



# Toronto and Region Conservation Authority

## Board of Directors Meeting Agenda

#1/20

February 21, 2020

9:30 A.M.

HEAD OFFICE, 101 EXCHANGE AVENUE, VAUGHAN

### Pages

1. **ACKNOWLEDGEMENT OF INDIGENOUS TERRITORY**
2. **APPOINTMENTS TO TORONTO AND REGION CONSERVATION AUTHORITY FOR 2020-2021** 4
3. **ELECTION OF OFFICERS**  
The Clerk and Manager, Policy will appoint the scrutineers and conduct the following elections, as required by the Board of Directors Administrative By-Law
  - 3.1 **REGIONAL WATERSHED ALLIANCE**  
City of Toronto Board Member Vacancy
4. **MINUTES OF MEETING #11/19, HELD ON JANUARY 24, 2020**  
Meeting Minutes
5. **DISCLOSURE OF PECUNIARY INTEREST AND THE GENERAL NATURE THEREOF**
6. **DELEGATIONS**
7. **PRESENTATIONS**
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<b>9.</b>	<b>SECTION I - ITEMS FOR BOARD OF DIRECTORS ACTION</b>	
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<b>11.</b>	<b>MATERIAL FROM EXECUTIVE COMMITTEE MEETING #11/19, HELD ON FEBRUARY 7, 2020</b>	
	<u>Meting Minutes</u>	
<b>11.1</b>	<b>SECTION I - ITEMS FOR BOARD OF DIRECTORS ACTIONS</b>	
<b>11.1.1</b>	<b>VOLUNTARY PROJECT REVIEW</b>	
	Summary report on the Voluntary Project Review of works undertaken by organizations exempt from Ontario Regulation 166/06, as amended - Regulation of Development, Interference with Wetlands and Alteration to Shorelines and Watercourses, through Voluntary Project Review letters issued during 2018.	
	(PDF Page 2/62)	
<b>11.2</b>	<b>SECTION III - ITEMS FOR THE INFORMATION OF THE BOARD</b>	
<b>11.2.1</b>	<b>2020 GENERAL AND CAPITAL LEVY UPDATE</b>	
	An update on Toronto and Region Conservation Authority's preliminary 2020 General and Capital levies for informational purposes.	
	(PDF Page 8/62)	
<b>11.2.2</b>	<b>2020 UNFUNDED PRIORITIES</b>	
	Receipt of Toronto and Region Conservation Authority's list of 2020 Unfunded Priorities for informational purposes.	
	(PDF Page 11/62)	
<b>11.2.3</b>	<b>2019 YEAR END FUNDING AND GRANTS UPDATE</b>	
	To provide a year-end summary to the Funding and Grants program and to highlight the success rate for 2019.	
	(PDF Page 18/62)	



**11.2.4 Q4 2019 COMMUNICATIONS SUMMARY**

Information report regarding Toronto and Region Conservation Authority's corporate media communication activities during the fourth quarter of 2019 (October – December).

(PDF Page 26/62)

**11.2.5 MULTI-STAKEHOLDER CONSULTATION ON CONSERVATION AUTHORITIES**

Update on the Ministry of Environment, Conservation and Parks' (MECP) multi-stakeholder engagement sessions on conservation authorities to inform the forthcoming enabling regulations associated with the amended Conservation Authorities Act.

(PDF Page 37/62)

**11.3 SECTION IV - ONTARIO REGULATION 166/06, AS AMENDED**

Receipt of Ontario Regulation 166/06, as amended, for applications 10.1-10.2, which were approved or received at the Executive Committee Meeting #11/19, held on February 7, 2020

(PDF Page 39/62)

**11.4 MEMBER MOTIONS**

**11.4.1 A Notice of Motion dated January 16, 2020 from Paul Ainslie, Councillor, City of Toronto, in regard to a Request for Multi-Use Trail Centennial College Progress Campus and Military Trail Road**

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**12. CLOSED SESSION**

**13. NEW BUSINESS**

**NEXT MEETING OF THE BOARD OF DIRECTORS #2/20, TO BE HELD ON MARCH 27, 202 AT 9:30 A.M. AT HEAD OFFICE, 101 EXCHANGE AVENUE, VAUGHAN**

John MacKenzie, Chief Executive Officer

/am

### **APPOINTMENTS TO TORONTO AND REGION CONSERVATION AUTHORITY FOR 2020-2021**

The Secretary-Treasurer can advise that all the persons listed below have been duly appointed and are entitled to sit as Members of this Board of Directors for the 2020-2021 year, or until their successors are appointed.

#### **TOWNSHIP OF ADJALA-TOSORONTIO/ TOWN OF MONO**

Mr. Don Sinclair

#### **REGIONAL MUNICIPALITY OF DURHAM**

Councillor Kevin Ashe  
Councillor Joanne Dies  
Councillor Gordon Highet

#### **CITY OF TORONTO**

Councillor Paul Ainslie  
Councillor Shelley Carroll  
Dr. Ronald Chopowick  
Dr. Jennifer Drake  
Councillor Paula Fletcher  
Dr. Xiao Han  
Ms. Maria Kelleher  
Councillor Cynthia Lai  
Councillor Mike Layton  
Mr. Basudeb Mukherjee  
Councillor James Pasternak  
Councillor Anthony Perruzza  
Ms. Connie Tang  
Dr. Estair Van Wagner

#### **REGIONAL MUNICIPALITY OF PEEL**

Councillor Dipika Damerla  
Councillor Chris Fonseca  
Councillor Jennifer Innis  
Councillor Michael Palleschi  
Councillor Rowena Santos

#### **REGIONAL MUNICIPALITY OF YORK**

Mayor David Barrow  
Councillor Jack Heath  
Councillor Linda Jackson  
Mayor Steve Pellegrini  
Councillor Gino Rosati

### Section I – Items for Board of Directors Action

**TO:** Chair and Members of the Board of Directors  
Meeting #1/20, Friday, February 21, 2020

**FROM:** Michael Tolensky, Chief Financial and Operating Officer

**RE:** **TORONTO AND REGION CONSERVATION AUTHORITY ADMINISTRATIVE  
OFFICE BUILDING PROJECT**  
Evaluating Options for the Geothermal System

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#### KEY ISSUE

Approval to implement an alternative geothermal heating and cooling system, if it is deemed feasible, for the Toronto and Region Conservation Authority (TRCA) Administrative Office Building.

#### RECOMMENDATION

**WHEREAS TRCA has received a quote for the implementation of a closed loop geothermal system for its Administrative Office Building project;**

**AND WHEREAS results of a borehole test conducted as a part of the implementation of the closed loop geothermal system indicated an opportunity for the implementation of an alternative geothermal system known as Open Loop and Aquifer Thermal Energy Storage (ATES), which could result in cost savings both during construction and operation of the building in comparison to the closed loop geothermal system;**

**LET IT BE RESOLVED THAT TRCA staff be authorized to undertake necessary studies to determine if an alternative geothermal system is technically and financially feasible;**

**AND FURTHER THAT TRCA staff be authorized to proceed with the detailed designs and implementation of the selected alternative geothermal system, if it is deemed feasible.**

#### BACKGROUND

On November 17, 2017, Res.#A216/17 awarded Eastern Construction Company Limited a contract for Pre-Construction and Construction Management Services, which included the tender and installation of the closed loop geothermal system. Closed systems do not require access to ground source water and instead use a local source to provide heating and cooling.

In January 2019 TRCA contracted Geosource Energy Inc. to drill a test borehole and complete a thermal conductivity assessment under the 5 Shoreham Drive site. The results of the study were used to size the closed loop geothermal borehole field included as part of the heating and cooling system for TRCA's Administration Office Building project. The project was tendered by the construction manager, Eastern Construction in three bid packages over the course of May to June 2019. The tender for the geo-exchange system was a part of the Eastern Construction 's bid packages, and Aecon was selected as the preferred bidder at a cost of \$800,000.

In early December 2019 TRCA staff reviewed the results of the borehole test and identified that the 5 Shoreham Dr. site is located on two major aquifers, the Thorncliffe formation and Scarborough formation. The Thorncliffe formation is a well-known aquifer that was historically used for municipal water supplies. The Scarborough formation is a deeper aquifer that in this

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location is associated with an ancient bedrock valley (The Laurentian Channel) that connects with the waters of Georgian Bay and Lake Simcoe. Identifying these two aquifers on site was an important revelation as previous mapping suggested no aquifers were present. This finding is significant because access to aquifer source water can enable implementation of open loop geothermal systems. The open loop system is preferable, where available, as it is associated with the cost savings both during construction and operation of the building.

### **RATIONALE**

Following the identification of an opportunity for the implementation of the open loop or ATES, TRCA began the evaluation of the alternative and associated risk of the project implementation delay. TRCA staff consulted Ministry of Environment Conservation and Parks (MECP) staff and confirmed that Environmental Compliance Approval (ECA) could be completed in a timely manner. Furthermore, using capital costs prepared by J.L. Richards, TRCA staff compared the capital cost estimates with the tender results for the closed loop system. The analysis indicated that the alternative geothermal systems could reduce capital costs by between \$231,000 and \$362,000. For the ATES system the capital cost savings could be even greater as that type of system may be eligible for 50% grant funding.

In order to fully complete the assessment of the alternative geothermal system, TRCA staff requires the completion of the following steps:

- Phase I: Feasibility Study would focus on estimating several key aquifer characteristics critical to determining if either aquifer could support open loop or ATES systems. The results of the study would determine if it is feasible to move forward and if so, which type of system and which aquifer should be targeted.
- Phase II: Detailed Study and Environmental Compliance Application study would focus on the target aquifer and selected system to confirm key aquifer characteristics, establish locations for wells, set parameters for detailed design and prepare the ECA for MECP;
- Detailed Design for implementation would be prepared while the ECA is being reviewed by MECP. All evaluations, ECA approval, and designs are expected to be completed by late summer in time for implementation in September 2020.

If one of the alternative geothermal systems proves feasible, in addition to the capital cost savings and some operating cost savings, the solar thermal panels on the roof can be switched to solar photovoltaic (PV) (as per earlier designs) because the heated water would no longer be needed to balance the temperature of the ground loop. The change would also more easily allow the project to achieve some of the LEED onsite renewable energy generation credits toward the projects goal of LEED Platinum. Furthermore, the solar PV panels would provide 5% of the building's electricity consumption over a 30 year lifespan, providing an annual operating cost savings on the order of \$5,000.

### **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 8 – Gather and share the best sustainability knowledge**

**Strategy 10 – Accelerate innovation**

**Strategy 12 – Facilitate a region-wide approach to sustainability**

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### **FINANCIAL DETAILS**

The cost to complete the Phase I and Phase II studies is estimated to be between \$80,000 and \$140,000 depending on the technology and aquifer selected. The cost of detailed design ranges from \$62,000 to \$250,000 depending on the technology and aquifer selected.

Funding for Phase I, Phase II and detailed design would be provided within the Administrative Office Building envelope and staff will work to find grants to support this effort. There have already been preliminary conversations with potential funders on the matter and there is interest in providing funding support for both the studies and the implementation of this system.

### **DETAILS OF WORK TO BE DONE**

If approved by the Board of Directors staff will:

- Formally approach potential funders to obtain confirmation of their interest in providing financial support for the studies and implementation and submit funding applications;
- Provide MECP with a letter outlining the project, process and timeline, to formally begin development of the ECA submission;
- Prepare a request for proposals (RFP) for Phase I and Phase II studies in a manner that minimizes the procurement and study completion timeline.
- Complete the Phase I study and decide whether to move forward and if moving forward, which type of system and which aquifer to target;
- Complete Phase II study and submit the ECA to MECP;
- Initiate detailed designs and finalize once the MECP ECA is approved;
- Begin implementation by September 2020.

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**Date: February 12, 2020**

### Section I – Items for Board of Directors Action

**TO:** Chair and Members of the Board of Directors  
Meeting #1/20, Friday, February 21, 2020

**FROM:** Moranne McDonnell, Director, Restoration and Infrastructure

**RE:** **VENDOR OF RECORD FOR OPERATED HEAVY CONSTRUCTION  
EQUIPMENT RENTAL – CONTRACT EXTENSION**

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#### **KEY ISSUE**

Extension of Contract No. 10020047 for Operated Heavy Construction Equipment Rental expiry date from March 31, 2020 to March 31, 2021.

#### **RECOMMENDATION**

**WHEREAS** Toronto and Region Conservation Authority (TRCA) is engaged in a variety of programs/projects that require the utilization of operated heavy and specialty construction equipment;

**AND WHEREAS** TRCA solicited proposals through a publicly advertised process and awarded Contract No. 10020047 to Sartor Environmental Group Inc., Dynex Construction Ltd., Valefield Contracting Inc., TMI Contracting and Equipment Rental Ltd. and Trisan Construction at Board of Directors Meeting #3/19, RES.#A36/19;

**AND WHEREAS** the need to extend the contract has arisen due to an increase in work;

**AND WHEREAS** staff are satisfied with services provided to date under the current contract;

**THEREFORE, LET IT BE RESOLVED THAT** TRCA staff be directed to exercise their contractual right to extend the Vendor of Record arrangement with Sartor Environmental Group Inc., Dynex Construction Ltd., Valefield Contracting Inc., TMI Contracting and Equipment Rental Ltd. and Trisan Construction for the supply of operated heavy construction equipment for an additional year;

**THAT** Contract No. 10020047 for supply of operated heavy construction equipment services be extended at a total cost not to exceed \$8,908,000, plus applicable taxes, to be expended as authorized by TRCA staff;

**THAT** vendors may increase hourly rates at the time of extension in accordance with the original contract terms;

**THAT** if a situation is present where the vendors of record are not available for a particular project, staff be authorized to follow the Procurement Policy to retain a vendor;

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

### BACKGROUND

TRCA utilizes operated heavy construction equipment rental for completing a variety of engineering, habitat restoration, and trail building projects throughout TRCA's jurisdiction. Through a VOR arrangement for the rental of operated heavy construction equipment, vendors are authorized to provide these services for a defined period of time and with fixed pricing. In accordance with the contract documents for the VOR arrangement, staff may issue Purchase Orders for any vendor on the list with the expertise and experience required for their project or program requirements.

Furthermore, where the suppliers on the VOR list are not available for a particular project within the timelines required for TRCA to meet its deliverables, staff are authorized to procure the required services following TRCA's Procurement Policy. Vendors are required to provide all resources required to service the divisional or program needs in accordance with applicable laws, codes, standards, terms and conditions of the vendor of record agreement.

At Board of Directors Meeting #3/19, held on March 29, 2019, Resolution #A36/19 was approved in part as follows:

*THAT TRCA staff be directed to establish a Vendor of Record arrangement with Sartor Environmental Group Inc., Dynex Construction Ltd., Valefield Contracting Inc., TMI Contracting and Equipment Rental Ltd. and Trisan Construction for the supply of operated heavy construction equipment during the contract period for one (1) year with the option to extend for an additional year;*

The VOR arrangement for supply of operated heavy construction and associated specialty equipment was established for the time period from April 1, 2019 to March 31, 2020. Based upon a review of projects scheduled for implementation during the contract period, the anticipated value of the requested services under this contract was estimated to be approximately \$5,000,000.

### RATIONALE

As a result of an increased number of construction projects in 2019 following significant additional funding received in-year from Infrastructure Canada under the Disaster Mitigation and Adaptation Fund, the proposed contract extension recommends an increase in value by \$1,400,000. This increase accounts for the estimated expenditures under this contract between February 22 and the current contract end date of March 31, 2020; plus \$7,380,000 for the period of April 1, 2020 to March 31, 2021 which is based on the estimated expenditures for the current contract term of \$6,400,000, plus \$980,000 to account for a projected increase in workload by 15% over 2019 during the extension term. These estimates are based on the best available information at the time this report was prepared; plus \$128,000 which represents a potential increase of unit rates by 2% to account for Consumer Price Index (CPI) adjustments during the contract extension term, for a total value of \$8,908,000 plus applicable taxes.

The Evaluation Committee conducted an annual review of the performance of vendors for the first year of Contract 10020047 in January 2020. The Committee recommends extending the current contract for an additional year with all vendors, as the value and quality of services delivered by the vendors under this contract has been deemed satisfactory by TRCA staff.

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### **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 7 – Build partnerships and new business models**

### **FINANCIAL DETAILS**

The anticipated value of the extension of this contract is approximately \$8,908,000 plus applicable taxes. An increase or decrease in workload will have an impact on the value of this contract. All vendors on the VOR list understand both the potential cost and resource implications associated with changes in workload. The services will be provided on an “as required” basis with no minimum hours guaranteed.

Vendors may increase hourly rates, to a maximum of the preceding year’s [Ontario Consumer Price Index \(Toronto – All Items category\)](#) as published by Statistics Canada, at the time of extension. The most recent data published by Statistics Canada indicates a percentage change of +1.9 for the period of December 2018 – December 2019; which translates to a 1.9% increase in vendor unit rates across all equipment categories. The value increase being proposed for this contract extension assumes a 2% increase of hourly unit rates at the time of extension (March 31, 2020) for all Vendors.

Funds for this contract are identified in a variety of capital and cost recoverable project accounts.

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## Section III – Items for the Information of the Board

**TO:** Chair and Members of the Board of Directors  
Meeting #1/20, Friday, February 21, 2020

**FROM:** Michael Tolensky, Chief Financial and Operating Officer

**RE:** **2019 ANNUAL REPORT**

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### KEY ISSUE

Presentation of the 2019 Annual Report summarizing key accomplishments throughout 2019 in accordance with Toronto and Region Conservation Authority's (TRCA) approved 2018 Strategic Plan Five-Year Update.

### RECOMMENDATION

**THAT the 2019 Annual Report be received.**

### BACKGROUND

*Building The Living City, the 2013-2022 Toronto and Region Conservation Authority Strategic Plan*, was endorsed at Authority Meeting #3/13 held on April 26, 2013. The plan outlined how TRCA would help realize The Living City Vision in its watersheds by protecting healthy rivers and shorelines, preserving greenspace and biodiversity, and contributing to the building of sustainable communities. The Strategic Plan Update was endorsed at the Board of Directors Meeting #8/18 held on October 26, 2018. The Updated Strategic Plan better reflects the changing environment, industry trends, staff and stakeholder input while incorporating a framework of performance metrics which help to evaluate and report on TRCA's progress towards achieving the Strategic Plan Priorities. The updated Strategic Plan identified that the Annual Report would be linked to the projected outcomes and priorities of the Strategic Plan as part of the methodology to evaluate our success in achieving them.

### RATIONALE

The 2019 Annual Report is organized according to each strategic priority within the Strategic Plan to improve the evaluation and reporting process towards achieving these desired outcomes. Connecting the yearly accomplishments directly to the Strategic Plan allows for a clearer understanding of how TRCA is contributing, on an annual basis, towards the 10-year desired outcomes and projected accomplishments. The Annual Report also includes an outline of the major challenges that TRCA will need to overcome in order to continue making progress. Some of these challenges include ensuring sustainable funding for programs and initiatives and responding to and adjusting our programs recognizing Ontario's dynamic policy environment.

### 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 9 – Measure performance**

**Strategy 11 – Invest in our staff**

### DETAILS OF WORK TO BE DONE

Future annual reports will continue to be developed in a manner that focuses on evaluating and reporting on the progress towards achieving the Strategic Plan priorities.

## Item 10.1

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Date: February 12, 2020

Attachments: 1

Attachment 1: 2019 Annual Report – Building Momentum



# Building Momentum

2019 **ANNUAL REPORT**





# Message from the Chair, Board of Directors and Chief Executive Officer

In 2019, Toronto and Region Conservation Authority (TRCA) took major strides forward, building momentum in our effort to transform into a more modern, sophisticated organization fully equipped for delivery of service excellence for our stakeholders and the public.

We are accelerating change in many ways across the organization: from the application of advanced technologies in traditional conservation work, to the introduction of internal systems that create operational efficiencies and help to streamline service delivery. With the increasing scale and complexity of the challenges TRCA faces in protecting lives and property, and preserving and restoring natural heritage, it is imperative to provide staff with the best possible tools to complete their day-to-day tasks.

Our partner municipalities recognize the value of collaboration with TRCA to confront flood risk and develop resilient communities. In 2019, for example, we provided both technical expertise and on-the-ground assistance to the City of Toronto in support of its efforts to mitigate the impact of record-high Lake Ontario water levels on the residents, businesses and vital infrastructure of the Toronto Islands. Increasing TRCA’s capacities through technological upgrades and well trained staff will enable us to carry on fulfilling our critical implementation role in addressing anticipated climate change risks and the impact of rapid growth and urbanization across our jurisdiction.

As we drive forward with our efforts to modernize operations and enhance delivery of core TRCA programs, we also seek to contribute constructively to the evolution of the regulatory environment in which Ontario’s Conservation Authorities (CAs) operate. Through our written submissions in 2019 to a wide range of legislative policy and regulatory proposals from senior levels of government, TRCA has articulated the value of the technical expertise and collaborative approach that CAs apply to confronting flood risk, and the importance of a watershed-based approach to developing innovative practical solutions.

In 2019, TRCA emphasized the importance of customer service excellence, fostering a culture in which every interaction with stakeholders delivers the greatest possible value. Over the past year, we introduced new Customer Service Standards, updated TRCA’s Mission, and established “I CARE” a set of five Core Values. Collectively, these guide our daily operations and decision-making, create a sense of shared purpose, and set standards for success.

TRCA’s 2019 Annual Report reflects our commitment to transparency in communicating about our work and how it benefits the communities we serve. It provides clear, quantitative measures of TRCA’s forward progress in delivering the projects and programs that advance our strategic priorities.

The work of Conservation Authorities has grown increasingly important as communities across Ontario come to grips with the threat that extreme weather events pose to homes, businesses, and critical infrastructure. To match the pace of change, TRCA must continue to build momentum in its efforts to modernize operations.

By accelerating this process of transformation, we can ensure that TRCA will continue to play its vital frontline role, in collaboration with our stakeholders, to protect public health and safety and our environment.



**John MacKenzie**  
Chief Executive Officer

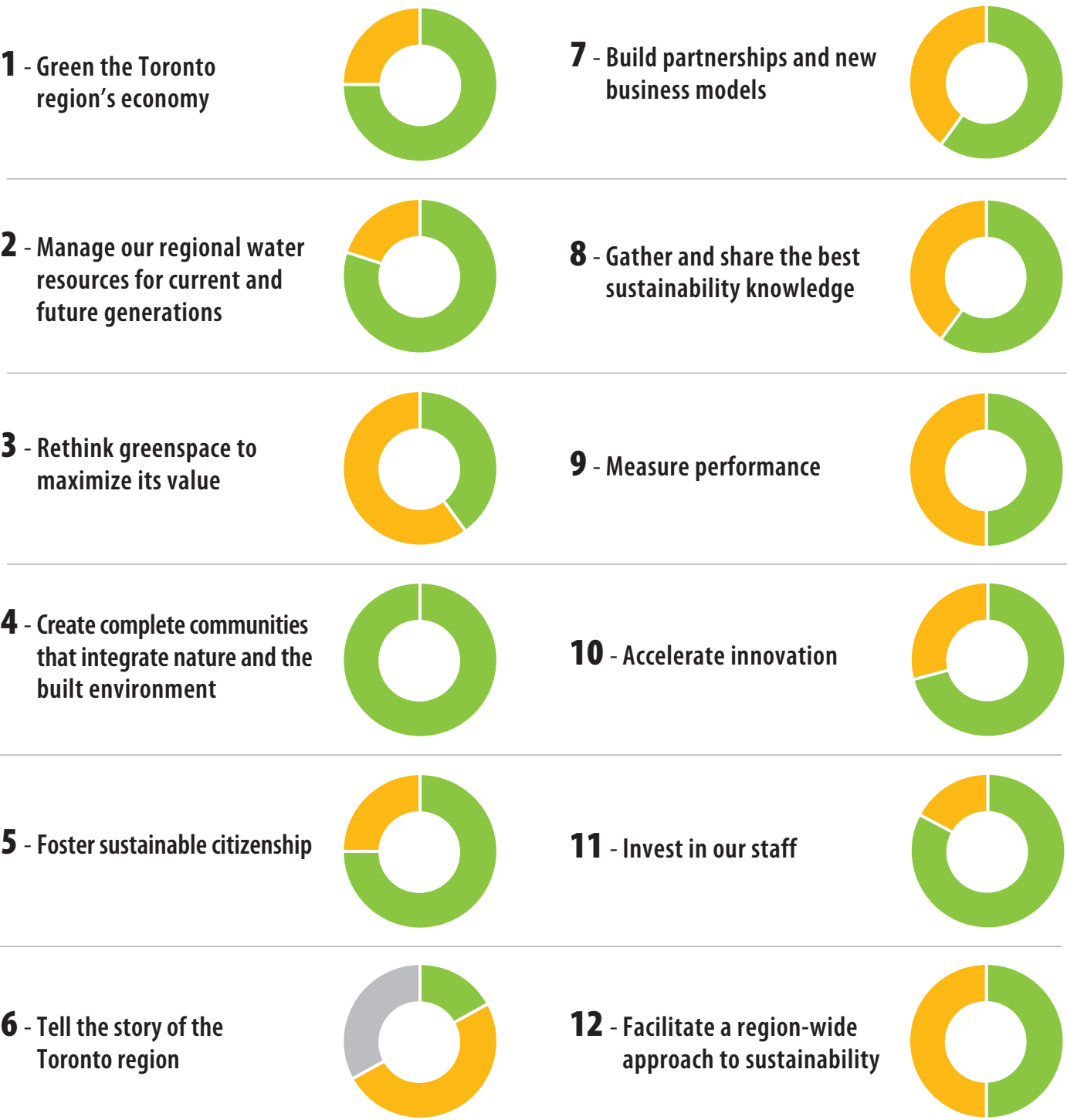


**Jennifer Innis**  
Chair, TRCA Board of Directors

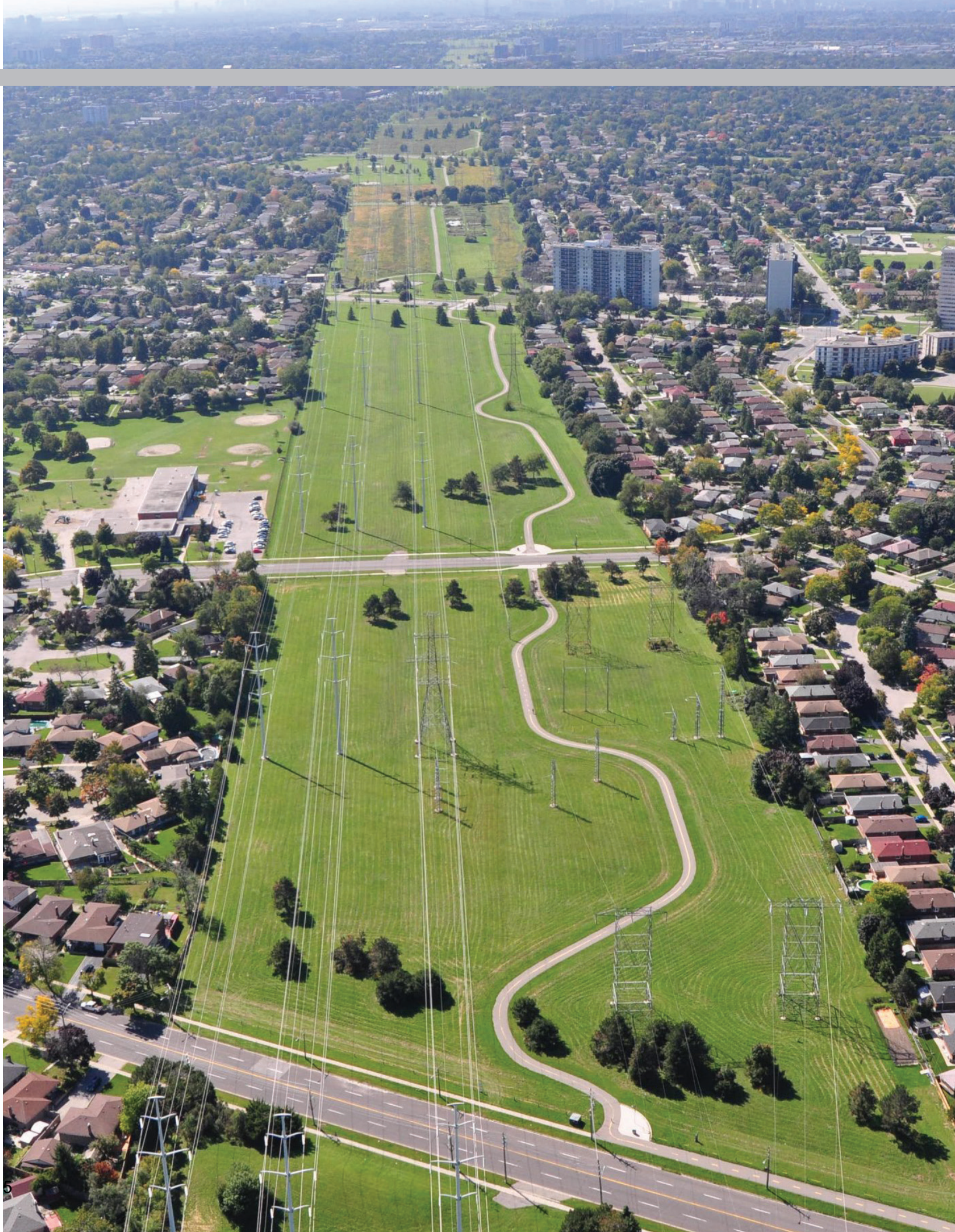


# Progress on Strategic Accomplishments (2018-2022)

In November 2018, TRCA’s Board of Directors approved a Five-Year Update to Building the Living City 2013-2022 Strategic Plan with measures and outcomes. The following outlines TRCA’s progress to date on achieving strategic plan objectives.



■ Project/Program is started and on track   ■ Project/Program has an issue identified   ■ Project/Program has not yet commenced



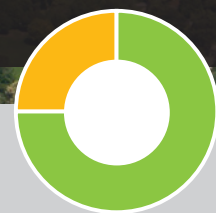


# 1

## Green the Toronto region's economy



Supporting the transition to a strong, green economy continues to be a critical priority for TRCA's partners. Long-term prosperity in the jurisdiction and global sustainability requires industries, businesses and consumers to achieve planned employment and economic objectives while reducing the environmental footprint of the economy. It is also important to recognize that the green infrastructure industry and restoration economy, of which TRCA is a part, makes major contributions to regional economic development and community wellbeing.



### PROJECTED ACCOMPLISHMENTS (2018 – 2022)

Be at the forefront of providing input into the development of provincial and municipal policies and guidelines relating to land use and environmental planning and sustainable development related to TRCA's core objectives.

Expand TRCA's fee-for-service work for governmental, private sector and not-for-profit stakeholders, to facilitate the efficient delivery of green infrastructure and sustainability projects in areas of TRCA expertise.

Seize opportunities for integrating more sustainable technologies and sustainable development certifications in the design and construction of new development and in retrofits of existing communities in the jurisdiction.

Expand the Partners in Project Green Eco-Zone program to include emerging employment areas across the jurisdiction subject to partner funding.

### Sustainable Technologies Evaluation Program (STEP)

**15** technologies evaluated through the STEP program including practices designed to protect aquatic habitat from thermal impacts by cooling water discharged from stormwater management ponds, and a smart control natural gas heating system for reduced greenhouse gas emissions.

### Rouge National Urban Park

TRCA facilitated a solution to secure the best location for the new Parks Canada visitor centre taking into account stakeholder and environmental considerations.

*"Thanks to your leadership and to many other supporters for our position, Canada's first National Urban Park will be celebrated with a beautiful gateway. The Visitor Centre will be both a tribute to more than three decades of community advocacy to protect and conserve the valley, and an inspiration to new leaders to steward the legacy." - Friends of the Rouge National Urban Park*

### Sustainable Neighbourhood Action Program (SNAP)

Secured **20** new partnerships for a total of **88** to help deliver neighbourhood-based solutions for urban renewal and climate action.

**2** new SNAPs initiated in 2019, reaching neighbourhoods with **53,000** watershed residents.

**8** SNAPs developed or underway, reaching neighbourhoods with **130,000** watershed residents.

**108** home visits and follow-ups indicated **162** significant home retrofit actions.

### San Romanoway Revitalization

A new socio-economic study of San Romanoway Revitalization determined that every one hour of SNAP green job skills training generated **20** hours of subsequent community volunteerism towards TRCA objectives.

### Provincial Policy

**20** responses to Environmental Registry of Ontario postings in 2019, including multiple submissions on Bill 108, an omnibus bill to amend the *Conservation Authorities Act*, the *Planning Act*, and the *Environmental Assessment Act* and the *Endangered Species Act*.

### Ontario Climate Consortium Collaboration

Delivered **19** collaborative projects to further the reduction of GHG emissions and enhance climate adaptation and resilience within the region.

### Private Erosion Hazards

**293** private property hazard sites were inspected as part of TRCA's Erosion Risk Management Program.

Partners in Project Green engaged **86** members and **1,041** event participants in accomplishing the following:



**2,900**  
tonnes eCO<sub>2</sub>  
reduced



**20**  
circular economy  
exchanges



**42**  
tonnes of waste  
diverted



**466**  
million litres of  
water offset



# 2 Manage our regional water resources for current and future generations

Clean water is a precious and limited resource that needs to be valued and protected. Flooding, urban development and unsustainable agricultural and industrial practices continue to negatively impact rivers, streams and Lake Ontario. To safeguard drinking water supply, the health of aquatic ecosystems, and to protect communities from flooding, TRCA must continue working with its municipal partners to prioritize the protection, restoration, and safe management of water resources.

## PROJECTED ACCOMPLISHMENTS (2018 – 2022)

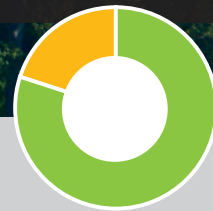
Develop a bold work plan that includes TRCA's Erosion and Hazard Mitigation Strategy comprising over \$500 million in projects to address known erosion, flooding and required infrastructure upgrades at over 250 sites.

Work with municipal partners to implement flood remediation, erosion monitoring, maintenance work, stormwater system retrofits, low impact developments, green infrastructure, and water quality and habitat restoration projects to realize more sustainable developments (e.g. The Port Lands, Vaughan Metropolitan Centre, Brampton Riverwalk, Markham Centre).

Engage with local communities to increase awareness about issues facing water resources and their importance to the health and well-being of the jurisdiction.

Monitor the health of the watersheds through the Regional Watershed Monitoring Program and through work with academic institutions.

Reduce flood risks and protect communities through continuous improvements to TRCA's flood forecasting and warning program.



## Management of Invasive Species

**3,020** invasive Sea Lamprey were caught with traps in TRCA's jurisdiction in 2019 through a successful partnership with Fisheries and Oceans Canada. Since 2005, the invasive Sea Lamprey population has been reduced by **90%**, contributing to the increased survival rate of native fish species.

## Invasive Species

**11,749** fish were processed through the Asian Carp Early Detection Program in Frenchman's Bay and Duffins, Rouge and Humber coastal marshes. Asian carp could have devastating effects on our ecosystem. This project is in partnership with Fisheries and Oceans Canada through their Aquatic Invasive Species Program.

## Shoreline Clean-up

**1,864 kg** of garbage was removed from Lake Ontario Waterfront parks through the efforts of employees from **19** corporations in partnership with Toronto and Region Conservation Foundation's "Look After Where You Live" program.

## Floodline Mapping

**86** new floodplain maps and **2** hydraulic models were completed for the Humber River watershed.

## Stormwater Management

**7,575 m<sup>3</sup>** of sediment removed at five stormwater management ponds.

## Clean Water-Our Future

TRCA, PortsToronto, Greater Sewer and Watermain Contractors Association, and Swim Drink Fish – with the help of the Toronto Police Marine Unit – recovered **4 tonnes** of metal and plastic debris from the eastern gap of the Toronto Harbour and planted **38** trees in Toronto Island Park at this September's Annual Clean Water-Our Future event.

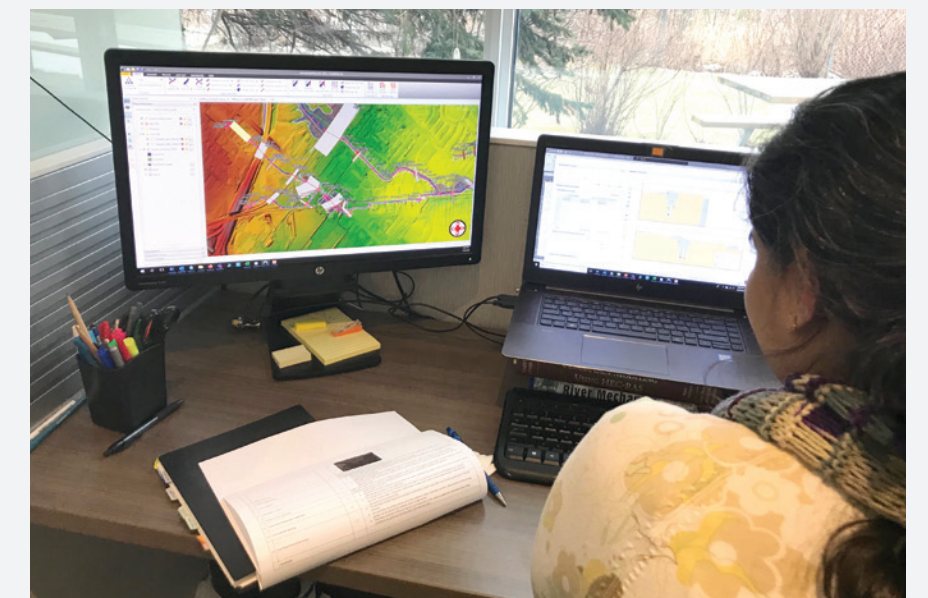
## Erosion Risk Management Program

**100%** of annual erosion hazard and control site inspections completed. **345** sites were re-inspected in 2019 following storm events.

Protected **23** buildings against erosion and slope instability, stabilized **1.6 km** of stream and valleyland, and protected **890 m** of municipal infrastructure.

## Flood Risk Workshop

The launch of the Flood Risk Public Awareness and Education Program began with a series of 4 full-day workshops with TRCA's municipal partners, where TRCA staff joined over 100 staff from all of our partner municipalities to share the results from the Flood Risk Assessment and Ranking Strategy and begin collaboration on the Public Awareness and Education Program. The program consists of updated print and web content, together with public open houses in some of TRCA's most flood vulnerable neighbourhoods. The series of outreach events began with partnering at Richmond Hill and Vaughan's general outreach events, joint attendance at City of Toronto and TRCA public open houses for flood related projects, and continued with presentations to Whitchurch-Stouffville Town Council, Vaughan Emergency Management Program Committee, and engagement with Councillors to set the stage for dedicated public open houses to be held in Caledon, Markham, Brampton and Stouffville in early 2020.





# 3 Rethink greenspace to maximize its value

The extensive ravine network and greenspace system of the Toronto region, which provides linkages through communities and nature experiences within minutes of Toronto's downtown and Urban Growth Centres throughout the jurisdiction, is key to the region's appeal and prosperity. Evidence from around the world increasingly demonstrates a clear connection between greenspace and the health and well-being of communities. As the population of the region continues to grow rapidly, TRCA needs to sustain, improve, expand, and program the system of protected greenspace in order to meet the needs of communities while protecting natural heritage.

## PROJECTED ACCOMPLISHMENTS (2018 – 2022)

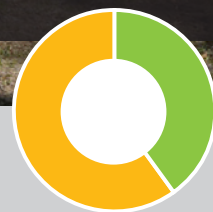
Achieve the most appropriate use of TRCA's inventory of lands and facilities while respecting cultural heritage and environmental values.

Invest in aging infrastructure across TRCA's Conservation Areas and public spaces in order to provide safe, accessible, and functional facilities to the public.

Secure, restore, and where appropriate, provide more accessible greenspace as part of the technical review of proposed projects and plans.

Update TRCA's Terrestrial Natural Heritage System Strategy, the Regional Trail System Strategy, TRCA's Living City Policies and their associated technical guidelines to inform reviews of projects and the timely execution of projects.

Advance priority greenspace and community initiatives of Toronto and Region Conservation Foundation (TRCF), member municipalities and partners on priority projects such as The Meadowway, Tommy Thompson Park, Bolton Camp Redevelopment, and Black Creek Pioneer Village revitalization.



## Rouge National Urban Park

In partnership with Parks Canada, TRCA is focusing on restoring marginal agricultural lands within the headwaters of the new Rouge National Urban Park. In 2019, TRCA completed **1.7 ha** of riparian planting, **2.3 ha** of wetland restoration, and **20 m** of stream restoration. In early 2020, a further **5,300** stems will be planted and a further **3.25 ha** of wetland will be restored.

## Carruthers Creek Watershed Plan

**10** external stakeholder organizations and **1,600** community members were engaged through Public Open Houses, online resources, and surveys to raise awareness of and solicit feedback on the plan.

## Trail Users

**89,491** visitors were recorded at key locations across the jurisdiction, a **60%** increase over 2018. **3** new trail counters were installed in 2019 capturing **49,973** additional visitors.

## Acquired Land

**19.73 ha** of greenspace was acquired through **15** land acquisitions.

## Preparing for The Meadowway

**45 ha** of site prep, **1.5 ha** of native meadow seeding, **33 ha** of maintenance and adaptive management, **22 ha** of existing meadow maintenance mowing, and **22 ha** of buffer mowing around the existing meadow were completed.

## Albion Hills Master Plan

Staff have been working through the design and approvals for the new Park Operations and Administrative Centre Building. A new pedestrian bridge opened in 2019, creating linkages to the future event space.

## Tree Planting on Private Land

TRCA planted **50 ha** of young forest in 2019 on private lands, maintaining the 2018 totals using **89,700** trees.

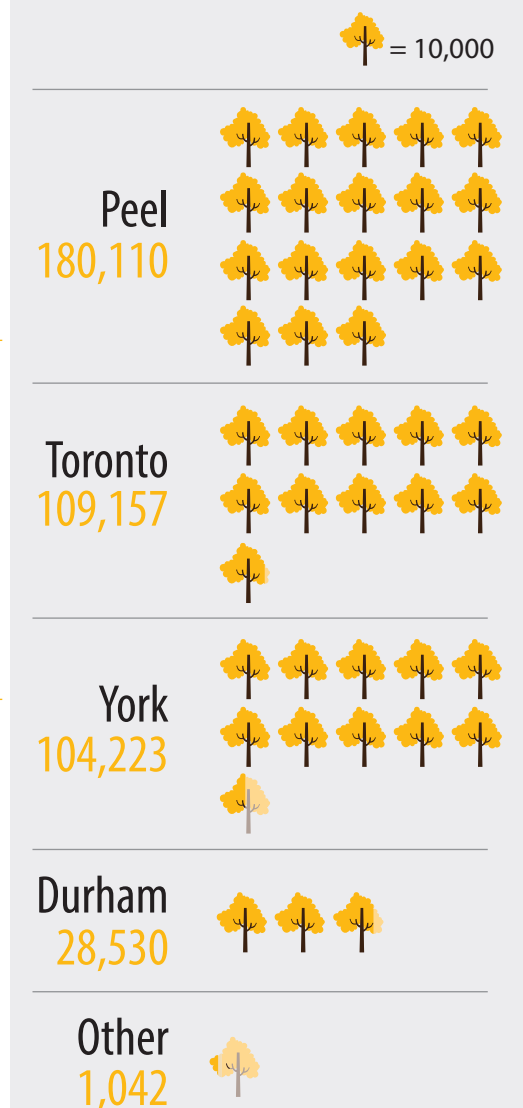
## Invasive Species Management

**74%** reduction in treatment area of *Phragmites australis* from when treatment began in 2018 and a **69%** reduction in Dog-strangling vine treatment area since the program began at Tommy Thompson Park in 2013.



## 423,071 plant materials were produced

Tree plantings undertaken by TRCA staff contribute to the overall forest canopy in the jurisdiction. Trees and shrubs sourced through TRCA's nursery and planted by TRCA staff are broken out by municipality below:





# 4 Create complete communities that integrate nature and the built environment



Complete communities support the well-being of each resident by providing a full range of housing, transportation, community infrastructure and open space opportunities. In order to create complete communities, TRCA needs to incorporate livability and sustainability into new developments, while supporting the transformation and retrofitting of existing neighbourhoods to reduce their environmental footprint and increase their resilience.

## PROJECTED ACCOMPLISHMENTS (2018 – 2022)

Assist landowners and government partners to realize complete communities and environmental best practices in new developments and existing neighborhoods.

Assess TRCA's development review process with member municipalities, industry and other stakeholders to identify opportunities to facilitate more timely reviews.

Provide value-added advice to protect natural heritage, reduce risk from flooding and erosion, reduce greenhouse gas emissions and restore habitats in the design of new communities and redeveloping areas.

Work with industry, private businesses and municipal partners to integrate natural heritage, elements of the Trail Strategy for The Greater Toronto Region, and green infrastructure into the design of new communities, and the redevelopment of older communities, at the earliest stage of the planning process in order to achieve vibrant award winning public spaces and multiple community benefits.

Engage with member municipalities, academic institutions, the development industry, and professional associations to deliver professional development programs, and conduct design charrettes and forums to achieve integrated sustainable community design in projects and plans.



## Tree Planting Events

**4,000** participants attended TRCA's **120** community based restoration events resulting in: **7,000** native trees and shrubs planted, over **2,500 lbs** of garbage removed, management and monitoring of invasive species on over **5,000 m<sup>2</sup>** of greenspace and maintenance of over **40,000 m<sup>2</sup>** of newly planted areas.

## Trail Strategy for the Greater Toronto Region

Received endorsement by TRCA Board of Directors. The strategy establishes a vision for a connected network of **1,000 km** of trails in our regional greenspace system, including **480 km** of new trails.

## Aquatic and Terrestrial Resource Science

Published **1** peer-reviewed journal paper on green infrastructure and biodiversity that highlighted the importance of integrating urban planning into conservation planning.

Presented TRCA work at more than **10** forums, conferences, and local workshops as an invited guest speaker on natural heritage planning, habitat connectivity, and natural systems climate resilience including Latonnell, Peel Region, Durham Region, and Green Infrastructure Champion workshop by the Great Lakes Commission.

## Partnership Development

**8** new partnerships were established with organizations and agencies. TRCA currently maintains **68** community and strategic partnerships that support outdoor recreation activities.

## Regional Watershed Alliance

Provided feedback on **6** staff responses to Provincial policy proposals, as well as input into **9** TRCA initiatives, including TRCA's Flood Vulnerable Area outreach and the ecosystem valuation study of Toronto's ravine system. The Regional Watershed Alliance Youth Council Working Group also vetted and selected **6** new Youth Council Executive Members for the 2020 term to lead a Youth Council membership of over **100** members.

## Trail Accessibility

**27 km** of TRCA owned trails in addition to **119.9 km** of non-TRCA trail was assessed for accessibility using the High Efficiency Trail Assessment Process (HETAP).

## Green and Natural Infrastructure Strategy

Identified **3** priority neighbourhoods in which extreme heat can be mitigated using green infrastructure solutions. TRCA led the heat vulnerability assessment and supported multiple tree planting and community outreach efforts in each neighbourhood. TRCA also initiated a research partnership that will model the many benefits that these new trees will provide over the next 30 years, including air pollution reduction and habitat provision.

## Trail Development

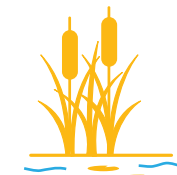
Staff added over **2.5 km** of formalized trail at **6** sites across our jurisdiction.



**5.4 km**  
riparian restoration



**875 m**  
shoreline restoration



**13.3 ha**  
wetland restoration



**7.5 ha**  
meadow restoration



**4.1 km**  
stream restoration



**138 ha**  
forest/woodland restoration



**110 km**  
of authorized trails audited



**7 km**  
of unauthorized trail inventoried



# 5 Foster sustainable citizenship



To foster engagement of community members, TRCA needs to build civic capacity by providing the tools and opportunities needed for community members to transition from participants into advocates and leaders. TRCA can also facilitate a two-way dialogue with community members to ensure that local knowledge, ideas and concerns are integrated into decision-making by governments and agencies.

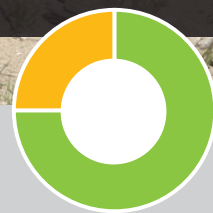
## PROJECTED ACCOMPLISHMENTS (2018 – 2022)

Provide increased engagement opportunities for stakeholders of all ages that build environmental, sustainability and climate awareness and promote leadership within communities including training and capacity building.

Develop a greater diversity of nature-based programs to attract a wider range of community participants in TRCA programs.

Work with Toronto and Region Conservation Foundation (TRCF) to secure funding, community awareness and involvement around TRCA and TRCF priority projects including The Meadoway, Tommy Thompson Park, Black Creek Pioneer Village, Bolton Camp redevelopment and the “Look After Where You Live” program.

Engage school boards and governments in discussions on how to achieve cost efficient and equitable access for students to curriculum out of class nature – science based education activities.



## Visitor Satisfaction

**90%** of reviewers gave Black Creek Pioneer Village an approval rating of **4+** out of 5 on TripAdvisor, Google, and Facebook, TRCA’s second year above the **90%** threshold.

## Tommy Thompson Park

TRCA engaged **300** participants through volunteer-led nature walks throughout 2019 and hosted **3** events attracting over **2,700** residents.

## Education Programs

**154,962** participants in day camps and education programs at Kortright Centre for Conservation, Black Creek Pioneer Village, Tommy Thompson Park, in-class visits, and TRCA’s field centres.

## Outdoor Adult Education

Outdoor adult education programs attracted **1,136** participants in a variety of environmentally themed courses, professional development opportunities and workshops.

## Volunteer Hours

**602 hrs** of volunteer labour, combined with staff efforts in the Duffins Headwaters, contributed to trail maintenance along **165 km** of trails, ensuring they are kept in a state of good repair and open for use.

## Community Learning

**104** community learning partnerships were established, hosting a total of **393** event days engaging **23,017** participants.

## Ontario Climate Consortium

Engaged **22** municipalities in Ontario and Quebec to provide one-to-one coaching on climate change adaptation and mitigation and facilitated peer-to-peer learning as part of a coalition of national partners.

## Girls Can Too Program

The Girls Can Too program engaged **50** participants and delivered **1,642** learning hours.

## Library Pass Program

**4,861** visitors used their library cards to access Black Creek Pioneer Village, an **8%** increase over 2018.

## Professional Access Into Employment (PAIE)

**44** participants completed the professional training program.

**80%** gained employment in their field.

**40** in-class job search, communication, and technical skills workshops delivered to participants.

## York Children’s Water Festival

**2,500** elementary students, **361** teachers, and **200** secondary student volunteers from **39** schools participated in this year’s festival, learning about aquatic ecosystems, the hydrologic cycle, and water conservation.

= 5,000

**97,448**

Visitors to Black Creek Pioneer Village



**1,098,526**

Visitors to TRCA’s Conservation Parks





# 6 Tell the story of the Toronto region



Equipped with a strong sense of place, community members are more likely to be champions for their communities, for their local environment, and for conservation. TRCA will help to tell the story of the region's rich history through a range of voices and perspectives that fully represent the region's cultural diversity and rich heritage. By engaging communities in this conversation, TRCA will remember, teach and celebrate the experiences that form individual and shared identities.

## PROJECTED ACCOMPLISHMENTS (2018 – 2022)

Develop a clear and consistent identity and corporate brand for TRCA and build TRCA's visibility through formal and informal communication channels.

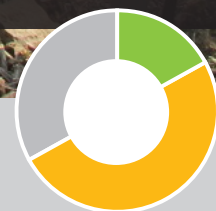
Update TRCA's Master Plans including our Archaeological Master Plan and Master Plans for specific Conservation Areas with new information obtained from relevant reviews and studies.

Integrate cultural heritage broadly throughout TRCA programming with a focus on fun, learning, and personal stories including those of indigenous community members.

Seek historic designations for TRCA's buildings, as well as new sources of funding for their restoration, re-use, and maintenance, where applicable.

Continue to engage the region's diverse communities to tell their stories and recognize their contributions, and develop community events that celebrate cultural heritage.

Focus on developing information that is accessible and engaging using a variety of mediums, including digital technology.



## Artifacts

Archaeology staff reviewed the conditions of over **650,000** artifacts in their care and updated storage to conform to improved Collections Care Standards.

## Aboriginal Engagement

Archeology staff led **18** consultations with First Nations and Métis communities across the jurisdiction, a **12%** increase over 2018.

## Historic Asset Management

**\$3.2 M** was invested in the preservation of heritage buildings and infrastructure at Black Creek Pioneer Village.

## Nikibii Dawadinna Giigwag

**7** Indigenous secondary students learned about post-secondary education and career paths in the fields of Architecture, Landscape Architecture, Indigenous Studies, and Environmental Sciences in 2019.

## Archaeology

Archaeology staff assessed **94** individual projects for archaeological potential, surveyed over **300 ha** of land, identified two previously unknown archaeological sites, and collected over **7,800** artifacts in their efforts to protect and preserve heritage resources on TRCA lands.

## Indigenous Voices

**2,331** hours of employment were facilitated through the Nikibii Dawadinna Giigwag program, a participatory employment training program that integrates the voices of Indigenous youth, Elders, and Knowledge Keepers in the planning and design of green infrastructure.

## New Partnership

TRCA completed a Memorandum of Understanding to formalize a unique three-way partnership with York University and Indigenous artists to complete original archival and community-based oral history research on Indigenous peoples living in the Toronto region in the 19<sup>th</sup> century and to install an artful and interactive exhibit at Black Creek Pioneer Village, slated to open in 2022. Through the year, staff collaborated with these partners to write and submit grant applications to fund the research and restore the heritage building at Black Creek Pioneer Village where the exhibit will be installed. York University completed initial historical research upon which the exhibit will be based.

## Interactive History Exhibit

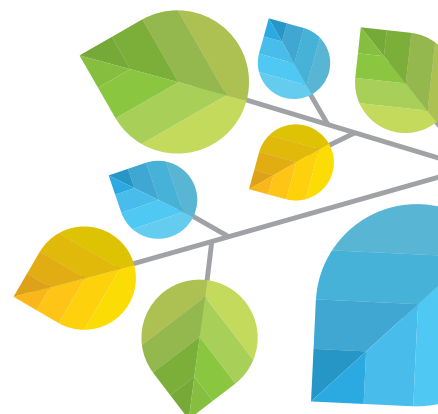
Following consultation with stakeholders and in-depth sector research, TRCA created its first interactive history exhibit to tell the story of the Toronto region at Black Creek Pioneer Village. Phase I opened in May 2019 and was explored by thousands of students, day campers, and families.

## Humber River 20<sup>th</sup> Anniversary

**4,080** people engaged as part of TRCA-led activities and events celebrating the Humber River's 20<sup>th</sup> Anniversary as a Canadian Heritage River.

## Sugarbush Maple Syrup Festival

TRCA hosted the former Minister of Tourism, Culture and Sport, Hon. Michael A. Tibollo, at Kortright Centre for Conservation, where historical Indigenous and pioneer maple syrup production methods were showcased alongside the modern methods of maple syrup production used today.





# 7 Build partnerships and new business models



Securing stable funding and resources to carry out TRCA's mandate remains an ongoing priority for the organization. New opportunities for funding and collaborative arrangements are emerging; but at the same time, competition for funding and resources is increasing. The economic landscape that supports TRCA and its work is shifting, and TRCA must continually assess and respond to changes affecting funding and resources.

## PROJECTED ACCOMPLISHMENTS (2018 – 2022)

Continue to diversify TRCA's financial capacity by leveraging government funding to attract private sector funding through TRCF.

Raise the profile of TRCF, by working together to advance priority initiatives.

Advance new business models to maintain assets and ensure efficient program delivery.

Develop a clear and consistent identity and leadership voice for TRCA and build TRCA's visibility through the Corporate Branding Strategy, media exposure, events, conferences and partnerships.

Establish service rates consistent with other service providers as part of the plan for growing TRCA's fee-for-service work.



## Acquired Land

**116%** rental surplus in 2019 from additional grants and easement income on TRCA owned lands.

## Social Media

TRCA now has **20** active social media accounts and a direct audience of over **55,000** people. TRCA saw an **8%** increase in webpage views in 2019 and uploaded **32** new videos to TRCA's YouTube page.

## Building Sustainable Business Models

Throughout the 2019 fiscal year, TRCA's Funding and Grants program has facilitated a total of **64** submissions, with a total request value of over **\$125.7 M**. TRCA currently has **\$19.9 M** in grant applications under review, has received notice that **\$62.3 M** has been awarded and **\$3.7 M** has been declined. This provides TRCA with an in-year success rate of **94%** as of December 31st 2019.

## Lakeview Waterfront Connection Project

Through a long term partnership with CVC, the Region of Peel, and the City of Mississauga, TRCA is leading construction work to build a revitalized waterfront along the eastern Mississauga shoreline.

TRCA is supporting its partners in their aim to restore and re-create natural coastal habitats, encourage public use of the waterfront, and facilitate sustainable city building.

## Academic Partnerships

**5** short and long-term grants secured in conjunction with **5** academic partners to undertake TRCA's applied research work.

## Establishing Partnerships

TRCA finalized **146** Revenue Agreements.

## Private Sector Partnership

TRCA expanded its Stormwater Management Pond (SWMP) fee-for-service work in 2019, forming a new **\$0.5 M** private-sector partnership with York University and Tennis Canada. TRCA provided specialized expertise and excellent customer service as part of the maintenance and cleanout of the Tennis Canada SWMP, helping improve the quality of water entering Black Creek, by increasing the pond's volume by **640 m<sup>3</sup>**.

## Monarch Nation

TRCA partnered with the Bateman Foundation and Monarch Teacher Network of Canada to develop Monarch Nation, a new national education program engaging children ages 6-12 about species-at-risk. The program is designed to get kids involved in real, hands-on conservation work — from habitat restoration to citizen science.

## Flood Forecasting and Warning Workshop

Facilitated knowledge exchange and partner collaboration between **120** participants from **35** different organizations on topics from effective flood communications to the projected impacts of climate change on lake-based erosion.





# 8 Gather and share the best sustainability knowledge

TRCA is part of a network of thought leaders striving to address a range of urban sustainability issues, including watershed management, climate change mitigation and adaptation, and ecosystem conservation. TRCA is recognized for its expertise by researchers, practitioners and community members, and is well positioned to help generate and mobilize the knowledge needed to answer urgent environmental challenges.

## PROJECTED ACCOMPLISHMENTS (2018 – 2022)

● Increase collaboration with senior levels of government, academic institutions, private sector and not-for-profit stakeholders to develop leading-edge sustainability knowledge.

● Continue to demonstrate leading-edge community energy efficiency and sustainable design practices in TRCA facilities, including at the Living City Campus at Kortright.

● Bring together agencies, professional organizations, and academic institutions working on protection and restoration in the jurisdiction to maximize efficiencies and to ensure the best science and data is leveraged in the delivery of programs and projects.

● Deliver knowledge sharing events to professionals in the fields of environmental engineering, restoration ecology and climate change resilience.

● Undertake pilot collaborations with industry, academic institutions and partners to determine and demonstrate which TRCA data are most useful in supporting sustainable practices, and how best to provide access to that data to achieve more sustainable development.



## Sustainable Technologies Evaluation Program (STEP)

**2,706** participants attended **41** events STEP produced **7** education videos which were viewed **5,388** times as well as **11** e-learning courses that engaged **397** individuals.

## Guidance Documents

Research Knowledge Management (RKM) has led and supported the development of several guidance documents in 2019 to support improved greenspace and urban forest management.

These guidance documents include :

- The State of Large Parks in Ontario's Golden Horseshoe, led by the Green Infrastructure Ontario Coalition and Greenbelt Foundation.
- TRCA's Urban Forest Monitoring Resource.
- Tree Planting Prioritization Tools: Theory, User Experiences, and Recommendations for the City of Richmond Hill.

## Aquatic & Terrestrial Ecosystem Science

**4** scientific studies completed, leading to the development of **5** decision support tools for identifying TRCA's aquatic habitat thermal classification and priority areas for aquatic ecosystem conservation under current and future land and climate scenarios.

## Ontario Climate Consortium Collaboration

Delivered **19** collaborative projects to further the reduction of GHG emissions and enhance climate adaptation and resilience within the region.

## Carruthers Creek Watershed Plan (CCWP)

RKM provided the technical support lead in the development of the CCWP and The Highland Greening Strategy. The support included:

- 1** Aquatic Impact Assessment Report and Data Layer.
- 1** Terrestrial Impact Assessment Report and Data Layer.
- 1** Urban Forest Assessment Report.
- 3** future land use scenarios data layers including enhanced Natural Heritage Strategy maps and methods memo.
- 5** technical presentations to Durham and local municipal staffs related to CCWP.

## Regional Watershed Monitoring Program

TRCA collected over **20 M** data records this year (**9.5%** increase) including more than **100,000** biodiversity records. **303** new monitoring sites were established (**16%** increase). Data and information was presented in **31** documents including reports and technical memos to share this knowledge.

In the spring of 2019, Lake Ontario once again saw unprecedented water levels, breaking the 2017 record with a peak height of **76.03 m** above sea level on May 29, 2019. While work on long-term solutions continued, response efforts in 2019 involved a cross-divisional Incident Management System structure at TRCA's Emergency Operations Centre to provide both technical forecasting support, as well as to fulfil the City of Toronto's request for flood response activities on the ground. With approximately **1,290** hours of staff time, **350 tonnes** of rip-rap were placed along localized erosion scars along a **200 m** stretch of the Guild Inn shoreline, **14** pumps and **14** aqua dams were installed.

**123** impact reports were tracked with WebMap

**21** Internal Situation Reports were issued

**21** Municipal Partner information reports were issued

**45** wind and wave forecast updates

**42** media interviews were given



# 9 Measure performance

Measuring Performance at TRCA and in the jurisdiction helps the organization understand what it is doing well and what still needs to be done in order to achieve its goals. TRCA must use what it learns from progress measurement to adjust its policies and priorities, achieve its mandate, improve programs and projects, and reallocate resources to where they will deliver the greatest impact for its stakeholders.

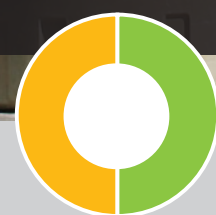
## PROJECTED ACCOMPLISHMENTS (2018 – 2022)

Invest in digital technologies which will allow the organization to better measure and communicate TRCA's value proposition.

Improve and enhance the Centralized Planning and Reporting (CPR) database by developing consistent reporting measures including key performance indicators and targets to measure progress towards strategic outcomes and to report on the impact of TRCA work.

Produce updated Watershed and Living City Report Cards on a regular basis and support community-led reporting to ensure stakeholders and community members understand the environmental health of TRCA watersheds.

Work with industry, government, academic institutions and partners to highlight successful and innovative projects in journals and publications.



## Freedom of Information

TRCA has completed **63%** more Freedom of Information (FOI) requests compared to 2018 with **98.08%** completed within legislated timelines.

## Peel Climate Change Performance Indicators

TRCA engaged with **60** stakeholders at the Region of Peel and Credit Valley Conservation on the Peel Climate Change Key Performance Indicator project. This project will develop performance measures to track, monitor, and report on the impacts and effectiveness of projects that receive Region of Peel climate change funding. The ability of all three stakeholders to measure the impact of projects using similar measurements will facilitate ongoing management and effective decision-making. This project is scheduled to be completed in 2020.

## Flood Plain Data

**62%** of flood plain data (**1,234 km**) currently meets the service delivery standard of ensuring that data is no more than 10 years old, which is an improvement over the **47%** achieved in 2018.



# 29

properties inventoried and assessed for trail hazards

## Environmental Assessments (EAs)

TRCA reviewed **59** EAs in 2019, a **28%** increase over 2018 and issued **114** permits for projects approved through the EA process, a **4.5%** increase over 2018.

## Planning and Permit Applications

**720** planning applications and **1,224** permit requests were submitted to TRCA in 2019. Of these requests, **1,192** permits were issued, a **9%** increase over 2018.

## Municipal Collaboration

**364** participants were engaged at **35** collaborative sessions related to Municipal Comprehensive Reviews in 2019, informing land use decisions and watershed planning.

## Watershed Report

Completed Phase I of an online watershed reporting platform to easily communicate watershed conditions with partners. Continued to distribute the Watershed Report Cards and Living City Report Card to community groups and partners throughout the jurisdiction.

## Permits Inspected

TRCA inspected **5,489** permits, a **33%** increase over 2018.

## EA and Permit Service Standards

The service level standards, 10-30 business days, for environmental assessment and permit reviews, were met **85%** of the time, encompassing over **32,000** hours of planning and technical staff time.

## Regulated Area Mapping

**31%** of all Planning and Development webpage views engaged the Regulated Area Search tool to determine if a property is located within TRCA's Regulated Area. This tool allowed users to utilize new more accurate regulatory area screening mapping, that was developed with partner municipalities and through extensive stakeholder input.

## Annual Audit

TRCA's 2018 audited financial statements were issued with a clean auditor's report.





# 10 Accelerate innovation



To address the urgent and complex growth and sustainability challenges of the region, TRCA must accelerate the pace of innovation. TRCA must purposefully create the conditions for innovation and continuous improvement and share these innovations with its member municipalities throughout the region to advance shared objectives in sustainability.

## PROJECTED ACCOMPLISHMENTS (2018 – 2022)

Open TRCA's head office by 2022, which will demonstrate innovative green building practices.

Expand TRCA's fee-for-service consulting work to help address member municipality and partner objectives in a financially sustainable way.

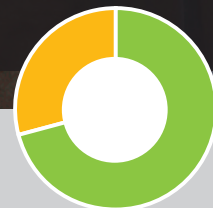
Continue to host knowledge sharing events such as the TRCA and International Erosion Control Association (TRIECA) Conference.

Develop user-friendly planning tools that identify how flood risks can be reduced and how ecosystems can be protected and restored, recognizing urban growth and climate change.

Work closely with member municipalities, academic institutions and private industry to monitor, evaluate, and pilot new innovative technologies in TRCA's work.

Seek input from TRCA staff and support their efforts to develop innovations that improve program delivery.

Conduct a staff survey on a regular basis to highlight progress on staff related initiatives and to determine opportunities for continuous improvement.



## Erosion Monitoring

TRCA became licensed to complete over **32 km** of waterfront flood damage inspections using RPAS (Drone) technology. TRCA gathered video footage with GPS waypoint data for over **9 km** of river systems for TRCA's Erosion Monitoring Program which covered over **5.5 ha** of land with our Survey Photogrammetry Operations. TRCA also initiated the Drone Bluffs Monitoring Program which will provide detailed spatial analysis of the annual recession of the Bluffs.

## TRIECA Conference

**1,100** professionals attended the two day conference that TRCA and the Canadian Chapter of the International Erosion and Sediment Control Association co-hosted. Conference themes include stormwater management and erosion and sediment control (including natural channel design) - **42** technical presentations were delivered (**21** in each theme) and **64** tradeshow booths were featured.

## Administrative Office Building

The ceremonial groundbreaking for the construction of TRCA's new administrative office building took place in June. This new building is intended to be one of the most energy-efficient office buildings in North America. Sustainable design features include:

- 4 solar chimneys and a solar thermal roof
- Waterwalls to reduce energy use
- Electric vehicle charging stations
- Rainwater harvesting to irrigate a green roof

## Modernization

Migrated a total of **1,190** email accounts to Microsoft Office 365.

Implemented the Jira Service Desk solution resulting in enhanced customer service, development of metrics, and tracking of ticket results.

Migrated **10** virtual servers to the Azure cloud solution which will support TRCA's corporate sustainability strategy.

Migrated **5** business unit applications from SQL Server 2005 to SQL Server 2014 to ensure technology is current and secure.

**5,000** daily work reports entered digitally instead of on paper.

**1,500** Unique users visiting new [trcagauging.ca](http://trcagauging.ca) website, totaling **24,000** page views.

## Regulation Mapping Update

**130** comments collected and applied to generic regulation updates from the public, partner municipalities and TRCA staff which resulted in a more accurate and current regulated area. New regulated area mapping was approved by the TRCA Board in June.

## Low Impact Development (LID)

LID's Treatment Train Tool (LID TTT), a tool to help developers, consultants, municipalities, and landowners understand and implement more sustainable stormwater management planning and design practices in their watersheds was enhanced with advanced hydrology functions, which was downloaded over **1,300** times.

## Erosion Management Diversified Funding

**\$56 M** in federal funding secured in TRCA's 2019 Disaster Mitigation and Adaptation Fund (DMAF) applications. Funding was awarded to the Toronto Region Ravine Erosion Risk Management and Hazard Mitigation Project and the Toronto Waterfront Erosion Hazard Mitigation Project over a 10 year period.

## Natural Resources Canada (NRCan)

In August NRCan announced **\$2 M** in funding for TRCA's new administrative office building, which will support contributions by other levels of government.





# 11 Invest in our staff



TRCA employees build and deliver programs, provide service to clients and the public, and respond to the challenges and opportunities that allow TRCA to achieve its mandate. TRCA needs knowledgeable, talented, and motivated staff equipped with tools to undertake complex work efficiently and effectively. With talented workers being increasingly discerning, it is more important than ever for TRCA to invest in hiring, developing, supporting, and retaining high performing staff.

## PROJECTED ACCOMPLISHMENTS (2018 – 2022)

Prepare new policies, procedures, standards and guidelines for how TRCA employees interact with the organization and customers.

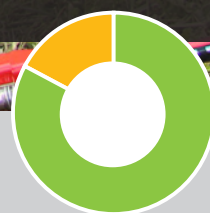
Introduce streamlined methods for communicating the organization's key successes and areas for improvement, both internally and for stakeholders.

Implement a Human Resources Information System (HRIS) to streamline human resources and payroll services.

Strengthen HR and Corporate Services teams to ensure necessary training for staff and to better support employee performance and wellness.

Encourage interdisciplinary and interdepartmental teams on projects and plans.

Create a TRCA Succession Plan that identifies future leaders and ensures business continuity.



## Performance Development Program (PDP)

2019 saw the development of a brand-new PDP program anchored in foundational coaching conversations between employees and supervisors. The program has a shared accountability and requires the demonstration of TRCA's Core Values on a daily basis, aligning our work objectives to the Strategic Plan and divisional priorities and focusing on employee and career development. The program will be automated in TRCA's HRIS for improved user experience and to enable reporting and analytical capabilities surrounding performance, career pathing, and succession development.

## Health & Safety

TRCA achieved lower incident statistics, a **30%** decrease in the amount of lost time, and transitioned to a digital case management system for Workplace Safety and Insurance Board. Reportable incidents through the WSIB website allow for the development of programs across divisions, designed to address lagging indicators (such as lost time rates or specific categories of injuries). These programs improve TRCA's workplace health and safety programs, reduce premium costs, and improve safety documentation.

## Corporate Policy Updates

**33** new and updated policies and guidelines were approved and went into effect with others being advanced by the interdepartmental Policy Committee.

## WELL Silver Certification

TRCA identified the WELL Building Standard - Level Silver as a key performance target for the new Administration Office Building Project. The WELL Building Standard® is an evidence-based system for measuring, certifying, and monitoring the performance of building features to ensure they positively affect the health and well-being of the building users. WELL is third-party certified by Green Business Certification Inc. (GBCI), which administers LEED certification and LEED professional accreditations.

## Years of Service Awards

TRCA held its first Service Recognition Awards Breakfast. This new event recognized the contributions of **112** TRCA staff celebrating 5, 10, 15, 20, 25 and 30 years of service with the organization.



## Pancake Breakfast

**358** staff attended the Annual Pancake Breakfast which was held at Kortright Centre for Conservation.

## Social Committee

TRCA's social committee hosted **6** events for staff. Staff also participated in a clothing and toy drive to donate unwrapped toys, books, and winter wear (hats, gloves, socks and t-shirts) to the Jane Finch Early Years Centre.





# 12 Facilitate a region-wide approach to sustainability

Around the world, urban regions are becoming connected across their constituent municipal boundaries to tackle pressing sustainability challenges, including greenhouse emissions reduction, climate resilience, transit and transportation, food security, waste management and watershed conservation. TRCA plays an important coordination role on matters that cross municipal boundaries. To achieve shared goals of a green, sustainable, prosperous region, TRCA must build on its history of bringing stakeholders together from across watersheds in the jurisdiction to ensure regional-scale cross boundary collaboration on today's challenges.

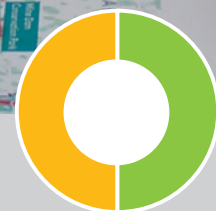
## PROJECTED ACCOMPLISHMENTS (2018 – 2022)

Develop Master Service Agreements and Fee-For-Service Arrangements with member municipalities to help achieve their sustainability objectives.

Publish the Living City Report Card and Watershed Report Cards to provide clear indicators of environmental health within the jurisdiction.

Ensure that updated TRCA plans and strategies are leveraged in amendments to municipal official plans and in provincial and regional infrastructure initiatives.

Expand the Partners and Project Green Eco-Zone program to include emerging employment areas in the jurisdiction subject to partner funding.



## Climate Dataset

TRCA developed a climate dataset tool accessible by our partner municipalities that ensures climate change considerations can be incorporated into watershed planning.

## Emergency Hazard Sites

**32** emergency hazard sites were reported to TRCA's partner municipalities to inform budgetary and future workplans.

## Sharing Data

In 2019, TRCA completed a mapping tool for Ecologically Significant Groundwater Recharge Areas (ESGRA) which provides valuable data for updating official plan policies to achieve conformity with provincial policy.

## TRCA Compensation Protocol

TRCA collaborated with Metrolinx to host a workshop for **23** municipalities and **5** Conservation Authorities where Metrolinx rolled out their compensation strategy, confirming that TRCA's compensation protocol will be used as the basis for natural heritage compensation for all **5** affected Conservation Authorities.

## Special Flood Advisor

TRCA staff hosted a meeting and tour with the Province's Special Flood Advisor followed by a detailed submission and recommendations to inform the Province's report, as well as the Provincial Policy Statement review. TRCA is pleased that our recommendations were reflected in the final report released by the Province.

## Sustainable Communities

TRCA completed an analysis of **104** Region of Peel buildings and identified GHG savings potential of **30%**, equivalent to taking 1,000 passenger vehicles off the road for a year. If implemented, the reduction would also reduce utility costs for Region of Peel by **\$5 M** and enable the Region to meet their 2030 target of a **45%** reduction in GHG emissions.

## Official Plans

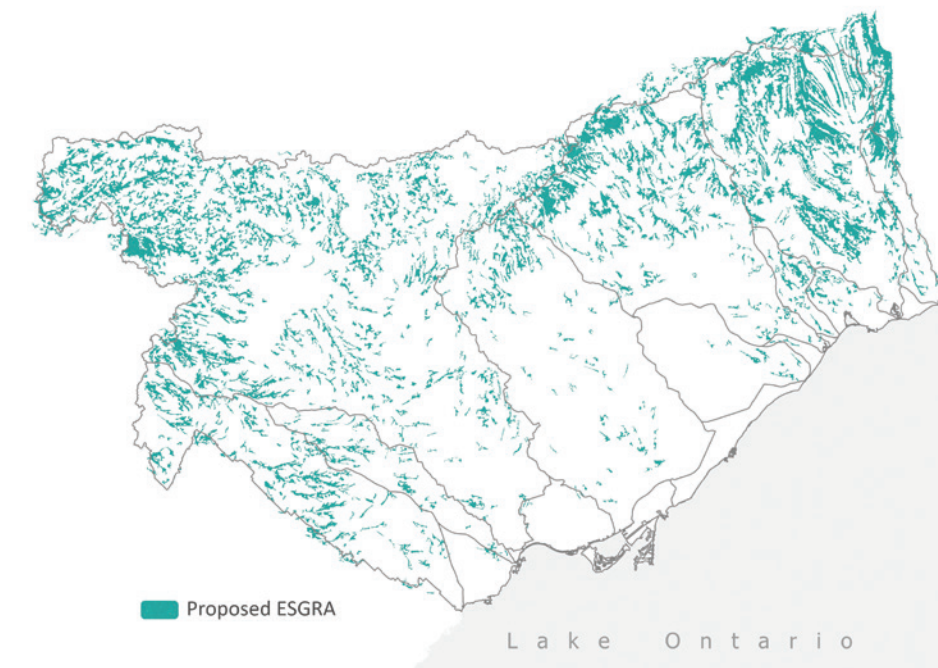
2019 was a busy year supporting our partner municipalities with a **75%** increase in Official Plan reviews.

## Partners in Project Green

TRCA facilitated the completion of **17** water audits, including direct support for BMO, Dextran Products, Pure Foods Meat Solutions, St. Michael's Hospital, Ontario Power Generation, Atlantic Packaging, Urbacon, TWI Foods, and Salvation Army while supporting efforts to reduce salt use on commercial properties through the joint Conservation Authority and industry stakeholders Freshwater Roundtable.

## Groundwater Recharge

Completed a collaborative applied research project engaging **5** external and internal partners to develop TRCA wide Ecologically Significant Groundwater Recharge Areas (ESGRA) data layer, which informs watershed planning requirements.







## Challenges

### FINANCIAL

TRCA's expansive jurisdiction will continue to face significant pressures resulting from urbanization, aging infrastructure, extreme weather impacts, climate change effects, invasive species, and other emerging threats. In order to meet these challenges head-on, TRCA will strive to diversify its revenue sources to enhance long-term financial resilience. To this end, TRCA will enhance existing and establish new partnerships with public and private entities to support our ongoing work. As part of this effort, Master Service Agreements and Fee-for-Service Agreements with member municipalities will be updated and developed to help achieve shared sustainability objectives. TRCA will continue to invest in aging infrastructure across TRCA's Conservation Areas and public spaces in order to provide safe, accessible, and functional facilities to the public. Additionally, the funding and grants program will continue to seek out new revenue streams that will alleviate reliance on TRCA's levy and partner municipality capital budgets so that funds can be directed to the areas of greatest need.

### PROVINCIAL POLICY

Changes to the *Conservation Authorities Act* (CAA) were announced this past year by the Ministry of the Environment, Conservation and Parks. Although details of the upcoming legislative and regulatory changes have not been confirmed, TRCA has been working proactively with partner municipalities and stakeholders to prepare updated Service Level Agreements so we can continue to meet the needs of our partners. TRCA anticipates that legislative and regulatory changes will be announced in 2020, directly impacting the 2021 fiscal year and beyond. TRCA is directly involved in providing input on proposed changes and will continue to provide the expertise needed to help partner municipalities and stakeholders respond to new provincial policy directions that come forward.

### PEOPLE AND PROPERTY

Reducing the risk and potential for costly flooding, pollution, and erosion damage remains a primary objective. TRCA will continue to support efforts by partners and senior levels of government to respond to increasing risks by helping to build infrastructure that is more resilient to flood and erosion hazards, providing expertise in predicting the effects on watersheds and communities, and connecting stakeholders with the knowledge and technologies

that they require. Through engagement with local communities, TRCA will increase awareness of the issues facing water resources and the health and well-being of the jurisdiction. Looking forward, TRCA aims to achieve the most appropriate use of TRCA's inventory of lands and facilities while respecting cultural heritage and environmental values, in addition to fostering sustainable citizenship through the celebration of our diverse communities and shared collective history. Priority greenspace and community initiatives of Toronto and Region Conservation Foundation (TRCF), our member municipalities, and partners, such as The Meadoway, Tommy Thompson Park, and Bolton Camp Redevelopment will become a focus moving forward. TRCA will work to update Master Plans, including Master Plans for specific Conservation Areas with new information obtained from relevant reviews and studies recognizing municipal or community efforts to seek historic designations for TRCA's buildings, as well as new sources of funding for their restoration, re-use and maintenance, where applicable.

### COLLECTIVE IMPACT

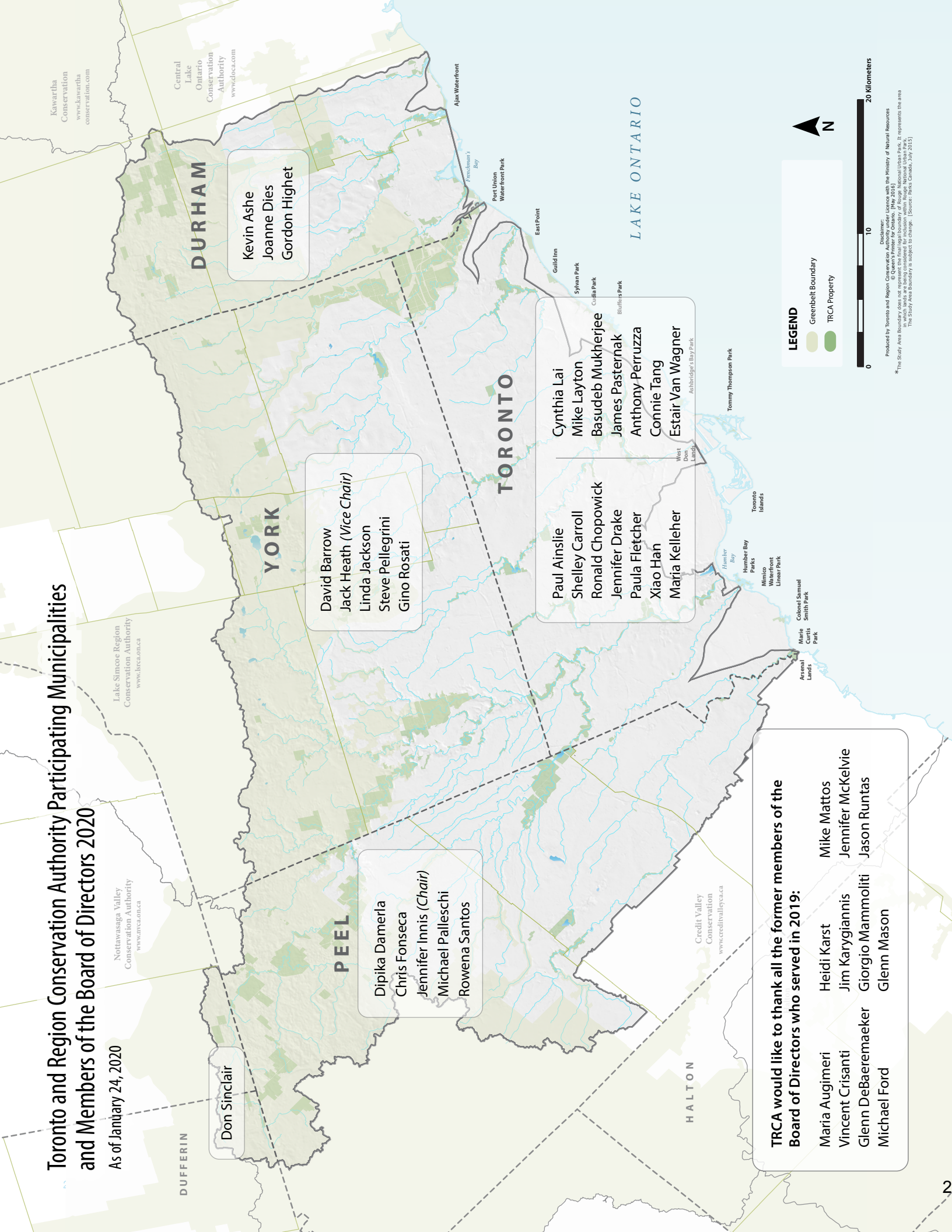
As the number of organizations engaged in environmental initiatives in the Toronto Region grows, creating more capacity and competition for government resources, there is increasing recognition of the need for regional-scale coordination to evaluate effectiveness.

Greater responsibility is also being placed on government agencies to consult and engage more effectively. Measuring our impact with a series of key performance indicators relevant to our work will give the ability to align Conservation Authority initiatives to our partner municipalities priorities. Regular measurement will provide funding justifications and greater rationale for our work across the jurisdiction. Our future focus is on developing partnerships that will monitor, evaluate, and pilot new innovative technologies. Investment in digital technologies will enhance the measurement and communication of TRCA's value proposition. TRCA will continue to demonstrate leading-edge community energy efficiency and sustainable design practices in TRCA facilities and seize opportunities for integrating more sustainable technologies and sustainable development certifications in our design and construction reviews and work. Using our strength as a convener, and a delivery agent for infrastructure, restoration and monitoring work in sensitive environments, TRCA will increase coordination and the efficient delivery of services across its growing network of organizations, academic institutions, and governments throughout the jurisdiction.



# Toronto and Region Conservation Authority Participating Municipalities and Members of the Board of Directors 2020

As of January 24, 2020



## TRCA would like to thank all the former members of the Board of Directors who served in 2019:

Maria Augimeri  
Vincent Crisanti  
Glenn DeBaeremaeker  
Michael Ford  
Heidi Karst  
Jim Karygiannis  
Giorgio Mammoliti  
Glenn Mason  
Mike Mattos  
Jennifer McKelvie  
Jason Runtas

## Toronto and Region Conservation Authority Senior Leadership Team 2020



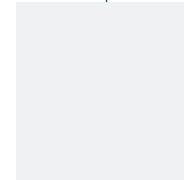
**Chief Executive Officer**  
John MacKenzie



**CORPORATE SERVICES**  
Michael Tolensky  
Chief Financial and Operating Officer



**RESTORATION AND INFRASTRUCTURE**  
Moranne McDonnell  
Director



**PARKS AND CULTURE**  
Vacant Director



**EDUCATION AND TRAINING**  
Darryl Gray  
Director



**DEVELOPMENT AND ENGINEERING SERVICES**  
Sameer Dhalla  
Director



**POLICY PLANNING**  
Laurie Nelson  
Director



**HUMAN RESOURCES**  
Natalie Blake  
Chief Human Resources Officer

## OUR VISION

The quality of life on Earth is being determined in rapidly expanding city regions. Our vision is for a new kind of community — The Living City — where human settlement can flourish forever as part of nature's beauty and diversity.

## OUR MISSION

To protect, conserve and restore natural resources and develop resilient communities through education, the application of science, community engagement, service excellence and collaboration with our partners.

## OUR CORE VALUES

### INTEGRITY

We are honest, ethical, and professional.

### COLLABORATION

We achieve shared goals through a solution-oriented approach.

### ACCOUNTABILITY

We are responsible for our actions, behaviours and results.

### RESPECT

We are equitable, fair and respectful while recognizing individual contributions and diversity.

### EXCELLENCE

We maintain a high standard of performance and customer service, consistently striving to improve and produce quality work.



### Section III – Items for the Information of the Board

**TO:** Chair and Members of the Board of Directors  
Meeting #1/20, Friday, February 21, 2020

**FROM:** Moranne McDonnell, Director, Restoration and Infrastructure  
Michael Tolensky, Chief Financial and Operating Officer

**RE: OPPORTUNITIES AND CONSIDERATIONS FOR TRAIL DEVELOPMENT AND  
HABITAT RESTORATION IN INFRASTRUCTURE CORRIDORS**

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#### KEY ISSUE

The Board of Directors requested a staff report on opportunities and considerations for trail development and habitat restoration in infrastructure corridors in Toronto and Region Conservation Authority's (TRCA) jurisdiction.

#### RECOMMENDATION

**WHEREAS staff were requested by the Board of Directors to investigate the potential for hydro corridor and other corridor revitalization opportunities in TRCA's jurisdiction with The Meadoway project being a model;**

**THEREFORE, LET IT BE RESOLVED THAT the staff report on opportunities and considerations for trail development and habitat restoration in infrastructure corridors be received.**

#### BACKGROUND

At Authority Meeting #7/18 held on September 28, 2018 where The Meadoway project was discussed, Resolution #A144/18 included the following:

*AND FURTHER THAT staff be authorized to investigate the potential for similar hydro and other corridor revitalization opportunities in TRCA's jurisdiction [...], and report back on these discussions.*

This report brings together the work of TRCA's Trail Strategy for the Greater Toronto Region (Trail Strategy) and knowledge gained through the implementation of The Meadoway project to discuss infrastructure corridor revitalization opportunities along with relaying lessons learned to date.

At Board of Directors Meeting #8/19, held on September 27, 2019, Resolution #A157/1, as amended, was approved as follows:

*WHEREAS it was resolved by the TRCA Board at Meeting #9/18 on November 30, 2018 that the Draft Trail Strategy for the Greater Toronto Region, dated November 2018, be endorsed in principle for the purposes of engaging with external partners to obtain input prior to finalizing the Strategy and Workbook and for informing staff reviews of projects and plans and preliminary budget submissions (RES.#A183/18);*

*WHEREAS it was resolved by the TRCA Board at Meeting #9/18 on November 30, 2018 that staff were requested to report back to the Board of Directors in Q3 2019 for final*

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*approval of the Strategy;*

*THEREFORE, LET IT BE RESOLVED THAT the TRCA Trail Strategy for the Greater Toronto Region be approved;*

*THAT TRCA staff be directed to meet with partner municipalities to discuss priority projects, service level agreements, and funding agreements in support of the expansion and management of the regional trail network;*

*THAT TRCA request the Province recognize and build components of the TRCA Trail Strategy for the Greater Toronto Region into the Province's transit and transportation strategies, projects, and provincial land use plans including the Metrolinx Regional Transportation Plan, the Growth Plan for the Greater Golden Horseshoe and official plan update and conformity processes;*

*AND FURTHER THAT TRCA'S trail partners and the Regional Watershed Alliance be so advised.*

The Trail Strategy sets out the direction for TRCA to work towards achieving its vision of “a complete regional trail network in greenspace and along the Lake Ontario shoreline that connects our growing communities to nature, to culture, and to each other, contributing to active living and enhancing our conservation legacy.” It outlines TRCA's plan to complete, expand, manage and celebrate the Greater Toronto Region Trail Network and serves as a framework to protect potential trail alignments. The Trail Strategy acts as a guide for the planning, development and management of these trails, and creates the opportunity for partnership with our member municipalities, provincial and federal agencies, and trail focused groups.

The Trail Strategy's Greater Toronto Region Trail Network includes 1,000 kilometres (km) of trails through the Oak Ridges Moraine, the valleys of the Etobicoke, Mimico, Highland, Petticoat and Duffins Creeks, and the major valleys of the Don, Humber and Rouge Rivers; along the Lake Ontario waterfront; and through regional infrastructure corridors, including transit, utility and electric power facility corridors. It also envisions the introduction of blue trails, which are paddling routes on our navigable waterways. The network includes 520 km of trails that are already in place, with 480 km of new trails required to complete the Greater Toronto Region Trail Network. The network is further supported by thousands of kilometres of local trails that provide community connections to the regional network or are recreational destinations in and of themselves. Many of these trails also connect to transit networks and stations to enable enhanced access to greenspaces across the Toronto Region.

The Meadoway is identified in the Trail Strategy as a key component of Greater Toronto Region Trail Network. Led by TRCA, in partnership with City of Toronto and The W. Garfield Weston Foundation, The Meadoway Project will transform 16 km (over 200 hectares) of hydro corridor in Scarborough into one of the largest urban linear greenspaces in Canada. Connecting seven watercourses and more than 15 parks across Scarborough, The Meadoway will provide a green, active transportation link between downtown Toronto and Rouge National Urban Park. A multi-use trail will be complimented by high functioning meadow habitat increasing biodiversity and transforming the relationship between the built structure of an urban area and natural spaces.

### **RATIONALE**

Utility corridors have the potential to be revitalized from barren mowed areas to public spaces. They can connect and promote a healthy natural system, help manage overland flows with naturalized plantings, provide active transportation linkages while reducing carbon emissions and revolutionize how we look at the relationship between the built structure and the natural environment.

Trails within infrastructure corridors are a significant component of the Trail Strategy's Greater Toronto Region Trail Network (see Attachment 1). Approximately 182 km of the 480 km (38%) of trail opportunities identified in the Greater Toronto Region Trail Network are within infrastructure corridors. This represents 13 major trail projects across four (4) regional municipalities (Durham, Peel, Toronto and York) and nine (9) local municipalities (Ajax, Brampton, Caledon, King, Markham, Mississauga, Pickering, Richmond Hill and Vaughan). While TRCA's role in the projects identified in the Trail Strategy will vary depending on the project's location, all trail projects will support the Greater Toronto Regional Trail Network and can provide the opportunity to enhance habitats to increase resiliency.

There is a long history of trail development in utility corridors in Ontario. However, past efforts have generally been small in scale and fragmented. The "Great Trail" by Trans Canada Trail has utilized hydro corridors and old rail lines to make connections for decades. With land use pressures, particularly in urban areas, utility corridors are becoming key elements of new trail plans. For example, the 100 km loop for the Vaughan Super Trail (2017) integrates pipeline and hydro corridors while placing an emphasis on leveraging opportunities to integrate multi-use trails into planned capital upgrades to transportation routes.

The Meadoway project is a TRCA flagship project which can be used as a larger scale blueprint for revitalization of underutilized infrastructure corridors. The project demonstrates that trail development and habitat restoration within a hydro utility corridor is complex but feasible with extensive collaboration.

TRCA's work in The Meadoway started with a pilot project referred to as the Scarborough Centre Butterfly Trail. Prior to 2011 this 3.5 km section of the Gatineau Hydro Corridor was a barren 40 hectare (ha) area with non-native grass mown eight (8) times annually. The establishment of native meadow habitat complimenting the multi-use trail had an overwhelmingly positive community response. It proved the concept and inspired the vision for the larger Meadoway initiative.

Within the 16 km corridor, 10 km of trail have already been implemented by the City of Toronto. In 2019 TRCA undertook a Municipal Engineer Class Environmental Assessment (EA), Schedule C (pending final approval January 26, 2020) to address the six (6) km of trail 'gaps' in the corridor. During the EA planning process TRCA continued to expand meadow habitat in areas where the trail was already established and launched an education and outreach program.

The Meadoway corridor is owned by Infrastructure Ontario (IO) on behalf of the Province of Ontario. IO and Hydro One Networks Inc. (HONI) jointly manage the Provincial Secondary Land Use Program associated with transmission corridors owned by the Ministry of Government and Consumer Services. HONI maintains a statutory easement over these lands and manages them for their primary use, which is the safe transmission of electricity for the province. In order to implement trail or meadow restoration in the corridor, TRCA works with the City of Toronto to prepare an authorization package for HONI detailing the proposed works. Once this plan is

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approved a temporary access agreement is provided to the City of Toronto specifying the terms of the land use and management. The new parcels/sections for each temporary access agreement are then added to the City of Toronto's Master Park License annually. The Master Park License is renewed every five (5) years. In this situation, the TRCA acts as a third-party leading the planning and implementation of new trail connections along with the planning, implementation and management of new meadow habitat. The City of Toronto has committed to the long-term maintenance of the multi-use trail, management of the overall space as a linear park/public space and payment of all fees associated with The Master Park License.

Table 1 overviews some key considerations for hydro corridor revitalization as learnt from The Meadoway experience. It should be noted that each utility corridor will have its own set of considerations based on the land ownership, designation and other factors. This information is being presented as an example only.

Table 1: The Meadoway: Key considerations for hydro corridor revitalization.

Area	Lesson	Project Impact/Risk
Legal Agreements	<p>The layered property ownership and management model that comes into place for hydro corridor revitalization may require a Memorandum of Understanding (MOU) or other agreements with agencies taking a role in the work who are outside of those that are legally bound by the license agreement (IO, HONI and the license holder – who is the City of Toronto in the case of The Meadoway). TRCA has previously had MOUs with the City of Toronto for meadow habitat implementation in The Meadoway and will be working to refine a master agreement as new meadow and trail works are implemented.</p> <p>As the Master Park License is currently limited to five (5) year terms, the parties involved assume a risk that, upon expiry, there could be a change in the terms or desires of the landowner to continue with a similar license.</p>	<ul style="list-style-type: none"> <li>• Cost</li> <li>• Time</li> <li>• Project termination</li> </ul>
Planning and Approvals	<p>Depending on the activities being contemplated and associated impacts and costs, trail development or works in corridors may trigger an EA process. The Meadoway project triggered a Municipal Engineers Class EA, Schedule C because the trail infrastructure costs were anticipated to exceed \$9 million.</p> <p>Trails and other infrastructure plans cannot be reviewed formally by HONI until they are at approximately 60% design. This can be challenging as substantial effort and financial resources must be invested prior to formal comments which can lead to multiple submissions and delayed approvals in complex areas. It also does not allow for formal comments from HONI to be integrated in EA planning as this process typically results in conceptual designs at around 30%.</p>	<ul style="list-style-type: none"> <li>• Cost</li> <li>• Time</li> </ul>



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Area	Lesson	Project Impact/Risk
Planning and Approvals (continued)	<p>All activities in the corridor that involve any disturbance of the land require authorization from HONI. Examples include but are not limited to: meadow restoration through agricultural practices, geotechnical boreholes, Stage 2 archaeology, and use of drones for monitoring. Non-permanent structures such as tents or portable toilets for events also require approval.</p> <p>All authorizations from HONI, regardless of the proposed implementation or activity, are subject to a minimum 16-week review period. Often this can be much lengthier with requests for additional information and resubmissions. In the case of The Meadoway there is also a general timeline of two (2) to four (4) weeks required for the execution of the temporary access agreement from City of Toronto's legal department. Both timelines are key consideration for project schedules.</p> <p>Infrastructure Ontario is now requiring a Stewardship Agreement to be approved as part of any new authorizations on their land as it related to the Safe Harbor Permit requirement under the Endangered Species Act. TRCA is currently working on a submission to meet this new requirement and it will be one of the first applications of its kind. Two conference calls and one in-person meeting with IO and Ministry of the Environment, Conservation and Parks have been undertaken to help all parties work through the process.</p> <p>Municipalities may require an Electric Magnetic Frequency (EMF) Management Plan to be undertaken to allow new public use in or adjacent to hydro corridors. The City of Toronto adopted this policy in 2008 and it applies to plans for new multi-use trails, garden allotment, recreational, or parkland uses in or abutting a hydro corridor. The EMF Management Plan is reviewed by Toronto Public Health.</p>	<ul style="list-style-type: none"> <li>• Cost</li> <li>• Time</li> </ul>
Technical Considerations	<p>Infrastructure within the corridor is regulated by HONI's technical requirements and restrictions. Proximity to hydro towers and materials used for any permanent structures like bridges are a major consideration and can limit opportunities in already constrained areas.</p> <p>Trees or any tall growing natural species are not permitted in hydro corridors because of the potential for growth and interference with hydro towers. This HONI requirement makes the introduction of meadow habitat a perfect fit for revitalization. HONI has a detailed list of acceptable shrub, grasses and wildflower species that can be planted in their corridors.</p>	<ul style="list-style-type: none"> <li>• Limits solutions</li> <li>• May increase cost but also may spur innovation and creative solutions</li> </ul>

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Area	Lesson	Project Impact/Risk
Financial Considerations	The license holder is responsible for payment of an annual license fee. In the case of The Meadoway this is 50% of the assessed property value because of its use as “parkland”. The City of Toronto (Parks Forestry and Recreation) has assumed these fees for The Meadoway as part of their overall Master Park License with HONI for all applicable lands in the City of Toronto. The City of Toronto’s current annual budget is \$500,000 with approximately \$18,500 of this currently allocated to The Meadoway.	<ul style="list-style-type: none"> <li>• Cost</li> </ul>

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

**Strategy 7 – Build partnerships and new business models**

### FINANCIAL DETAILS

Based on preliminary high-level costing of the proposed trail connections, the total cost to construct the proposed 480 km of trails required to complete the Greater Toronto Region Trail Network identified in the Trails Strategy is \$315.4 million, using 2019 costing information (this estimate is accurate to +/- 20 to 30 per cent). Trail construction project costs include planning, design and engineering, permits and agreements, construction and contingencies, and excludes crossings, lighting, engineering features, site servicing, trail amenities, and additional habitat restoration or other community benefits.

The Trail Strategy provides an estimate of \$588.09 per linear metre, using 2019 costing information, for trail construction costs, including planning, design and engineering, permits and agreements, construction and contingencies. This excludes crossings, lighting, engineering features, site servicing, trail amenities, and additional habitat restoration or other community benefits. With approximately 182,000 linear metres of utility corridor identified for development as part of the Greater Toronto Region Trail Network in the Trail Strategy it can be assumed that trail construction costs would be in the order of magnitude of over \$107 million.

The Meadoway was able to advance from a pilot to a 16 km initiative with a generous donation of \$10 million from The W. Garfield Weston Foundation for Phase 1 of the project (2018 – 2020). The project framework can be used as an example of financial considerations associated with the revitalization of utility corridors. Table 2 outlines costs based on precedents set in 2018 and 2019 for The Meadoway and implementation estimates from the Trail Strategy.

Table 2: Project costs associated with The Meadoway project.

Item	Cost	Notes
License Agreement Fees	~\$1,020/ha per year	It is difficult to find funds if the cost is not absorbed by the municipality.
Class Environmental Assessment	~\$650,000 for a 1-year process Municipal Class EA, Schedule C	Funds for planning can be difficult to secure as many grant programs are looking for implementation-ready capital projects.

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Multi-use Trail Design and Implementation	~\$588.09 per linear metre*	There are usually municipal, provincial and federal funding opportunities available if there is a significant municipal cost sharing component and the planning and design is advanced.
Meadow Habitat Implementation	~\$95,000/ha over three years	Meadow habitat establishment takes a minimum of three years. Some grant programs exist but tend to be smaller in value.
Meadow Maintenance and Adaptive Management	~\$10,000/ha per year	This activity is required every three years at minimum. It is difficult to find funding opportunities for this type of operational/maintenance activity.
Environmental Monitoring	~\$20,000/ha per year	Costs decrease to ~\$6,000/year once the program is established in year one. Some opportunities to secure funds from grant programs exist.
Education and Outreach Program	~\$500,000/year	This can be scaled to desired level. Some opportunities to secure funds from grant programs exist.
Public Relations and Communications	~\$500,000/year	This can be scaled to desired level. Some opportunities to secure funds from grant programs exist.

\* Includes trail planning, design and engineering, permits and agreements, construction and contingencies, and excludes crossings, lighting, engineering features, site servicing, trail amenities and additional habitat restoration or other community benefits.

Financial resilience to move trail projects forward will require a range of eligible funding sources as well as leveraging the revenue-generating potential of trails and related facilities. TRCA is using the Trail Strategy to collaborate with municipal, provincial and federal colleagues, non-governmental organizations, trail and community leaders, and the development industry to acquire, protect and enhance the Greater Toronto Regional Trail Network and associated greenspaces. Funding sources will include all traditional funding sources and support, including the levy process, service agreements, mutually beneficial partnerships with municipalities, federal, provincial and municipal funding programs, the development process, and development and management agreements, as well as other partnership projects with trail and community organizations.

### DETAILS OF WORK TO BE DONE

- In support of the Trail Strategy, TRCA will continue to meet with municipal partners to discuss existing and future trail projects (including those in utility corridors), coordinate implementation plans, seek opportunities for partnership, secure land and easements, and address trail ownership and management. Initial meetings with local and regional municipalities are expected to be completed in the first quarter of 2020.
- TRCA will continue to request funding support from senior levels of government as part of ongoing budget processes and as a means of helping governments achieve their transportation related and environmental objectives.
- Meetings with other trail partners and/or landowners such the provincial ministries and agencies and utility companies to discuss opportunities that span multiple municipalities

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will be undertaken after initial meetings with local and regional municipalities are completed. This is expected to begin in the second quarter of 2020.

- TRCA will continue to concentrate efforts on the completion of The Meadoway so that the 16 km corridor can become a fully implemented model for future utility corridor revitalization. The focus for 2020 will be: the design and construction of the Highland Creek connection; detailed design of the remaining two trail gaps; completion of a wayfinding plan and implementation of an associated pilot site; expansion of The Meadoway School program; implementation of a Communications Strategy; and securement of additional funds to leverage The W. Garfield Weston Foundation funds to advance the project.

**Report prepared by:** Deanna Cheriton, extension 5204, Lisa Turnbull, extension 5645

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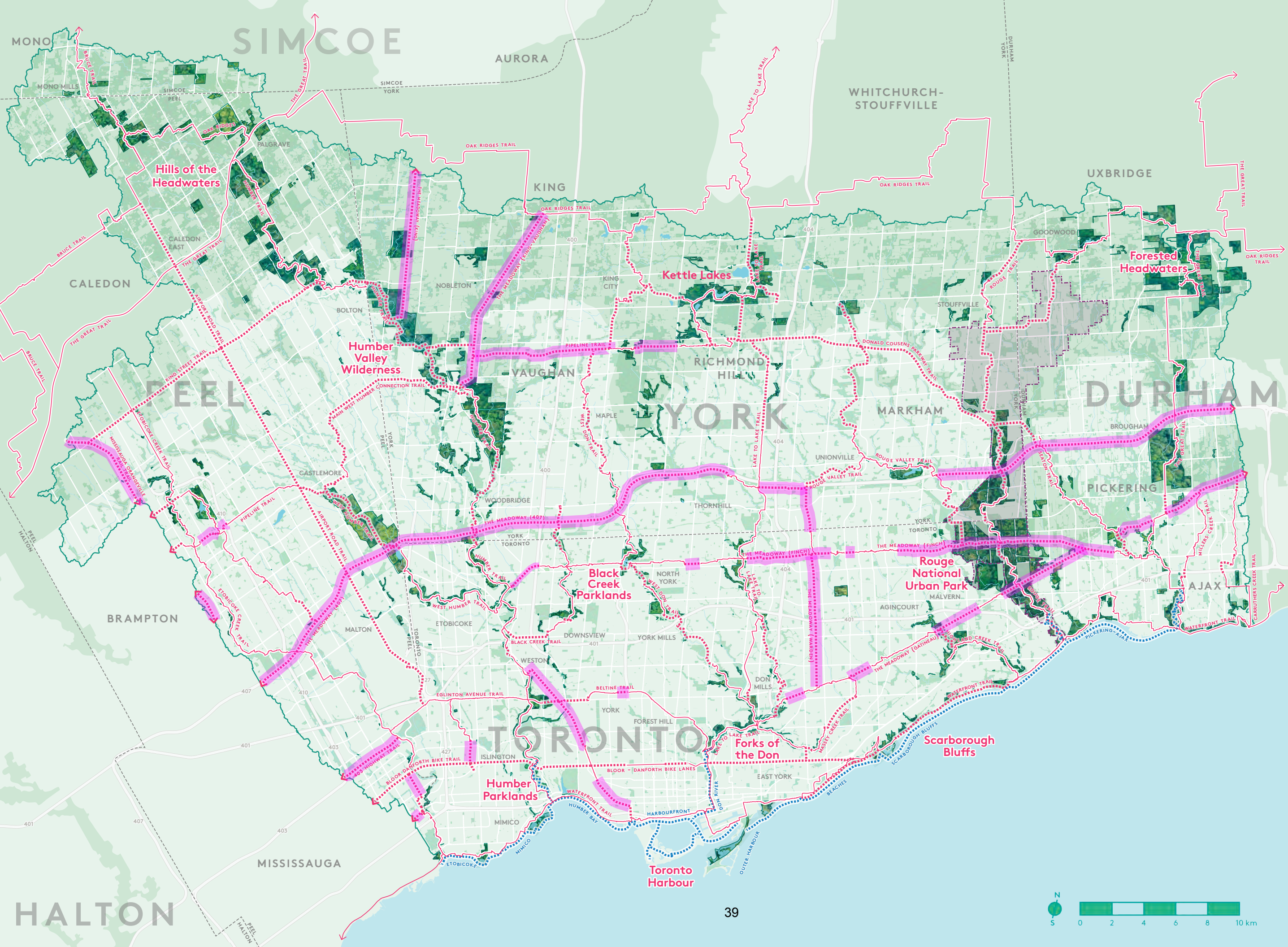
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**Date:** January 10, 2020

**Attachments:** 1

Attachment 1: Infrastructure Corridor Trail Opportunities in the Greater Toronto Region Trail Network





Concept Plan: Greater Toronto Region Trail Network

- Existing trail
- Proposed corridor trail
- Proposed trail
- Proposed blue trail
- TRCA jurisdiction
- TRCA owned or managed property
- Rouge National Urban Park
- Greenbelt