
Downsview, Ontario
M3N 1S4
Don.Ford@trca.ca

Credit Valley Conservation
Contact: Mr. Kerry Mulchasingh; Ph: 905-670-1615
1255 Old Derry Road
Mississauga, Ontario
L5N 6R4
Kerry.Mulchansingh@cvc.ca

Nottawasaga Conservation Authority
Contact: Mr. Ryan Post; Ph: 705-424-1479
8195 Concession 8
Utopia, Ontario
L0M 1T0
rpost@nvca.on.ca

Lake Simcoe Region Conservation
Authority
Contact: Ms. Shelly Cuddy; Ph: 905-895-1281
Box 282, 120 Bayview Parkway
Newmarket, Ontario
L3Y 4X1
s.cuddy@lsrca.on.ca

Kawartha Conservation
Contact: Mark Majchrowski; Ph: 705-328-
2271
RR#1, 277 Kenrei Park Road
Lindsay, Ontario
K9V 4R1
mmajchrowski@kawarthaconservation.co
m

Otonabee Region Conservation Authority
Contact: Mr. Gord Earle; Ph: 705-745-5791
250 Milroy Drive
Peterborough, Ontario
K9H 7M9
gearle@otonabee.com

Lower Trent Region Conservation Authority
Contact: Mr. Shan Mugalingam; Ph: 613-
394-4829
RR#1, 714 Murray Street,
Trenton, Ontario
K8V 5P4
shan.mugalingam@ltc.on.ca

Ganaraska Region Conservation Authority
Contact: Ms. Jessica Mueller; Ph: 905-885-
8173
Box 328
Port Hope, Ontario
L1A 3W4
jmueller@grca.on.ca

Central Lake Ontario Conservation
Authority
Contact: Godofredo Carpio; Ph: 905-579-
0411
100 Whiting Ave.
Oshawa, Ontario
gmcarpio@cloca.com

SCHEDULE 2



Data and Information Sharing Agreement

This Agreement dated _____ day of _____, 20XX

Between:

*(insert name of Municipality to which request for access to data and information is made by
consultants or members of the public)
(.e.g. The Regional Municipality of Durham, Peel, or York, or the City of Toronto)*

(The "Region", or, "The City")

and

(The "User")

SECTION A: DATA AND/OR INFORMATION REQUESTED

Insert the text of the request here. Or provide a short description of the Data or Information requested and attach the request for Data or Information as an Appendix to the Agreement.

SECTION B: USE OF THE DATA AND/OR INFORMATION

Describe the purpose of the request here, unless the text of the request, inserted above, clearly states the purpose, or make reference to the request for data or information which has been attached to the Appendix.

SECTION C: DISCLAIMER

The *following* disclaimer applies to the disclosure of the Data and/or Information requested. While efforts are *made* to ensure *that* the Data and/or Information supplied in response to the request is accurate and up-to-date:

- I. neither the [Region/City], *partner* Conservation Authorities, nor any of their employees or council members, officers, employees, successors and assigns shall be liable for any damages, or suffer any loss arising from any errors or inaccuracies therein, or from any misuse, misinterpretation or misapplication thereof by the User, whether due to the negligence, omission, or activities of such employees or officers or otherwise; and
- II. the said Data and/or Information is made available to the User solely on condition that the User and the *User's* heirs, executors, administrators, successors and assigns assume full responsibility for any risk associated with the use or misuse thereof, and agree to indemnify and hold harmless the Region/City and partner Conservation Authorities and their council members, officers, employees, successors and assigns from any and all damages or losses whether arising directly or indirectly from the disclosure of the data and information, including all damages and losses of the type described in clause (i) above.

SECTION D: CONDITIONS

The following conditions apply to the release of Data and Information:

- i) The Region/City *must* be acknowledged as the agency from which the Data and/or Information was obtained in any reports prepared by the User for any person, or in any publications of any kind;
- ii) The User *will* bring to the attention of the Region/City, preferably via the ORMGP staff, any errors detected in the Data and/or Information;
- iii) The *Data* and/or Information described in Section A will be used exclusively for the purpose described in Section B and any other use of the data and/or information shall be subject to the written permission of the Region/City;
- iv) The *User* will not disclose, in digital or any other form, the Data/and/or Information to third parties without the explicit written permission of the Region/City;
- v) The Region/City hereby gives the User explicit written permission to share the data and/or information, as required, with the Ministry of the Environment, Conservation and Parks of the Province of Ontario or its successor ministry;
- vi) The User shall supply back to the ORMGP (either directly or via the Region/City) any newly collected geological or hydrological Data and/or Information acquired during the course of the project. This will be used to improve upon the interpretation of the geology or groundwater flow system in the vicinity of the project. Ideally this should be in digital database format;
- vii) The User acknowledges and agrees that the collection, use and disclosure of the Data and/or Information provided by the Region shall be governed by the provisions of the *Municipal Freedom of Information and Protection of Privacy Act*, R.S.O. c. M.56, as amended, including but not limited to section 10 thereof;

- viii) The Data and/or Information will remain the property of the Region/City or of the person or government or other agency which has collected, organized, analyzed, and interpreted the Data and/or Information, as the case may be, and all intellectual property rights in such data and/or information remain vested in that person, government, or agency; and
- ix) In the event the User undergoes a change in either ownership or organization, this agreement will become null and void and all Data and/or Information provided shall be immediately returned to the Region/City.

I ACKNOWLEDGE AND AGREE TO THE ABOVE DISCLAIMER AND CONDITIONS:

NAME: _____ POSITION: _____

FIRM: _____

SIGNATURE: _____ DATE: _____
(I have the authority to bind the corporation)

SCHEDULE 3



Made as of the _____ day of _____ in the year _

between:

Agency Name

(The "**OWNER**")

and:

(The "**USER**")

having a place of business at: _____

For the use of the

Long Model Name

(The "**MODEL**")

To fulfill the requirements of

Project Title

(The "**PROJECT**")

SECTION A: BACKGROUND CONTEXT TO AGREEMENT

This Agreement has been prepared as one component of a comprehensive multi-agency initiative to maintain water related data, information, and interpretation. The **OWNER** is intending to actively maintain the **MODEL** into the future. Long term active model maintenance includes keeping an up-to-date database upon which the **MODEL** is based, as well as incorporating into the **MODEL** new insights and/or interpretations that arise as various users work with the **MODEL**. Upon each new use of the **MODEL**, the **OWNER** requires that a new agreement be signed to allow for the **MODEL** to be kept as up-to-date as

possible and that the most recent data, analyses and interpretations can be brought to bear on subsequent studies.

Upon receipt of the **MODEL**, the **USER** acknowledges that age of the model, the scale/resolution of the model, the model's original intent, etc., may put constraints on the **MODEL's** applicability. It is the responsibility of the **USER** to determine whether there are approaches more suitable than simply using the model files as received. Alternately, users may make use of only structural components of the model files, such as material property distribution, spatial interpretations, initial conditions, etc., the suitability of which is also in the sole responsibility and judgement of the **USER**.

Given the nature of the proposed project, the **OWNER** could suggest/recommend the most appropriate model for the task at hand, if requested. The **USER** is free to select any or all models available to the **USER** that intersect their project area, where available. The idea is that model sharing could perhaps reduce duplication of effort, thereby lowering costs by delivering previous work in a digital format.

SECTION B: DEFINITIONS

For this Numerical Model Sharing Agreement, the following terms will be used:

1. The **MODEL** refers to the numerical model(s) described in Section C hereinafter referred to as the "**Long Model Name**" (or the "**Short Model Name**" for short), as requested by the **USER** and provided by the **OWNER** under the terms of this model sharing Agreement. The term **MODEL** is implicit in reference to all elements of the numerical model(s) required in reproducing model results, including:

- (a) The model executable(s) and model code version number(s);
- (b) Data used to construct (i.e., model structural files, model parameters) and to run the model (input variables) for any variant (e.g., scenario) of the model used in production of model results; and,
- (c) All model control files that are required to run any model variant (e.g., calibration, validation, baseline, scenario, uncertainty analysis, etc.).

The **OWNER** will assign the model name: "**Short Model Name**" as a reference to the provided **MODEL** to which the **USER** must adhere to when reporting on the **MODEL** provided. Unless specifically requested by the **OWNER**, the use of the term "**Short Model Name**" is restricted from being used in reference to any models produced by the **USER** as a **DERIVATIVE** in fulfillment of this **PROJECT**.

2. The **PROJECT** refers to the name of the project for which the **USER** wishes to make use of the **MODEL and** as described in Section D, below.
3. A "**DERIVATIVE**" refers to any model produced by the **USER** that was in any way informed, founded upon or based on the provided **MODEL**. **DERIVATIVE** includes any model utilized by the **USER** in which the **MODEL** structure (e.g., local refinements, parameter changes, boundary condition changes, re-scaling, etc.) have been made to fulfill the needs of the **PROJECT**.

SECTION C: MODEL(S) REQUESTED

1. Long Model Name (The **MODEL**)

SECTION D: INTENDED USE OF THE REQUESTED MODEL(S)

(this Description of the Project section is to be completed by the **USER**.)

SECTION E: NUMERICAL MODEL DISCLAIMER/LIMITED WARRANTY¹

The **OWNER** does not warrant the **MODEL** or any associated software to be correct, free from defects, suitable for any purpose, or compatible with any model of computer, hardware or other software.

The **USER** acknowledges that the **MODEL** was developed for a specific task and cannot be considered directly transferable as-is to fulfill the needs of the **PROJECT**. It is the responsibility of the **USER** to verify that the **MODEL**, any software associated with the **MODEL** and any work produced using this **MODEL** are suitable to address some or all of the needs of the **PROJECT**.

The **USER** shall apply industry standards of care in the using/developing/refining the **MODEL** for the purposes outlined herein and in doing so, may have modified the **MODEL**. The **OWNER** shall not be liable for any reuse of the **MODEL** where modifications have been incorporated.

The **OWNER** rejects all liability and responsibility relating to the consequences, to the **USER** or any third party, of using the **MODEL** and its **DERIVATIVE**. In no event will the **OWNER** be liable for indirect, incidental, economic or consequential damages arising out of the use of the **MODEL**, including, without limitation, damages or costs relating to loss of revenue or profits, business, goodwill, data or computer programs, or claims by a third party. Except for representations and warranties expressly made in this Agreement, the **MODEL** is provided on an “as is” basis, and there are no representations or warranties, express or implied by statute, including, without limitation, any with respect to:

1. Merchantability or fitness for any purpose;
2. Operational state, character, quality or freedom from defects.

¹The following Disclaimer or Liability Waiver has been adapted from the National Research Council of Canada to suit the needs of government agencies that wish to share numerical models with external unaffiliated parties.

The **USER** shall indemnify and save harmless the **OWNER**, their employees, council members, partners and agents from and against, and be responsible for:

1. All claims, demands, losses, damages, costs including solicitor and client costs, actions, suits or proceedings brought by any third party, that are in any manner based upon, arising out of, related to, occasioned by, or attributable to the use of the **MODEL** and any **DERIVATIVE**.
2. Other costs, including extra-judicial costs, of **OWNER** defending any such action or proceeding, which **OWNER** shall have the right to defend with counsel of their choice.

SECTION F: AGREEMENT

This Agreement between the **OWNER** and **USER** allows for the use/access of the **MODEL**. The **OWNER** is allowing access of the **MODEL** to the **USER** for the sole purpose of the **PROJECT** at no charge in the interests of promoting sound water management decision making. As a result, the use of the **MODEL** is subject to the following conditions:

1. The **MODEL** and any **DERIVATIVE** can only be used by the **USER** exclusively to fulfil the purposes of the **PROJECT** as outlined in Section C.
2. Regardless of how significantly the **MODEL** might change as a result of work undertaken on the **PROJECT** the **OWNER** still retains ownership of the **MODEL** and any **DERIVATIVE** associated with the **PROJECT**.
3. Upon completion of the **PROJECT**, the **USER** agrees to return the **MODEL** and any and all **DERIVATIVE** to the **OWNER** as used to fulfil the purposes of the **PROJECT** as outlined in Section C. The purpose of this request is to provide the **OWNER** with the opportunity to update the **MODEL** with any new data, insights, and understanding that may have been incorporated into a **DERIVATIVE** as a result of the **PROJECT**.
4. Upon completion of the **PROJECT**, and at the specific request of the **OWNER**, **USER** (along with their technical modelling sub-consultants, if applicable) agrees to attend a technical meeting with the **OWNER** in order to convey any new data, insights and understandings that have been incorporated into any **DERIVATIVE** as a result of the **PROJECT**. The **USER** staff time costs for the meeting are to be borne by the **USER**.
5. Unless specifically requested by the **OWNER**, and regardless of whether the **MODEL** is used as provided and no **DERIVATIVE** is produced, the **USER** agrees that any documentation prepared for the **PROJECT** must not use the term "**Short Model Name**" without adding a prefix, suffix, modifier, or qualifier, or changing the model name altogether, to convey that the results are not part of the original intent and design of the **MODEL**. Reference must still be given to the "**Short Model Name**" in all documentation, as it nonetheless formed the basis for the analyses undertaken for the **PROJECT**.
6. The **OWNER** assumes no liability whatsoever for any decisions that may arise as a result of **USER** having made use of the **MODEL** and any **DERIVATIVE** for the purposes of the **PROJECT**.
7. The **USER** will not market, commercialize, or profit from the **MODEL** (in whole or in part) without the prior express written consent of **OWNER**, which consent may be withheld in the sole discretion of the **OWNER**.
8. The **USER** will not permit persons (other than its own personnel) to access the **MODEL** without the prior express written consent of **OWNER**, which consent may be withheld in the sole discretion of the **OWNER**.
9. This Agreement is effective from the date of signature until the **OWNER** has received back **MODEL** and any **DERIVATIVE** from **USER**.
10. The **OWNER** will not consider the **MODEL** delivered until the **MODEL** is successfully run to completion on a machine of their choosing.
11. Section E and G and clauses 1, 2 and 5 to 8 of Section F of this Agreement will survive expiry of this Agreement.

SECTION G: INFORMATIONAL OWNERS

The **OWNER** shall remain the owner of its data and information at all times and in all instances, including upon termination or bankruptcy. All of the **OWNER**'s data, information and/or customizations required to fulfill the obligations of the **PROJECT** will be owned by the **OWNER**, and may not be used by the **USER** for any other purpose other than those required to fulfill the obligations of the **PROJECT** without seeking the explicit written approval by the **OWNER**. Customizations shall include all deliverables newly developed by **USER** in the performance of the services for the specific and unique needs of **OWNER** under this **PROJECT**.

All data, geological interpretations, land use classifications, flow model files and revisions made to these shared model files shall be provided to the **OWNER**. Upon project completion, these files and any derivatives thereof shall remain the sole and exclusive property of the **OWNER** and cannot be used by the **USER** for any other consulting projects without expressed written permission from the **OWNER**.

OWNER	Contact Name	Contact Number
Agency Name	Primary Agency Contact	416-555-5555 ext. 101

I. SECTION H: ACKNOWLEDGEMENT

AS THE **USER**, I ACKNOWLEDGE AND AGREE TO THE ABOVE DISCLAIMER AND CONDITIONS:

NAME POSITION ORGANIZATION

SIGNATURE

SCHEDULE 4



Secondary Partner Agreement

Background

In the process of assessing, evaluating and modelling the groundwater flow systems across the Oak Ridges Moraine and adjacent areas, the public sector agencies that comprise the ORMGP have consolidated a considerable amount of data, reports and interpretations pertaining to the area's geology, hydrogeology and hydrology. Although the focus has been on the City of Toronto as well as the Regional Municipalities of York, Peel and Durham, the area under some consideration stretches between Lake Ontario in the south, to the Kawartha Lakes in the north and from the Credit and Nottawasaga watersheds in the west, to the Trent and Otonabee Watersheds in the east. Given the extensive breadth and scope of the data and information available, the 13 partnered agencies have created a web-based interface that provides for relatively straightforward access to the program's technical information and data. You will see on the website that many of our interpretations do incorporate the geography of XXXXX.

We look forward to working with XXXXXX staff to incorporate more of the water and/or subsurface related data and information into the program's database.

Terms of Agreement

1. The XXXXXXXX agrees to the following fee:
 - Partner Agency – Level 2 \$10,000/year
2. ORMGP agrees to the following:
 - provide XXXXXXXX staff with accounts to access the ORMGP website.; Should it become necessary, in the opinion of ORMGP, ORMGP reserves the right to limit the number of accounts.
 - assist and facilitate XXXXXXXX staff through the process of incorporating data into the program's database such that it will be available through the program's website;
 - invite XXXXXXXX staff to ORMGP Technical meetings (generally 2 times per year) where staff can provide input to the program direction and interact professionally to learn from other agencies within the partnership;
 - if space is available, invite XXXXXXXX staff to any training sessions that might be held with respect to any aspect of the ORMGP;

- provide limited technical input on hydrogeological or database issues to XXXXX staff;
3. This agreement is valid from the date of signature and will be renewed automatically with an annual invoice being sent in January of each calendar year.
 4. XXXXXX agrees to the attached disclaimer. This must be agreed to upon each instance of access to the website.

Signature

Date

I have the authority to bind the corporation.

Print Name

NOTE: ORMGP staff are employees of Central Lake Ontario Conservation Authority (CLOCA). For legal purposes CLOCA can be substituted for ORMGP throughout this Agreement.

Disclaimer

All contents of the Oak Ridges Moraine Groundwater Program (ORMGP) Mapping Portal are property of the ORMGP and the Primary Partner Agencies. Contents are intended for use by ORMGP partner agencies and by external consulting firms who have signed, and agree to the ORMGP Consulting Agreement. As such, any use of data or information acquired via the ORMGP mapping portal is subject to the ORMGP Consulting Agreement. As a staff from a partner agency or from a consulting firm that has signed the ORMGP Consultant Agreement, you may download and freely use the information contained on this site for any purpose that advances water management understanding/decision making. Note that some of the documents contained in the report library may contain data/information that may be considered to be of a sensitive nature (e.g. water quality for private domestic wells). Therefore it is requested that consultants use professional judgement when determining whether downloaded reports/papers need to be circulated externally (i.e. it might be that only parts of a report need to be circulated or that the report only be referenced).

Information within this web mapping application is provided as a service by the ORMGP and is provided strictly as is. The ORMGP, and its member public sector agencies, make no warranty, expressed or implied, regarding the quality, accuracy, completeness, timeliness or usefulness of the data/information provided in this application. Every effort is made to ensure the accuracy, currency and reliability of the content. However, at any time, some details may be generalized and/or not yet reflect recent changes/updates.

The ORMGP, and its Primary Partner Agencies, disclaim any responsibility or liability for any direct or indirect damages resulting from the use of the data and information provided through this mapping portal. The data and information contained in this site are compiled from many

sources. Prior to taking any action with respect to ORMGP data and/or information, users of this portal's data and information are hereby advised to use professional judgement and consult with other data and information sources for verification.

Users knowingly waive any claims for damages against any entities comprising or assisting the ORMGP that may arise from the mapping data. The User hereby releases and forever discharges the ORMGP, its Primary Partner Agencies and all of their officers, council members, employees, successors and assigns from all claims, demands, damages, actions or causes of action arising or to arise by reason of use of this application or any inaccuracies, errors, misrepresentations, or omissions or limitations in information contained herein.

Maps obtained using this site are for illustrative purposes only and are not designed to assist in navigation or as a substitute for legal survey, or as a substitute for due-diligence investigations. The coordinates displayed do not represent legal parcel corners and/or boundaries and they cannot be used for establishment of or in lieu of legal land survey boundaries for property or parcels thereof. Maps may contain cartographic errors and omissions.

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SCHEDULE 5



Consultant Member Agreement

Background

In the process of assessing, evaluating and modelling the groundwater flow systems across the Oak Ridges Moraine area, the public sector agencies that comprise the ORMGP have consolidated a considerable amount of data, reports and interpretations pertaining to the area's geology, hydrogeology and hydrology. Although the focus has been on the City of Toronto as well as the Regional Municipalities of York, Peel and Durham, the area under some consideration stretches between Lake Ontario in the south, to the Kawartha Lakes in the north and from the Credit and Nottawasaga watersheds in the west, to the Trent and Otonabee Watersheds in the east. Given the extensive breadth and scope of the data and information available, the 13 partnered agencies have created a web-based interface (Oak Ridges Moraine Groundwater Program (ORMGP) Mapping) that provides for relatively straightforward access to the program's technical information and data. For a small fee that will help to defray some of the costs associated with maintenance and upkeep of the web-based interface, the partner agencies have agreed to provide broader website access to the consulting community, and others if interested. The terms of this agreement will be reviewed annually and adjusted as necessary.

Terms of Agreement

1. Consultant agrees to the following payment schedule:

• Company size less than 5 staff	\$2,000/year
• Company size between 5 and 20 individuals	\$4,000/year
• Company size greater than 20 individuals	\$6,000/year

Payment reflects a small cost recovery fee tied to ORMGP related activities including, but not limited to: i) maintenance of website and associated hardware (e.g. servers, internet connection, etc.); ii) miscellaneous assembly and interpretation of data; iii) continued input of additional data. There is no payment directly tied to data access, indeed it should be noted that most of the data held in the program's files can be freely acquired through other sources, albeit with much time, perseverance and work.

2. This agreement is valid for a one year period from the date of signature or account set up (whichever is earlier) and will be automatically renewed on an annual basis upon email confirmation.
3. For the duration of the agreement ORMGP agrees to provide consultant with accounts for staff to access the website. Should it become necessary, in the opinion of ORMGP, ORMGP reserves the right to limit the number of accounts.

4. The consultant agrees to the attached disclaimer which applies to each access to the website and use of the associated Data and/or Information.
5. Consultant agrees to abide by the following code of conduct with respect to this agreement with the ORMGP.

Staff from our firm/agency acknowledge that the data and information provided via the ORMGP web mapping portal are provided to our staff in the broad spirit of collaborating to improve understanding. Our staff understand that all contributors to the ORMGP are united in sharing a long term vision of continually improved geological, hydrogeological and water resources understanding and decision making. As such our staff will be respectful of the past work that has been incorporated into the ORMGP. Our staff will remain ethical and respectful while commenting upon the data or information that have been extracted from the program's web portal. Our staff also understand the value in professionally pointing out errors and/or contributing additional data, information and/or knowledge to improve the overall understanding of subsurface geological, hydrogeological and general water resources conditions. Where feasible (e.g. time and finances permit), our staff commit to working collaboratively to assist ORMGP staff to maintain and update the program's technical information and interpretations.

Signature

Company

Date

I/we have the authority to bind the corporation.

Print Name

NOTE: ORMGP staff are employees of Central Lake Ontario Conservation Authority (CLOCA). For legal purposes CLOCA can be substituted for ORMGP throughout this Agreement.

Disclaimer

All contents of the Oak Ridges Moraine Groundwater Program (ORMGP) Mapping Portal are property of the ORMGP and the Primary Partner Agencies. Contents are intended for use by ORMGP partner agencies and by external consulting firms who have signed, and agree to the ORMGP Consulting Agreement. As such, any use of data or information acquired via the ORMGP mapping portal is subject to the ORMGP Consulting Agreement. As a staff from a partner agency or from a consulting firm that has signed the ORMGP Consultant Agreement, you may download and freely use the information contained on this site for any purpose that advances water management understanding/decision making. Note that some of the documents contained in the report library may contain data/information that may be considered to be of a sensitive nature (e.g. water quality for private domestic wells). Therefore it is requested that consultants use professional judgement when determining whether downloaded reports/papers need to be circulated externally (i.e. it might be that only parts of a report need to be circulated or that the report only be referenced).

Information within this web mapping application is provided as a service by the ORMGP and is provided strictly as is. The ORMGP, and its member public sector agencies, make no warranty, expressed or implied, regarding the quality, accuracy, completeness, timeliness or usefulness of the data/information provided in this application. Every effort is made to ensure the accuracy, currency and reliability of the content. However, at any time, some details may be generalized and/or not yet reflect recent changes/updates.

The ORMGP, and its Primary Partner Agencies, disclaim any responsibility or liability for any direct or indirect damages resulting from the use of the data and information provided through this mapping portal. The data and information contained in this site are compiled from many sources. Prior to taking any action with respect to ORMGP data and/or information, users of this portal's data and information are hereby advised to use professional judgement and consult with other data and information sources for verification.

Users knowingly waive any claims for damages against any entities comprising or assisting the ORMGP that may arise from the mapping data. The User hereby releases and forever discharges the ORMGP, its Primary Partner Agencies and all of their officers, council members, employees, successors and assigns from all claims, demands, damages, actions or causes of action arising or to arise by reason of use of this application or any inaccuracies, errors, misrepresentations, or omissions or limitations in information contained herein.

Maps obtained using this site are for illustrative purposes only and are not designed to assist in navigation or as a substitute for legal survey, or as a substitute for due-diligence investigations. The coordinates displayed do not represent legal parcel corners and/or boundaries and they cannot be used for establishment of or in lieu of legal land survey boundaries for property or parcels thereof. Maps may contain cartographic errors and omissions.

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SCHEDULE 6



Consultant - Client Waiver to Provide Data to ORMGP

CLIENT: _____

CONSULTANT: _____

DATE: _____

PROJECT:

Background

XXXXXXXXXX is a Consultant Member with the Oak Ridges Moraine Groundwater Program (ORMGP). This program, established in 2001, with an overall goal of improving water management in Ontario, has assembled, and makes accessible, a tremendous wealth of data and interpretations related to Central Ontario's hydrogeological environment (see <https://oakridgeswater.ca/SitePages/Maps.aspx>).

Since becoming a partner in the program, XXXXXXXXXXXX staff regularly use the information available at the program's website to guide the analyses of subsurface data for our clients. ORMGP's data provides historic and regional context in our understanding of the groundwater conditions influencing your project site. This increases the confidence of review agency staff in the technical information that we present in support of the work completed on your behalf. This saves time and back-and-forth with review agencies.

In the spirit of collaboration and continual improvement, we recommend that our clients assist the program by providing hydrogeological data and information collected during your project directly to the ORMGP. Providing hydrogeological data will ensure that reports and/or data are made broadly accessible over the program's website and that interpretation and analyses of Ontario's geology and hydrogeology are improved to the future benefit of all Ontarians.

Much of the site characterization and data collection work that XXXXXXXXXXXX undertakes on behalf of clients is submitted to government regulatory or approving agencies and is therefore already in the public realm. By signing this agreement you will simply be facilitating the direct transfer of information for the benefit of Ontario.

Note that if you agree, the data collected for your study will be part of a publically accessible water management database. Reports will not be generally available to the public but only

be made available to ORMGP partner agencies, i.e. other consultants and/or public sector agencies.

Details

If in agreement, circle or check the lines that apply and sign below. **XXXXXXXXXX** staff will take care of the delivery of the information to the ORMGP program.

We agree to allow **XXXXXXXXXX** to provide the following to the Oak Ridges Moraine Groundwater Program:

1. PDF of Final Report? YES_____ NO_____
- a. Report Figures Only? YES_____ NO_____
2. Collected data (digital format)
- a. All Collected Data? YES_____ NO_____
- If no – which of the following is permitted?
- b. BH Logs? YES_____ NO_____
- c. Water Levels/Pumping Test Details? YES_____ NO_____
- d. Water Quality? YES_____ NO_____
- e. Pumping Rates? YES_____ NO_____
- f. Stream Flow Data? YES_____ NO_____
- g. Geotechnical Data (e.g. grain size, blow counts, etc.)? YES_____ NO_____
- h. Other (Specify) _____ YES_____ NO_____

Date: _____

Signed: _____

Title: _____

Client Name and Address:

SCHEDULE 7



Accessibility of Data and Information

DATA

The body of the Memorandum of Understanding (MOU) addresses the issue of Primary Partner Agencies accessing the Database – essentially all Primary Partner Agencies have unlimited access to the data that lies within their jurisdictional area plus a buffer of about 5 kilometres. It also addresses issues related to sharing the Database externally with consultants and members of the public at large.

If a particular Primary Partner Agency wants to keep Information and/or Data which has been deposited into the Database confidential for its own Agency use, the Database has been structured with confidentiality coding built at two levels: the location level and the interval level. The original concept, when established, was that either the entire location could be restricted from other Primary Partner Agencies, or the temporal data associated with that location (e.g. water chemistry, pumping rates, etc). could be restricted. In the latter case, the geology and construction of a particular borehole would be available to others.

The original conceptualization of the confidentiality coding was:

Location Confidentiality

- 1 = location is fully accessible – there is no restriction on accessing the location (this is the default code)
- 2 = location is accessible only to all public Partner Agencies – if a cut of the Database is provided to consultants working for private entities or to the public these locations would be withheld
- 3 = location is accessible only to those Primary Partner Agencies that have jurisdiction in the area of the location (i.e. one Municipality and one Conservation Authority)
- 4 = location is accessible only to the Primary Partner Agency that deposited the location to the Database

Interval Confidentiality

- 1 = temporal Data is fully accessible – there is no restriction on accessing the temporal data (this is the default code)
- 2 = temporal Data is accessible only to all public Partner Agencies – if the Database is cut and provided to consultants working for private entities or to the public the temporal data tied to the intervals would be withheld
- 3 = temporal Data is accessible only to those Partner Agencies that have jurisdiction in the area of the location (i.e. one Municipality and one Conservation Authority)

4 = temporal data is accessible to only the Primary Partner Agency that deposited the Data to the Database

Additional codes could be developed if there was sufficient interest from the Partner Agencies. If the Database was to be made accessible over a website then the accessibility coding outlined above would have to be made to work with the Partner Agency passwords for accessing the website itself.

INFORMATION

With respect to the information derived from Data and information within the Database, upon request, each Primary Partner Agency has access to the geological and hydrogeological surfaces and model input and output layers across their entire jurisdictional area plus a buffer. In recent years the program has been making informational maps available for the entirety of the ORMGP geographical area via the program's website so that each Primary Partner Agency has the opportunity to place their area into the regional context. This would continue unless there was direction from the Executive Steering Committee to alter the practice.

SCHEDULE 8



ORMGP Data Provision Clause For incorporation into a Hydrogeological/Hydrological/Geotechnical Terms of Reference Document

Background: As one of thirteen partner agencies in the Oak Ridges Moraine Groundwater Program (ORMGP) your staff have a vested interest in being able to readily access data that will be collected by consulting firms that are retained to conduct business with you. The ease with which data can be imported into the ORMGP's extensive digital database depends upon the format that it is in when delivered by the consultant along with a final report. If not clearly specified within your Terms of Reference (Call for Proposal), the data might only be returned by the consultant in a paper format, thus requiring additional labour costs to transcribe the data back into a digital format for import to the database. The ORMGP has developed data formatting templates (both Microsoft Excel and Access formats) that can be appended or referred to in your Terms of Reference document. This memo provides clauses that your staff can directly insert into your Terms of Reference documents such that consultants deliver data back to you in a standardized format.

Clause

The **(insert Agency Name)** is a partner agency within the Oak Ridges Moraine Groundwater Program. As such our staff routinely rely upon and use the data and information provided through the ORMGP to inform our decision making with respect to water and subsurface related decisions.

In supporting the ORMGP, we request that all water and subsurface related data, (e.g. borehole logs, water chemistry, water levels, pumping test data, etc.), collected during the course of this project be submitted in a digital format consistent with the data templates provided at Oakridgeswater.ca. The filled in data entry sheets must be submitted as part of the final report and the processing of the final project invoice will be contingent upon the receipt of all required data entry forms, properly filled in with the required project data. All data collected over the course of the current project will potentially be uploaded to the ORMGP web-based data portal and can be used by others into the future to help improve upon the understanding of Ontario's water and subsurface environments.

SCHEDULE 9



Website Disclaimer Text

DISCLAIMER – (Public Site)

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Information within this web mapping application is provided as a service by the ORMGP and is provided strictly as is. The ORMGP, and its member public sector agencies, make no warranty, expressed or implied, regarding the quality, accuracy, completeness, timeliness or usefulness of the data/information provided in this application. Every effort is made to ensure the accuracy, currency and reliability of the content. However, at any time, some details may be generalized and/or not yet reflect recent changes/updates.

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SCHEDULE 10



Financial Framework

Background

Since 2001, the ORMGP has been funded in four equal parts by the Regional Municipalities of York, Peel, and Durham and the City of Toronto. Each of the funding agencies agrees to the following for the duration of this MOU:

1. On an annual basis, the four funding partners to the ORMGP (the Regional Municipalities of York, Peel, Durham and the City of Toronto) agree to share the cost for the program in four equal shares.
2. The proposed budget of the ORMGP will be set on an annual basis by ORMGP staff in discussions with the Technical Steering Committee. In general, the budget for the program will be at a level consistent with the previous year, plus a cost of living/inflation factor. From time to time, strategic initiatives might arise that could be proposed for consideration and these might influence the program budget. The Executive Steering Committee will be responsible for approving any change in the ORMGP budget that is outside of the previous year's budget plus a cost of living/inflation increase.
3. In each subsequent year of the MOU, the financial contribution to the ORMGP will increase annually to reflect a cost of living/inflation increase. If in any particular year the annual cost of living increase varies amongst the funding agencies, then the cost of living increase allocated to the ORMGP will be the average of the cost of living increases approved in the annual budgets of the funding agencies.
4. Should an additional funding agency wish to join the program during the term of this MOU, they will be required to accept the terms of the MOU and to contribute financially in the same amount as the current funding agencies. There will be no reduction in the financial contribution (i.e. the overall cost of the program (and the work required to maintain the data and information new geographic area) will increase proportionally, and the annual cost for the program will subsequently be shared in five (or more) equal parts.



Credit Valley Conservation
Nottawasaga Valley Conservation
Toronto and Region Conservation
Lake Simcoe Region Conservation
Central Lake Ontario Conservation
Kawartha Conservation
Ganaraska Region Conservation
Otonabee Conservation
Lower Trent Conservation

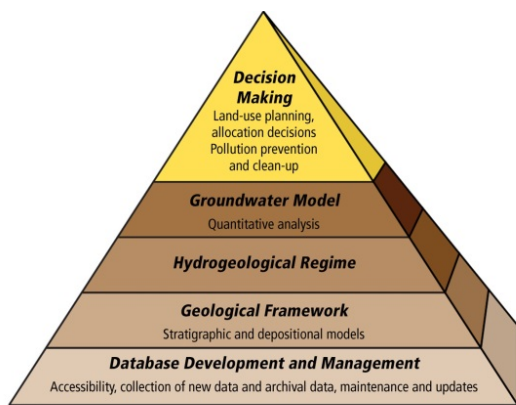


ANNUAL PROGRAM OVERVIEW (2020) **&** **WORK PLAN (2021)**

TO: YPDT Executive Steering Team
FROM: Steve Holysh & Rick Gerber
DATE: April 7, 2021
RE: **2020 Overview/2021 Work Plan – Oak Ridges Moraine Groundwater Program (ORMGP; formerly YPDT-CAMC)**

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.



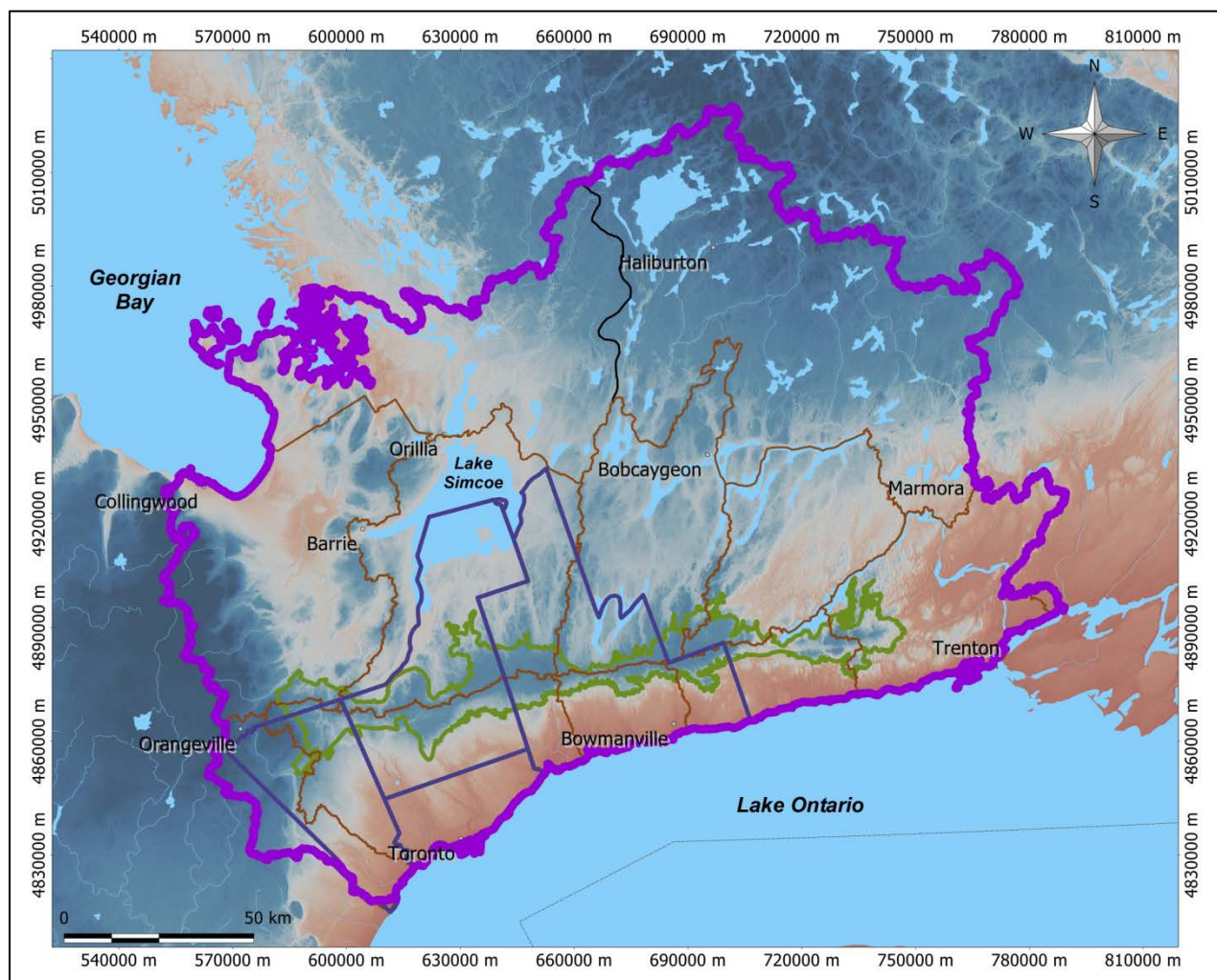
Mandate

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 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 that will 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 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.



Program area - Note that for data management purposes the program area comprises the entirety of three Source Water Protection (SWP) Regions: 1) Credit Valley/Toronto and Region/Central Lake Ontario (CTC); 2) South Georgian Bay - Lake Simcoe (SGBLS); and 3) Trent Conservation Coalition (TCC). Focus of work is largely directed to the GTA municipalities (York, Peel, Durham, and Toronto) and their associated Conservation Authorities (CAs).



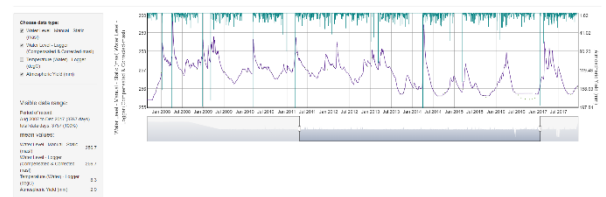
1. Database

- added this year – over 12,000 boreholes; 625 reports; 1.5 million temporal records;
- 2020 logins to website: Consultants = 3,921; Agency Staff = 4,960; Public = 3,392;
- Work continued on the updating of ORMGP Database Manual;
- Continued addition of “Groundwater Knowledge/Insight” and Supplementary BH logs to database and website;

2. Analysis & Modelling

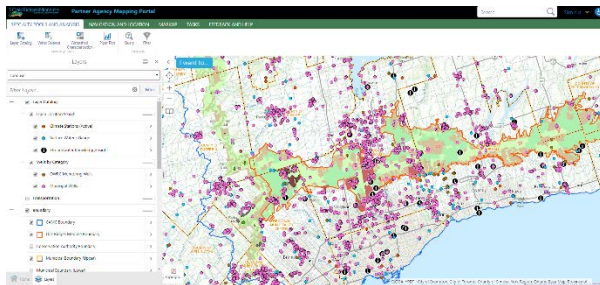
- Incorporated “atmospheric yield” into GW hydrographs allowing for WL response to rainfall/snowmelt events to be evaluated;
- ‘Area of Concern’ mapping in Peel, and York Region (Aurora and Vaughan);
- Continued work on geology ‘harmonization’
- Invited to lead work on Oak Ridges Moraine focused chapter for an international Groundwater eBook;
- technical insights and contributions to modelling studies for Durham, Peel and CVC;

Cannington-OW99-2S



3. Other

- four, one hour long, on-line ORMGP Website training sessions held in summer 2020;
- continued enhancements to mapping section of website (oakridgeswater.ca);
- continued collaborative partnerships with consultant firms (18 firms in total);
- contribution to City of Toronto GW strategy;
- work with PGO to review bottled water PTTW moratorium;
- technical collaboration with various agencies including MECP; GSC; OGS; Hydro One; PGO, Canadian Standards Association;
- Communications – invited to speak at various on-line forums including: SoSmart, IAH-CNC; GSC/OGS Open House.



4. Budget

- Program delivered within available funds - no planned increase for 2021;

Program Component	2020
Staff Costs (Wages + Benefits)	\$689,500
Office Costs + Disbursements	\$49,200
Computer + Software	\$21,900
Consultant/Services	\$25,600
Administration	\$17,700
Total	\$803,900



Review – 2020 (Detailed Summary)

The following provides a more detailed overview of activities undertaken through the Oak Ridges Moraine Groundwater Program through 2020.

1. DATABASE/WEBSITE

Through 2020 the program's database structure/schema remained robust. The information contained within the database was refined and improved through 2020 with continued use of SQL 2016 to facilitate database management. As in previous years, 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 summer 2020 from the MECP and about 11,700 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 September 2019;
- New boreholes: i) tied to recent TTC activities (e.g. Scarborough Subway extension); ii) tied to the City of Toronto Don River/Central Waterfront project; and iii) many miscellaneous BHs entered from documents in the report library were added to the database over 2020. In addition to the MECP wells, approximately 670 additional wells/boreholes were added in 2020;
- Approximately 625 new documents were brought into the library over 2020, this process was slowed down due to the difficulty in obtaining hard copy reports during the Covid shut down;
- In total approximately 1.5 million temporal records (chemistry, water levels, stream flow, etc.) were added in 2020 – this number reflects the import of regional data, as well as the updating of climate and stream flow data from Environment and Climate Change Canada;
- The “Atmospheric Yield” (i.e. precipitation for days above freezing temperatures and water available from melt events during winter months) data was added to the database and made available on the website alongside the groundwater level hydrographs; and
- The database manual was revised/updated over 2020 with a new release scheduled for 2021.

1b Corrections

- In moving forward with a review and update of the geological 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; and iii) incorrect locations. 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.

1c Accessibility

- 18 consultant companies are partnered with the ORMGP under consultant agreements (up from 14 at the end of 2019); to address the increase in number, 70 new consultant accounts were created in 2020 bringing the total to 315 consultant user accounts;
- user accounts for technical agency staff remained relatively stable at 321 accounts - several staff turnover moves resulting in a small number of accounts deleted and others created;
- 53 temporary accounts were created for the University of Guelph where the website was the focus of several required hydrology assignments for a 2nd year engineering course;
- On the public side of the website, the number of visits increased from 1865 to 2693 indicating that the website is gaining traction for general users looking for water related information;

- In 2020, 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, many new PDFs were uploaded and added in 2020 with the total of available non-MECP BH logs reaching 2,358 – this allows for these consultant logs and other older logs from GSC or OGS staff to be readily accessed on the website;
- The many ‘R’ based statistical tools available for 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;
- in 2020 a new Groundwater Hydrograph tool was introduced that allows for users to examine the water levels at any long-term groundwater monitoring location; the tool allows for users to see several statistical elements related to the groundwater level as well as the “atmospheric yield” (precipitation in summer and available snow melt water in winter) alongside the groundwater level; the response of the groundwater system to events as well as to seasonal water availability is now readily available from the new hydrograph;
- The Citrix Xendesktop platform, which allows for partner agency staff and ORMGP staff to access the program’s database and ORMGP files is performing up to expectations.

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. No new purchases were required in 2020.

With the onset of the Covid pandemic in March 2020, ORMGP staff were already well positioned to work remotely as the offices at TRCA and CLOCA were temporarily closed. Remote access to the Program’s servers, which are now largely operated out of CLOCA’s offices, was smooth and unhindered as remote work was the order of the day through much of 2020.

In 2020, 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 2020 calendar year. As in the past, the backing up of the database continues to be a focus of the program and was unchanged in 2020:
 - 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 to a separate CLOCA based file-server (this copy is dubbed the “weekly database”) and is subsequently made available: i) for use via the program’s website to share data with the outside community; and ii) as the ‘weekly’ database which may be accessed by the partners through the ORMGP Citrix machines. This database has both read and write access and can be used for training and testing purposes.
 - a copy of this backup is placed on a separate ORMGP server (newly introduced at CLOCA) that functions as a central storage facility holding database versions dating back in time. These older backups are available on a monthly basis. The previous eight weekly backups are also stored here.

- this database is automatically transferred/written to an ORMGP server at TRCA's offices (used by ORMGP staff to interact with, review and check the database);
 - over the long term, backup copies of the database are held off-site (along with backups at CLOCA) should they be required;
 - The primary numerical model archive (part of the model custodianship program) has been relocated to 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 partners have the ability at their own offices to use software products (e.g. Viewlog, Sitefx, and others) and to review/access/QA/evaluate their data held in the ORMGP database, a cut of each partner agency data set is usually distributed (in SQL and/or Access format) at the ORMGP technical meetings (i.e. usually twice per year or more often if requested). This did not occur in 2020 due to Covid workplace meeting restrictions.

2. ANALYSIS & MODELLING

The following initiatives were undertaken through 2020.

Technical Model Contributions

Through 2020, 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 GSFLOW, HydroGeoSphere, Raven, and CSHS HydRology).

Durham Region Numerical Model

Ongoing through 2020 ORMGP staff worked with Durham Region staff to attend meetings and to review key deliverables from the numerical model, in particular the community focused summary reports that were prepared. ORMGP staff communicated regularly as required with the technical consultant and with Durham staff to ensure that the modelling was proceeding as per the submitted proposal.

Peel Region Numerical Model

Peel Region's numerical modelling project was also ongoing throughout most of 2020. However, several unexpected events resulted in the shortening of the project with a focus in 2020 shifting to a completion of the numerical groundwater model report. The remainder of the project, namely the integration of the groundwater model to incorporate shallow surface water flows and water budgeting has been removed as part of the projected work. This integration work will be re-scoped, and along with Credit Valley Conservation, decisions regarding future paths will be made in 2021. ORMGP staff assisted Peel as required during these unanticipated events.

Storage of Gridded Data (FEWS)

Although the ORMGP has, for many years now, successfully organized data that is tied to individual stations (e.g. wells, surface water, climate, etc.) with the growing availability of large-scale historical grid-based meteorological datasets applicable to running and managing transient numerical models, there has been an ever-increasing need to effectively manage these data. In addition, transient models output gridded data sets that are very large in size and difficult to manage (as an example, think of gridded precipitation inputs to a 25 year model with daily time steps). Staff have been working to address this need, and in 2020 the adoption and configuration of a FEWS (see <https://www.deltares.nl/en/software/flood-forecasting-system-delft-fews-2/>) based system was introduced. Although primarily built and used for flood forecasting (which can now also be undertaken through this system) the ORMGP's primary use of the FEWS software is currently for the effective management of temporal gridded data, complimentary to the ORMGP database.

Specific Capacity, Hydraulic Conductivity and Transmissivity

In 2020 work continued on implementing a database routine that determines the transmissivity (T) and hydraulic conductivity (K) of aquifers from Specific Capacity estimates. The routine makes use of the interpreted screened aquifer unit, based on the ORMGP geological model(s), coupled with the short term pumping data obtained from the MECP/MOE water well records and the geological models. Using an iterative routine, the K and T are calculated. 2021 will see the incorporation of this information onto the website.

Groundwater Knowledge/Insight Locations

2020 saw continued work with Ross Hodgins (retired MOECC/MECP) to capture historical knowledge into the program's files and onto the website.

Surface Water and Climate Analyses

Through 2020 the surface water and climate analysis packages that are currently running on the program's website have been continually enhanced and refined, based on the recommendations and needs of partner agencies. Stream flow and climate data from Environment and Climate Change Canada's website is regularly being uploaded into the program's database and various statistical analyses have been added to the website. 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.). As an example of the applicability, website visitors can now quickly determine whether the previous month was either hotter/colder or wetter/drier than the long-term average. Users are able to change the selection of the range of days for which any analysis will be undertaken and the statistics are updated dynamically as the date range is changed.

Geological Layer Harmonization

2020 saw advancement in the harmonization of geological layering across the study area with work undertaken to re-interpret the bedrock valleys and also on refining geological layering. In addition to assisting with the reworking of the geological layers in Durham through the modelling initiatives, ORMGP staff also began to examine and make new picks at recently added wells.

Groundwater eBook

ORMGP staff were invited to lead and contribute an Oak Ridges Moraine focused chapter (the only Canadian contribution) to an international Groundwater eBook that is slated to be an anchor for the "Groundwater Project" This is an international effort led by Dr. John Cherry to provide educational groundwater related materials to the global community. This will provide an opportunity to showcase the collective ORMGP efforts to a broad audience.

Peel and York (Vaughan and Aurora) "Areas of Concern" Mapping/Analyses

In 2020 work continued on the "Areas of Concern" mapping with evaluations of areas in southern Caledon and in Vaughan. Work in Aurora was also finalized in 2020. In general, this work has a focus on the artesian conditions that naturally exist on the south slope of the Oak Ridges Moraine. This condition occurs as a result of the pinching out of the Oak Ridges Moraine aquifer sediments in moving from north to south as the elevation declines from the crest of the moraine. The Oak Ridges Aquifer pinches out between the overlying Halton Till and the underlying Newmarket Till and excavations or wells drilled along this part of the moraine, should they breach the upper confining Halton Till aquitard, can lead to considerable groundwater problems that cost significant time and money to resolve. Mapping is prepared that shows areas where proposed developments/excavations might result in 'unexpected' groundwater problems (and associated costs). Note that these areas are independent of, and have no relation to, Areas of Concern (AOC) that have historically been identified through the Great Lakes Water Quality Agreement.

Miscellaneous technical support

Due to the Covid work at home directives, support and communication with partner agency staff was conducted via phone and/or on-line through much of 2020.

York

- Provide technical support on Aurora and Vaughan “Areas of Concern” mapping;
- attended liaison meeting with York staff to exchange ideas and hear of ongoing work plans at York Region;
- imported monitoring) data from York database into ORMGP Database.

Peel

- provided technical support and comments to help address and move forward with regional numerical modelling initiative;
- finalized work to investigate “Areas of Concern” mapping for south part of Town of Caledon;
- assisted Peel staff in ensuring their monitoring data was uploaded to the database throughout the year.

Durham

- 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;
- continued to provide technical support and comments with respect to the regional modelling initiative.

Toronto

- attended meetings to provide continued input on Groundwater Strategy;
- reviewed and provided comments on guideline documents.

TRCA

- continued to link to TRCA database thus allowing all TRCA surface water stations to have statistical analyses performed via the program website;
- assisted staff in ensuring monitoring data was brought into database properly and is accessible on the website;
- provided technical support regarding the potential development of an Aquifer Thermal Energy Storage (ATES) geothermal system at new office building;
- assisted staff in refining their ESGRA mapping and co-authored paper on ESGRAs with TRCA staff;
- reviewed the climate change products prepared by the Ontario Climate Consortium;
- provided surficial geology and depth to water table layer for the Highland Creek watershed work;
- provided input regarding the potential for using numerical flow models to help in assessing in-stream ecological impacts due to climate change.

CLOCA

- continued to provide technical support with respect to the Ontario Hydro One facility (i.e. establishment and operation of long-term groundwater monitoring location) in the Municipality of Clarington.

CVC

- technical support provided for MIKE SHE water quality focused modelling being undertaken in cooperation with University of Guelph;
- assisted with technical insights re groundwater flood mapping for the CVC “Flood Risk Management and Return on Investment Tool”;
- provided depth to water table and groundwater discharge layers.

LSRCA

- developed groundwater drawdown estimates in the Shanty Bay area;

LTRCA

- provided input to help in addressing the modelling discrepancies that UofT Scarborough Ecological Modelling staff and Environment Canada were having in addressing phosphorus loadings into Lake Ontario from the Napanee River and from Wilton Creek.

ORCA

- provided input/data to the consultant (Cambium) working on the Norwood sewer project;

Barrie

- provided temporary staff with an overview of the website so that they could help city staff become more knowledgeable on ORMGP program.
- provided technical support and guidance re the Barrie Tier-3 numerical model.

MECP

- met with MECP staff to address issue of having PGMN wells on private property ‘disappear’ as users zoom in on specific wells – this helps MECP honour their commitment to well holders that wells will not be made available on a public website;
- provided overview of WL availability to MECP Central Region staff so that they could make better use of the data held in ORMGP database – this saves Regional Staff from having to regularly send data to MECP staff so they can investigate well interference issues across the area.

3. OTHER PROGRAM INITIATIVES

Over the course of 2020 a number of other initiatives also formed part of the overall work program.

Website – Partnership agreements with consulting firms were initiated in early 2018 and have continued, with the end of 2020 marking the third full year of this program. At the end of 2020 there were eighteen consulting firms that had partnered with the ORMGP whose staff are now actively using the password protected side of the website. 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.

Through July 2020, ORMGP staff held weekly training sessions for all technical staff linked to the program. For each of the four sessions over 100 individuals attended with some sessions nearing 150 attendees. The sessions were deemed to be successful and staff will be looking to implement additional sessions going forward. The ongoing partnership between ORMGP and the GIS staff from Central Lake Ontario Conservation Authority (CLOCA) continued with a focus on enhancing the program’s mapping section of the website. Enhancements to the Geocortex mapping tool on the website continue to improve the ability of users to efficiently explore the vast data and information sets assembled under the program.

In 2020, some of the more significant updates to the website included the following:

- refinement of the Water Table mapping and the addition of “Potential Discharge” mapping to help in highlighting areas along stream valleys of potential active groundwater discharge;
- as mentioned above, borehole logs from non-MECP/MOE wells were added to the website;
- continued addition of Groundwater Knowledge/Insight locations.

Memorandum of Understanding (MOU) – Through 2020 work continued on refining and editing the MOU, with input from technical staff at all partner agencies. The MOU was finalized and circulated for signing in fall 2020 and is expected to be signed by all partner agencies early in 2021. With their decision in December 2020 to join the ORMGP Program, in 2021 the MOU will also be circulated to Halton Region and Conservation Halton as they integrate into the program and so that senior management are aware of the benefits of the program. The MOU will guide the program activities through to the end of 2030.

Report Library – in 2020, with the shut down of office work places, opportunities to hire summer student help for inputting reports and data to the ORMGP were limited. As a result the number of reports that were entered into the library was reduced over 2020, never-the-less, some 625 reports were added to the program library over 2020. Although much reduced owing to Covid, 2020 also saw continued co-operation with Hunter GIS staff to acquire, for incorporation into the program library, a number of consultant reports that the company has

assembled over the years. This partnership is proving fruitful as many older unique reports are being ‘rescued’ and made available via the library.

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. Two new locations (Clairville Conservation Area and West Deane Park) that were no longer being actively monitored by UofT researchers were taken over in fall 2020. In April 2020, staff also attended an unusual discharge event that occurred in Gages Creek, on the south slope of the Oak Ridges Moraine near Port Hope. Artesian conditions in the creek bed of Gages Creek resulted in a significant natural discharge of silt sediment into Gages Creek temporarily affecting the native Brook Trout population in the creek.

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 2020 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.

PGO Bottled Water Moratorium – ORMGP staff were asked to assist the MECP (via PGO) by sitting on a technical committee charged with helping to review the consultant recommendations and MECP staff direction with respect to lifting the Province’s moratorium on the issuance of bottled water taking permits.

MECP Water Quantity Working Group – ORMGP staff continued to attend the MECP Water Quantity Working Group meetings in 2020, where the focus was on revealing/discussing the results of the consultant/MECP/PGO work to address the removal of the moratorium on bottled water permits;

Standards Council of Canada – Being recognized as leaders in environmental data management, ORMGP staff were invited to serve on the SCC’s committee for climate data standards for managing climate information across Canada. This continued through 2020.

Great Lakes Water Quality Annex – ORMGP staff were invited to assist the Province with the updating of Groundwater Annex report within the Federal Great Lakes Water Quality Agreement. Specific work has focused on the chapter that is addressing urban groundwater issues.

Communications/Analyses

In 2020 ORMGP staff were invited to present or meet with various external agencies on behalf of the partner agencies.

- Annual lecture at University of Toronto Scarborough to fourth year students on water resource management;
- Assisted with the organization of, and presented two papers at, the annual Ontario Geological Survey (OGS)/Geological Survey of Canada (GSC)/Conservation Authority Open House held in February at the University of Waterloo;
- ORMGP also had a booth at the event to showcase the program’s website and the accessibility of data via the program;
- Invited to attend a one day symposium hosted by the Geological Survey of Canada and the Ontario Geological Survey to discuss and contribute input to regional modelling initiatives within the province;
- Met with MPP Mike Schreiner to provide an overview of program;
- Met with Canadian Water Network to exchange ideas on moving forward with water management in Ontario;
- On-line meeting with staff from the Alberta Geological Survey to discuss common initiatives and exchange ideas and software experiences;
- Provided an overview of ORMGP Stream and climate statistical packages to SoSmart and volunteered to assist SoSmart in obtaining stream temperature database from MNR;

- Assisted with TA training and set up ORMGP website accounts for students at University of Guelph enrolled in a fall 2020 on-line engineering hydrology course;
- Met with STORM to assist them with a project aimed at mapping/delineating moraines to the west of the Oak Ridges moraine;
- Provided in person or on-line ‘Lunch and Learn’ or similar talks to the following groups to promote increased use of the ORMGP website: Wood, Isherwood, City of Barrie, Water Gorden Foundation, Dillon, City of Ottawa, Insitu; Ganaraska CA
- Provided a Canada wide on-line talk to the Canadian Chapter of the International Association of Hydrogeologists (IAH-CNC) “Groundwater Infrastructure – Ushering in the Big Data Era on the Oak Ridges Moraine” in December 2020;
- Co-authored climate change paper and the role of groundwater modelling with the University of Guelph;
- Joined 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.

4. BUDGET SUMMARY

The four senior partners (City of Toronto, Regional Municipalities of York, Peel and Durham) each contributed \$175,000 in 2020 (Total of \$700,000). In addition, the program received \$60,300 from consultant subscriptions to the program. The program’s expenses for the 2020 are summarized below; 2019 costs, as well as estimated 2021 costs are also provided.

Program Component	2019	2020	2021 (est.)
Staff Costs (Wages + Benefits)	\$684,000	\$689,500	\$705,000
Office + Disbursements	\$52,000	\$49,200	\$68,000
Computer + Software	\$53,500	\$21,900	\$36,000
Consultant/Services	\$33,500	\$25,600	\$95,000
Administration	\$14,800	\$17,700	\$18,000
<u>Total</u>	\$837,800	\$803,900	\$922,000

The program was completed within an acceptable budget in 2020. In 2020 a small carryover amount from previous Source Water Protection related work provided accommodation within the program budget to cover the excess expenditures over revenues. Therefore, no budget increase was requested for 2020. Although program staff attempted to increase the program budget in 2021, the Covid emergency precluded any advance in that initiative over 2020. However, with of Halton Region ‘s December 2020 decision join the ORMGP beginning in 2021, and with their financial contribution, the budget should be sufficient to carry out program activities moving forward. For 2021, additional funds have been allocated to having consultants or contract staff assist with helping to bring Halton Region up to the same level of understanding as other parts of the study area.

2021 WORK PLAN – ONGOING/UPCOMING TASKS

With Halton Region’s December 2020 decision to join the ORMGP, it is anticipated that a slight preferential focus might be steered towards Halton Region in order to bring their data and interpretations closer to what has been accomplished across the rest of the ORMGP study area. Of course, as in past years, should resources be requested by other partner agencies for specific tasks, ORMGP staff will adjust tasks to assist as required.

1. DATABASE RELATED

Task 1.1 – Report Library Capture

In 2021 program staff will continue to work with Hunter GIS staff to input additional reports into the library. The reports cover a broad geographic range and will help to infill many areas where no previous work has yet been made available. If Covid workplace protocols are lifted sometime in 2021, and if students are retained, ORMGP staff will also assist any agency’s students with the processing of consulting or other relevant reports. Data capture from these documents into the database will also continue.

- **Benefits:** Improved access to and availability of subsurface information across program area.
- **Estimated Timeline:** Ongoing through 2021.

Task 1.2 – Fostering and Enhancement of Consultant Partnerships

Over the course of 2021 staff will continue to monitor external partner agency use of the program website and encourage further use of the site. Tracking of consultant website use continues to show disparity in the utilization of the website by different consultants. In 2021 staff will continue to put forward means of increasing traffic to the website and encouraging existing users to provide feedback. Depending upon how office openings take place in 2021, ORMGP staff will explore means (on-line or face to face) for developing and implementing additional training for technical staff at both consulting agencies and partner agencies. A training/educational one-day workshop is planned for the late spring 2020. Staff will continue to encourage other companies to join the partnership.

- **Benefits:** This task, especially 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 website and to contribute to the program.
- **Estimated Timeline:** Ongoing through 2021.

Task 1.3 – Knowledge Management Capture

2021 will see the continued input of new “Groundwater Knowledge/Insight” locations (through discussions with consultants and agency technical staff) to document more water stories/lessons (e.g. flowing conditions, buried valleys, areas of poor water quality, etc.) and add them to the database and website. These locations are an important way of transferring key groundwater knowledge from the past to current and future groundwater practitioners.

- **Benefits:** This exercise builds on the types of data and knowledge capture activities that are already undertaken through the program. To date, the type of information collated into these locations is either not found in any of the ORMGP library reports, or the information is not readily apparent without detailed reading and review of many specific reports. Having a mapped layer of such ‘cautionary locales’ where a synthesized story is readily available via the ORMGP website benefits the overall understanding and improves management of water resources across the study area.
- **Estimated Timeline:** Ongoing through 2021.

Task 1.4 - Continued improvement and expansion to the database

The database is now about 80 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

input to the database. As updates are made available from the Province the WWIS, PGMN data and PTTW will be updated in 2021. Data from various partner agencies will continue to be imported into the database.

- **Benefits:** Improved data quality and additional data input to the database will enhance any work undertaken in the ORMGP area, whether it is in support of development, construction activities, or other.
- **Estimated Timeline:** Ongoing through 2021.

2. WEBSITE, ANALYSIS & NUMERICAL MODEL RELATED

As in previous years, key initiatives for 2021 will relate to communication and outreach and will 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 partner agency and consultant staff in making decisions. Towards this end, staff are routinely exploring additional opportunities that SQL 2016 presents in terms of its linkage with the "R" statistical software package (additional charts, graphs, etc.). 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 regarding how to use various individual specialized software packages (e.g. Sitefx, GIS, SQL Management Studio).

Task 2.1 - Model Harmonization

With over 80 numerical models having been generated across the geographical study area of the program, staff continue to work towards a single "authoritative" geological framework across the study area by incorporating insights from these models. The work involves incorporating new well/geological data as well as examining the interpretations from existing numerical models to re-build a revised geological framework. In 2021 work will focus on: i) the review and incorporation of geological layering from recent modelling work undertaken in Peel and Durham Regions; ii) the review, refinement and incorporation of existing Halton Region geological layers into the regional geological model; and iii) the strategic revising of picks (largely in Toronto and/or associated with the bedrock surface) and the geological interpretation/picking at wells that have been newly added to the database.

- **Benefits:** This task seeks to consolidate the many numerical model geological frameworks 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.
- **Estimated Timeline:** Ongoing through 2021

Task 2.2 – Addition of Time Series Analyses for Groundwater Monitoring Wells

Further work is planned to better summarize and analyze the data tied to long term pumping and monitoring wells. Whereas 2020 work was focused on individual wells, allowing users to investigate water level response on a both seasonal and event scale, in 2021 the intent is to categorize wells based on their event/seasonal responses and their hydrogeological setting. The intent is to be able to determine which monitoring wells reflect similar water level behaviour and to use this information to predict water level behaviour in similar settings that might not have existing monitoring wells.

- **Benefits:** The calculation and presentation of this type of analyses will help to better understand how watersheds behave in terms of groundwater level response and how water moves through the subsurface

- **Estimated Timeline:** End of 2021

Task 2.3 - Mapping of Known Groundwater Problem Areas

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 and has been ongoing since. In 2021 mapping will continue in Vaughan, Stouffville and in Toronto. There has been an indication from partner agencies that this kind of mapping is beneficial.

- **Benefits:** By having an understanding of subsurface conditions prior to project commencement, partner agency staff (both consultants and government) can provide preliminary knowledge regarding overall project cost and necessary efforts. Such regional maps can provide a screening tool prior to the detailed work necessary for project design.
- **Estimated Timeline:** Ongoing through 2021.

Task 2.4 – Investigation into Online Model Executables

Although put forward for initiation in the past, this task was not tackled owing to other priorities and lack of technical staff to assist with coding. There has been an interest in ensuring that the numerical models developed over recent years are made available for more widespread use than is currently the case. A possible solution is to develop on-line executables (e.g. input pumping rate, location, and aquifer – model run would return drawdown at a municipal well; run particle tracking routines, etc.) that would allow for non-modellers to gain insights from models for various water management decision-making and quickly assess potential impacts to their water supply.

- **Benefits:** Such tools would allow for technical staff from partner agencies to gain insights from already constructed models thus extending the benefit of the models into the future.
- **Estimated Timeline:** Tentative for late 2021/early 2022.

Task 2.5 –Website Metadata

As more practitioners from consultants and partner agencies visit and make use of the website, there is a need to provide additional information as to how specific maps, datasets, layers, analyses tools have been developed. Metadata has been collated for some components of the website (e.g. water table/depth to water table) but additional work is needed on this front. Generating additional metadata will continue in 2021.

- **Benefits:** having metadata available on the website will allow users to see data sources and how specific maps and analyses that are available on the website were created. This will provide additional confidence and support to website users such that they are more reliant on using the website’s products.
- **Estimated Timeline:** Ongoing through 2021.

Task 2.6 – Ongoing Website Improvement

In addition to the mapping section of the website, there is a considerable amount of scientific and background information available over several dozen web pages. This information is not often used by visitors to the website. Some advances were made in 2020 as the program developed and posted an initial story board that presents ORMGP data management. Over the course of 2021 work will continue to make the program website more modernized and to take advantage of newer web formats (e.g. story boards, better graphics, newer templates, etc.).

- **Benefits:** Fresher modern look to website that will attract users to view and learn more about the ORMGP and its products, and by extension, the water resources of south-central Ontario.
- **Estimated Timeline:** Ongoing through 2021.

Task 2.7 – Enhanced/New Mapping Tools

As the website is used by staff from various public and private sector agencies, we will be seeking input and ideas for improving upon the maps and tools currently available on the website. As time permits, through 2021 staff will be working to develop a number of additional tools including the following:

- **Integrated Planning Map**

In discussions with planners over the past couple of years, it has become apparent that the ORMGP Geocortex website, 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 such as the 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 sit on the Geocortex website.

- **Updated Water Budget Tool**

The website currently holds a water budget tool that allows for users to select an area of interest and run a water budget analysis. Work that has been ongoing (on and off) for the past two years, will continue with a 2021 goal of updating and refining the water budget tool. Once completed, the most significant change will be the conveyance to the user of the uncertainty involved in the main water budget components (recharge, Runoff, ET, precipitation), and how the various estimates vary seasonally and from year-to-year. The water budget model will be run 1000s of times with slightly modified input parameters to derive a suite of ensemble model results that will reflect all reasonable model runs. Ideally, when the user clicks on a cell they will be able to see, (for that cell) a monthly-average bar graph displaying the maximum and minimum of expected model results (e.g. recharge). Gaining an appreciation for the uncertainty associated with the water budget components will allow practitioners to reflect more reasonable estimates when providing water budget numbers and will give reviewers an acceptable range of water budget components when reviewing development proposals.

- **“Clip and Ship” or File Export Tool**

Staff plan to develop a tool that will allow users to clip layers and data from the website into an exportable package that can then be used external from the ORMGP website. The exported layers could be used for a number of purposes, for example to create cross-sections or to build localized numerical models.

- **Drainage Delineation Tool**

Work will be undertaken to develop a tool that will allow users to select a point on the map and have the drainage area to that point be delineated on the map. Such a tool would be linked to the water budget tool. In addition, the characterization tool would also be linked such that these drainage areas could be readily characterized in terms of water budget components, land use, soils, etc.

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 for decision making.

Estimated Timeline: Ongoing through 2021.

3. OTHER

Task 3.1 – Renewal of Memorandum of Understanding (MOU)

2021 will see the signing and completion of the third MOU for the ORMGP. The MOU will run through to December 2030 and will help to guide program activities over the next several years.

- **Benefits:** The program benefits from the structure and administrative understanding that will come through an agreement between the partner organizations within the ORMGP.
- **Timeline:** Spring 2021

Section I – Items for Board of Directors Action

TO: Chair and Members of the Board of Directors
Friday, April 30, 2021 Meeting

FROM: Laurie Nelson, Director, Policy Planning

RE: **APPOINTMENT OF OFFICERS AND DESIGNATION AS PROVINCIAL OFFENCES OFFICERS**

KEY ISSUE

Recommended appointment of officers under Section 28(1)(d) of the *Conservation Authorities Act*, and Provincial Offences Officers be approved for the purposes of:

- i) Enforcing Regulations of the Toronto and Region Conservation Authority pursuant to Section 28 and 29 of the *Conservation Authorities Act*, R.S.O. 1990, c. C.27
- ii) Enforcing the *Trespass to Property Act*, R.S.O. 1990, c. T.21

RECOMMENDATION

THAT Emily Lacroix and Griffin De Guzman be appointed as Officers and Provincial Offences Officers for the purposes of compliance and enforcement of Section 28 and 29 of the *Conservation Authorities Act*, R.R.O. 1990, and the *Trespass to Property Act*, by the Board of Directors of the Toronto and Region Conservation Authority (TRCA), pursuant to Section 28(1)(d) of the *Conservation Authorities Act*.

BACKGROUND

The *Conservation Authorities Act* provides for a conservation authority to appoint officers to enforce its regulations. Furthermore, the Minister of Natural Resources and Forestry has implemented, under the authority of Subsection 1(3) of the *Provincial Offences Act*, a class designation process for all conservation authorities whereby any conservation authority officer appointed under Section 28 (1)(d) of the *Conservation Authorities Act* shall be designated by the Minister simultaneously as a Provincial Offences Officer. Once appointed, officers have the authority to enforce offences and Regulations under the *Conservation Authorities Act*, in addition to the *Trespass to Property Act* when carrying out their duties within the jurisdiction of the conservation authority.

The prerequisite to the Minister's Provincial Offences Officer appointment is that all candidate officers:

- i) Be adequately trained in the legislation to be enforced, including the *Provincial Offences Act*;
- ii) Have proof of a clean criminal record check; and
- iii) Be appointed as an officer to enforce conservation authority legislation at an official board meeting.

Pursuant to the approval of the above noted appointment, the Minister's requirements have been addressed.

RATIONALE

Emily Lacroix and Griffin De Guzman have recently been hired as full-time employees to fulfill the enhancements to the Enforcement and Compliance Section, as identified within the "Enforcement and Compliance Program Review and Business Case" [report](#) to the Board of

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Directors at Meeting #6/20 held on September 25, 2020. These appointments will enable our new staff members to assist with the regulatory requirements and compliance objectives of TRCA.

Relationship to Building the Living City, the TRCA 2013-2022 Strategic Plan

This report supports the following strategies set forth in the TRCA 2013-2022 Strategic Plan:

Strategy 2 – Manage our regional water resources for current and future generations

Strategy 4 – Create complete communities that integrate nature and the built environment

Strategy 7 – Build partnerships and new business models

FINANCIAL DETAILS

These are two new positions within the Enforcement and Compliance business unit. The additional expenses to the Enforcement and Compliance budget have been secured within TRCA's 2021 Operating Budget.

DETAILS OF WORK TO BE DONE

New officers of TRCA undertake Confrontation Management training, training to become Certified Inspector of Sediment and Erosion Control (Can-CISEC), and other training relevant to the position.

Report prepared by: Brian Moyle, extension 5229

Emails: brian.moyle@trca.ca

For Information contact: Brian Moyle, extension 5229

Emails: brian.moyle@trca.ca

Date: April 19, 2021

Attachments: 1

Attachment 1: Background Information

Background Information

The *Conservation Authorities Act*, s.28(1)(d) and 28(1)(e), allows for the appointment of officers to enforce s.28 (Ont. Reg. 166/06 - natural hazard/ natural heritage regulation) and s.29 (R.R.O. 1990, Regulation 119 (Reg 119 - lands owned by the authority)).

In 1999, the Minister of Natural Resources and Forestry (MNR) implemented, under the authority of s.1(3) of the *Provincial Offences Act*, a class designation process for conservation authority officers that simultaneously designated them as Provincial Offences Officers. This provided officers the ability to enforce both the conservation authority regulations and the *Trespass to Property Act* (TPA).

This appointment is contingent on candidates meeting the following prerequisites:

- Being adequately trained in the legislation being enforced, including the *Provincial Offences Act*;
- Having proof of a clean criminal background;
- being appointed as an officer at an official Board Meeting.

TRCA has established a tradition of appointing officers in three distinct categories:

1. Enforcement Officers appointed on a full-time basis to establish compliance with, and to enforce our legislation (Ont. Reg. 166/06, Reg. 119 and TPA). Enforcement Officers play an important role in the Authority's objectives to prevent, eliminate, or reduce the risk to life and property from flooding, erosion and slope instability, and to encourage the protection, enhancement and enjoyment of the natural systems, recreational facilities and landholdings.

Enforcement Officers actively participate in environmental and construction compliance and protection initiatives within our regulatory jurisdiction, in addition to public safety and land use infractions. This position entails conducting regular compliance audits/ inspections of TRCA Planning and Development permit sites, responding to public inquiries and complaints regarding the Authority's permitting processes, addressing unauthorized activities on our landholdings, and participating in TRCA River Watch program associated with our corporate flood forecasting and warning responsibilities.

Officers routinely interact with other internal TRCA business units, and liaise closely with external partnering agencies, including our member municipalities and provincial and federal agencies. Officers maintain communications with developers, consultants, contractors, special interest groups, stakeholders, landowners, and the general public to address our compliance objectives and promote awareness of TRCA's initiatives. Officers maintain accurate records and reports, negotiate compliance with our legislation, conduct investigations, and initiate legal action for significant unlawful activities.

2. Provincial Offences Officers consist of full-time employees within our Parks and Culture Division, and the appointment provides staff members the ability to enforce s.29 of the *Conservation Authorities Act* (Reg 119 and TPA).

The designations of senior Conservation Parks staff and supervisors within our conservation areas provide the required authority to address public safety concerns, compliance issues, unauthorized land use activities, and aid in the protection and promotion of family oriented recreational facilities on our landholdings. These staff members are primarily responsible for overseeing the operations and maintenance of our conservation areas and campgrounds, supervision of seasonal staff members, and for divisional business planning. Although their job function is not enforcement oriented,

staff will engage in the enforcement and compliance role based on availability and when deemed appropriate and safe to do so. Provincial Offences Officers within our Conservation Parks provide a great deal of value to the organization and the public, and represent the Authority's compliance interests in a professional manner.

Appointed staff members identify and address compliance issues associated with unauthorized land use activities, aid in mitigating risk, liaise with and work alongside TRCA Enforcement Officers on strategic weekend shifts/ patrols, supervise site operations of our contracted security provider, and arrange for special paid duty patrols of police in order to promote the safety and enjoyment of our conservation areas and campgrounds. Threats to TRCA staff and the public, and issues involving criminal activities, are referred to local police agencies and documented for internal records and reporting.

3. Administrative Enforcement Officers consists of our Chief Executive Officer and senior staff members within our Development and Engineering and Policy Planning Divisions (Directors, Associate Directors, Senior Managers, Managers, Senior Planners).

Although there is no legislative requirement within our Act to have permits signed/ authorized by an Enforcement Officer, Section 3(3) of Ont. Reg. 166/06 identifies a requirement to have the Executive Committee or designate staff member(s) with respects to granting permissions (permits) for approvals issued under s.28 of the Act.

3(3) Subject to subsection (4), the Authority's executive committee, or one or more employees of the Authority that have been designated by the Authority for the purposes of this section, may exercise the powers and duties of the Authority under subsections (1) and (2) with respect to the granting of permissions for development in or on the areas described in subsection 2 (1). O. Reg. 82/13, s. 2.

TRCA has a tradition of having permissions/ permits signed by Enforcement Officers, and these administrative appointments are solely for this purpose, and not intended to provide designations to enforce provisions of any Act or regulation.

TRCA currently has a total of:

- Five (6) full time appointed Enforcement Officers with two (appointments pending)
- Nine (12) appointed Provincial Offences Officer within our Conservation Parks

TRCA staff appointments as Officers and Provincial Offences Officers:

1. Enforcement Officers:

Brian Moyle, Manager, Enforcement and Compliance
Paul Nowak, Enforcement Officer
Ben Krul, Enforcement Officer
Michael Brestansky, Enforcement Officer
Christopher Cummings, Enforcement Officer
Julia Pinder, Enforcement Officer

2. Provincial Offences Officers - Parks and Culture Division:

Doug Miller, Senior Manager, Conservation Parks
Sven Pittelkow, Supervisor, Boyd CA and Indian Line Campground
Steve Beausoleil, Supervisor, Glen Haffy CA and Heart Lake CA
Jay Clark, Supervisor, Albion Hills CA and Campground
Stephen Lenstra, Supervisor, Petticoat Creek CA
Tom Boyce, Assistant Supervisor, Petticoat Creek CA
Nolan Patterson, Assistant Supervisor, Glen Haffy CA and Heart Lake CA
Brett Bond, Lead Hand, Albion Hills CA and Campground
Kyle Reyes, Lead Hand, Albion Hills CA and Campground
Margaret Milner, Lead Hand, Indian Line Campground
Dean Ross, Lead Hand, Heart Lake CA and Glen Haffy CA
Kevin Laporte, Lead Hand, Petticoat Creek CA

3. Pending Appointment – Enforcement and Compliance:

Emily Lacroix, Enforcement Officer
Griffin De Guzman, Enforcement Officer

Section I – Items for the Board of Directors Action

TO: Chair and Members of the Board of Directors
Friday, April 30, 2021 Meeting

FROM: Richard Ubbens, Director, Conservation Parks and Lands

RE: SUPPORT FOR INVESTMENT IN PETTICOAT CREEK CONSERVATION PARK (PCCP)
Coordinated Funding Support from All Levels of Government

KEY ISSUE

This report is to advise Toronto and Region Conservation Authority's (TRCA) Board of Directors of TRCA staff efforts to fund recent investments in PCCP through Board approved use of unrestricted reserves and to seek support and funding for these investments and other required infrastructure upgrades at PCCP from municipal and senior government partners. Funding is required for PCCP to maintain current levels of service taking into account growing use by residents and visitors including Great Lakes Waterfront Trail and Rouge National Urban Park visitors. Funding support being sought from partners includes direct funding from benefiting municipal partners and support for coordinated joint Provincial/Federal applications prioritizing infrastructure and active transportation investments for PCCP.

RECOMMENDATION

WHEREAS Petticoat Creek Conservation Park (PCCP) is an essential attraction for residents and visitors from Durham and across the GTA region;

WHEREAS PCCP accommodates many users of the Lake Ontario Waterfront Trail and users of the Rouge National Urban Park through park amenities, trail connections, and washroom facilities;

AND WHEREAS TRCA recently completed the necessary replacement of PCCP's electrical infrastructure funded through TRCA's unrestricted reserves as approved by the Board of Directors;

AND WHEREAS the Executive Committee of the Board of Directors has endorsed the use of unrestricted reserves to implement essential upgrades to the park's aging maintenance workshop facility;

AND WHEREAS TRCA staff have assessed and identified additional critical state of good repair needs in support of PCCP's maintenance operations, amenities, and to maintain an overall high level of service for park visitors;

THEREFORE, LET IT BE RESOLVED THAT staff report back on the continued discussions with Region of Durham, City of Pickering, Parks Canada and stakeholders towards securing funding to address required infrastructure upgrades as part of 2022 budget updates.

BACKGROUND

For decades, PCCP has been an essential attraction for East Toronto, Durham and residents across the GTA region. Although certain facilities were not operational during 2020, such as the much-loved aquatic facility, visitors used the park in record numbers. TRCA recorded a 170% annual increase in passive trail use across its Conservation Lands in 2020 and staff have

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observed a similar increase at PCCP. In fact, trail counters at PCCP recorded 4,100 visitors over the 2021 Easter weekend, when the park's gates and washrooms were still seasonally closed. During this unprecedented pandemic, public use and access to parks and open spaces is of utmost importance, which has certainly magnified the importance of maintaining park infrastructure.

Due to its proximity to the Rouge National Urban Park, PCCP has become an essential year-round part of an extended park and trail system, providing relief for users as well as access to this regional scale amenity of the Great Lakes Waterfront Trail. Along the Great Lakes Waterfront Trail, PCCP is a well-established spot for picnics, shelter from the elements and a vital location for washroom facilities.

To facilitate this increased use, it is essential that the park infrastructure is safe and always provides a high level of service for visitors to the park. Last year, TRCA invested over \$600,000 to replace the park's electrical system to ensure continued use of park amenities such as the aquatic facility, washrooms, electronic gates and lighting. At Authority Meeting #5/20, held on June 26, 2020, Resolution #A84/20 for the electrical system replacement was approved, in part, as follows:

“AND FURTHER THAT TRCA staff fund the urgent procurement using unrestricted reserves and approach both the City of Pickering and the Region of Durham to reimburse TRCA and determine funding mechanisms for further infrastructure projects at PCCA.”

TRCA's minimal reserves are not usually used to cover ongoing infrastructure needs of our facilities, however, without financial support of our municipal partners, the Board made the decision that the alternative of closing the park was not an option and approved the urgent procurement to replace the electrical system. Following Board direction, staff conducted discussions with City of Pickering and Region of Durham officials. However, staff were unsuccessful in securing support or partnering with municipalities on potential funding applications due to the parameters of the funding programs and other municipal priorities.

Ahead of TRCA performing a Building Condition Assessment for PCCP as part of the Asset Management Program, TRCA staff undertook a comprehensive review of the current condition of infrastructure across PCCP. This review highlighted several pressing issues that are shown in Attachment 1 and will require funding in the immediate future, including the following:

- The driveway entrance (Whites Road connection) into the park requires major reconstruction and expansion. The existing condition of the roadway has resulted in complaints and incidents for both vehicles, pedestrians and cyclists and is a liability to TRCA. This project will incorporate a formal pedestrian sidewalk which is not part of the existing driveway and will strive to meet AODA requirements. Additional assessments will be required to address storm water management issues to fully realize the costs to reconstruct the driveway.
- The aquatic facility has undergone a comprehensive review and condition assessment to help diagnose and address the ongoing mechanical and structural issues. Reporting and detailed information of this assessment is imminent. The pool is the main attraction at PCCP and the potential for a mechanical inefficiency would force periodic closures of the facility during operating season. Currently, there is no estimated budget, but an engineering forensic study is being commissioned which will provide this information.

Item 7.5

- Three picnic shelters which provide much needed respite from inclement weather are in poor structural condition and require replacement.
- Two washrooms in the park require full renovation, upgrades and expansion to service the volume of users and eliminate the operational expense of portable toilets brought to site yearly.
- Automated gates are necessary at the front gate to allow paid off-season access to the park during nice weather days in the late Fall, Winter, and early Spring season and to reduce stacking of cars on Whites Road on busy summer days.
- Parking lots require reconstruction due to potholes and restricted capacity. The current conditions result in safety concerns within the parking lots and driveways as the existing lots are undersized to facilitate park use.

To address failing infrastructure, the April 9, 2021 Executive Committee Resolution #B20/21 recommended approval for the release of \$523,000 in additional reserves to implement essential upgrades to the park's maintenance workshop facility. This building is critical infrastructure and requires repair and retrofit to provide a safe facility for operations staff who maintain the park. The current workshop has deteriorated since it was constructed in 1975 resulting in roof leaks, mold and asbestos identified in the walls and ceiling, and does not have a proper functioning heating system or energy efficient doors and windows.

RATIONALE

To date, TRCA has been unsuccessful in securing municipal, Provincial or Federal funding to advance these initiatives, including most recently through the Investment in Canada Infrastructure Program (ICIP) funding as Conservation Authorities were deemed to be ineligible applicants.

To best serve our stakeholders, we continue to partner with our municipalities across our jurisdiction. For example, Peel Region, Brampton, Caledon and TRCA have entered agreements to facilitate the investment of millions of dollars in funds to maintain and enhance Conservation Park assets, resulting in sustained operations and continued public enjoyment in the region.

TRCA has discussed the need for funding with senior municipal officials and issued letters of correspondence seeking the opportunity to discuss potential support from Parks Canada, the Region of Durham and the City of Pickering that could be directed to PCCP for necessary maintenance and upgrades which will allow the park to continue to be a valuable community resource.

The PCCP with exception of the aquatic facility due to COVID-19, will be open to the public for the 2021 season. However, the infrastructure listed above that is nearing end of life provides amenities to provide a high quality experience at the park but is unfortunately either failing, requiring upgrades, or replacement. Opportunities to enhance the park experience have been considered, such as the potential to winterize washrooms to be available year-round, to upgrade the gate systems to allow for paid use of the park in the off season, and to share maintenance facilities to garner further support, achieve a greater public presence, and garner potential investment in the park.

Through several planning initiatives such as the west extension of the Waterfront Trail from Rotary Frenchman's Bay Park West, and upgrades to trails and infrastructure at Rouge Beach within RNUP, access and desire to utilize PCCP by residents is expected to continue to increase, providing opportunity for the park to see increased revenue and use should amenities be available and in proper working order.

Item 7.5

Relationship to Building the Living City, the TRCA 2013-2022 Strategic Plan

This report supports the following strategy set forth in the TRCA 2013-2022 Strategic Plan:

Strategy 3 – Rethink greenspace to maximize its value

Strategy 7 – Build partnerships and new business models

FINANCIAL DETAILS

TRCA staff recommended, and the Board endorsed, the use of unrestricted reserves to address immediate requirements for PCCP. Staff will continue to explore any funding support from the Region of Durham and the City of Pickering, and possibly Parks Canada, to support these investments and future required infrastructure upgrade projects at PCCP. Staff will report back on progress of these discussions as part of budget updates as per the recommendation in this report.

Report prepared by: Richard Ubbens, extension 5672

Emails: richard.ubbens@trca.ca

For Information contact: Richard Ubbens, extension 5672

Emails: richard.ubbens@trca.ca

Date: April 12, 2021

Attachment 1: Aging Assets at Petticoat Creek Conservation Park

Aging Assets at Petticoat Creek CP

Need for Coordinated Funding Support from All Levels of Government

Attachment 1 – Board of Directors Report

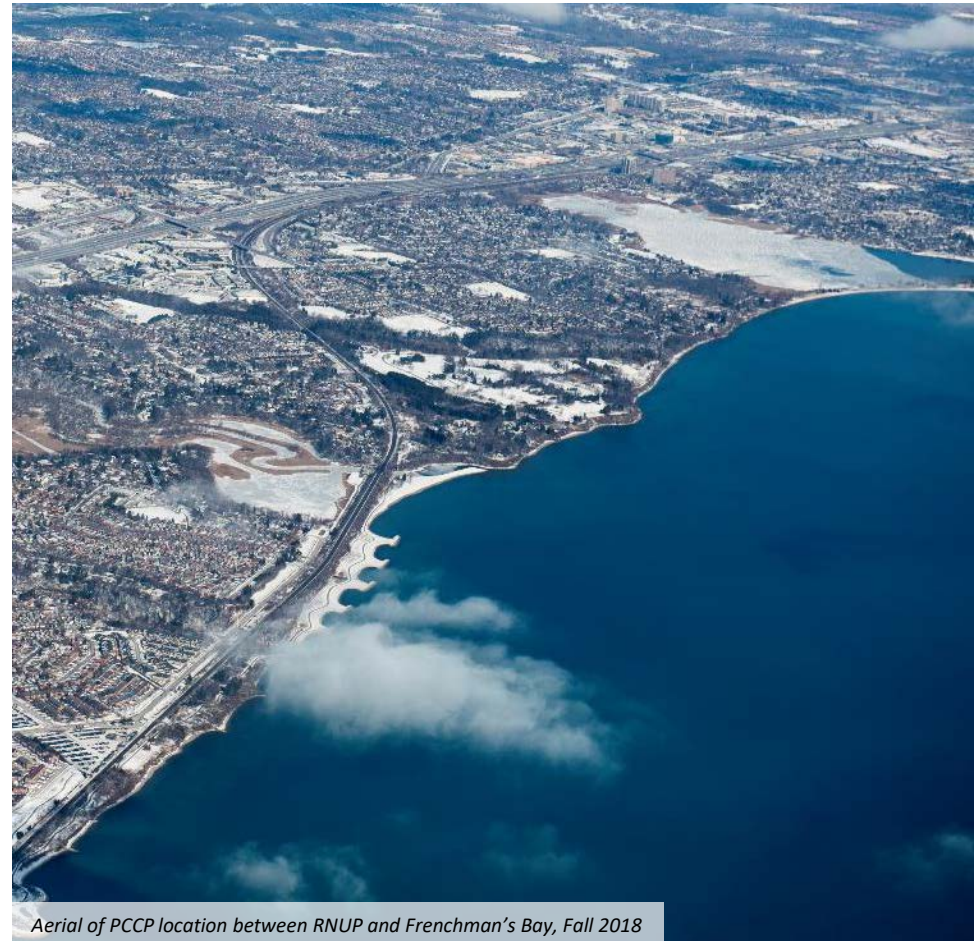
April 30, 2021

Introduction

- For decades, Petticoat Creek Conservation Park (PCCP) has been an essential attraction for Durham and Pickering residents.
- Due to its proximity to the Rouge National Urban Park, PCCP has become an essential year-round part of an extended park and trail system, providing relief for users as well as access to this regional scale amenity through the waterfront trail network, as well a great spot for picnics, shelter from the elements and a vital location for washroom facilities.



- The proposed west extension of the Waterfront Trail from Rotary Frenchman's Bay Park West, and upgrades to trails and infrastructure at Rouge Beach, will increase use of PCCP by residents.
- TRCA recorded a 170% annual increase in passive trail use across its Conservation Lands in 2020 with a recorded 4,100 visitors through Petticoat Creek Conservation Park over the 2021 Easter weekend.
- The park will be open to the public for the 2021 season, however infrastructure described below is nearing end of life and requires improvement to provide amenities to support quality of life for community and quality experience at the park.



Aerial of PCCP location between RNUP and Frenchman's Bay, Fall 2018

Overview

- The following are several pressing issues that will require funding in the immediate future:
 - Park Driveway Entrance
 - Aquatic facility
 - Picnic Shelters
 - Washrooms
 - Automated Gates
 - Parking Lots
 - Additional Park Concerns (Sewers, Sink Holes, Bluff Erosion)
 - Recent and Planned Infrastructure Upgrades (Workshop)
 - Summary

Park Map – Pressing Issues



Park Driveway Entrance

- Requires major reconstruction and expansion
- Existing condition of the roadway results in conflicted use
- Safety concerns due to potential incidents between both vehicles, pedestrians and cyclists
- Incorporate a formal pedestrian sidewalk which is not part of the existing driveway and will strive to meet AODA requirements
- Additional assessments required to investigate the storm water management



Photo of main entrance to PCCP

Park Driveway Entrance

Drainage Issue

- Surface water re-routed from Dunmoore Park into PCCP overwhelming sewer and storm drains, causing property damage that is compromising the park entrance



Photo of re-routed water flowing into park entrance, overwhelming sewer and storm drains, causing damage to pedestrian walkway, and pooling at bottom of road impeding vehicular traffic.

Aquatic Infrastructure

- Significant defects identified in construction and aquatic system
- Preliminary reviews by external consultant indicating that pool infrastructure is end of life and not meeting many current regulations. Further recommendations to be provided by external consultant
- Asphalt settling around concrete stairs; numerous plumbing issues; HVAC system nonfunctioning; asbestos tiles in ceiling; light fixtures need replacement



Photo of entrance to the Aquatic Facility. Asphalt settling around concrete stairs. Stairs are steep and narrow. Patch work completed at base of steps and railings installed in attempt to mitigate risk.

Aquatic Infrastructure



Photo of pump room. Inadequate chemical (CO_2 /chlorine) storage and equipment to deliver chemicals to pools in order to maintain pool.

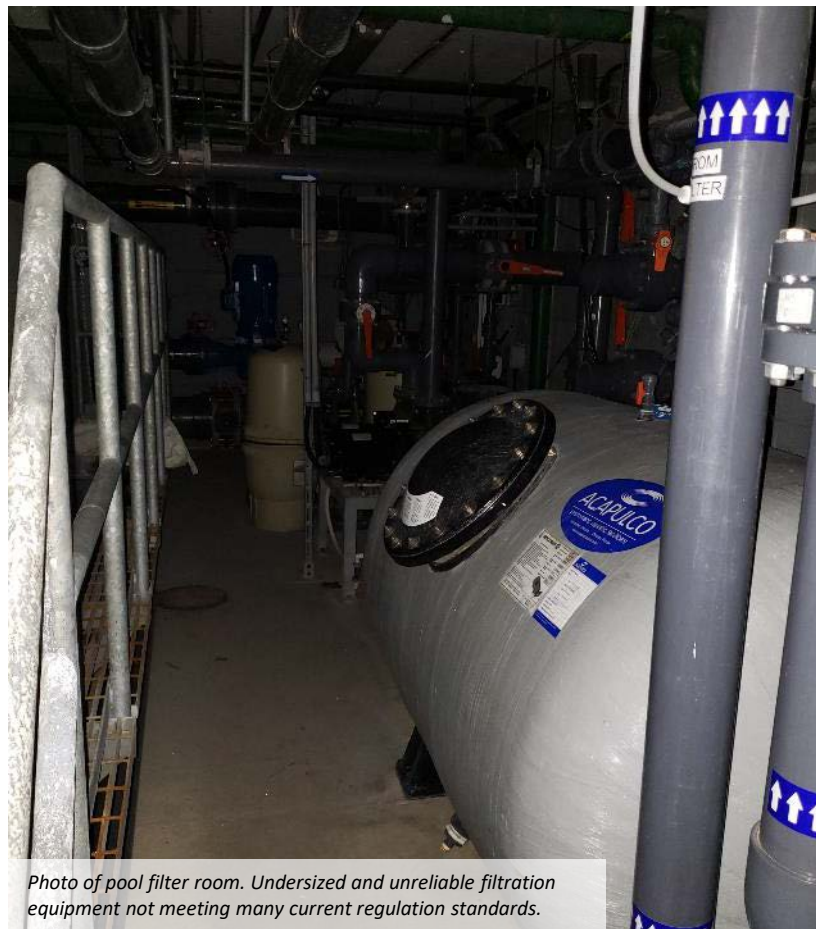


Photo of pool filter room. Undersized and unreliable filtration equipment not meeting many current regulation standards.

Picnic Shelters

- Structural Integrity Issues:
 - Broken asbestos tile and ceiling supports; heaving patio stones due to tree roots; shelter located in drainage path – during heavy weather events can be 2-4 inches of water pooled on the floor; ceiling missing protective mesh; broken structure due to vandalism and aging
- Capacity Issue:
 - Additional picnic shelters required to support high visitation levels



Photo of degrading cement picnic shelter post and beams

Existing



New



Washroom Facilities

- Structural Integrity Issues:
 - Asbestos present; heaved concrete floor; compromised plumbing; no hot water or HVAC; broken and uneven tiles; poor and damaged lighting; partition's rotting; difficult activation buttons on sanitary plumbing
- Accessibility Issues:
 - Despite having accessible stalls and signage, entrance path concrete broken and uneven and wheelchairs cannot enter
- Capacity Issue:
 - Additional facilities required to support high visitation levels

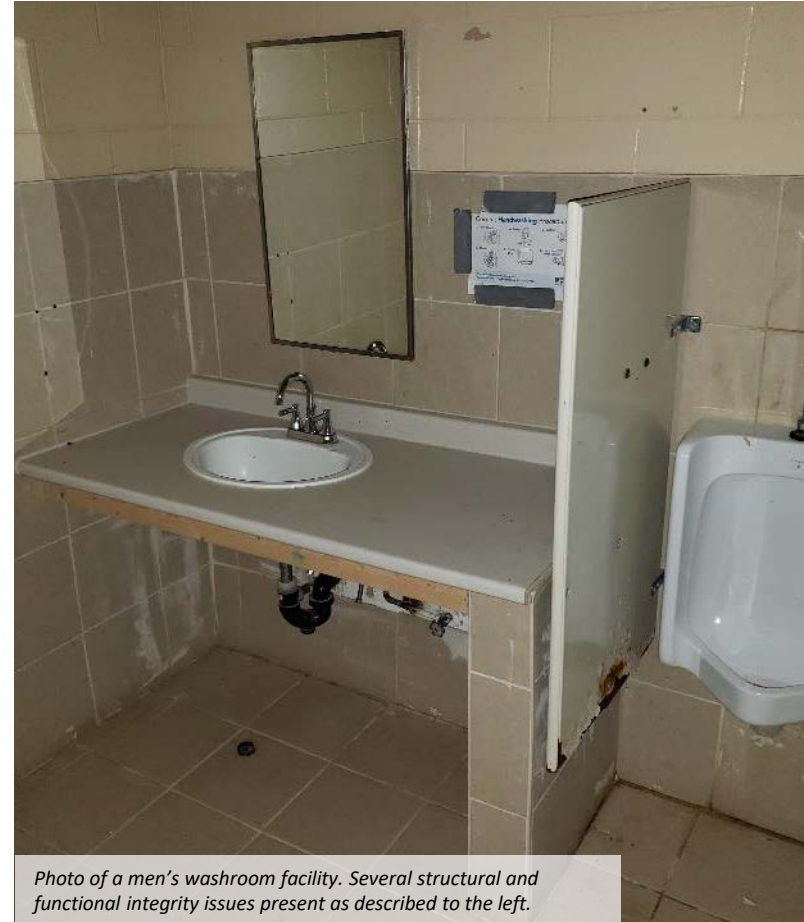


Photo of a men's washroom facility. Several structural and functional integrity issues present as described to the left.

Washroom Facilities



Photo of the entrance to washroom building. Eroding building structure. Heaved and broken concrete creating accessibility issues so that wheelchairs cannot enter.

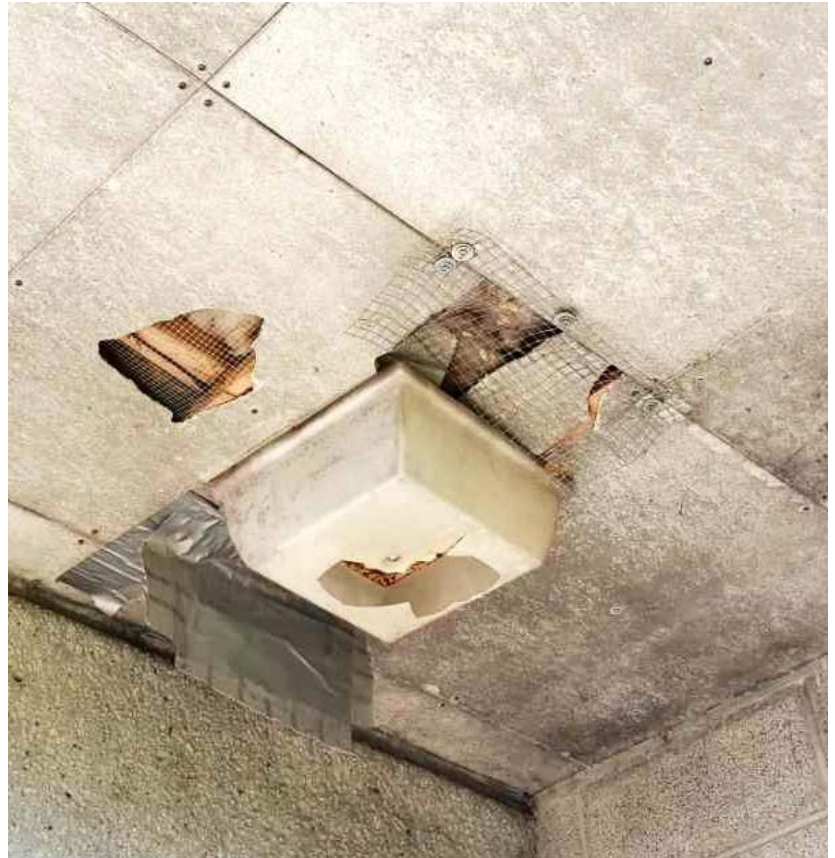


Photo of light outside washroom that has been vandalized. Asbestos present in ceiling tiles requiring abatement prior to repair.

Automated Gates

- Automated gates are necessary at the front gate to allow paid off-season access to the park during nice weather days in the late Fall, Winter, and early Spring season.

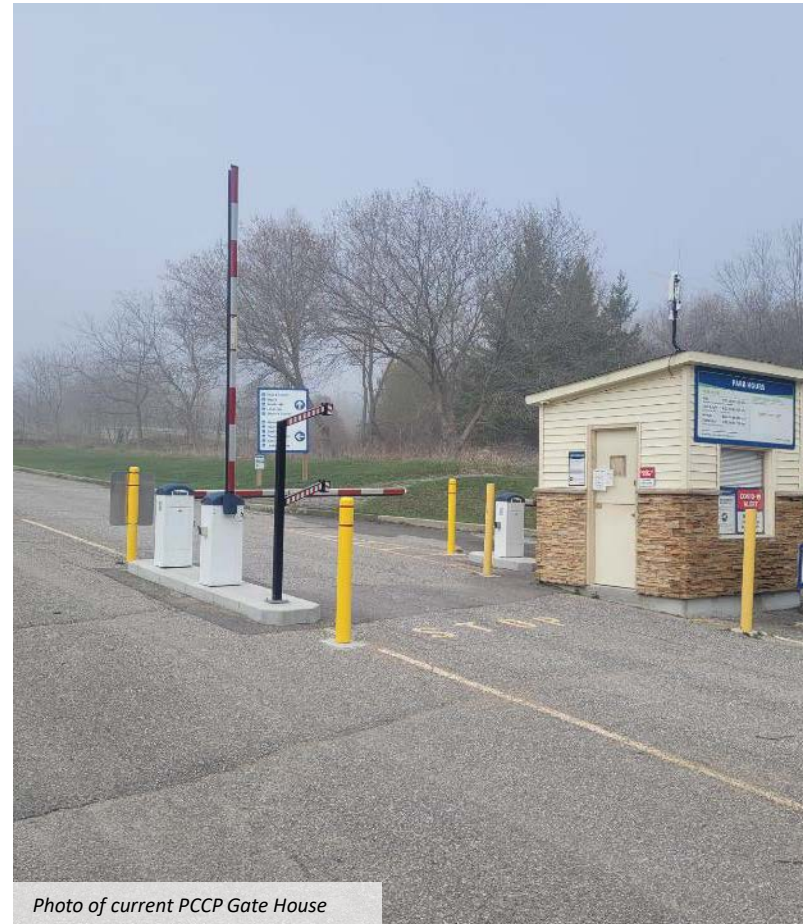


Photo of current PCCP Gate House

Parking Lots & Roads

- Significant cracking, sinking, and uneven with significant heaving in roads and curbs
- Shared entrance between pedestrians, vehicles, and bikes has become extremely dangerous
- Parking lots require reconstruction due to potholes and restricted capacity. The current conditions result in safety concerns within the parking lot, as well as beyond.



Parking Lots



Photo of main parking lot. Uneven lot and inadequate markings causing hazards. Cracked and damaged pavement with significant vegetative growth requiring significant staff time to maintain.

Additional Park Concerns

Sewers & Sink Holes

- Several Compromised Storm Sewer Drains:
 - Sewer walls collapsing into basin; sinking causing uneven roads and curb heaving leading to poor drainage
- Sink Hole in Parking Lot:
 - 3ft wide sink hole suspected to be due to abandoned well (floor found at ~40ft); contributing to parking hazards
- Moore's Meadow Picnic Site:
 - Large ground depressions requiring significant amounts of fill annually suspected to be due to abandoned infrastructure, including well



Photo of one compromised storm water sewer vault caving into itself.

Additional Park Concerns

Sewers & Sink Holes



Additional Park Concerns

Erosion Damage

- Bluffs receded significantly over past 9+ years, 12-15 ft in some sections annually
- Unsanctioned trails close to trail edge have been signed closed; fences and signs consistently removed and vandalized to gain access.



Photo of extreme erosion damage along bluffs.

Recently Implemented Infrastructure

Electrical

- Hydro upgrades: all panels, switches and transformers have been replaced and new underground electrical cables installed
- New shelter at the Aquatic Facility



Photo of transformers and switch recently installed for aquatic facilities

Planned Infrastructure Upgrades

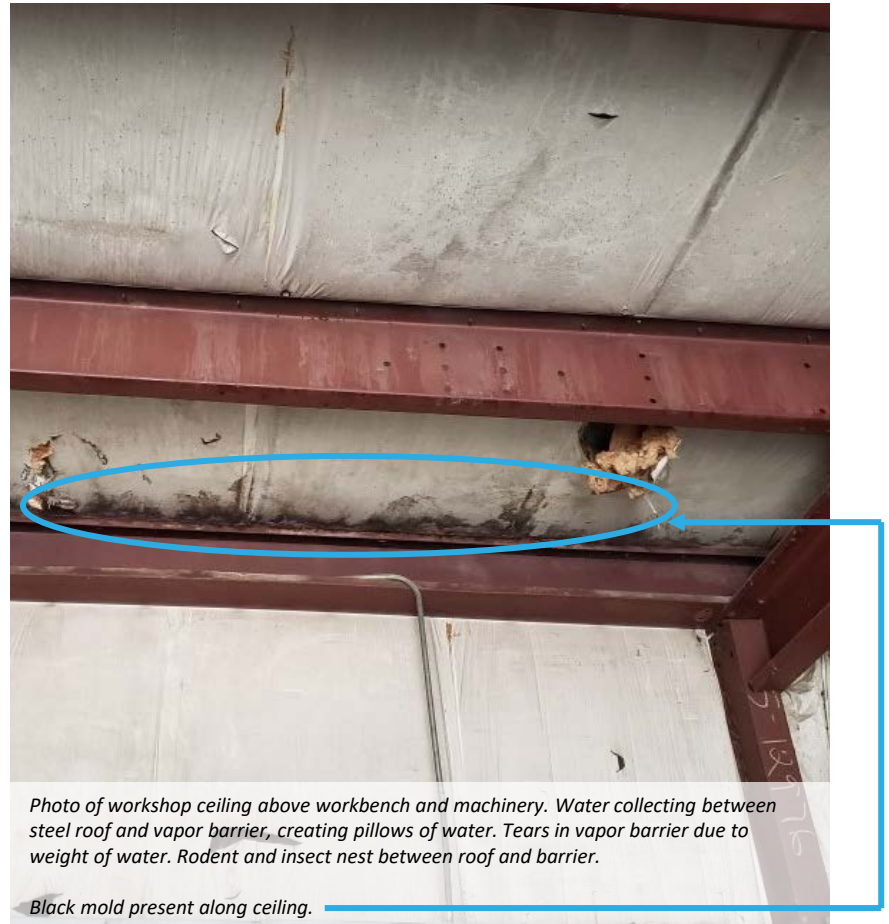
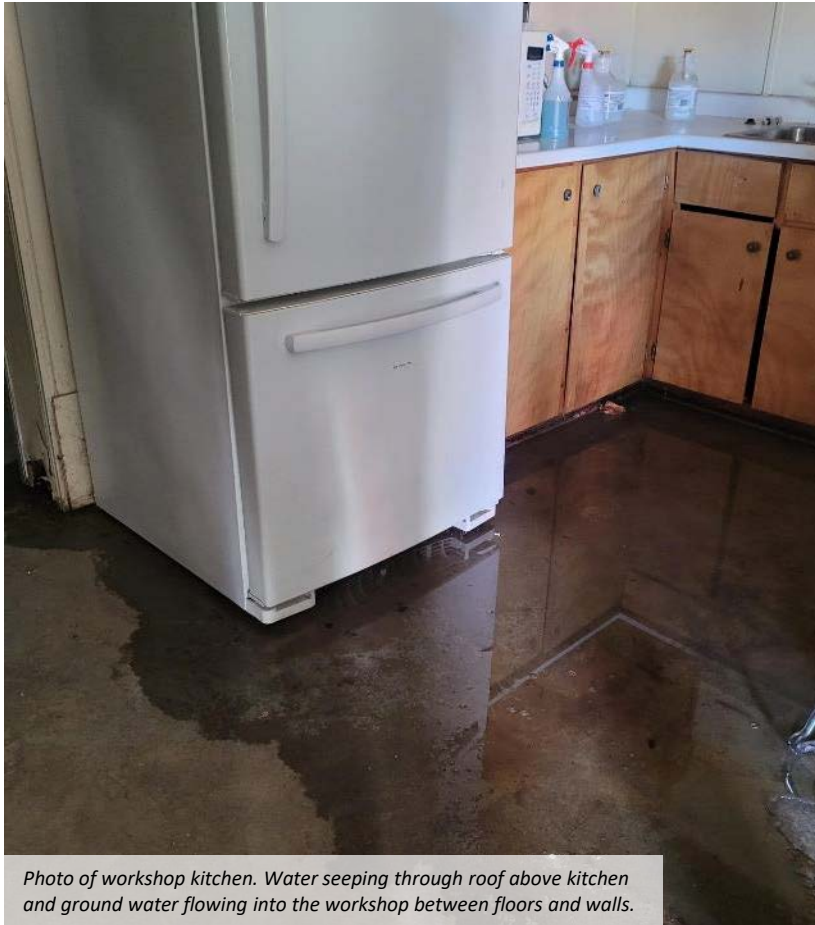
Workshop

- Black mold, asbestos, and lead paint present
- Aging infrastructure and poor conditions of metal siding, roof, doors, and windows
- Water leaks in roof and improper grading results in water to flow across the floor in shop and lunchroom, and pooling in the shop
- Rodent nests and insects present as building is not weather-tight
- Storage space is limited, containers are used to supplement
- Executive Committee endorsement on April 9th, 2021 for release of \$523,000 in TRCA reserves to implement work



Photo of outside of workshop. Storage containers used due to limited storage space. Portable washrooms used in shoulder seasons because plumbing is not functional due to not having heat in workshop.

Planned Infrastructure Upgrades



Summary

- TRCA has sent letters seeking the opportunity to discuss potential support from Parks Canada, the Region of Durham and the City of Pickering that could be directed to Petticoat Creek Conservation Park
- Other than the Aquatic Facility which is closed due to COVID-19, PCCP will be open to the public for the 2021 season. However, the infrastructure listed above that is nearing end of life provides amenities to support quality of life for the community and quality experience at the park.
- TRCA has considered park enhancements, such as winterizing washrooms to be available year-round, upgrading the gate systems to allow for paid use during off season, and potential for combined use with municipal and partner stakeholders use of maintenance facilities. Results would be securing support and investment into the park.

Section III – Items for the Information of the Board

TO: Chair and Members of the Board of Directors
Friday, April 30, 2021 Meeting

FROM: John MacKenzie, Chief Executive Officer

RE: **PORT LANDS FLOOD PROTECTION AND ENABLING INFRASTRUCTURE
PROJECT UPDATE**

KEY ISSUE

A progress update on the Port Lands Flood Protection and Enabling Infrastructure Project.

RECOMMENDATION

IT IS RECOMMENDED THAT the update on staff progress on the Port Lands Flood Protection and Enabling Infrastructure Project accompanying the presentation by Waterfront Toronto (WT) be received.

BACKGROUND

Coordinated Flood Protection Projects in the Lower Don River Area

Approximately 290 hectares of the Port Lands at the mouth of the Don River at Lake Ontario in the City of Toronto are vulnerable to flooding under a Regulatory flood event (a Hurricane Hazel-scale storm). In 2004, Toronto and Region Conservation Authority (TRCA) and the Toronto Waterfront Revitalization Corporation (now Waterfront Toronto or WT) initiated the Don Mouth Naturalization and Port Lands Flood Protection Project Environmental Assessment (DMNP EA) to explore opportunities to provide Regulatory flood protection, establish a naturalized river mouth, and facilitate redevelopment of the Port Lands.

In September 2011, the City of Toronto became a co-proponent on the DMNP EA and City Council unanimously approved the Port Lands Acceleration Initiative (PLAI) to develop a business and implementation plan to accelerate development opportunities. The DMNP EA was put on hold while the PLAI examined whether the Lower Don Lands could be developed more affordably and faster than previously anticipated. Ultimately, the PLAI indicated that large scale revitalization could occur based on phased implementation of the required flood protection and infrastructure. The DMNP EA was then completed and approved by the Ministry of the Environment and Climate Change in January 2015.

Following approval, TRCA, with the support of WT, began preliminary studies to inform project implementation and ensure compliance with the EA conditions set by the Ministry. At Authority Meeting #3/15, on March 27, 2015, Resolution #A38/15 provided staff direction to work in conjunction with the City of Toronto, WT, Toronto Port Lands Company (now CreateTO), and others to further develop project schedules, budgets, and the planning approach for preliminary design and due diligence studies related to the Lower Don Lands and the Don Mouth Naturalization and Port Lands Flood Protection Project.

At Authority Meeting #7/16, held on September 23, 2016, staff provided an update on the status of funding to proceed with detailed design and construction. The report included information on the Port Lands Flood Protection and Enabling Infrastructure (PLFPEI) Due Diligence Report which was completed to provide greater certainty on the costs, risks, scheduling and an implementation strategy associated with the proposal to naturalize the mouth of the Don River

Item 8.1

and provide flood protection to the area. The due diligence phase was completed in 2016 and resulted in a comprehensive plan based on the DMNP EA, integrated with the outcomes of the approved Lower Don Lands Environmental Assessment. In keeping with the goals of the PLAI, WT developed an ambitious plan to complete all 23 sub-projects comprising the PLFPEI by 2024 (**Attachment 1**). Two other projects with significant TRCA involvement related to the main Port Lands enabling infrastructure works are Cherry Street lake fill (CSLF) (Item “A” on **Attachment 1**), and the Broadview and Eastern Flood Protection Municipal Class Environmental Assessment (BEFP EA), shown on **Attachment 2**, attached.

The CSLF project involved stormwater management infrastructure and aquatic habitat creation which forms part of the future Promontory Park North. Work was completed in November 2019, and TRCA will provide maintenance and monitoring services to the end of 2021 on a fee-for-service basis to WT.

The BEFP EA is a collaborative effort with the City of Toronto, WT, and TRCA as co-proponents, and part of a larger flood protection initiative which includes the Lower Don River West Remedial Flood Protection project. The Lower Don West project was completed in 2012 and protects the West Don Lands neighbourhoods and parts of downtown Toronto. The BEFP EA Preferred Alternative would be the third and final component of flood protection in this area of Toronto. The Preferred Alternative identified through the EA process is a flood protection landform parallel to the east side of the Don Valley Parkway and Don River, south of Eastern Avenue. The Environmental Study Report (ESR) for this alternative describes a phased implementation strategy where flood protection would be realized for the bulk of the study area in Phase One, while maintaining the existing business at 1-9 Sunlight Park Road. Phase Two could be completed at a later date by the landowner, to achieve the full development potential of the property. The ESR was released for public and agency review as per *Environmental Assessment Act* notification requirements on April 13, 2021. Comments will be received until May 12, 2021. More information can be found at www.trca.ca/befp. TRCA is also working with the City of Toronto, Metrolinx, WT, benefiting landowners, and senior levels of government to try to secure funding for implementation of detailed design and construction of this landform.

Port Lands Flood Protection and Enabling Infrastructure Implementation Progress

TRCA staff have been working with WT on detailed design and permit review since 2018. Early site preparation activities included building demolition, earthworks, contaminated soil treatment, archaeological assessments, baseline conditions monitoring, and tree removal, to prepare the site for excavation and construction. At Board of Directors Meeting #5/19, held on May 24, 2019, the Board received an update from WT on these activities under resolution #A87/19.

On March 13, 2020, at Executive Meeting #1/20, the Executive Committee granted approval under resolution #B8/20 of the permit for WT's proposed works to build the structures which form the new Don River valley and adjacent wetlands.

TRCA continues to work closely with WT as earthworks and construction on some sub-projects progress simultaneously with detailed design and permit review for others. The future Don River, once only a concept, is now taking shape and the unique complexities of this unprecedented, large-scale engineering undertaking are becoming reality. While the channel will ultimately appear to be a natural, meandering river with adjacent wetlands and greenspace, there is a significant amount of highly engineered material and structures within the water lot which serve as a complex containment system for the contaminated soils.

Agency intervention to manage the river valley as a series of natural habitats, as well as to maintain the flood protection infrastructure and utilities to serve future urban development, will

be required in perpetuity. As the infrastructure ages, new issues should be expected to arise. WT, the City of Toronto, and TRCA have commenced planning for the long-term operations, maintenance, and surveillance (OMS) of the future valley lands and park areas. Planning is advancing quickly, and significant preparation is required for the upcoming handover of the many properties, assets, and natural features comprising the river and park lands to a permanent landowner, to support WT's aggressive schedule to commission the new Don River by early 2024.

RATIONALE

Providing flood protection to the Port Lands was identified as a TRCA priority in the 1980s. TRCA's interest in naturalizing the Don River mouth has been a shared priority with the City of Toronto and the broader community as identified by the Task Force to Bring Back the Don's report "Taking Back the Don" in 1991. The 1992 "Regeneration: Royal Commission on the Future of the Toronto Waterfront" report also outlined the federal interest in the Lower Don, and provincial support aligned with these initiatives when all three levels of government jointly established the Toronto Waterfront Revitalization Corporation in 2001. As such, the current detailed design and implementation of WT's 23 enabling infrastructure sub-projects of the PLFPEI is the culmination of close to 40 years of consultation and planning, with TRCA at the forefront throughout the process.

Central to the Port Lands project, naturalizing the mouth of the Don River will not only facilitate flood protection for more than 240 hectares of land, but will also result in the creation of over 1,000 metres of new river channel and establish and enhance 30 hectares of new aquatic, wetland, and terrestrial habitat in the river valley. New parks and public realm features on lands outside the floodplain will comprise an additional 16 hectares of public greenspace. Together, these works will unlock the development potential of this prime waterfront area by transforming the underutilized, post-industrial site into a vibrant, mixed-use, sustainable community which will support Toronto's growth and economic competitiveness.

TRCA has a significant stake in the Port Lands Flood Protection project due to our role as co-proponent of the original DMNP EA. TRCA's CEO, along with senior provincial, federal, WT and City officials serve on the Executive Steering Committee for the PLFPEI to provide oversight and advice on this unprecedented investment in flood protection by all three levels of government. TRCA also has a legislated responsibility to issue permits under the *Conservation Authorities Act (2019)*, and to monitor compliance with the conditions of the DMNP EA. Additional interests also include flood mitigation, erosion control structures to control water flow and manage sediment/debris, and management of the ecology and natural asset infrastructure.

Relationship to Building the Living City, the TRCA 2013-2022 Strategic Plan

This report supports the following strategies set forth in the TRCA 2013-2022 Strategic Plan:

Strategy 2 – Manage our regional water resources for current and future generations

Strategy 4 – Create complete communities that integrate nature and the built environment

Strategy 7 – Build partnerships and new business models

FINANCIAL DETAILS

The current delivery agreement between TRCA and WT is in effect until 31 December 2023 for the sum of \$7,603,292, under account 191-20. As of December 31, 2020, \$2.3 million has been billed for TRCA's services. Details of work covered under this agreement are described below.

DETAILS OF WORK TO BE DONE

Through TRCA's fee-for-service delivery agreement, on an ongoing basis staff provide a variety of technical support and expertise to WT and its sub-contractors related to hydrology, ecology, geotechnical, fluvial geomorphology, groundwater remediation, storm water management, flood protection and conveyance, archaeology, habitat restoration, environmental monitoring, permitting and construction considerations, to inform the detailed design and implementation of the project.

Infrastructure Planning staff work with WT to identify permit requirements under Ontario Regulation 166/06, and to streamline the permit process by simplifying, expediting, and aligning TRCA's review process and timelines with the project construction schedule, to the extent possible. The majority of the infrastructure permits to allow for the construction of new and replacement roads, utilities, sewers, bridges, community and pedestrian amenities will be reviewed and permitted under the current delegated permit approval process, per Authority Resolution #B138/13.

In 2021, design, permit review, and construction are simultaneously underway. Archaeological assessments and site monitoring continue. Permit submissions for parks and public realm features, the Don Roadway Flood Protection Landform, soil management, and various utility crossings are under review. Further, staff continue to be heavily involved in design review and planning for the future Sediment and Debris Management Area, which will also require a permit in 2021. In addition, staff are in ongoing negotiations with the City of Toronto, Ports Toronto, and WT regarding dredging of Keating Channel, which is required for both flood risk mitigation and to facilitate WT's construction activities in, and upstream, of the channel.

TRCA also conducts environmental monitoring and completes annual EA compliance reports to the provincial Ministry of the Environment, Conservation and Parks, in partnership with WT and in consultation with the City of Toronto, as the other DMNP EA co-proponents. Under the existing delivery agreement, pre-construction and construction phase monitoring will continue until 2023. A new delivery agreement will be necessary for post-construction EA compliance monitoring, which may be required for up to 15 years after the new river valley is operational.

Staff also work in collaboration with WT and the City of Toronto to determine final ownership and develop operations and maintenance plans for the long-term management of the Port Lands river valley and parks and public realm spaces, and features such as the future Sediment and Debris Management Area. Further, staff participate in the City of Toronto's Operating Budget Impact Committee, which will develop and advocate the adoption of a series of staff reports to Council which identify immediate and long-term operations and maintenance costs associated with the Port Lands, and coordinate input from various City divisions with the City's post-2021 Operating Budget and 2021-2030 Capital Plan submissions.

Report prepared by: Maryam Iler, ext. 5937; Nancy Gaffney, ext. 5313

Emails: maryam.iler@trca.ca; nancy.gaffney@trca.ca

For Information contact: Maryam Iler, ext. 5937; Nancy Gaffney, ext. 5313

Emails: : maryam.iler@trca.ca; nancy.gaffney@trca.ca

Date: April 12, 2021

Attachments: 2

Attachment 1: Map of Port Lands Flood Protection Enabling Infrastructure Subprojects

Attachment 2: Map of Broadview and Eastern Flood Protection Municipal Class Environmental Assessment Study Area

What are we building?

- A** Cherry Street Stormwater and Lakefilling
- B** Polson Slip Naturalization
- C** Flood Protection - River Valley
- D** Don Greenway (Spillway & Wetland)
- E** Don Roadway Valley Wall Feature
- F** East Harbour Flood Protection Land Form
- G** Sediment and Debris Management Area
- H** Flow Control Weirs
- I** Eastern Avenue Flood Protection
- J** Villiers Island Grading
- K** Keating Channel Modifications
- L** Promontory Park South
- M** River Park
- N** Lake Shore Road and Rail Bridge Modifications
- O** Cherry Street Bridge North
- P** Cherry Street Bridge South
- Q** Commissioners Street Bridge
- R** Old Cherry Street Bridge Demolition
- S** Site Wide Municipal Infrastructure
- T** Don Roadway
- U** Hydro One Integration
- V** Commissioners Street
- W** Cherry Street Re-alignment

- Port Lands Flood Protection and Enabling Infrastructure Boundary
- Earthworks/Flood Protection
- Parks
- Bridges & Structures
- Roads and Municipal Infrastructure





Section III – Items for the Information of the Board

TO: Chair and Members of the Board of Directors
Friday, April 30, 2021 Meeting

FROM: Michael Tolensky, Chief Financial and Operating Officer

RE: **SENIOR STAFF EXPENSES**
Summary of senior staff expenses for 2020

KEY ISSUE

Summary report of senior staff expenses for 2020.

RECOMMENDATION

IT IS RECOMMENDED THAT the summary of senior staff expenses for Toronto and Region Conservation Authority's (TRCA) Chief Executive Officer, Chief Financial and Operating Officer, Chief Human Resources Officer and Divisional Directors for the year ended December 31, 2020, be received.

BACKGROUND

At Toronto City Council on November 29, 30 and December 1, 2011, the following resolution was approved:

City Council approve the publication on the City's public website on a semi-annual basis, commencing with the 2011 calendar year, expenses related to business travel, conferences and training, hospitality, and protocol for senior staff positions at the Division Head level and above.

City Council provide a copy of this Item to the City's major agencies and corporations requesting that they adopt a similar policy for their organization if they have not already done so.

In accordance with the above resolution, TRCA staff advised the City of Toronto that TRCA staff will report to the Board of Directors annually on the expenses outlined within the City staff report dated October 19, 2011, *Feasibility of Publishing Expense Details of Senior City Staff on the City's Website*. TRCA commenced this summary reporting practice in 2013 to include expenses of TRCA's Chief Executive Officer, Chief Financial and Operating Officer and divisional Directors. This information will be available on TRCA's website as part of this report in the minutes of the meeting.

The following expenses have been detailed in **Attachment 1**:

1. Business travel, which includes any mileage reimbursement with a personal vehicle, or operating costs of a TRCA vehicle provided to staff;
2. Conferences and training, which includes registration fees, accommodations, per diem allowances and professional membership dues;
3. Hospitality expenses, which includes hosting non-staff at TRCA events, eating establishments or other permitted locations.

Additional expense information can be provided in-camera, upon request.

Item 8.2

Relationship to Building the Living City, the TRCA 2013-2022 Strategic Plan

This report supports the following strategy set forth in the TRCA 2013-2022 Strategic Plan:

Strategy 9 – Measure performance

Report prepared by: Eva Najemnikova, extension 6451

Emails: eva.najemnikova@trca.ca

For Information contact: Eva Najemnikova, extension 6451

Emails: eva.najemnikova@trca.ca

Date: March 17, 2021

Attachments: 1

Attachment 1: Summary of Senior Staff Expenses for 2020

Item 8.2

Attachment 1: Summary of Senior Staff Expenses for 2020

John MacKenzie, Chief Executive Officer

Business Travel	5,015
Conferences and Training	1,136
Hospitality and Protocol	94
Total	6,245

Michael Tolensky, Chief Financial and Operating Officer

Business Travel	328
Conferences and Training	980
Total	1,308

Natalie Blake, Chief Human Resources Officer

Conferences and Training	542
Total	542

Darryl Gray, Director, Education and Training

Business Travel	1,181
Total	1,181

Laurie Nelson, Director, Policy Planning

Conferences and Training	964
Total	964

Sameer Dhalla, Director, Development and Engineering Services

Business Travel	233
Conferences and Training	265
Total	498

Derek Edwards, Director, Parks and Culture (Jan 2020)

Total	-
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Richard Ubbens, Director, Parks and Culture (Apr – Dec 2020)

Business Travel	866
Conferences and Training	549
Total	1,415

Moranne McDonnell, Director, Restoration and Infrastructure (Jan - Jun 2020)

Business Travel	352
Total	352

Anil Wijesooriya, Director, Restoration and Infrastructure (Sep - Dec 2020)

Total	-
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Section III – Items for the Information of the Board

TO: Chair and Members of the Board of Directors
Friday, April 30, 2021 Meeting

FROM: Michael Tolensky, Chief Financial and Operating Officer

RE: **2020 FREEDOM OF INFORMATION REQUEST SUMMARY**

KEY ISSUE

A summary of access to information requests completed by Toronto and Region Conservation Authority (TRCA) in 2020 under the *Municipal Freedom of Information and Protection of Privacy Act*.

RECOMMENDATION

WHEREAS TRCA is subject to an annual reporting requirement under the *Municipal Freedom of Information and Protection of Privacy Act*;

IT IS RECOMMENDED THAT 2020 Freedom of Information Request Summary report, be received.

BACKGROUND

TRCA is considered an "institution" as defined by section 2(1) of the *Municipal Freedom of Information and Protection of Privacy Act (the Act)* and is therefore subject to the requirements of the Act.

Under subsection 26(1) of the Act, the institution is required to submit an annual access to information statistical report to the Information and Privacy Commissioner of Ontario (IPC). This report provides a summary of statistics included in the TRCA 2020 annual report to the IPC, which was submitted on March 25, 2021.

Under the Act, TRCA reports on two types of information requests: requests for general records and requests for personal information. The former captures requests for information about someone else, while the latter is concerned with requests for "own personal information", requested by an individual or their agent.

All requests must be completed within 30 calendar days, with the exception of cases when a Notice of Extension or a Notice to Affected Person is issued, which extends the request processing timeline by an additional 30-60 days.

RATIONALE

In 2020 TRCA received forty-three (43) new requests for information under the Act. Thirty-eight (38) of these requests were completed, while five (5) were carried forward to 2021 because the requests were received and entered in late November/December and therefore had automatic legislative deadlines that extended into the following year. Additionally, two (2) requests carried over from 2019, were completed in 2020.

Of the forty (40) completed requests, thirty-seven (37) were related to "general records" and three (3) were related to "personal information".

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Nineteen (19) of these requests were received from individuals/public, 15 from businesses, 4 from an agent representing an individual, and 2 from associations/groups.

Of the 40 requests completed in 2020, 37 requests, or 92.5% were completed within the legislated timelines, while 3 requests were completed late due to COVID-19 related delays and IPC closures. Overall, the requests were processed as follows:

In response to the 40 requests, the following was disclosed:

- all information in 7 cases;
- partial information in 18 cases;
- no information disclosed in 3 cases;
- no responsive records existed in 5 cases;
- request was withdrawn, abandoned or non-jurisdictional in 7 cases.

When partial information was disclosed or access was denied, the exclusions used for non-disclosure were as follows, and for the illustrated number of requests:

- Section 7 – Advice or Recommendation: 2
- Section 8 - Law Enforcement: 5
- Section 9 – Relations with Governments: 1
- Section 10 - Third Party Information: 4
- Section 11 - Economic/Other Interests: 2
- Section 12 - Solicitor-Client Privilege: 8
- Section 14 - Personal Privacy (Third Party): 14
- Section 15 - Information soon to be published: 1
- Section 52(3) – Labour Relations & Employment Related Records: 2

The Act provides the requester and affected third parties with the right to appeal TRCA's decisions to the IPC. There are three stages in an appeal: intake, mediation and adjudication. There are currently five (5) open appeals. Three (3) TRCA decisions were appealed to the IPC in 2020. Two (2) of the appeals are currently in the mediation phase, while one (1) is currently being reviewed by the IPC analysts and has not entered the mediation stage. One (1) outstanding appeal from 2019 and one (1) outstanding appeal from 2018 are currently in the mediation stage.

In addition, in accordance with the provisions of *Municipal Freedom of Information and Protection of Privacy Act*, provincial *Freedom of Information and Protection of Privacy Act*, and federal *Privacy Act*, other institutions regularly consult TRCA prior to issuing a decision related to TRCA's records in their custody or control (so-called third party records). In 2020 TRCA responded to six (6) such consultation notices recognizing the legislated timeframes of those Acts.

Relationship to Building the Living City, the TRCA 2013-2022 Strategic Plan

This report supports the following strategy set forth in the TRCA 2013-2022 Strategic Plan:

Strategy 9 – Measure performance

FINANCIAL DETAILS

Section 45 of the Act and section 6 of Regulation 823 prescribe fees associated with the processing of requests. A requestor is required to pay an initial, mandatory application fee of \$5, with the possibility of additional fees depending on the nature of the request. These fees may be charged for photocopying, search, and preparation time. In 2020, TRCA collected a total of \$12,478 in such fees. In keeping with the spirit of the Act to make records accessible to the public, TRCA does not charge fees for requests that take under half an hour to process, or in other

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circumstances where a fee waiver may be considered appropriate. A total of \$85.40 of fees were waived accordingly.

Report prepared by: Alisa Mahrova

Emails: alisa.mahrova@trca.ca

For Information contact: Alisa Mahrova

Emails: alisa.mahrova@trca.ca

Date: April 16, 2021

Section III – Items for the Information of the Board

TO: Chair and Members of the Board of Directors
Friday, April 30, 2021 Meeting

FROM: Sameer Dhalla, Director, Development and Engineering Services

RE: **SERVICE DELIVERY REPORT FOR SECTION 28 PERMIT APPLICATIONS, 2020**

KEY ISSUE

The purpose of this report is to present Toronto and Region Conservation Authority's (TRCA) Section 28 permit application review service delivery for 2020 pursuant to the Conservation Ontario Client Service and Streamlining Initiative.

RECOMMENDATION

IT IS RECOMMENDED THAT the Service Delivery Report for Section 28 Permit Applications, 2020 be received.

BACKGROUND

On March 29, 2019, the Board of Directors adopted [RES.#A38/19](#) which states in part:

THAT the Board of Directors endorse the three key areas identified by the Conservation Ontario working group for all Conservation Authorities to: 1) improve client service and accountability; 2) increase speed of approvals; and 3) reduce the notion of “red tape” and regulatory burden, in addition to the ongoing streamlining measures being undertaken by TRCA...;

AND THAT staff be directed to work with Conservation Ontario, municipalities and stakeholders, including but not limited to the Building Industry and Land Development Association (BILD), to identify additional improvements and report back to the Board of Directors on the outcome of this work.

Guidance related to service delivery standards for Section 28 permit applications was historically specified in the Ministry of Natural Resources and Forestry (MNRF) Policies and Procedures for Conservation Authority Plan Review and Permitting Activities (2010). This guidance addresses administrative matters including determining complete applications and directs that Conservation Authorities render a decision within 132 days for a “major” application or 72 days for a “minor” application. Applications issued by TRCA in 2020 under this framework are reported in the table below under “Policy and Procedure Timeline.”

As part of a renewed commitment to efficient regulatory services, Conservation Ontario (CO) Council endorsed new Client Service Standards for Conservation Authority Plan and Permit Review in June 2019. This guidance established a more ambitious set of service standards that Conservation Authorities should meet as best practice. Under this framework, Conservation Authorities should render a decision on complete applications within 63 days for “major” applications, 42 days for “minor” applications and within 14 days for a new category of “routine” applications. Applications issued by TRCA in 2020 under this second framework are reported in the table below under “CO Guideline Timeline.”

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RATIONALE

Under Strategy 9, Measure Performance, of the TRCA's Strategic Plan, the Development Planning and Permits and Infrastructure Planning and Permits business units have committed to the objective of delivering at least 80% of all permit issuances within the Conservation Ontario Guideline timeframes. The following table presents the service delivery results for all Section 28 permits issued in 2020 within TRCA's jurisdiction.

Number of Permits Issued Within Policy and Procedure Timeline			Number of Permits Issued Outside of Policy and Procedure Timeline			Reason for Variance from Policy and Procedure Guideline			
Major	Minor		Major	Minor ¹		Major		Minor	
269	812		3	17		Complexity		Multiple Submissions	
Number of Permits Issued Within CO Guideline Timeline			Number of Permits Issued Outside of CO Guideline Timeline			Reasons for Variance from Guideline			
Major	Minor	Routine	Major	Minor	Routine	Major		Minor	Routine
216	524	188	56	87	30	Complexity		Multiple Submissions	Staff Turnover

Assumptions include the following:

- "Routine" permits are those identified as "Minor Ancillary Residential" on TRCA's fee schedule. These projects meet the definition of "Routine" in the CO Guideline.
- All remaining infrastructure permits, and development planning permits were identified as "Major" or "Minor" depending on the complexity of the application per the definitions in the CO Guideline.
- Policy and Procedure timelines are 132 and 72 days for "Major" and "Minor" permits, respectively.
- CO Guideline timelines are 63, 42 and 14 calendar days for "Major", "Minor" and "Routine" permits, respectively. 7 days are added for each additional submission for "Routine" applications.
- Only permits issued in 2020 were included. Some of the permits were deemed complete in 2019 or previous years.

Of the 1,101 permits issued in 2020, 1,081 or 98% of the permits met the former Policy and Procedure Guideline and 928 or 84% of the permits met the enhanced CO Guideline, which exceeds the 80% objective. Those that did not meet the Guidelines include complex infrastructure and development permits requiring multiple submissions. In some cases, the reviews may have been impacted by staff turnover and adapting to COVID-19 in early 2020.

This is the first year of TRCA's annual reporting to the Board of Directors on Section 28 permit application service delivery. Staff anticipate reporting annually. However, further to RES.#A38/19 noted above, staff have been meeting quarterly with the Building Industry and Land Development Association (BILD) to provide updates and receive feedback on service delivery. Feedback from BILD members has been positive and appreciative of TRCA's commitment to excellence in service delivery. Improvements to the application circulation

¹ "Minor" includes "Routine" applications for purposes of Policy & Procedure Timeline as there is no "Routine" category in that Guideline.

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process and permit issuance service delivery are anticipated through future implementation of the Planning Application, Review and Enforcement System enterprise software.

Relationship to Building the Living City, the TRCA 2013-2022 Strategic Plan

This report supports the following strategy set forth in the TRCA 2013-2022 Strategic Plan:

Strategy 9 – Measure performance

FINANCIAL DETAILS

Section 28 permitting services are funded through permit application fees, account code 110-05.

DETAILS OF WORK TO BE DONE

Staff will report back annually on the service delivery for Section 28 Permit applications annually.

Report prepared by: Steve Heuchert, extension 5311

Emails: steve.heuchert@trca.ca

For Information contact: Sameer Dhalla, extension 5350

Emails: sameer.dhalla@trca.ca

Date: March 31, 2021

Section III – Items for the Information of the Board

TO: Chair and Members of the Board of Directors
Friday, April 30, 2021 Meeting

FROM: Darryl Gray, Director, Education and Training

RE: **EDUCATION PROGRAM EXPANSION TO CLAIREVILLE CONSERVATION AREA**
Strategic Business Planning Policy Statement of Interest

KEY ISSUE

To provide information to the Board of Directors regarding a planned initiative to expand Kortright programming including The Nature School, Summer Camp and Family programs to Claireville Conservation Area through the use of the vacant former Etobicoke Field Studies Centre.

RECOMMENDATION

IT IS RECOMMENDED THAT the Strategic Business Planning Policy Statement of Interest report outlining the expansion of education programs to the Claireville Conservation Area be received.

BACKGROUND

In accordance with Toronto and Region Conservation Authority's (TRCA) Strategic Business Planning (SBP) Policy, all potential new projects/programs or proposed modifications to existing initiatives must proceed through the SBP Policy workflow, including reporting to the Board of Directors for informational purposes.

Since 1957, TRCA has been a leader in developing and delivering outdoor environmental and cultural education programming in the Province of Ontario. Through a diverse suite of program offerings including day, over-night, and in-school learning activities delivered at five education centres, along with schools and natural spaces across the Toronto region, TRCA provides educational programs for over 155,000 students and young learners every year.

At Board of Directors Meeting #12/17 held on March 24, 2017, RES.#A29/17 was approved in part as follows:

WHEREAS Toronto and Region Conservation Authority (TRCA) has developed and delivered environmental education programs across the Toronto region since 1953;

AND WHEREAS at Authority Meeting #10/15, held on November 27, 2015, amended Resolution #A227/15 endorsed the Community Learning and Engagement Model, with an emphasis on expanding nature-based learning programs and services at TRCA education centres;

THEREFORE, LET IT BE RESOLVED THAT TRCA establish and operate The Nature School at Kortright as a private school providing curriculum-linked nature-based learning programs for the 2017/2018 school year.

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Since the launch of The Nature School at Kortright in 2017, public interest in this stream of programming has been steadily increasing with the addition of three new nature school programs, including the Nature School weekend program, Nature School Preschool, and Nature School Primary Nature School. Over that period the Kortright Centre has seen a participant number increase of 90% with a large influx of interest in nature-based programs since September 2020.

In addition to the growth of The Nature School, the Kortright Centre has seen a significant growth in summer camp participant numbers. 2012 saw 62 campers per summer. That number grew to 364 participants in 2013, increased to 524 campers in 2014 and grew to over 700 participants in 2015. Prior to COVID-19, the summer nature day camp at Kortright hosted over 1,600 campers per summer. This growth is attributed to a redesign of camp program offerings, increased marketing efforts and improving staff training and the quality of camp programming delivered as heard through participant feedback.

RATIONALE

To continue to expand on the progressive complement of learning programs and activities offered at TRCA learning centres, TRCA is proposing to establish and operate a second nature-based private school starting for the 2021/2022 school year, acting as a satellite campus to The Nature School at Kortright. The 2021/2022 school year of The Nature School at Claireville will provide enrollment opportunities for students ranging from Kindergarten to Grade Three with students placed in multi-age grades that meet a 1:10 teacher to student ratio, allowing students to establish deeper connections with their teacher and peers and allow for enhanced learning opportunities. This full-time Ministry of Education certified private school will operate from September to June from 9:00 am – 3:00 pm and have an initial capacity for student enrollment of up to 30 students growing its capacity to 80 students in 2026. This school will integrate the Ontario Ministry of Education Curriculum into a nature- and forest-school based learning environment; in essence, the outdoors become the classroom within which the normal curriculum is taught.

TRCA teachers at The Nature School at Claireville will be Ontario Certified Teachers (OCT) and hold one or more professional designations including: Forest School Practitioner, Early Childhood Educator or Outdoor Experiential Educator. While The Nature School will operate outdoors in most weather conditions, in the event of severe weather, a private indoor learning environment is available in the Etobicoke Field Studies Centre.

Nature schools, also referred to as forest schools, are a well-established feature of educational practice in Europe, however, are an emerging educational approach in Ontario and Canada. Nature schools, at their core, re-conceptualize the traditional classroom, essentially turning it inside-out, where the majority of the learning takes place in the outdoors. While formats vary, a key precept of this model is that students spend a large percentage of their time learning outside in all types of weather. In a nature school the learning is child-focused and inquiry-based, with a heavy focus on exploration, imagination and creative thinking. Some of the benefits attributed to the forest school approach include:

- increased confidence, self-esteem and independence;
- increased drive to experience new challenges and an improved ability to assess risk;
- improved social development and collaboration;
- increased participation and language development through the introduction of relevant, real-time learning opportunities;

- increased whole-family engagement;
- child-centred learning.

Section 5 of TRCA's 2013 – 2022 10 Year Strategic Plan Building The Living City focuses on the need to Foster Sustainable Citizenship through a wide range of engagement and learning mechanisms. The Nature School at Claireville will advance TRCA's strategic goals related to creating a sustainable city region by facilitating an improved understanding of environmental, sustainable and urban issues within a targeted segment of our population.

Claireville Conservation Area consists of 848 hectares of natural and forested area that is located in Peel Region adjacent to the City of Toronto and York Region. Special features of this site include a natural landscape which boasts wetlands, valleys, forests, grasslands and the west branch of the Humber River and its tributaries. The property size, well established existing and newly constructed trail systems, and diverse ecosystem and habitat types including 523 different flora species and 59 Fauna species of regional concern will allow for immense programming opportunities and educational program potential.

Other special features at Claireville Conservation Area include an existing vacant building (previously the Etobicoke Field Studies Centre) which was specifically constructed for the purpose of outdoor education programming. This building will be utilized as a private indoor learning space in the event of severe weather and for seat work activities that will be required as The Nature School expands to include higher grade levels.

A large portion of the Claireville Conservation area is within the City of Brampton and according to Statistics Canada (2016) 20.3% of the population in Brampton are children aged 0-14. Furthermore, a population estimate conducted by Peel Region (2016) demonstrates there will be approximately a 10% population increase in Brampton from 2021 to 2026. Claireville Conservation Area is also relatively close to the City of Vaughan, which is expected to grow more than 24% in the next 10 years . According to Stats Canada (2016) 18.8% of the population in the City of Vaughan are children aged 0-14.

With the recent vacancy of the purpose-built Etobicoke Field Studies Centre at Claireville Conservation Area, coupled with the increased interest of The Nature School at Kortright and TRCA's nature-based programs and services it is a logical time to expand these programs to an additional site. This expansion will utilize existing innovative program models that have a proven track record for high client uptake, client satisfaction and retention. Public interest related to outdoor programming and activities is at an all-time high and the population density surrounding Claireville Conservation Area, along with future growth projections, provides a strong rationale for this undertaking.

Relationship to Building the Living City, the TRCA 2013-2022 Strategic Plan

This report supports the following strategies set forth in the TRCA 2013-2022 Strategic Plan:

Strategy 3 – Rethink greenspace to maximize its value

Strategy 5 – Foster sustainable citizenship

Strategy 7 – Build partnerships and new business models

FINANCIAL DETAILS

The revenue model for The Nature School at Claireville is based on existing and projected user-based fees in accordance with TRCA's 2021 Fee Schedule Public Facilities and Programs.

A list of relevant user fees for this program can be found in TRCA's 2021 Fee schedule:

Item 29.1 – TRCA led Day Camper, for a week of summer camp

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Item 29.8 – Nature School Program, per participant

Item 29.9 – Little Saplings Parent and Tot program.

It is anticipated that The Nature School at Claireville will generate an operating surplus by Year 4 (2024), thereafter contributing to ongoing TRCA financial sustainability and generating new opportunities for continued program investment. The planned deficit in the first 3 years of operations will offset the planned operating revenue, at which time the program will generate a surplus moving forward. The programs are anticipated to net an average of \$100,000 annually following the start-up phase (2021-2025).

Table 1 – Annual Operating Budget

Year	Revenue (\$)	Expenditure (\$)	Net (\$)
2021	113,520	132,807	(19,287)
2022	230,370	267,147	(36,777)
2023	293,620	314,703	(21,083)
2024	367,080	353,955	13,125
2025	438,080	389,715	48,365
2026	529,080	423,275	90,148

DETAILS OF WORK TO BE DONE

Under Section 16 of the *Education Act*, organizations intending to operate a private school must file a Notice of Intention to Operate a Private School with the Ontario Ministry of Education. For the 2021/2022 school year, TRCA must file the Notice of Intention by September 1, 2021.

Registration for TRCA's existing summer camps is currently live on the TRCA website. Pending no issues with this report, TRCA staff will integrate the summer program offerings into the current suite of offerings and booking system.

The Strategic Business Planning and Performance business unit regularly reviews and audits the financial progress of various programs. Education staff will continue to work with SBPP to monitor the financial sustainability of the program through implementation.

Report prepared by: Kimberly Krawczyk, extension 5862

Emails: kim.krawczyk@trca.ca

For Information contact: Adrian O'Driscoll, 416-278-1468 or Darryl Gray, 416-791-0327

Emails: adrian.odriscoll@trca.ca or darryl.gray@trca.ca

Date: April 15, 2021

Section III – Items for the Information of the Board

TO: Chair and Members of the Board of Directors
Friday, April 30, 2021 Meeting

FROM: Darryl Gray, Director, Education and Training

RE: **PARTNERS IN PROJECT GREEN MEMBERSHIP STRUCTURE UPDATE**

KEY ISSUE

Partners in Project Green (PPG) has been operating with its current membership structure since 2015. In order to meet the needs of our community and increase financial sustainability, revisions to the membership structure and value proposition are required.

RECOMMENDATION

WHEREAS Partners in Project Green was launched in 2008 to advance the adoption of sustainability practices within the Pearson Airport economic zone;

AND WHEREAS a Strategic Refresh to the Partners in Project Green program was completed in 2019 that affirmed objectives related to the expansion and advancement of eco-business programming and services to additional economic clusters across TRCA's nine watersheds;

IT IS RECOMMENDED THAT the following information report on progress updates related to revising the Partners in Project Green Membership Structure and value proposition be received.

BACKGROUND

Partners in Project Green: A Pearson Eco-Business Zone was launched in 2008 by Toronto and Region Conservation Authority (TRCA) and the Greater Toronto Airports Authority (GTAA), with support from the Regional Municipalities of Peel and York, the City of Toronto and from the nearby business community to transform the employment lands surrounding Toronto Pearson and located within TRCA's Etobicoke-Mimico Creeks Watershed into an internationally recognized community of eco-friendly businesses.

The creation of Partners in Project Green (PPG) stemmed from an eco-business model recommendation identified in a 2006 joint TRCA and GTAA report that provided restoration strategies for the natural and aquatic systems surrounding Toronto Pearson.

At Board of Directors Meeting #4/19, held on April 26, 2019, Resolution #A51/19 was approved as follows:

THAT the Partners in Project Green Strategic Refresh 2019-2023 and Executive Management Committee Terms of Reference 2019-2023 ... be approved

This strategic refresh was intended to guide the next generation of eco-business activities through PPG focused on increased engagement, improved performance outcomes and enhanced alignment with municipal and business priorities.

As part of achieving those goals, PPG is working to re-energize the PPG network through

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revising the membership value proposition and improving fiscal responsibility by continuously diversifying funding sources and looking at new business models.

RATIONALE

Below is a brief history of PPG Membership and overview of opportunities for enhancement.

2008 – 2010: Membership was free. If a company had any type of engagement with PPG, they were considered a member.

2011 – 2015: Membership fees were nominal and referred to as subscription fees. In 2011, subscription fees generated \$1,600. Targets were also low, starting at \$5,000 in 2011 and moving to \$15,000 in 2013.

2015 – 2020: The current Membership program was created, with fees from \$350 - \$2,550. From 2015 – 2020, the average number of members has been 89, though in 2020 there were 67. This was due in part to the impacts of COVID on member businesses, but also highlighted the opportunity to enhance value. Revenue generation has also declined; from a high of \$94,500 in 2016 to a low of \$27,000 in 2020. This was due in part to declining membership rates, as well as an increase in complimentary memberships.

In the past, membership was seen as a program offering of PPG. It is recommended that membership now be viewed as the key access point to PPG and its network, resources, knowledge and expertise, and select programs. Membership then becomes a funnel point to drive program participation and create funding partner relationships.

This Membership Structure update allows us to course correct while also providing an opportunity to enhance collaboration and alignment across TRCA teams. Offerings from Kortright Centre for Conservation, Blackcreek Pioneer Village, Community Learning, Sustainable Technologies Evaluation Program, and others will be added to the suit of membership benefits to provide promotion for these programs while providing value to PPG members. These partnerships can be expanded and built upon as the program grows.

Summary of major changes:

- **Membership will be required to access the majority of PPG content.** In order to allow certain resources to act as promotional offerings, such as White Papers and Green Economy Webinars, those resources will be made public for a limited time and then locked for member only access. Where agreements exist that require public access to resources, every effort will be made to include a member only feature.
- **Member benefits will be substantially expanded.** PPG staff will provide customizable but carefully scoped consultative hours that will act as a funnel into PPG programs. Team building and staff perks from across the TRCA will be offered, such as discounts on team building activities at Kortright and Tommy Thompson, camp discounts, and others. Enhanced leadership benefits will be introduced (opportunities to serve on committees, speak at events, earn awards and the like.)
- **Member levels will be simplified, and a small increase will be applied.** In the past there were five levels of membership – Member, Ambassador, Eco-Solution Provider, Channel Member, and Founding Member (funding organizations). There will now be two: Member and Funding Member. The Ambassador level will be transitioned to an annual Awards program based on PPG contributions and environmental action. The Eco-

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Solution Provider level will be rolled into the Member level. Channel Members (organizations that provided communications benefits to PPG but do not pay fees) will no longer automatically receive Member benefits. They may join as Members or become Media Partners.

- **Four new size categories will be introduced.** Low-cost student and professional levels will be introduced. These categories will act as funnels to organizational membership. These levels will require the establishment of distinct benefits and will need to be communicated clearly. In addition, 2 – 9 and 10 -24 employee count levels have been added to reflect more accurately GTA businesses as well as to limit the impact of the price increases on our smallest members.
- **Complimentary memberships will be reduced.** This applies to Channel Members, promotional memberships, and non-funding municipalities. Region of York, Region of Peel and City of Toronto are municipalities that are Funding Members. Non-funding municipalities will be required to pay for Membership or enter into separate funding agreements, regardless of whether their upper tier municipality funds PPG.
- **Primary focus.** While there will be an increase in revenue generated through membership, the primary focus will be to utilize the membership base as a funnel to program participation and funding relationships.

Relationship to Building the Living City, the TRCA 2013-2022 Strategic Plan

This report supports the following strategies set forth in the TRCA 2013-2022 Strategic Plan:

Strategy 1 – Green the Toronto region’s economy

Strategy 5 – Foster sustainable citizenship

Strategy 7 – Build partnerships and new business models

Strategy 10 – Accelerate innovation

FINANCIAL DETAILS

Staff resources and funds will be drawn from account code 11635 (413-16).

DETAILS OF WORK TO BE DONE

Following finalization of the Membership Structure, the PPG website will be revised to support the new membership framework and content locking. In addition, PPG will work with IT and other TRCA groups to establish processes for managing and tracking payments, discounts, and participation in member offerings. A communications plan will be drafted, with careful attention given to how the membership structure is delivered to PPG contacts at all stages of the membership lifecycle. It is expected that the program will be launched in September 2021.

Report prepared by: Jennifer Taves, 647-287-7568

Emails: jennifer.taves@trca.ca

For Information contact: Darryl Gray, 416-791-0327 or Jennifer Taves, 647-287-7568

Emails: darryl.gray@trca.ca; jennifer.taves@trca.ca

Date: April 12, 2021

Attachments: 1

Attachment 1: 2021 Membership Structure



Partners in Project Green Membership Structure Update

For information contact: Jennifer Taves, Program Manager, Communications & Engagement

April 30, 2021

partnersinprojectgreen.com



GTA
**PARTNERS IN
PROJECT GREEN**
A PEARSON ECO-BUSINESS ZONE

A program of:



Toronto and Region
Conservation
Authority

Rationale for Membership Program Update

- As we target 30% membership growth in 2021 to offset COVID-related turnover, a strong membership value proposition is required
 - PPG is also targeting member growth to enhance the long-term sustainability of its business model
- There is a shift in mindset: over 1/3 of global employees are now Millennials, and a focus of this generation in membership programs is access and skill development
- Based on survey data, primary reasons for joining memberships include networking with others in the field, continuing education, accessing specialized information, and learning best practices in their profession
- Tools to manage membership programs have evolved, making it possible to implement changes in a resource-efficient manner
- There are more players in this field than there were in 2015; PPG must differentiate to create an attractive value proposition while pursuing our vision
- Components of the program are not being leveraged to their full advantage (e.g. Professional Memberships)
- Revenue growth: establish funnels from membership to program participation and funding partners

Market State – Similar Member

Programs

Organization	Benefits	Fees
Green Economy Canada Hubs	ClimateWise (Vaughn); Green Economy London Carbon accounting tool; network with Ontario wide partners; one-on-one coaching and support; leaning and networking; credible green branding	Climate Wise \$520 – 5,210 Based on employee count 50% discount for reg. non-profit Green Economy London \$300 – 6,500 Based on employee count
CBSR	Discounts on GLOBE events; consulting time; member only resources; recognition	\$1,000 SME \$10,000 Corporate
BOMA	Industry advocacy; networking/connections; education; professional development; recognition	\$295: Young professional \$695: Principal Member \$2,495: Allied Member
BOTs/CoCs	Network, advertise, discount, committees, awareness, advocacy, professional development, events, business directory (varies depending on BOT/CoC)	Avg is around \$370 <i>Outliers:</i> Toronto Region \$3,300 Ajax-Pickering: \$140+HST (non- profit) \$1,528+HST (regular)

PPG Membership Purpose, Objectives & Targets

- **Primary Purpose:** to develop a community of leaders advancing environmental action and economic prosperity across the Greater Toronto Area.
 - **Secondary Purpose:** to generate revenue and improve long-term sustainability of the PPG business model.
- **Objectives**
 - PROVIDE SUPPORT: To provide resources & support to organizations on their sustainability journeys, wherever they are on the path
 - CREATE A DYNAMIC NETWORK: To create a network that collaborates, shares knowledge and ideas, and inspires others to move towards sustainability
 - DRIVE ACTION: To drive action on environmental performance
- **Targets**
 - 2021 Member Target: 85 (30% increase over 2020)
 - 25% Churn Rate

Summary of Major Changes: General

- **Membership will be required to access PPG content**
 - Content includes (but is not limited to) consultation & expertise; the network; programs, resources and tools; webinars & events.
 - Content will be locked. For example, anyone will still be able to register for Green Economy Webinars, and the recording will be available for public viewing for two weeks post event. Following that, the content will be locked for Members only. A similar process will be used with new White Papers and the like.
- **Membership benefits to be substantially expanded**
 - Current benefits, such as profile, recognition and needs assessment, to be maintained
 - Additional benefits including advisory services, team-building and staff perks to be added

Summary of Major Changes: Member Levels

- **Member levels**

- There will only be two membership levels: Member and Funding Member.
- The Ambassador Level will transition to an annual Awards program based on PPG contributions and environmental action.
- Member price points will shift from (\$350 – \$2,550) to (\$29 – \$2,599) and will have four new employee count levels: Student (1); Professional (1); 2-9; and 10-24.
- Region of York, Region of Peel and City of Toronto are municipalities that are Funding Members. Non-funding municipalities will be required to pay for Membership or enter into separate funding agreements, regardless of whether their upper tier municipality funds PPG.
- Registered non-profit organizations will now receive a 25% discount.
- Channel Members (organizations that provided communications benefits to PPG) will no longer automatically receive Member benefits. They may join as Members or become Media Partners.
- A primary focus will be to utilize the membership base as a funnel to program participation and funding relationships.

Proposed Membership Levels & Price Points: Overview

Level	Price Point	Member Benefits provided
Community Access*	No cost	No
Member	\$99 - \$2,599 Non-profit discount	Yes
Funding Partners	Financial supporters	Yes
Media Partners	In kind	No

*Community Access level not included in membership number count. This level can access all publicly available benefits (newsletter, attend events, access resources during their limited public availability, and access TRCA’s PAIE program).

Member: Paid

Employee Counts: Total number employees at organization's facility/facilities accessing benefits	Current Annual Rate (Member/Ambassador)	Proposed Annual Rate (All Members)*
Student (1) †	--	\$29
Professional (1) †	--	\$199
2 – 9 †	\$350/\$650	\$349
10 – 24 †	\$350/\$650	\$449
25 - 75	\$350/\$650	\$649
75 – 149	\$750/\$1,050	\$949
150 – 299	\$1,250/\$1,550	\$1,599
300 – 499	\$1,750/\$2,050	\$2,199
500+	\$2,250/\$2550	\$2,599

*Registered non-profit corporations qualify for a 25% discount.

† New category.

Proposed Key Benefits



Business Advisory Services



Member only resources



Member only programs



Materials Exchange



People Power Challenge On Demand



Preferential pricing on events & programs



Network with like-minded individuals on topics that matter to



you

Summary of Major Changes: Benefits

Current	Proposed
Needs assessment on sign-up	Needs assessment on sign-up and business advisory services
Profile and recognition	Member only access to sustainability resources and tools (e.g. White Papers, GEW recordings, Vendor Lists)
Networking	Access Member only programs: Material Exchange and People Power Challenge On Demand
Preferential pricing on PPG events and programs	Network with like minded individuals on topics that matter to you
Access Member only program: Material Exchange	Preferential pricing on PPG events
	Preferential pricing on select TRCA programming and events
	Leadership & Recognition
	Team Building and Staff Perks

Impact

- **Impact on PPG**

- Revenue increase of ~20-25% under the new pricing model*, enhancing sustainability of PPG business model
- Transition of unpaid memberships to paid or Media Partners
- Increased alignment with TRCA programs (Community Learning, SNAP, KCC, Black Creek Pioneer Village)
- Increased revenue growth opportunities through membership funnels.
- Increased environmental action and economic prosperity across the GTA.

- **Impact on Members**

- Enhanced benefits and value
- Enhanced peer-to-peer learning opportunities due to larger member base
 - 30% growth target in 2021
- Rates have not increased since current membership levels were set in 2015
- Based on 2020 members:
 - Increases of \$199 or less: 14
 - Increases of \$299 - \$349: 2
 - Reduction: 4

Implementation Timeline

- April 30: Present to TRCA Board
- May: Revised Membership Structure complete
- May: Commence website revisions and develop communications plan
- September: Launch new Membership Structure



GTAA

PARTNERS IN PROJECT GREEN

A PEARSON ECO-BUSINESS ZONE



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