

**Regional Watershed Alliance Meeting was held via video conference on Wednesday May 19, 2021, pursuant to section C.12 of the TRCA's Board of Directors Administrative By-Law. The Chair Jennifer Drake, called the meeting to order at 6:36 p.m.**

**PRESENT**

Drake, Jennifer	Chair
Bowers, Thomas	Member
Burnett, Neil	Member
Calvin, Elizabeth	Member
Dasko, Stephen ( <i>out: 7:15 p.m.</i> )	Member
Dies, Joanne	Member
Iacobelli, Tony ( <i>in: 6:50 a.m.</i> )	Member
Kelleher, Maria	Member
Laing, David	Member
Lockridge, Karen	Member
Mallet, Lisette	Member
McDowell, Madeleine	Member
McGlynn, Chris	Member
Miller, Learie	Member
Ngan, Amory	Member
Richardson, Cameron	Member
Schulte, Deb	Member
Wickens, Andy	Vice-Chair

**REGRETS**

Anvari, Alireza	Member
Bream, Margaret	Member
Broadbent, Heather	Member
Deawuo, Leticia	Member
Dyce, Dave	Member
Felix, Rui	Member
Gomez, Orlando	Member
Groves, Annette	Member
Keenan, Rosemary	Member
Innis, Jennifer	Member
Malowany, Mick	Member
Mattos, Mike	Member
Nonnekes, Joanne	Member
O'Connor, Kevin	Member
Olivieri, Sara	Member
Parsons, Blayre	Member
Pickles, David	Member
Presutti, Michael	Member
Vrana, Andrew	Member
Wright, Doug	Member

The Chair recited the Acknowledgement of Indigenous Territory.

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**RES.#R7/21 - MINUTES OF MEETING HELD ON MARCH 3, 2021**

Moved by: David Laing  
Seconded by: Joanne Dies

**THAT the Minutes of Meeting held on March 3, 2021, be approved.**

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**CARRIED**

## **Item for the Information of the Regional Watershed Alliance**

### **RES.#R8/21 - REGIONAL WATERSHED MONITORING PROGRAM (RWMP) UPDATE**

Update regarding the Regional Watershed Monitoring Program and the environmental monitoring completed during 2020 as well as future planned deliverables.

Moved by: Andy Wickens  
Seconded by: Elizabeth Calvin

**WHEREAS the Toronto and Region Conservation Authority (TRCA), in partnership and collaboration with TRCA's municipal, science and academic partners, continues to conduct long-term environmental monitoring tracking the health of jurisdictional watersheds through the Regional Watershed Monitoring Network;**

**AND WHEREAS staff will continue with the implementation of monitoring activities associated with the ongoing Regional Watershed Monitoring Program, as well as to continue to pursue and foster partnerships under the Regional Watershed Monitoring Network;**

**IT IS RECOMMENDED THAT the staff report and presentation on the Regional Watershed Monitoring Network be received.**

**CARRIED**

### **BACKGROUND**

The Toronto and Region Conservation Authority's (TRCA) Regional Watershed Monitoring Program (RWMP) focuses on long-term monitoring of aquatic and terrestrial ecosystems at the sub-watershed and watershed scale and across the TRCA jurisdiction as a whole. The RWMP also directly supports TRCA's principal mandate "to reduce the risk to life and damage to property caused by flooding" by collecting hydrometrics data which directly supports TRCA's flood forecasting and warning role.

The RWMP was launched in 2001 as a mechanism to bring all of TRCA's ecological monitoring work under a single program. This program helped to provide better planning and coordination, protocol standardization, filling of data gaps, effective data management, and consistency and cost effectiveness. It also facilitates the communication of data availability and data sharing both internally and with external agencies. The program fulfilled and continues to meet the increasing data demand needed to evaluate ecosystem sustainability and gauge or report out on watershed ecosystem health, its current condition, and its response to factors such as land use change, and climate change.

The data collected represent an example of some of the best knowledge gathered with regards to sustainability. The data tells the story of TRCA's management of its aquatic and terrestrial ecosystems, as well as its use to mitigate flood risk and associated damage. The information collected through this program provides the underlying scientific data that informs key watershed planning and reporting mechanisms. It is used to support watershed-based planning, inform the land use change decision making process, gauge restoration opportunities, inform the review of various development permit requirements, and inform legislation or policy change initiatives. The data is shared with our regional municipalities, various consultants, research institutions, and other organizations at the federal and provincial levels.

The RWMP, with its established sets of protocols, also provides the ability to implement short-term or special project data collection/monitoring in a timely manner in response to needs identified by TRCA or its partners. The long-term annual data provides baseline data in support of “before and after” analysis related to ecosystem and infrastructure impacting events, such as development, and infrastructure maintenance works. The data also allows us to gauge the success of restoration initiatives, such as natural channel designs, erosion mitigation and bank stabilization work, and/or wetland restoration. More importantly, the long-term data set is used in our future project planning and designs to further improve TRCA’s management of our regional water resources for current and future generations. The RWMP data is also used to supplement development funded monitoring such as that associated with the Mayfield Phase 1 and Phase 2 lands, and Seaton development to help gauge the impacts of land use change and how it is being implemented from the planning approval stage, the construction phase, and post development.

Project partnerships with academic institutions facilitate achievement of common research objectives as well as data sharing in support of academic study. All elements of the program are designed to provide data sets that allow for interpretation at the site, watershed, and regional scales. Since the data is collected using standardized methodologies/protocols such as the Ontario Stream Assessment Protocol (OSAP) or the Ecological Land Classification method, the data can also be used to compare the trends found in the Toronto area to those found anywhere where data was collected following the same standardized methodologies. Thus, the data not only supports TRCA’s and its municipal partner’s common objectives but also facilitates knowledge gap bridging in other places across Ontario. The program provides the underlying scientific data that informs the key planning and reporting mechanisms of the TRCA.

Data collected to date illustrate the resiliency of our terrestrial and aquatic ecosystems as they continue to persist in what seems like an endless cycle of anthropogenic change. However, the data also shows the effects of urbanization on aquatic and terrestrial ecosystems, specifically showing a trend towards declining water quality, fish community composition/diversity, the quality and quantity of terrestrial habitat, and representation of species in areas of increasing urban land use. Where restoration and recovery plans are implemented, future monitoring will track the progress of such enhancement initiatives.

All program elements are strongly focused on the collection of scientific data, however, when possible, community outreach and education opportunities are incorporated. This is accomplished through partnerships with community groups and other non-governmental organizations, and through special events that demonstrate and educate or involve the community.

The following are monitored as part of the RWMP: aquatic and terrestrial habitats, benthic macroinvertebrate and fish communities and species; terrestrial flora and fauna communities and species; surface water and ground water quality and quantity; and West Nile virus mosquito vector monitoring.

The following table outlines the various environmental monitoring components included in the program and the agencies involved in the network. It also summarizes the monitoring that occurred during 2020 in accordance with the Covid-19 pandemic restrictions and rules:

<b>Monitoring Component</b>	<b># of Sites 2020</b>	<b>Agency/Partner</b>
<b>Aquatic Habitat and Species</b>		
Benthos	131	TRCA/MOECC
Fish /Habitat	42	TRCA/MNRF/DFO
Fluvial Geomorphology	11	TRCA
Stream Temperature	60	TRCA
West Nile Virus Monitoring	Resume 2021	TRCA/MOECC/Municipality
<b>Water Quality</b>		
Surface Water	47	TRCA/MOECC/City of Toronto
Groundwater	21	TRCA/MOECC
<b>Water Quantity</b>		
Stream Flow Gauges	34	TRCA/Env. Canada
Base Flow/Low Flow	172	TRCA
Water Level Gauges	49	TRCA
Precipitation	39	TRCA/Municipalities
Snow Course	10	TRCA/MNRF
Climate Stations	14	TRCA/MOECC
<b>Terrestrial Natural Heritage</b>		
Systematic Inventories	1800 ha	TRCA
Forest Bird Station	59	TRCA
Wetland Bird Station	27	TRCA
Meadow Bird Station	28	TRCA
Forest Vegetation Station	24	TRCA
Amphibian Station	26	TRCA
Wetland Vegetation Plot	23	TRCA

## **RATIONALE**

The Regional Watershed Monitoring Program (RWMP) is an ongoing program developed by TRCA and its partners to provide a comprehensive, integrated and coordinated approach to environmental monitoring within TRCA's watersheds. This monitoring builds on the existing local and project-specific monitoring efforts of TRCA and their partners and is one of the key programs to assess, catalogue and report on the state, condition and trends in terrestrial and aquatic biodiversity throughout TRCA's jurisdiction. TRCA's comprehensive data collection and analysis capabilities increase standardization, reduce risk, and ensure predictable and a cost-effective operation supporting several initiatives including environmental restoration, scientific research, policy and regulatory support and watershed reporting. The Reporting Hub allows the user to view environmental data at various scales reporting for each indicator including targets, current conditions, and how conditions are changing over time, using the best available data and science.

## **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 6 – Tell the story of the Toronto region**

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

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

## **FINANCIAL DETAILS**

Funding for the 2020/21 Regional Watershed Monitoring Program is made available from the following partners/sources: City of Toronto, Region of Peel, Region of York, Region of Durham, and the Toronto Remedial Action Plan (RAP) MOU 2020/21

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

TRCA will continue to support our municipal and research partners by advancing science and continuing to implement the Regional Watershed Monitoring Network through the multiple project components as summarized below:

### **Aquatic:**

Surface water quality data will be collected monthly at 47 stations spread across the TRCA jurisdiction.

- Groundwater level and water quality data will be collected from 21 sites spread throughout the TRCA jurisdiction. This data together with the surface water quality monitoring directly supports the Provincial Water Quality Monitoring network (PWQMN) partnership;
- Water temperature loggers will be installed at 38 locations;
- Benthic invertebrate sampling at 150 RWMP stations located across TRCA's 9 watersheds will occur beginning in June and finishing in September;
- Fish community and stream habitat will be re-surveyed during June-September at a total of 52 stations set-up in the Rouge River, Duffin's Creek, and Carruther's Creek watersheds;
- Monitoring of 35 RWMP fluvial geomorphology stations established in the Humber River will occur in the fall of 2021 in support of the Humber River watershed plan process;
- As part of RWMP's hydrometric's monitoring, which directly supports TRCA's flood forecasting and warning role; baseflow monitoring is planned to occur at a 172 stations, with water level gauges being installed at 49 gauges, stream flow gauges being installed at 34 stations, and 39 sites were precipitation gauges will be monitored during 2021;
- Also, under RWMP's hydrometrics umbrella 10 snow course sites, and 14 climate stations will be monitored throughout 2021.

### **Terrestrial:**

- ~1500ha of natural cover to be surveyed for vegetation community, flora and fauna species data collected at
- Data to be collected at 114 bird monitoring stations (59 in forest habitat, 27 in wetlands and 28 in meadow) spread across the TRCA jurisdiction.
- Survey 26 frog monitoring stations
- Survey 24 forest vegetation plots
- Survey 23 wetland vegetation plots

### **Data Management:**

RWMP data is stored internally on TRCA servers via multiple databases which aid in the quality control process and ensure the data is consistent in the way it is recorded per year. In addition, the 2020 fish community and aquatic habitat data was uploaded into Provincial Flowing Waters Information System (FWIS). Also, the 2013-2019 benthic community data has been uploaded to the OBBN open database portal. 2020 data will be made available by the end of May 2021.

Data correction and quality control has been undertaken on an ongoing basis since 2001.

Currently data is available for use across the stream, precipitation, and meteorological networks. Work on development of updated meta-data catalogue for RWMP datasets has been ongoing to facilitate enhanced data sharing with Regional Partners. Over the last several years TRCA has been working towards providing free and open access to our data and information, in both accessible and machine readable formats, to ensure it's available and easy to consume. Improving access to TRCA's data and information has provided transparency into the decision making process and accountability while increasing the public's understanding and engagement with the organization. Currently, data associated with water quality and fish community has been made available through our open data portal (<https://data.trca.ca/>).

Annual updates to these datasets continue to occur and staff are working towards making other datasets such as water temperature data also available through our open data portal. Additional development of the web-based data will be undertaken following updates to our website.

The TRCA website within the environmental monitoring pages explains each aspect of the RWMP and associated reports which provide an analysis and interpretation summary based on the data. In 2020 two e-newsletters, summer, and fall, were produced that highlight key monitoring activities and products. Newsletters can be found at:  
<https://trca.ca/conservation/environmental-monitoring/>

TRCA has also developed the Watershed and Ecosystems Reporting Hub, launched on Earth Day (April 22, 2021). The Reporting Hub is a modern version of The Living City Report Card that uses interactive displays that allow the user to view environmental data at various scales, including by region or local municipality.

The Reporting Hub explains the importance of different environmental indicators for understanding watershed and ecosystem health. Reporting for each indicator includes targets (where applicable), current conditions, and how conditions are changing over time, using the best available data and science.

**Report prepared by: Jan Moryk extension 5493 and Rick Portiss, extension 5302**

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**For Information contact: Rick Portiss, extension 5302**

**Emails: [rick.portiss@trca.ca](mailto:rick.portiss@trca.ca)**

**Date: April 14, 2021**

**Attachments: 1**

Attachment 1: Presentation - Regional Watershed Monitoring Program (RWMP) Update

# Regional Watershed Monitoring Program (RWMP) update

Presented by:

Jan Moryk,

Senior Project Manager, Aquatic Monitoring and Management  
Development and Engineering Services Division

May 19, 2021



# Agenda

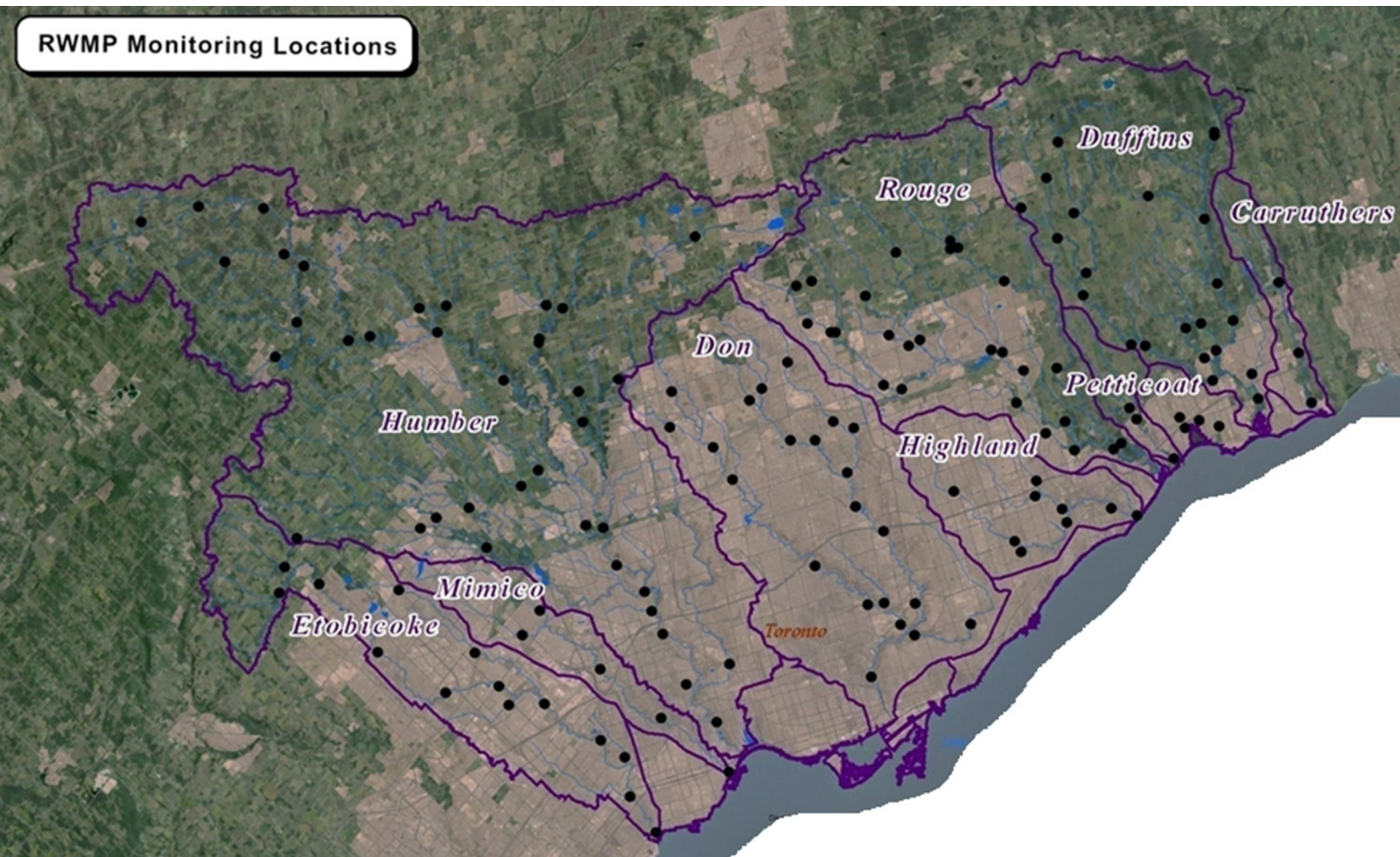
- What is the Regional Watershed Monitoring Program and how does it align with TRCA's Strategic Plan?
- What was monitored during 2020?
- What is planned for 2021?
- Significance of program to TRCA function

# What is the Regional Watershed Monitoring Program and how does it align with TRCA's Strategic Plan

# RWMP alignment with Strategic Plan

1. Green the Toronto region's economy
2. Manage our regional water resources for current and future generations
3. Rethink greenspace to maximize its value
4. Create complete communities that integrate nature and the built environment
5. Foster sustainable citizenship
6. Tell the story of the Toronto region
7. Build partnerships and new business models
8. Gather and share the best sustainability knowledge
9. Measure performance
10. Accelerate innovation
11. Invest in our staff
12. Facilitate a region-wide approach to sustainability

RWMP Monitoring Locations



# 2020 and 2021 monitoring

# RWMP Aquatic Monitoring (2020 and 2021)

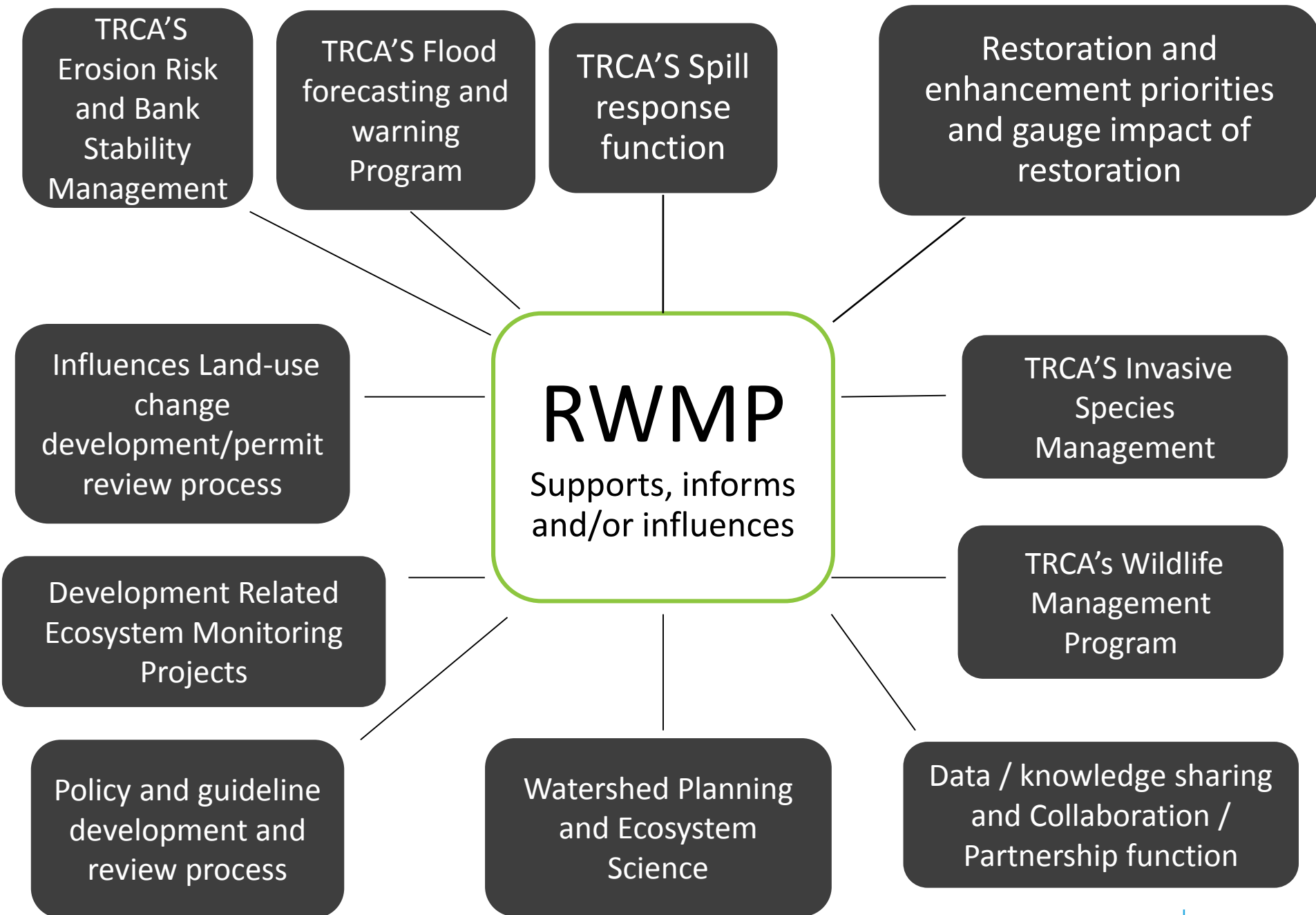
Monitoring Activity	2020 (# of sites)	2021 Pending
Fish Community and Habitat ( i.e.; sediment, bank stability)	42 (Mimico, Don, Petticoat, & tributaries of Frenchman's bay)	52 (Rouge, Duffins,& Carruthers watersheds)
Benthic Invertebrate Community	131	150
Stream Temperature	60	38
Surface Water Quality	47	47
Groundwater Water Quality	21	21
Stream Flow	255	255
Precipitation / Snow Course	49	49
Climate Stations	14	14
West Nile Virus	COVID-19 Cancelled	47

# RWMP Terrestrial Monitoring (2020 and 2021)

Monitoring Activity	2020 (# of sites)	2021 Pending
Systematic Inventories	1800 ha	1500 ha
Forest Bird Community	59	59
Wetland Bird Community	27	27
Meadow Bird Community	28	28
Forest Vegetation plots	24	24
Wetland Vegetation plots	23	23
Amphibian Community	26	26

# Significance of RWMP to TRCA function







# RWMP and Erosion Risk and Bank Stability Management

- Part of TRCA's mandate
- Supports TRCA's engineering projects
- Erosion Risk Management Program
- Projects are screened against the RWMP data to inform environmental assessments and other environmental compliance requirements
- Remedial solutions and address hazards as well as potential improvements
- Environmental sustainability and urban structure integration

# How RWMP data supports Flood Risk Management

## PREVENTION & MITIGATION

### Limiting exposure to risk:

- Implementing TRCA's regulations and policies

### Reducing risk:

- Operating a flood forecasting and warning program
- Maintaining flood control infrastructure
- Creating a flood protection strategy for vulnerable areas
- Implementing remedial works projects

### Understanding the risks:

- Climate, geology, watershed response and potential for climate change

### Documenting the risks:

- Floodplain mapping, identification of flood vulnerable areas

## RECOVERY

- Flood event documentation and lessons learned
- Storm analysis

## PREVENTION & MITIGATION

Rain and water level gauge data is used to calibrate hydrology models, that are used in the flood plain mapping process

## RECOVERY

Hydrometric data is used to develop post-event storm reports and shared with other agencies (e.g. MNRF, ECCC)

## PREPAREDNESS

## PREPAREDNESS

- TRCA's Flood Contingency Plan
- Emergency Plans
- Emergency Operations Centre
- Training
- Public Education

## RESPONSE

## RESPONSE

- Provide Flood Forecasting and Warning (issuing flood messages)
- Operate flood control infrastructure
- Communicate information and advice
- Data management

Rain gauge data is used to calibrate radar-based rain estimates used in Flood Forecasting and Warning



# RWMP and Spill Response Support Role

- Spills are a mandate of the MOECC
- TRCA plays a communication support and data sharing role
- RWMP data collected at the site or nearby the spill is shared with the authorities investigating the spill
  - Fish community
  - Water Quality
  - Terrestrial information



# RWMP and Ecosystem Science

## RWMP data are critical to:

- Ecosystem and Climate Science Research
- Many publications which used RWMP data
- The influence of SWM ponds on Water temperature
- Effect of road salt on our freshwater systems
- The state of our fish, bird, amphibian and benthic communities
- Special section in the Journal of Great Lakes Research on the Toronto and Region Area of Concern (April 2021)
- <https://www.sciencedirect.com/journal/journal-of-great-lakes-research/special-issue/10K29B0DXN3>



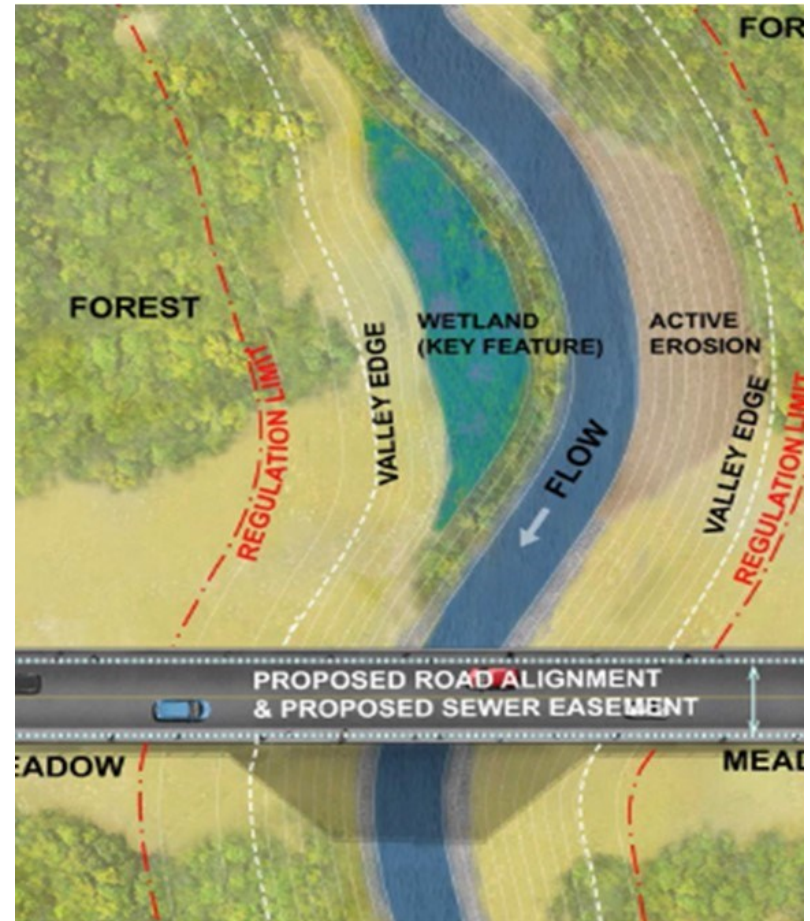
# RWMP and Watershed Planning

- Watershed plans
- Provides the foundational data for spatial analysis of our landscapes and natural systems including the connectivity analysis and the climate change vulnerable natural features
- Data was to develop TRCA's Watershed and Ecosystems Reporting Hub
  - A watershed reporting tool which reports out on the conditions of the Toronto Region



# RWMP and Development Review Process

- RWMP data is used to inform development review
- Provides the data needed in the analysis, mapping, and development of the natural heritage system and water resources system
- Also used too supplement monitoring related to development implementation and its affects on the natural environment





Before



After



## RWMP and Habitat Restoration

- TRCA restores approximately 130 hectares of natural cover every year and the RWMP contributes to informing site selection and best practices
- RWMP protocols are used on a project specific basis to assess pre and post conditions of restoration project
- RWMP is utilized to inform strategic restoration prioritization



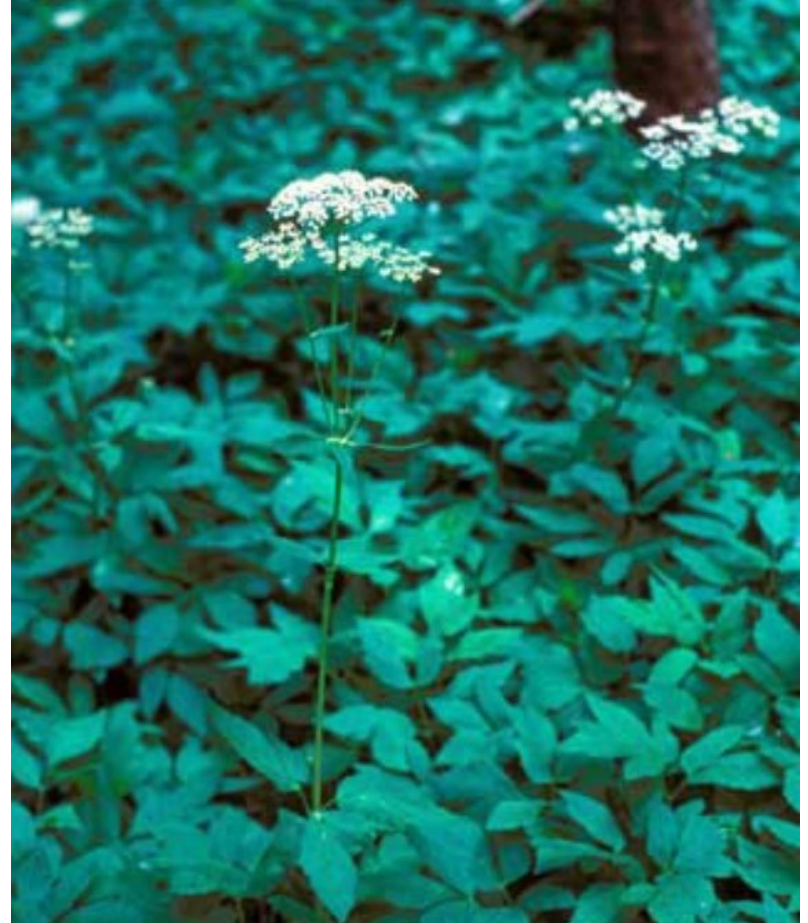
# Barred Owls Restoration Example

- The local population of Barred Owls appears to be increasing in recent years
- Once thought restricted to extensive forests such as Glen Major, Barred Owls appear to be adapting to somewhat smaller and more disturbed forests
- The species' preference for nesting in large tree cavities may prevent its spread into more suburban forests



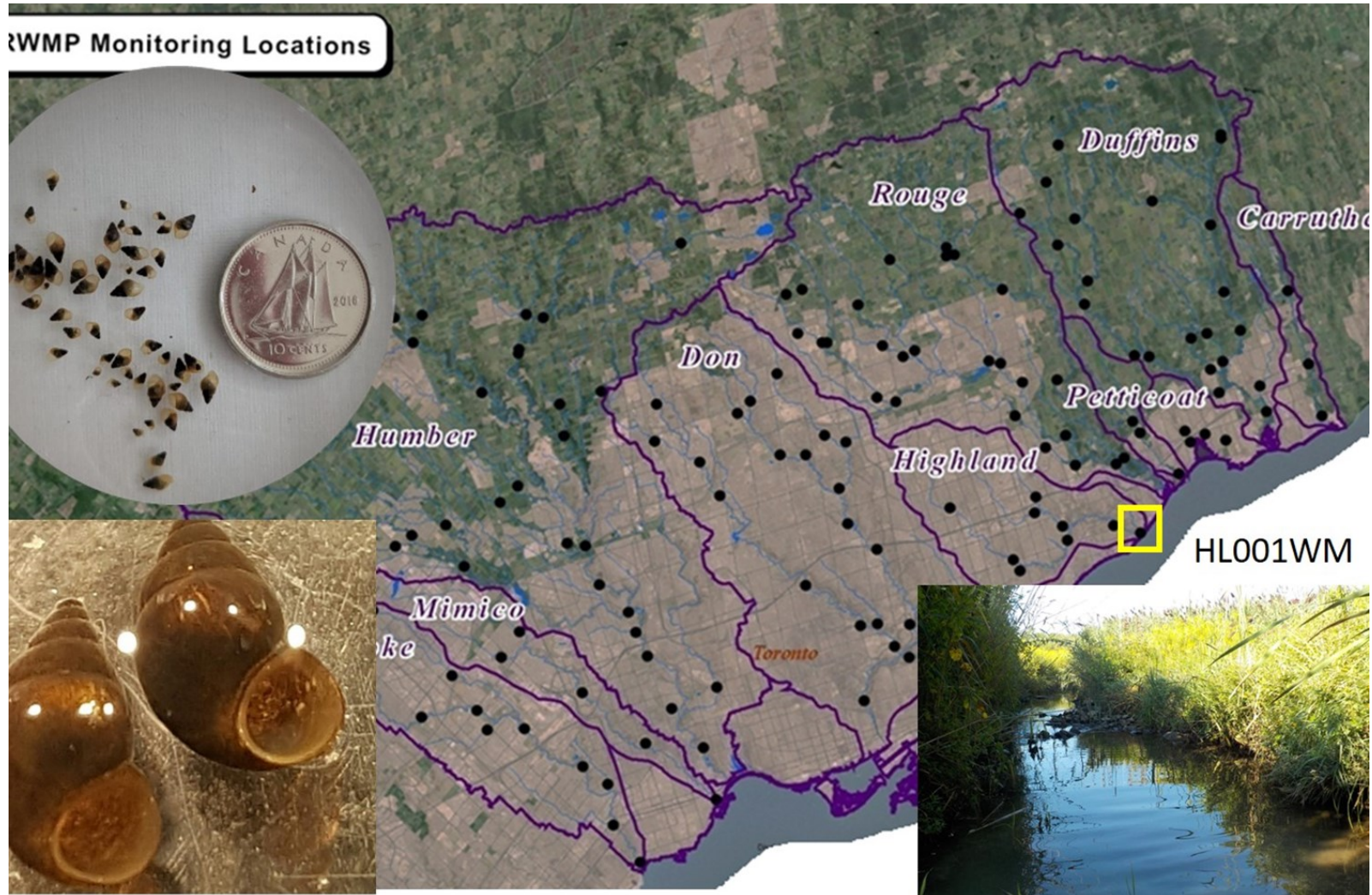
# RWMP and Invasive Species Management

- Data from the RWMP supports invasive species management
- When new invasive species are noted in the watershed or in a new area, the ecosystem management team can take steps to address it
- For example, invasive goutweed was recorded in a small area of forest due to neighbours dumping yard waste into the ravine. TRCA advised the municipality, and a crew removed it to prevent its further spread into the forest

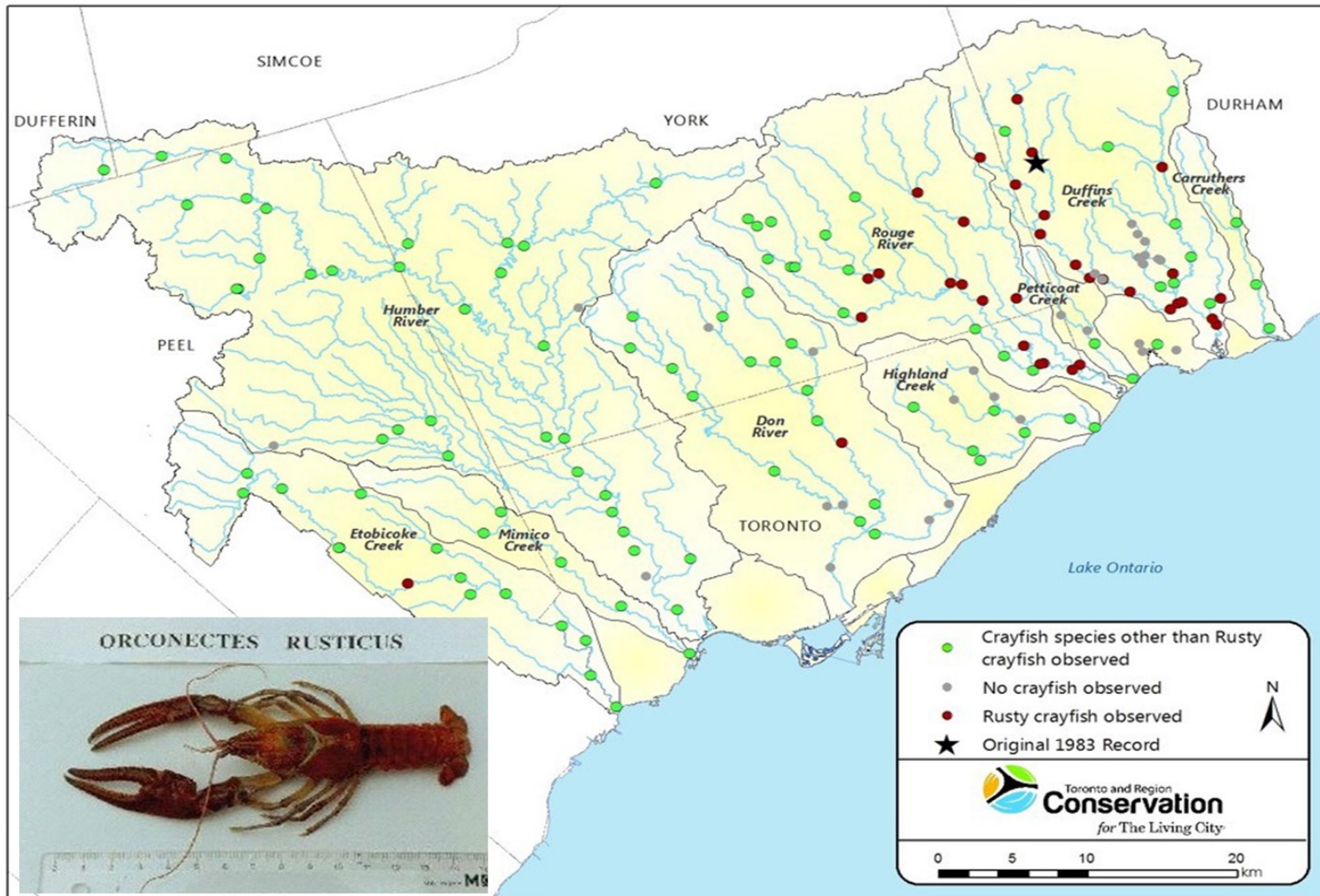




# New Zealand Mud Snail (*Potamopyrgus antipodarum*)



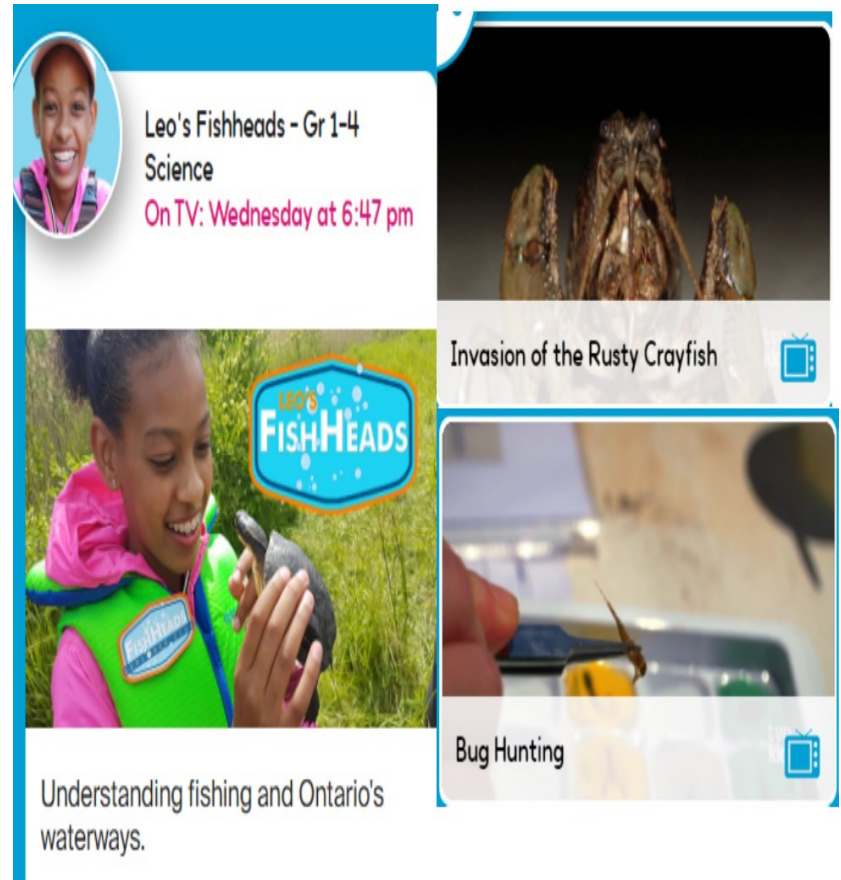
# Rusty Crayfish (*Orconectes rusticus*)

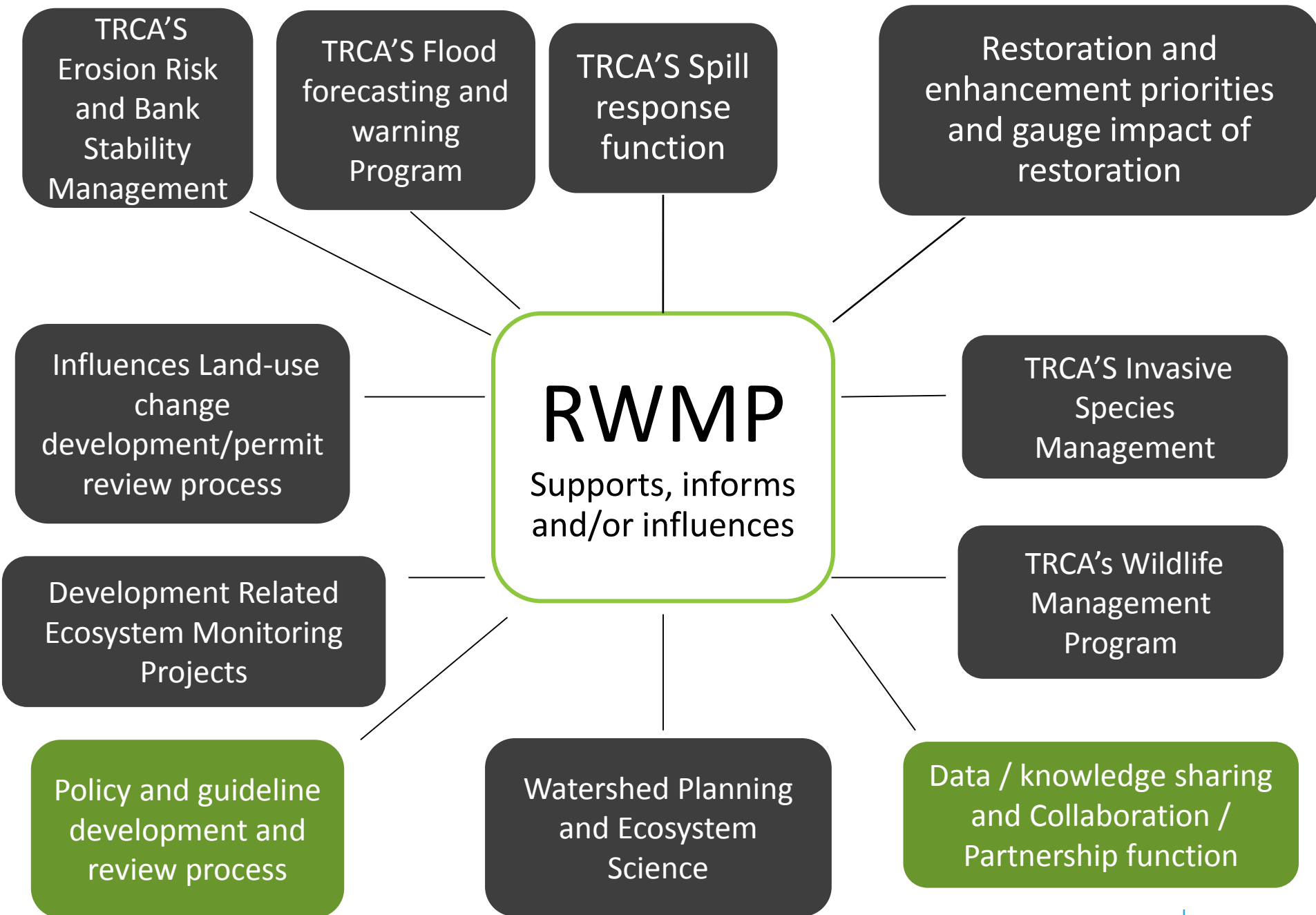




# RWMP and Media Communications

- RWMP data was used to film TVO's Fishhead and have been used for grade 1-4 science curriculum for kids





# Thank You

[www.trca.ca](http://www.trca.ca)



**DISCUSSION SUMMARY**

RWA members commended thorough data that is collected. Members raised concerns with declining water quality across the watersheds and discussed any mechanisms for informing legislation that can improve water quality and biodiversity issues. TRCA staff highlighted the successes of reporting and monitoring that have informed TRCA's approaches and strategies to address various watershed issues, including other projects with municipal partners.



**RES.#R9/21 -**

**UPDATES ON CARRUTHERS CREEK WATERSHED PLAN AND  
ETOBICOKE CREEK WATERSHED PLAN**

To provide an update on the current status of both the Carruthers Creek Watershed Plan and Etobicoke Creek Watershed Plan.

Moved by: Neil Burnett  
Seconded by: Elizabeth Calvin

**WHEREAS Toronto and Region Conservation Authority (TRCA) has concluded public engagement on the draft Carruthers Creek Watershed Plan;**

**AND WHEREAS TRCA has provided the final draft of the Carruthers Creek Watershed Plan to the Region of Durham for consideration;**

**AND WHEREAS TRCA has concluded watershed characterization for the Etobicoke Creek Watershed Plan;**

**AND WHEREAS TRCA has initiated the future management scenarios stage for the Etobicoke Creek Watershed Plan;**

**IT IS RECOMMENDED THAT this report and presentation be received;**

**AND FURTHER THAT the Regional Watershed Alliance members advise how they wish to be kept informed about progress made on these watershed plans.**

**CARRIED**

**BACKGROUND**

Watershed Planning and Reporting staff is in the process of finalizing the Carruthers Creek Watershed Plan (CCWP) and has completed watershed characterization for the Etobicoke Creek Watershed Plan (ECWP).

**Carruthers Creek Watershed Plan**

In 2015 the Region of Durham engaged Toronto and Region Conservation Authority (TRCA) to develop an updated watershed plan for Carruthers Creek. The draft CCWP was released in March 2020 for an expected 90-day public review period. On April 8, 2020, Regional Council paused the public review period until in-person engagement could occur. Due to the continuing Covid-19 situation, Regional Council authorized staff to recommence public engagement virtually on December 16, 2020. Two virtual open houses on the draft CCWP were held in February 2021 that were attended by a total of 134 individuals. The public comment period on the draft CCWP closed on March 19, 2021. A total of 25 submissions were received via the online comment form or direct letter. Additional comments were received by the relevant planning committees of both the City of Pickering and Town of Ajax.

**Etobicoke Creek Watershed Plan**

At the Regional Watershed Alliance meeting on September 16, 2020, information was provided on the development of the Etobicoke Creek Watershed Plan and its Engagement Strategy. Members of the Regional Watershed Alliance recommended that faith groups and rotary/Lion's Clubs be added to the Engagement Strategy. It was also suggested that TV spots on local channels be considered to engage seniors in the watershed. Additional community groups have been added to the Engagement Strategy as stakeholders. Additional methods of providing notifications and increasing awareness will be considered throughout the watershed planning

process.

## **RATIONALE**

### **Carruthers Creek Watershed Plan**

The CCWP has been updated to reflect the feedback received during the public review period. Most comments related to:

- potential development in the headwaters and the associated process for any Settlement Area Boundary Expansion, including numerous comments related to protecting the headwaters,
- the scope of the future scenarios used in the watershed planning process and the associated implications,
- concerns around existing flooding issues in Ajax and the potential increase in flooding risk associated with potential headwater development, and
- the process for developing the enhanced Natural Heritage System and how exactly it will be protected, enhanced, and restored.

A report summarizing the comments received, responses to those comments, and key changes to the CCWP to address comments has been developed to accompany the report being prepared by Region of Durham staff for approval by Planning and Economic Development Committee and Regional Council. This summary report will be part of the public record through the Region of Durham's Committee and Council process.

It is expected that the final CCWP will be presented to Region of Durham Planning and Economic Development Committee in June. Following that, it will be presented to Regional Council. Assuming the final CCWP is endorsed by Regional Council, it will subsequently be presented to the TRCA Board.

### **Etobicoke Creek Watershed Plan**

Since TRCA presented to the RWA on the ECWP, an initial engagement survey on a possible vision statement and key watershed issues was distributed to watershed stakeholders on September 24, 2020 through the project webpage, including Indigenous groups, Councillors/Board members, and stakeholders as per the Engagement Strategy. Notifications were also distributed via social media. The survey closed on October 19, 2020 and had 50 responses. Based on the results of the survey, the three largest watershed concerns to respondents were urbanization, climate change, and water quality. The survey responses also resulted in the following watershed vision:

**Etobicoke Creek watershed is protected and restored to a cleaner, healthier, and more natural state, to sustain its waterways, ecosystems, and human communities.**

### Watershed Characterization

Since that time, TRCA has finished compiling the various technical analyses required as part of the watershed characterization stage of the watershed planning process. A consolidated Characterization Report has been developed that is with Steering Committee members (i.e. municipalities, Mississaugas of the Credit First Nation, and the Greater Toronto Airport Authority) for review. The key findings of the characterization stage are that:

Watershed Component	Key Findings
<b>Water Resource System</b> (includes aquatic habitat, in-stream barriers, groundwater conditions, etc.)	<ul style="list-style-type: none"> <li>• Among larger watersheds in TRCA's jurisdiction (i.e. &gt;200 km<sup>2</sup>), Etobicoke Creek has the second highest annual runoff at 402 mm/year, second only to the Don River.</li> <li>• The average habitat health rating for fish is 'fair' and for benthic communities is 'poor'. There has been little to no change in aquatic habitat quality since 2002.</li> <li>• There are a large number of in-stream barriers that prevent the movement of species and only approximately 49.6% natural cover within the riparian corridor (i.e. within 30 metres of streams).</li> </ul>
<b>Natural Heritage System / Urban Forest</b> (includes habitat quantity and quality, tree canopy, sensitive species, etc.)	<ul style="list-style-type: none"> <li>• Approximately 11.7% of the watershed consists of natural cover, which is similar to other heavily urbanized watersheds, with natural cover continuing to decrease (e.g. forest cover).</li> <li>• Generally, habitat quality is poor with some fair quality habitat in the headwaters, but the watershed still supports regional biodiversity including some sensitive plant and animal species, primarily in the headwaters.</li> <li>• Approximately 51% and 18% of the watershed is a priority for regional and local connectivity among habitat patches, respectively.</li> <li>• Existing natural cover is highly vulnerable to the effects of climate change in urban areas.</li> <li>• Urban forest canopy cover (i.e. trees and tall shrubs) is 14.7% and has remained stable from 2009 to 2018.</li> </ul>
<b>Water Quality</b> (includes parameters of concern relative to Provincial Water Quality Objectives [PWQO] or Canadian Water Quality Guideline [CWQG])	<ul style="list-style-type: none"> <li>• Surface water quality is generally poor compared to other TRCA watersheds. Contaminants of particular concern include: <ul style="list-style-type: none"> <li>○ Chlorides (e.g. from road salts)</li> <li>○ Phosphorus (e.g. from fertilizers)</li> <li>○ <i>E. coli</i> bacteria (e.g. from sewage/animal wastes)</li> <li>○ Metals such as copper and zinc (e.g. from industrial sources and/or roadways)</li> </ul> </li> <li>• Exceedances of chlorides and nitrates in groundwater were observed.</li> </ul>
<b>Natural Hazards</b> (includes flooding and erosion)	<ul style="list-style-type: none"> <li>• There are six FVCs with a total area of 508 hectares (ha).</li> <li>• Most of the watershed can be categorized as medium or high erosion sensitivity.</li> </ul>

### Future Management Scenarios

With the completion of the characterization stage of the watershed planning process, the future management scenarios stage has commenced. Based on the issues in the watershed identified during the characterization stage, the future management scenarios have been designed to:

- Project future land use change based on growth projections by utilizing different land use and infrastructure practices to 2051 (the current land use planning horizon)
- Assess the effects of different levels of ecosystem restoration and enhancement (e.g., increase natural cover quantity and quality)
- Assess the effects of different levels of stormwater quantity and quality control on watershed conditions
- Assess the potential impacts of climate change on watershed conditions

Four scenarios have been developed to conduct the various technical analyses during this stage of the watershed planning process:

Scenario 1: Approved Official Plan + Urban Expansion	Scenario 2: Increase Natural Cover and Stormwater Enhancements with Urban Expansion	Scenario 3: Extensive Natural Cover and Stormwater Enhancements with Urban Expansion	Scenario 4: Extensive Natural Cover and Stormwater Enhancement without Urban Expansion
Assumes full build-out of headwaters outside of the Greenbelt, GTA West highway, and approved Official Plans. No changes to current stormwater management in the already developed portion and no changes to natural cover.	Same as scenario 1, but some improvements to stormwater management in developed portion of watershed and some improvements to urban forest and natural cover.	Same as scenario 1, but an even greater amount of stormwater retrofits and natural cover / urban forest enhancements.	Same as scenario 3, but without the urban expansion and the GTA West highway.

TRCA will conduct various modelling and technical analyses of these scenarios to understand the potential impacts to natural hazards, water quality, aquatic and terrestrial conditions, and groundwater. All analyses will be guided by the following research questions:

- How will trends associated with each watershed component change under each scenario (i.e. improve, deteriorate, stay the same)?
- What interventions would have noticeable impacts on watershed conditions (e.g. priority areas for stormwater retrofits)?
- What impact will intensification and further urbanization have on watershed conditions?

It is expected that the future management scenario stage will take the remainder of 2021 and part of 2022 to complete.

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

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

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

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

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

### **FINANCIAL DETAILS**

Funds to support the development of the Carruthers Creek Watershed Plan are provided by the Region of Durham (120-80) through a fee-for-service agreement. Funds to support the development of the Etobicoke Creek Watershed Plan are from 120-02, 120-04, and 416-40.

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

#### **Carruthers Creek Watershed Plan**

TRCA will work with the Region of Durham to address any questions or concerns regarding the final CCWP during the Committee and Council review processes. Assuming there is endorsement of the CCWP, it will subsequently be presented to the TRCA Board. After that, TRCA will work with its municipal partners and stakeholders to begin implementing the CCWP.

#### **Etobicoke Creek Watershed Plan**

Once the Steering Committee review of the Characterization Report is complete and comments addressed, TRCA will post the report to its project webpage and share with stakeholders, including the Regional Watershed Alliance.

**Report prepared by: Tony Morris, Senior Project Manager, Watershed Planning and Reporting, extension 5651**

**Emails: [tony.morris@trca.ca](mailto:tony.morris@trca.ca)**

**For Information contact: Tony Morris, extension 5651, or Laura Del Giudice, extension 5334**

**Emails: [tony.morris@trca.ca](mailto:tony.morris@trca.ca), [laura.delgiudice@trca.ca](mailto:laura.delgiudice@trca.ca)**

**Date: April 14, 2021**

**Attachments: 1**

Attachment 1: Presentation - Updates on Carruthers Creek Watershed Plan and Etobicoke Creek Watershed Plan

# Updates on Carruthers Creek Watershed Plan and Etobicoke Creek Watershed Plan

Regional Watershed Alliance Meeting

Presented by: Tony Morris, Senior Project Manager,  
Watershed Planning and Reporting

May 19, 2021

# Carruthers Creek Watershed Plan

Late 2015 – Late 2017

- Field work and raised awareness through reports and presentations to Committees and Councils.

Late 2017 – Early 2019

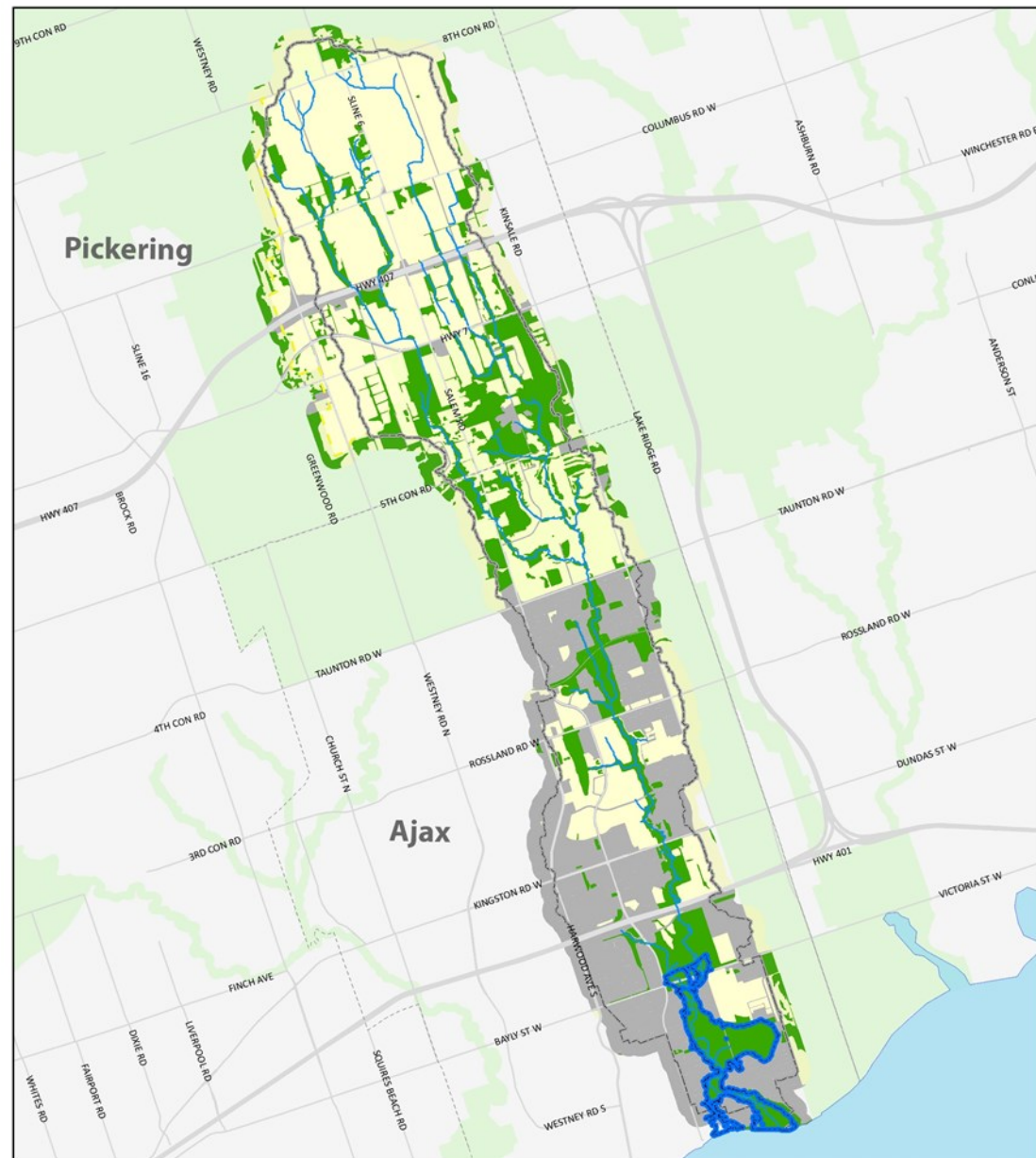
- Completed characterization reports, developed vision, and had information booths at events.

Mid 2019 – Late 2019

- Gathered feedback on draft management framework and held open houses.

Early 2020 – Mid 2021

- Released draft watershed plan for public review and held virtual open houses. Comment period closed March 19, 2021.



**Toronto and Region  
Conservation  
Authority**



Date: September 2019  
Created by: TRCA Information Services/Information Technologies  
Disclaimer:  
The Data used to create this map was compiled from a variety of sources and dates. The TRCA takes no responsibility for errors or omissions in the data and retains the right to make changes and corrections at any time without notice. For further information about the data on this map, please contact the TRCA GIS Department. (416) 661-6600.

## Carruthers Creek Watershed Plan: 2015 Land Use Conditions

0 0.5 1 2 3 KM

- Municipal Boundary
- ~~~~~ Watercourse
- Land Use**
  - Natural
  - Rural
  - Urban
- Flood Vulnerable Cluster
- Greenbelt Boundary
- Carruthers Creek Watershed Boundary
- Carruthers Creek Watershed Plan Study Area

# Carruthers Creek Watershed Plan Cont'd

- Submissions received during the public review period included: 19 using the online comment form, 6 letters, and 2 Committee Reports (Pickering and Ajax).
- Results from online comment form rating questions:

	<b>How would you rate the draft plan structure, length, organization on a scale of 1 to 5, where 1 equals “poor” and 5 equals “excellent”?</b>	<b>Is the information presented clearly and concisely? Please provide a rating on a scale of 1 to 5, where 1 equals “not at all clear and concise” and 5 equals “very clear and concise”.</b>	<b>Do you support the goals, objectives, indicators and management recommendations in the draft plan? Please provide a rating on a scale of 1 to 5, where 1 equals “strongly opposed” and 5 equals “strongly supportive”.</b>
<b>Average Rating</b>	4	4	4

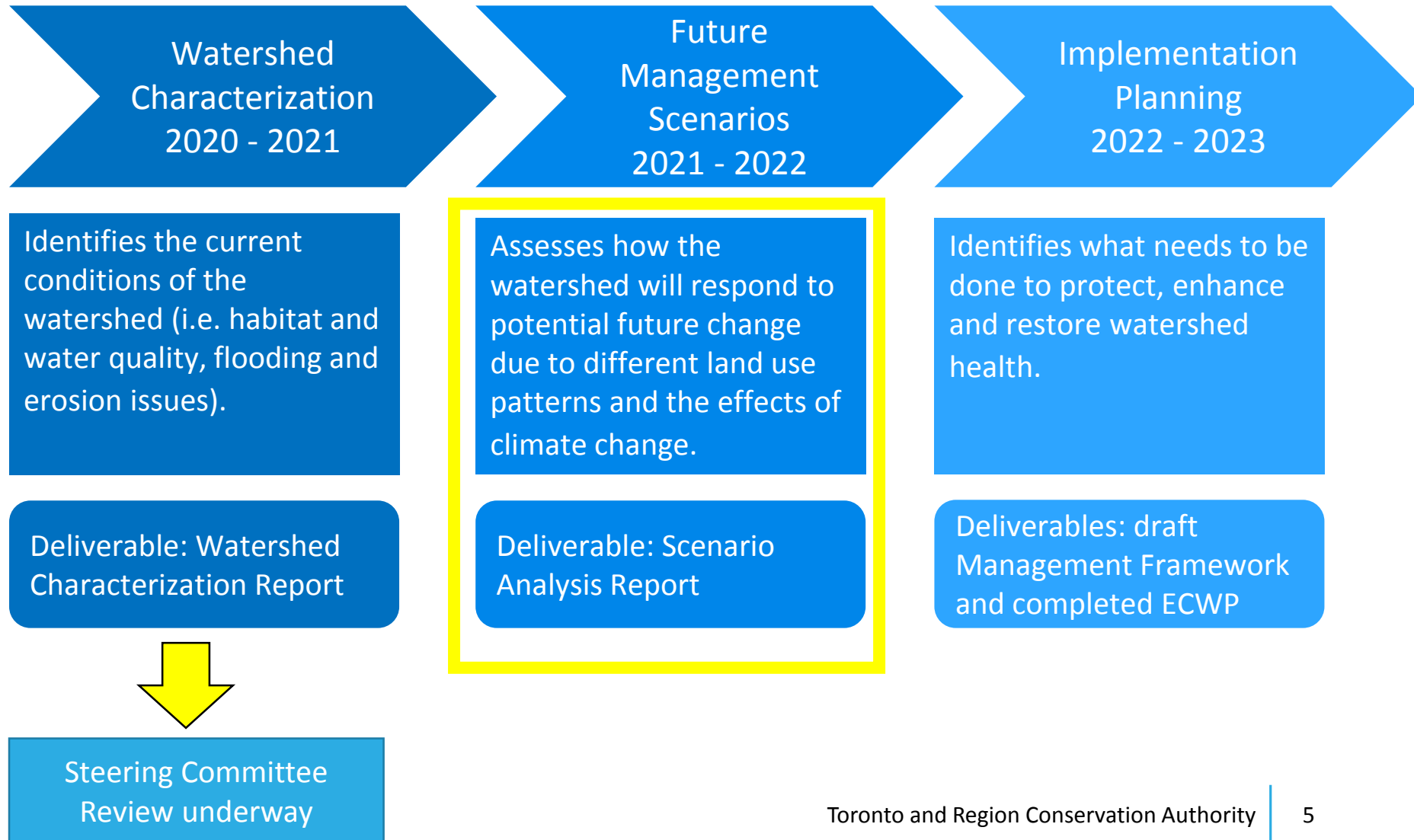
- Letters received from:
  - S. Parish, Evans Planning
  - Ontario Headwaters Institute
  - North East Pickering Land Owners Group
  - Ontario Nature/Environmental Defence/Land Over Landings/Environmental Action Now Ajax-Pickering
  - Fieldgate Developments



# Carruthers Creek Watershed Plan Cont'd

Comment Themes	Response Summary
<p><b>Headwater Development</b></p> <p>Mixed comments on the status of the headwaters, with general public concern about protecting them and others indicating impacts can be mitigated.</p>	<ul style="list-style-type: none"> <li>• Headwaters are not within urban boundary and would require a Settlement Area Boundary Expansion. Subsection 5.4 of the CCWP has recommendations on studies that would be required.</li> <li>• Protecting the Natural Heritage and Water Resource Systems are goals of the CCWP.</li> </ul>
<p><b>Scope of Future Scenarios</b></p> <p>Concern around the messaging of the implications of the future scenarios and their assumptions.</p>	<ul style="list-style-type: none"> <li>• Scenario analysis does not result in decisions about land uses but identifies what potential impacts could be and the level of mitigation that would be required.</li> </ul>
<p><b>Flooding Issues</b></p> <p>Concern around existing flooding issues in Ajax and potential increases with future development.</p>	<ul style="list-style-type: none"> <li>• Addressing flooding issues will depend on future land use decisions. Appropriate mitigation is a key component of the management framework of the CCWP.</li> </ul>
<p><b>Enhanced Natural Heritage System</b></p> <p>Concern around the process for developing the system and how it will be protected.</p>	<ul style="list-style-type: none"> <li>• Uses the latest science and is consistent with provincial policy.</li> <li>• Refinements are possible, assuming the analysis is consistent with the goals and objectives of the CCWP.</li> </ul>

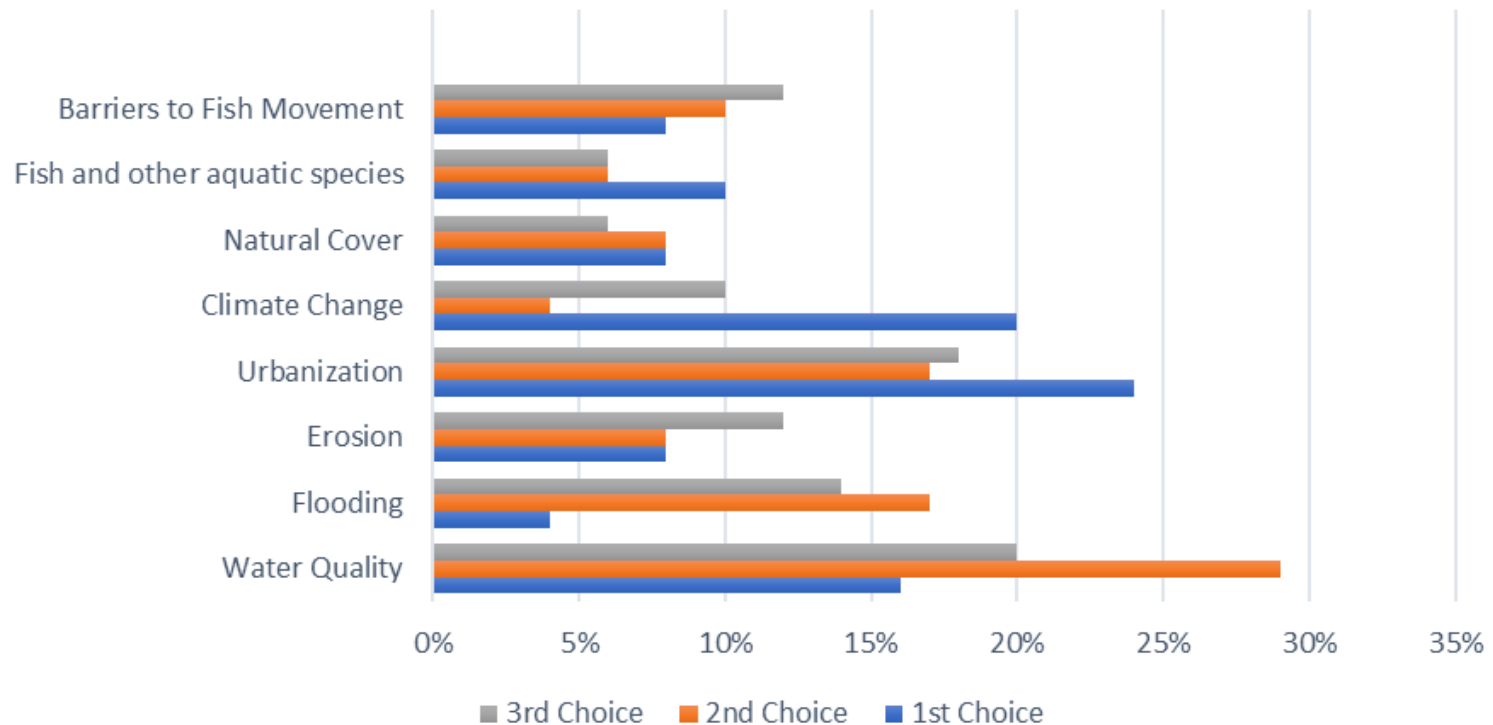
# Etobicoke Creek Watershed Plan



# Etobicoke Creek Watershed Plan

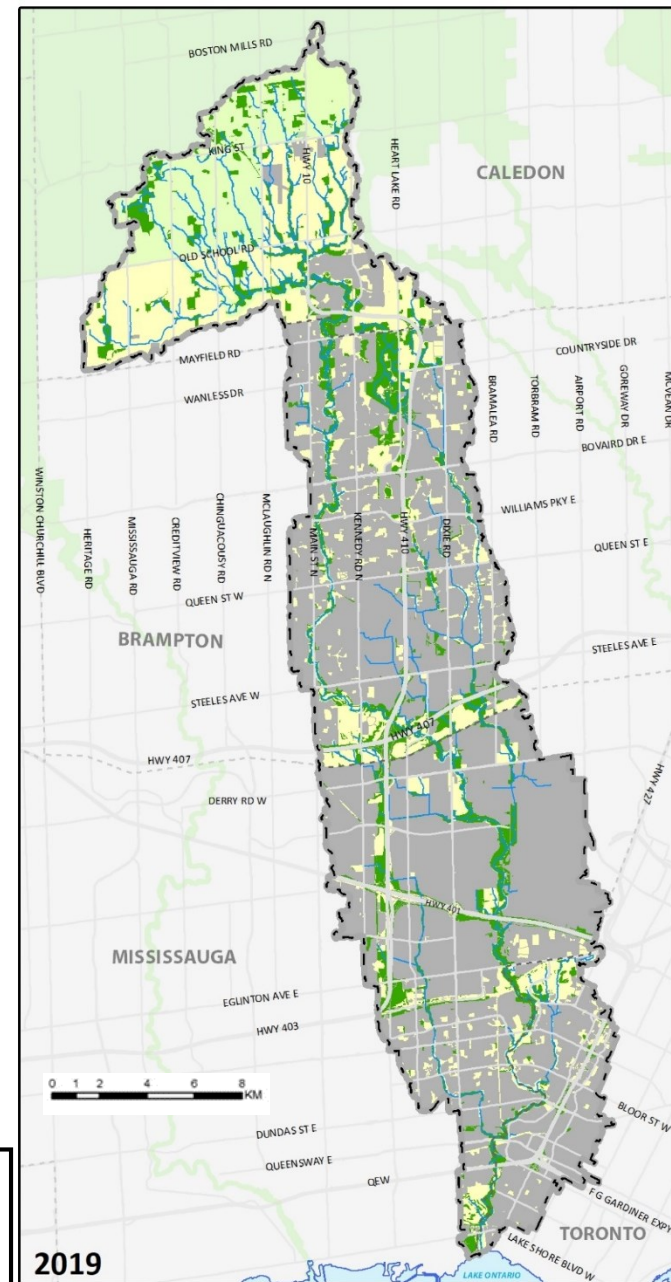
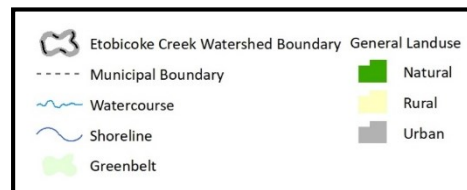
Etobicoke Creek watershed is protected and restored to a cleaner, healthier, and more natural state, to sustain its waterways, ecosystems, and human communities.

## Rankings By Percentage of Selection



# Etobicoke Creek Watershed Plan

	2002 (area %)	2012 (area %)	% change from 2002 – 2012 (+ or -)	2019 (area %)	% change from 2012 (+ or -)
Urban	53.4%	56.4%	5.6%	59.5%	5.4%
Rural	32.5%	30.9%	-5.0%	28.2%	-8.5%
Natural	14.1%	12.7%	-9.6%	12.3%	-3.4%
Impervious Cover	42.9%	45.6%	6.3%	47.9%	4.9%



# Etobicoke Creek Watershed Plan

Stage 3: Future Management Scenarios purpose:

- develop potential future management scenarios to assess the implications of different land use changes on the health and conditions of the watershed.

Scenario 1: Approved Official Plan + Urban Expansion	Scenario 2: Increase Natural Cover and Stormwater Enhancements with Urban Expansion	Scenario 3: Extensive Natural Cover and Stormwater Enhancements with Urban Expansion	Scenario 4: Extensive Natural Cover and Stormwater Enhancement without Urban Expansion
Assumes full build-out of headwaters outside of the Greenbelt, GTA West highway, and approved Official Plans. No changes to current stormwater management in the already developed portion and no changes to natural cover.	Same as scenario 1, but some improvements to stormwater management in developed portion of watershed and some improvements to urban forest and natural cover.	Same as scenario 1, but an even greater amount of stormwater retrofits and natural cover / urban forest enhancements.	Same as scenario 3, but without the urban expansion and the GTA West highway.
Note: with the support of many municipalities being withdrawn, the potential for the GTA West highway is unclear. This may affect the scope of these scenarios.			



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**RES.#R10/21 -**

**WATERSHED AND ECOSYSTEMS REPORTING HUB**

Demonstration of Toronto and Region Conservation Authority's (TRCA) Watershed and Ecosystems Reporting Hub – an online tool to communicate up-to-date information about environmental conditions of the Toronto region to our partners and stakeholders.

Moved by: Madeleine McDowell  
Seconded by: David Pickles

**IT IS RECOMMENDED THAT this report and presentation on the Watershed and Ecosystems Reporting Hub be received;**

**AND FURTHER THAT Regional Watershed Alliance members help promote the online tool through their networks and use it to inform decision-making.**

**CARRIED**

**BACKGROUND**

At Board of Directors meeting held on March 26, 2021, Resolution #A45/21 was approved as follows:

*WHEREAS TRCA issues reporting products to communicate the environmental conditions of the Toronto region to partners and stakeholders every five years, including The Living City Report Card;*

*WHEREAS TRCA's Board of Directors and its partners have requested that it provide more frequent plain language information about the environmental conditions of the Toronto region;*

*WHEREAS TRCA has developed an innovative online tool, called the Watershed and Ecosystems Reporting Hub, that allows TRCA to clearly communicate the environmental conditions of the Toronto region on an ongoing basis using interactive displays and other digital media;*

*AND WHEREAS TRCA intends to launch this online tool on April 22, 2021, to coincide with Earth Day;*

*THEREFORE, LET IT BE RESOLVED THAT TRCA's Board of Directors endorse the Watershed and Ecosystems Reporting Hub and authorize staff to proceed with its launch;*

*AND FURTHER THAT Board members help promote the online tool through their networks and use it to inform decision-making.*

The Watershed and Ecosystems Reporting Hub (Reporting Hub) presents a digital transformation in the way TRCA reports environmental conditions to our partners and stakeholders. This online tool was developed using Esri's ArcGIS StoryMaps, allowing TRCA to clearly convey environmental conditions of the Toronto region using photos, graphics, and interactive displays.

The Reporting Hub allows the user to interactively explore data at various scales, including by watershed, region or local municipality. It uses plain language to explain the importance of different environmental indicators for understanding watershed and ecosystem health.

Reporting for each indicator includes targets (where applicable), current conditions, and how conditions are changing over time, using the best available data. The Reporting Hub further provides users with the ability to dig deeper to better understand the methodologies and data behind the reporting, with links to Open Data.

More than 30 staff members from 10 business units across TRCA provided input on content development. Feedback on early drafts was provided through consultations with TRCA's regional municipal partners, members of the Toronto and Region Remedial Action Plan and the Regional Watershed Alliance. Feedback from these early consultations has been incorporated into the Reporting Hub to ensure information is presented in a user-friendly manner, with the ability for users to dig deeper into methodologies and data sources through the Reporting Hub's Data Portal.

## **RATIONALE**

Indicators included in the Reporting Hub have been re-scoped from the metrics originally developed for The Living City Report Card. The scope of the Reporting Hub contents is aligned with core program areas for which TRCA collects and stores environmental data, including:

- Natural Hazards
- Future Climate
- Land Use
- Natural Heritage System
- Water Resource System
- Water Quality
- Lake Ontario Nearshore

This change in the scope of reporting in addition to the ability to update the data more frequently (annually, in some cases) will allow TRCA and its municipal partners to use the Reporting Hub to help inform decision making for watershed planning and ecosystem management. Data displayed in the Reporting Hub will assist in tracking progress toward our goals and demonstrate how successful we are in achieving watershed health through watershed planning and municipal policy implementation.

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

**Strategy 9 – Measure performance**

**Strategy 10 – Accelerate innovation**

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

## **FINANCIAL DETAILS**

TRCA staff involvement in the development of the Watershed and Ecosystems Reporting Hub has been supported through TRCA capital account 416-40, which is funded by the City of Toronto, Peel Region and York Region.

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

The Reporting Hub will continue to evolve as we receive feedback from partners and stakeholders, with regular updates to incorporate new data and science. Plans to enhance the Reporting Hub in the future include the development of new indicators in response to feedback from partners and the ability to track progress on watershed planning and implementation.



**Report prepared by: Shari Dahmer, extension 5592**

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**For Information contact: Laura DelGiudice, extension 5334**

**Emails: [laura.delgiudice@trca.ca](mailto:laura.delgiudice@trca.ca)**

**Date: April 14, 2021**

**Attachments: 1**

Attachment 1: Presentation - Watershed and Ecosystems Reporting Hub

# Watershed and Ecosystems Reporting Hub

## Introduction and Demo of TRCA's New Reporting Hub

Presented by: Shari Dahmer  
Project Manager, Watershed Planning & Reporting

May 19, 2021

# Background

- TRCA issues The Living City Report Card (LCRC) and Conservation Ontario Watershed Report Cards every 5 years.
- Desire from TRCA's BOD and partners for more frequent and less technical reporting.
- TRCA recently launched the Watershed and Ecosystems Reporting Hub, which will be the modern version of the LCRC.



# Benefits

- Enables regular updates to watershed and waterfront condition reporting; links to Open Data.
- Provides users with plain language orientation to the results of a broad array of TRCA monitoring data.
- Allows users to interactively explore data at various scales, including municipal.
- Provides useful information to TRCA staff for their own projects, plan review, etc.
- Will enable tracking of progress against watershed plan implementation.

# Each Section Contains:

- Contextual Information
- Reporting on Indicators
  - **Targets:** Where do we want to be?
  - **Current Conditions:** Where are we now?
    - Below Target**
    - Achieved Target**
  - **Trends:** How are conditions changing?
    - Improving:** Conditions are getting better over time.
    - Stable:** Conditions are generally not changing over time.
    - Declining:** Conditions are getting worse over time.
  - **Dashboards:** Dynamic visualization of the data



# Environmental Indicators

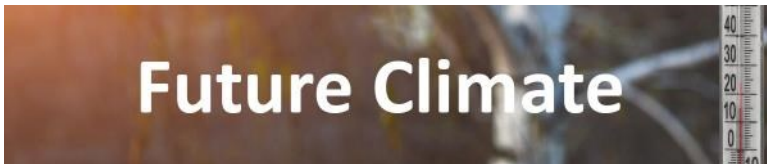


## **Flooding**

*Riverine Flooding • Lake Ontario Shoreline Flooding*

## **Erosion**

*Riverine Erosion • Lake Ontario Shoreline Erosion*



## **Future Precipitation**

*Annual Average Precipitation • Annual Extreme Precipitation • Seasonal Extreme Precipitation*

## **Future Temperature**

*Annual Average Temperature • Extreme Heat*



## **Low Impact Development (LID)**

*LID Supportive Policies and Programs*



# Environmental Indicators (cont'd)



## **Natural Cover**

*Natural Cover Quantity • Natural Cover Quality*

## **Terrestrial Biodiversity**

*Forest Vegetation • Forest Birds • Wetland Vegetation • Wetland Birds • Frogs and Toads • Meadow Birds*



## **Aquatic Communities and Habitats**

*Fish Communities in Streams • Benthic Communities in Streams • Stream Temperature*

## **Groundwater Quantity**

*Groundwater Levels*

# Environmental Indicators (cont'd)



## **Stream Water Quality**

*Water Quality Index*

## **Groundwater Quality**

*Chlorides in Groundwater • Nitrates in Groundwater*



## **Area of Concern Status**

*Beneficial Use Impairments (BUIs) • BUI: Degradation of Aesthetics •*

*BUI: Beach Closures*

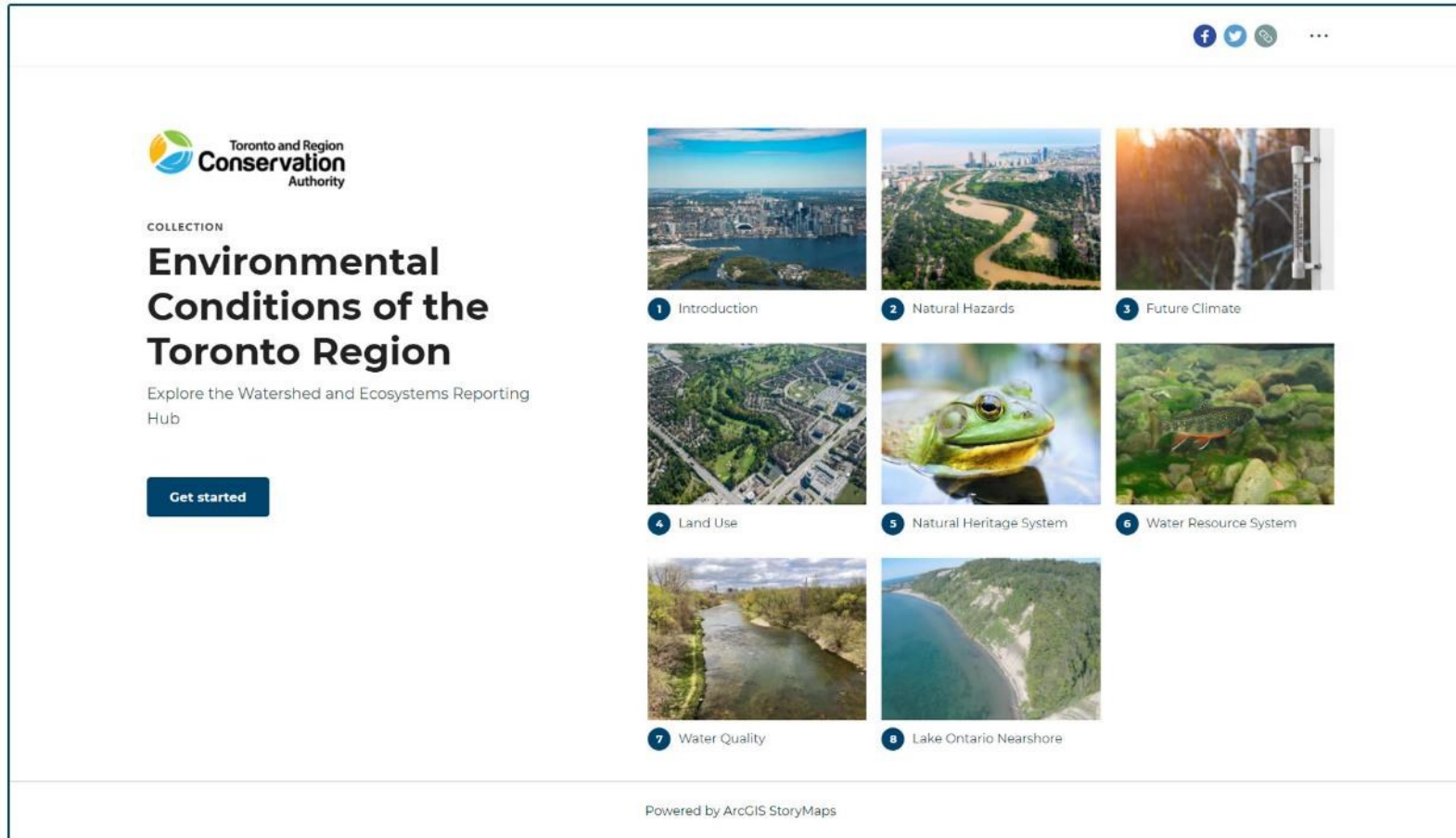
## **Nearshore Fisheries**

*Nearshore Fish Communities*

## **Western Durham Nearshore Water Quality**

*Nearshore Total Phosphorus • Nearshore E.coli*

# Demonstration of Reporting Hub







# Request to RWA

- Regional Watershed Alliance Members help promote the Reporting Hub through their networks and use it to inform decision making



# Contact Us

If you have any questions or feedback please  
contact us at:

[reportinghub@trca.ca](mailto:reportinghub@trca.ca)



[www.trca.ca](http://www.trca.ca)



## **DISCUSSION SUMMARY**

Members inquired if there are other conservation authorities utilizing a reporting hub and whether the reporting hubs share data connections with each other. TRCA staff responded that there has been communication with other conservation authorities and that they have shared early versions of the platform. There is interest in developing similar platforms and combining reporting efforts with TRCA's municipal partners.

RWA members asked if there is a connection between the reporting hub and local erosion, flood control, and restoration projects. Staff responded that they are already looking at expanding the reporting hub by including new indicators and watershed planning and restoration projects.

**RES.#R11/21 -**

**TRCA SUBMISSION - PROVINCIAL CONSULTATION ON GROWING THE SIZE OF THE GREENBELT (ERO #019-3136)**

To update and inform the Regional Watershed Alliance on TRCA's response to the Province of Ontario's consultation on growing the size of the Greenbelt, as posted on the Environmental Registry of Ontario (ERO).

Moved by: Andy Wickens  
Seconded by: Madeleine McDowell

**IT IS RECOMMENDED THAT the Regional Watershed Alliance receive this report for information.**

**CARRIED**

**BACKGROUND**

On February 17, 2021, the Province (Ministry of Municipal Affairs and Housing) initiated consultation on ways to grow and further enhance the Greenbelt through a posting on the ERO ([#019-3136](#)). The Ministry sought input on whether to include a study area for the Paris Galt Moraine in the Greenbelt and solicited ideas for adding, expanding, and further protecting Urban River Valleys (URVs). The ERO posting noted that policy changes, land removals or land exchanges would not be considered, and that any addition must connect physically or functionally to the Greenbelt, support the Plan's vision, objectives, and goals, and follow the Plan's current amendment process. While the consultation focused on two priority areas (Paris Galt Moraine and URVs), the Province also stated that they would receive input on 'other potential areas to grow the Greenbelt as well as other priorities that should be considered'. The commenting period for this posting closed April 19, 2021.

**RATIONALE**

The outcome of this initiative has implications on TRCA's day-to-day work in multiple roles as a resource management agency, a regulator, a public commenting body with delegated authority to represent the provincial interest for natural hazards, and landowner, in a region experiencing significant growth and associated land use and environmental challenges. Where appropriate, it is important for TRCA to provide input to encourage the Province to align with and support TRCA objectives and interests. This type of policy work is also important for strengthening relationships and coordination between TRCA, provincial and municipal partners.

TRCA has worked with provincial ministries, CAs and municipalities and key stakeholders in support of the establishment of the Plan, as well as subsequent efforts to grow and enhance it through mapping criteria and policy amendments. We continue to build upon these efforts by promoting the Plan as an integral component of environmental protection and progressive land use planning. TRCA also plays an ongoing key role in the implementation of the Plan through our role as a public commenting body on *Planning Act* applications and our delegated authority to represent the provincial interest in natural hazards. In this role, we provide municipalities, who are the approval authorities for the Plan, with technical advice in the interpretation of Plan policies and related technical guides. A copy of TRCA's submission to the Province in response to the consultation on growing the Greenbelt is provided in Attachment 1 to this report.

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

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

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

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

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

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

### **FINANCIAL DETAILS**

Staff are engaged in this policy analysis work per the normal course of duty, with funding support provided by TRCA's participating municipalities to account 120-12. No additional funding is proposed to support the policy analysis work associated with the preparation of these comments.

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

Staff will monitor the outcome of any future decision notices pertaining to this consultation and will report on the implications of any related legislative, regulatory and/or policy initiatives as appropriate and keep the Regional Watershed Alliance informed of related TRCA submissions accordingly.

**Report prepared by: Jeff Thompson, extension 6469,**

**Emails: [jeff.thompson@trca.ca](mailto:jeff.thompson@trca.ca),**

**For Information contact: Jeff Thompson, extension 6469, Laurie Nelson, extension 5281**

**Emails: [jeff.thompson@trca.ca](mailto:jeff.thompson@trca.ca), [laurie.nelson@trca.ca](mailto:laurie.nelson@trca.ca)**

**Date: May 12, 2020**

**Attachments: 1**

Attachment 1: TRCA Submission to ERO#019-3136

Chief Executive Officer



April 19, 2021

Greenbelt Consultation  
Provincial Planning Policy Branch  
777 Bay Street, 13th floor  
Toronto, ON M7A 2J3

**BY E-MAIL ONLY** ([greenbeltconsultation@ontario.ca](mailto:greenbeltconsultation@ontario.ca))

**RE: CONSULTATION ON GROWING THE SIZE OF THE GREENBELT (ERO #019-3136)**

Thank you for the opportunity to comment on the Ministry of Municipal Affairs and Housing's (MMAH) Environmental Registry of Ontario (ERO) posting consulting on ways to grow the size and further enhance the quality of the Greenbelt.

TRCA conducts itself in accordance with the objects, powers, roles, and responsibilities set out for conservation authorities (CAs) under the *Conservation Authorities Act* (CA Act) and MNRF Procedural Manual chapter on CA policies and procedures for plan review and permitting. TRCA is:

- A public commenting body under the *Planning Act* and *Environmental Assessment Act*;
- An agency delegated the responsibility to represent the provincial interest on natural hazards under Section 3.1 of the Provincial Policy Statement (PPS);
- A regulatory authority under Section 28 of the CA Act;
- A service provider to municipal partners and other public agencies;
- A Source Protection Authority under the *Clean Water Act*;
- A resource management agency; and
- A major landowner in the Greater Toronto Area.

In these roles, and as stated in the "A Made-In-Ontario Environment Plan," TRCA works in collaboration with municipalities and stakeholders to protect people and property from flooding and other natural hazards, and to conserve natural resources. Through Memorandums of Understanding and Service Level Agreements, TRCA provides technical support to its provincial and municipal partners in implementing municipal growth management policies. Further, TRCA recognizes the importance of efficiency, certainty, transparency and accountability in planning and design review processes, so that development and infrastructure projects can occur in a timely and environmentally sustainable manner.

**GOVERNMENT PROPOSAL**

We understand that the government is consulting on expanding the size of and enhancing the Greenbelt, with the following identified as priorities:

- Lands in and around the Paris Galt Moraine
- Ideas for adding, expanding, and further protecting the region's Urban River Valleys (URVs)

Regarding potential Greenbelt expansions, the following principles are articulated, although the ERO is soliciting input regarding “other potential areas to grow the Greenbelt as well as other priorities”.

- **No consideration of removal requests or land exchanges**
- **No consideration of policy changes** (existing protections will not be reduced).
- **Supports Greenbelt Plan objectives, vision, and goals** (protects agricultural land base and ecological and hydrological features, areas, and functions; only publicly owned lands in URVs).
- **Follows Existing Amendment Process** (as per *Greenbelt Act, 2005*)
- **Connects physically and/or functionally to the current Greenbelt** (continuous broad band of protected land built upon the Greenbelt’s systems approach, with direct connections throughout the Plan’s natural heritage, water resource or agricultural systems; no unconnected islands of Greenbelt land).
- **Considers impacts on existing provincial priorities** (e.g., as outlined in PPS, Growth Plan).

## DISCUSSION QUESTIONS

TRCA provides the following comments in response to the discussion questions posted through this ERO. Key comments are in **bold** text.

1. *What are your thoughts on the initial focus area of the Study Area of the Paris Galt Moraine?*
2. *What are the considerations in moving from a Study Area to a more defined boundary of the Paris Galt Moraine?*

The Paris Galt Moraine provides essential hydrological and ecological functions similar to the Oak Ridges Moraine, including functioning as a groundwater recharge zone that sustains a vital supply of drinking water for residents and a groundwater storage and discharge area that supports cold water headwater stream habitat. However, it is outside of TRCA’s jurisdiction and as such, we defer to the local CAs, in partnership with affected municipalities.

3. *What are your thoughts on the initial focus area of adding, expanding and further protecting URVs?*

While TRCA generally supports the Province’s intent to grow URVs, especially from an educational and awareness-raising standpoint, current Greenbelt policies related to URVs only apply to public lands. By virtue of being exclusively on publicly owned lands, URVs are largely protected through other policy means. In addition to being protected by existing provincial policies that address natural heritage and hydrologic features and areas (i.e., PPS, Growth Plan, Source Protection Plans) and CA policies and associated regulations, URV lands are typically already designated for protection in official plans (OPs) as parks, open space, recreation, conservation and/or environmental protection. Subsequently, any expansion of the URVs to include public lands would not necessarily result in additional land being better protected from future development impacts. **Although outside the purview of this consultation, TRCA notes that a provincial review of the current URV policies could help better achieve the Province’s objective of expanding and enhancing the Greenbelt.**

Further to the above, we note that adding/expanding URVs at this time may not capture the outcomes of any refinements to existing URV boundaries being undertaken through ongoing Municipal Comprehensive Reviews (MCRs) to ensure all publicly owned lands are included, and any lands that may have been acquired since URVs were added to the Greenbelt. Moreover, we note that this consultation may not capture future lands transferred into public ownership (including those acquired by CAs) containing contributing natural features that would otherwise enhance Greenbelt policy intent. We therefore

continue to support the provisions of Section 5.6.1 of the Greenbelt Plan that would allow future lands acquired/dedicated into public ownership which meet provincial criteria for Greenbelt/URV expansion, (e.g., working with conservation authorities and requests from municipalities).

*4. Do you have suggestions for other potential areas to grow the Greenbelt?*

**TRCA has identified areas we believe generally align with the Province's criteria for expansion and would be in keeping with the Plan's objectives, vision and goals while further enhancing the quality and extent of existing protections.** Examples of these areas include, but are not limited to:

- Major watercourses in our jurisdiction currently excluded from the Greenbelt but linked to existing Greenbelt areas, URVs with direct connections through the Plan's natural heritage, and water resource systems linked through Lake Ontario.
- Relatively small, isolated pockets, primarily consisting of prime agricultural land containing and/or adjacent to natural features fully encapsulated by (but outside) larger swaths of the Greenbelt, which if enveloped by the Greenbelt would form and further enhance a continuous broad band of protected land built upon the Greenbelt's systems approach and is supported by science.
- Provincially owned lands within the natural heritage system of current OPs that, if expanded, would link existing Greenbelt areas across watershed corridors as part of a larger, connected system.
- Stretches of former Lake-Iroquois shoreline between existing URVs, which represent largely east-west wildlife habitat movement corridors and areas of increased groundwater recharge and discharge functions.

**Although specific locations and additional details for these examples can be provided, we recognize that advocating for their inclusion into the Greenbelt may be premature in light of ongoing MCRs and without substantive consultation with our municipal partners regarding any such expansions.** Should expansions within our jurisdiction be proposed, (ideally after the MCR conformity deadline), TRCA would welcome the opportunity to help delineate the most appropriate boundary expansions based on science and in consultation with affected municipalities.

As elaborated on in our response to Question 5, TRCA has been collaborating with our municipal partners to provide updated science-based Natural Heritage System (NHS) mapping to inform municipal OP updates through the MCR process. TRCA has also been developing Water Resource System (WRS) data layers to help our municipal partners conform to new provincial policies requiring identification of the WRS. These scientific and systems-based areas (or portions thereof) would more effectively inform future Greenbelt expansions once the NHS and WRS frameworks are in place and related components of MCR work concludes. TRCA would be pleased to meet with the Province to discuss our approach to developing these layers.

*5. How should the Province balance or prioritize any potential Greenbelt expansion with the other provincial priorities (Growth Management, Natural Heritage and Water Resource Systems, Agriculture, Infrastructure)?*

**Greenbelt expansions should be informed by science and considered in the context of ongoing MCRs.** TRCA commends the Province for exploring opportunities to expand and enhance the Greenbelt. However, until MCRs are complete, the implications of Greenbelt expansion on other provincial priorities (as acknowledged by the province through this ERO) cannot be fully understood, particularly in relation to updated NHS and WRS mapping, Land Needs Assessment (LNA), long-term infrastructure planning and the implementation of the Agricultural System.



Using our science-based approach, TRCA has been working diligently with our partner upper, single- and lower-tier municipalities to identify key issues related to our watersheds and the natural environment through our involvement in their MCR conformity and OP review work. To date, we have shared reporting that consolidates watershed studies, their findings, and key current and future challenges facing our watersheds and provided recommended policy updates to inform land use, source water protection, land needs and infrastructure planning, as well as broader input to guide future collaborative work between municipalities and CAs.

As per our response to Question 4, TRCA has been developing updated WRS and NHS mapping which we are actively sharing with our municipal partners to inform refinements to their local systems. For example, updated information includes existing and potential (i.e., restoration areas) natural cover while building in new information, including both terrestrial and aquatic habitat needs for a single integrated system. It also considers climate vulnerability for both terrestrial and aquatic species, ecological connectivity, and other new science. Of note, a new additional data layer includes areas that contribute to ecosystem function that may be within the built environment. In these areas, additional measures, such as low impact development or urban tree canopy would help improve ecosystem resilience based on a contributing function.

*6. Are there other priorities that should be considered?*

Protection beyond URVs - The current consultation provides the opportunity to explore other potential areas to grow and enhance the Greenbelt. In this context and considering Section 3.2.6.3 (External Connections) of the Greenbelt Plan, we note the potential to expand wildlife movement protection and enhancement along regional corridors, as recommended by the Central Lake Ontario CA (CLOCA). **Based on CLOCA's scientific rationale, TRCA notes that east-west stretches of the shoreline between URVs within TRCA's jurisdiction could also be added to included within the URV designation to reinforce the ecological importance of publicly owned lands on this landscape.**

Climate Change – The PPS was recently updated to include enhanced policy direction to prepare for the impacts of a changing climate. **Growing the Greenbelt will assist the Province with achieving some of its objectives related to climate change, a consideration which should be acknowledged in the context of other provincial priorities pertaining to growth management.** TRCA is currently working with our municipal partners (e.g., Durham Region) to bring some of the latest climate science forward in identifying natural heritage climate change vulnerabilities. This information could inform how to build a more robust and climate-resilient municipal NHS through the MCR process, which could influence Greenbelt expansion and enhancement considerations.

Thank you once again for the opportunity to provide comments on the government's consultation on growing the size of the Greenbelt. Should you have any questions, require clarification on any of the above, or wish to meet to discuss our remarks, please contact the undersigned at 416.667.6290 or at [john.mackenzie@trca.ca](mailto:john.mackenzie@trca.ca).

Sincerely,

<Original Signed by>

John MacKenzie, M.Sc.(PI) MCIP, RPP  
Chief Executive Officer

BY E-MAIL

cc TRCA: Laurie Nelson, Director, Policy Planning  
Sameer Dhalla, Director, Development and Engineering Services

## **NEW BUSINESS**

### **DISCUSSION SUMMARY**

TRCA staff provided an update on the regulatory proposal consultation guide on changes to the CA Act and upcoming regulations. TRCA staff summarized positive aspects of the consultation guide and the ongoing support of municipal partners and Board of Directors members, advisory boards and other networks. TRCA's preliminary analysis and response to the consultation guide will be released in a report to the Board of Directors, and will also be circulated to the Regional Watershed Alliance for information.

TRCA staff also provided an update on recent Youth Council initiatives and upcoming events, such as a recent online movie night with guest speakers, and an upcoming Ask Me Anything event for high school students interested in learning how to enter the conservation field of employment.

### **ADJOURNMENT**

ON MOTION from Lisette Mallet, the meeting adjourned at 8:08 p.m., on Wednesday, May 19, 2021.

/dr