



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.



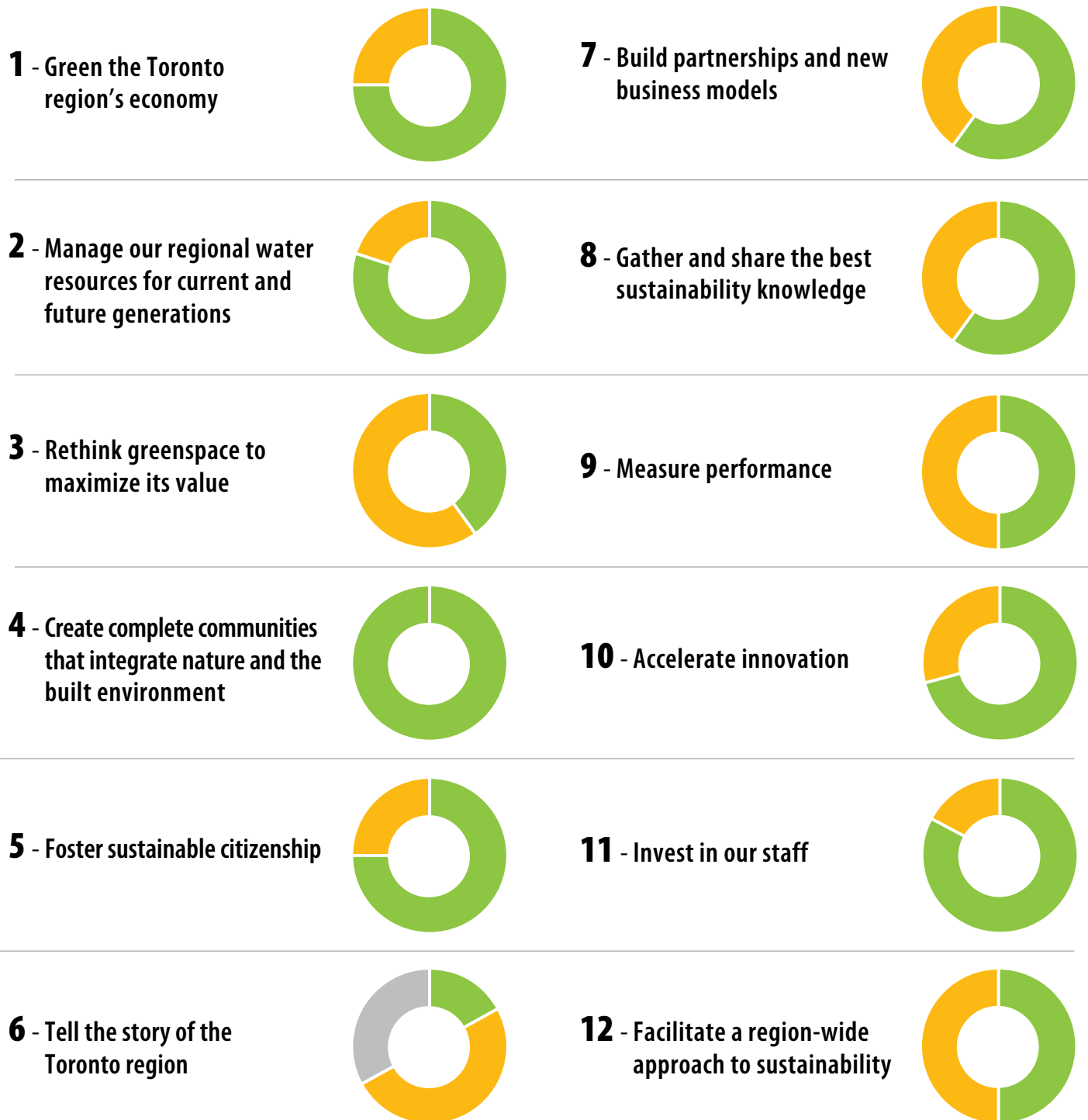
John MacKenzie
Chief Executive Officer



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 eCO₂
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)

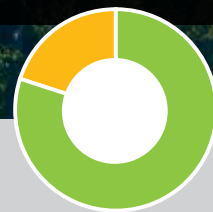
Develop a bold work plan that includes TRCA's Erosion and Hazard Mitigation Strategy comprising over \$500 million in projects to address known erosion, flooding and required infrastructure upgrades at over 250 sites.

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 m³ 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.

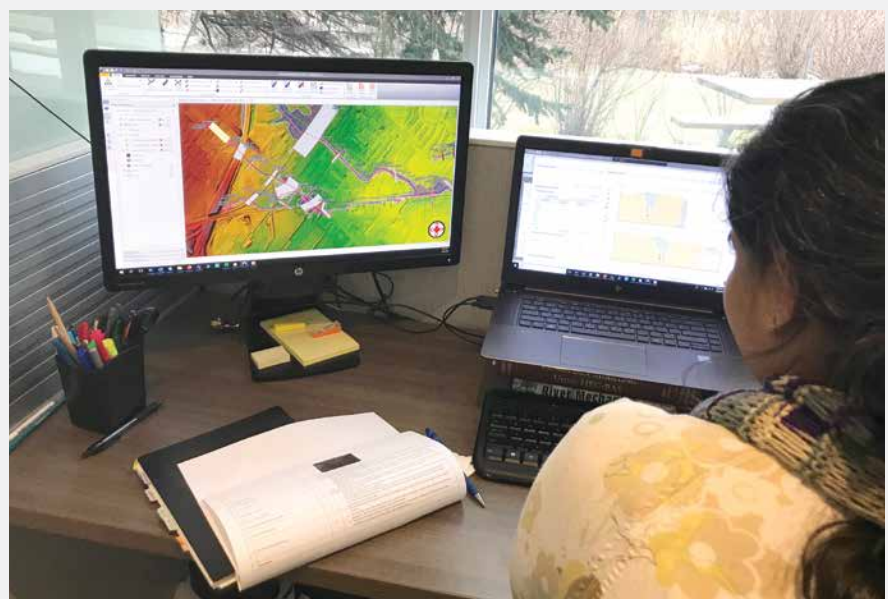
Erosion Risk Management Program

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 Meadoway, 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 Meadoway

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

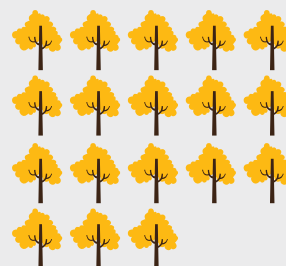
74% reduction in treatment area of *Phragmites australis* from when treatment began in 2018 and a **69%** reduction in Dog-strangling vine treatment area since the program began at Tommy Thompson Park in 2013.

423,071 plant materials were produced

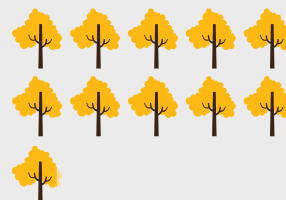
Tree plantings undertaken by TRCA staff contribute to the overall forest canopy in the jurisdiction. Trees and shrubs sourced through TRCA's nursery and planted by TRCA staff are broken out by municipality below:

 = 10,000

Peel
180,110



Toronto
109,157



York
104,223



Durham
28,530



Other
1,042



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 m²** of greenspace and maintenance of over **40,000 m²** 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

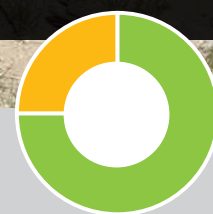


7 km
of unauthorized
trail inventoried

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

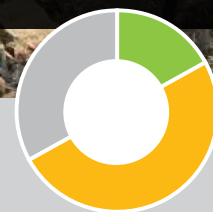


6 Tell the story of the Toronto region



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 19th 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 20th Anniversary

4,080 people engaged as part of TRCA-led activities and events celebrating the Humber River's 20th 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.

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.

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 m³**.

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.



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.

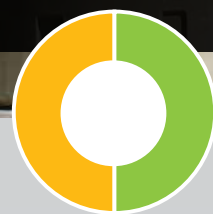
PROJECTED ACCOMPLISHMENTS (2018 – 2022)

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.

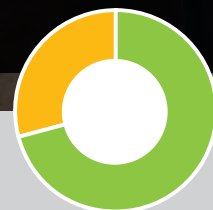
Continue to host knowledge sharing events such as the TRCA and International Erosion Control Association (TRIECA) Conference.

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 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.



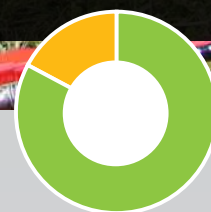
11

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.

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

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

Encourage interdisciplinary and interdepartmental teams on projects and plans.

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

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.



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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.

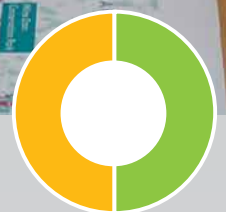
PROJECTED ACCOMPLISHMENTS (2018 – 2022)

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

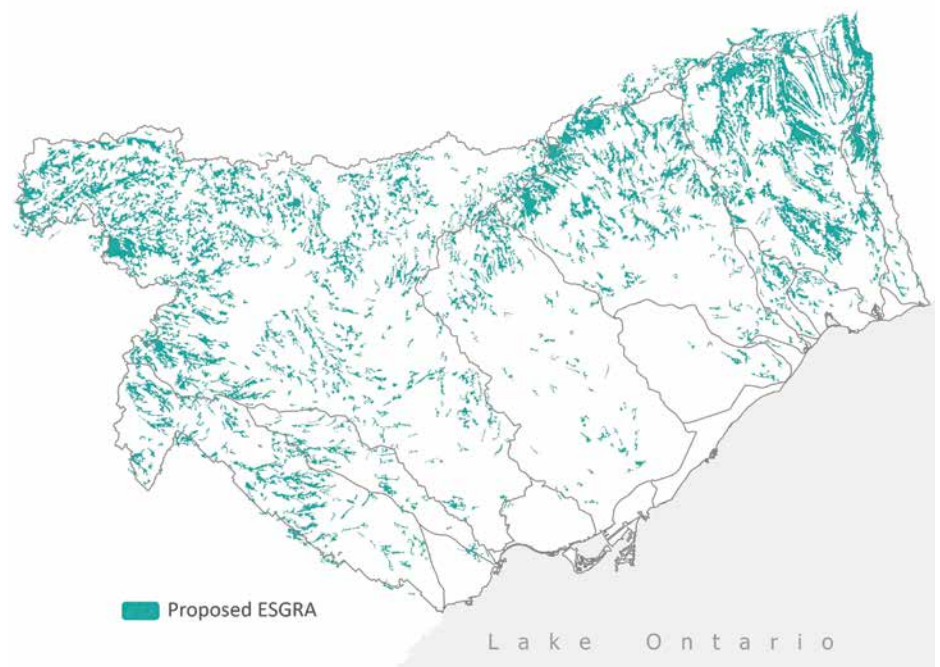
2019 was a busy year supporting our partner municipalities with a **75%** increase in Official Plan reviews.

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

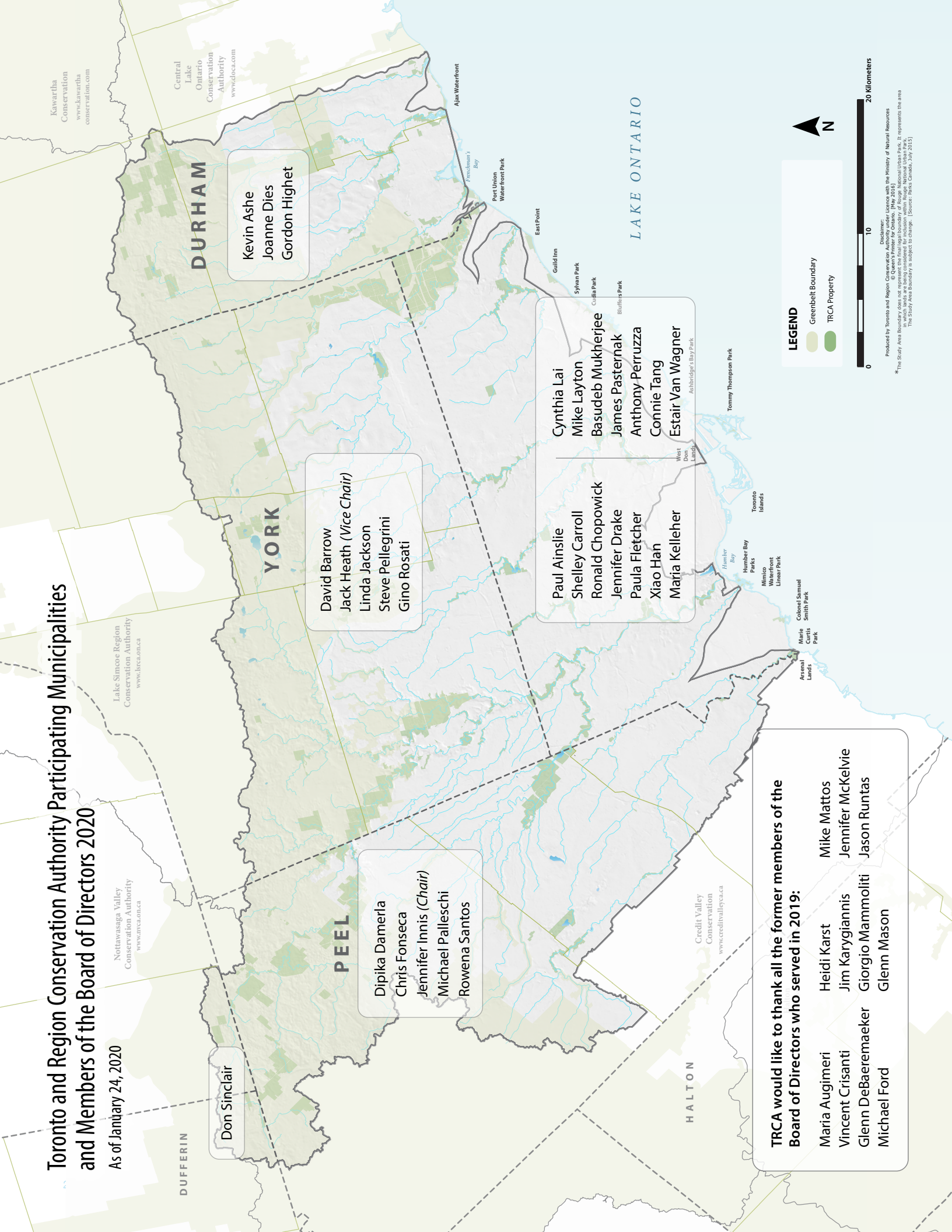
As the number of organizations engaged in environmental initiatives in the Toronto Region grows, creating more capacity and competition for government resources, there is increasing recognition of the need for regional-scale coordination to evaluate effectiveness.

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



Don Sinclair

PEEL

Dipika Damerla
Chris Fonseca
Jennifer Innis (*Chair*)
Michael Palleschi
Rowena Santos

YORK

David Barrow
Jack Heath (*Vice Chair*)
Linda Jackson
Steve Pellegrini
Gino Rosati

DURHAM

Kevin Ashe
Joanne Dies
Gordon Highet

HALTON

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

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

LEGEND

Greenbelt Boundary
TRCA Property



0 10 20 Kilometers

Disclaimer: Produced by Toronto and Region Conservation Authority in partnership with the Ministry of Natural Resources & Queen's Printer for Ontario, [May 2015]
*The Study Area Boundary does not represent the final legal boundary of Rouge National Urban Park. It represents the area of the Study Area Boundary as of January 24, 2020. The Study Area Boundary is subject to change. [Source: Parks Canada, July 2015]

Toronto and Region Conservation Authority Senior Leadership Team 2020



Chief Executive Officer

John
MacKenzie



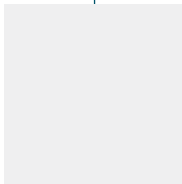
CORPORATE SERVICES

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.

