

# WELCOME TO THE CARRUTHERS CREEK WATERSHED PLAN OPEN HOUSE

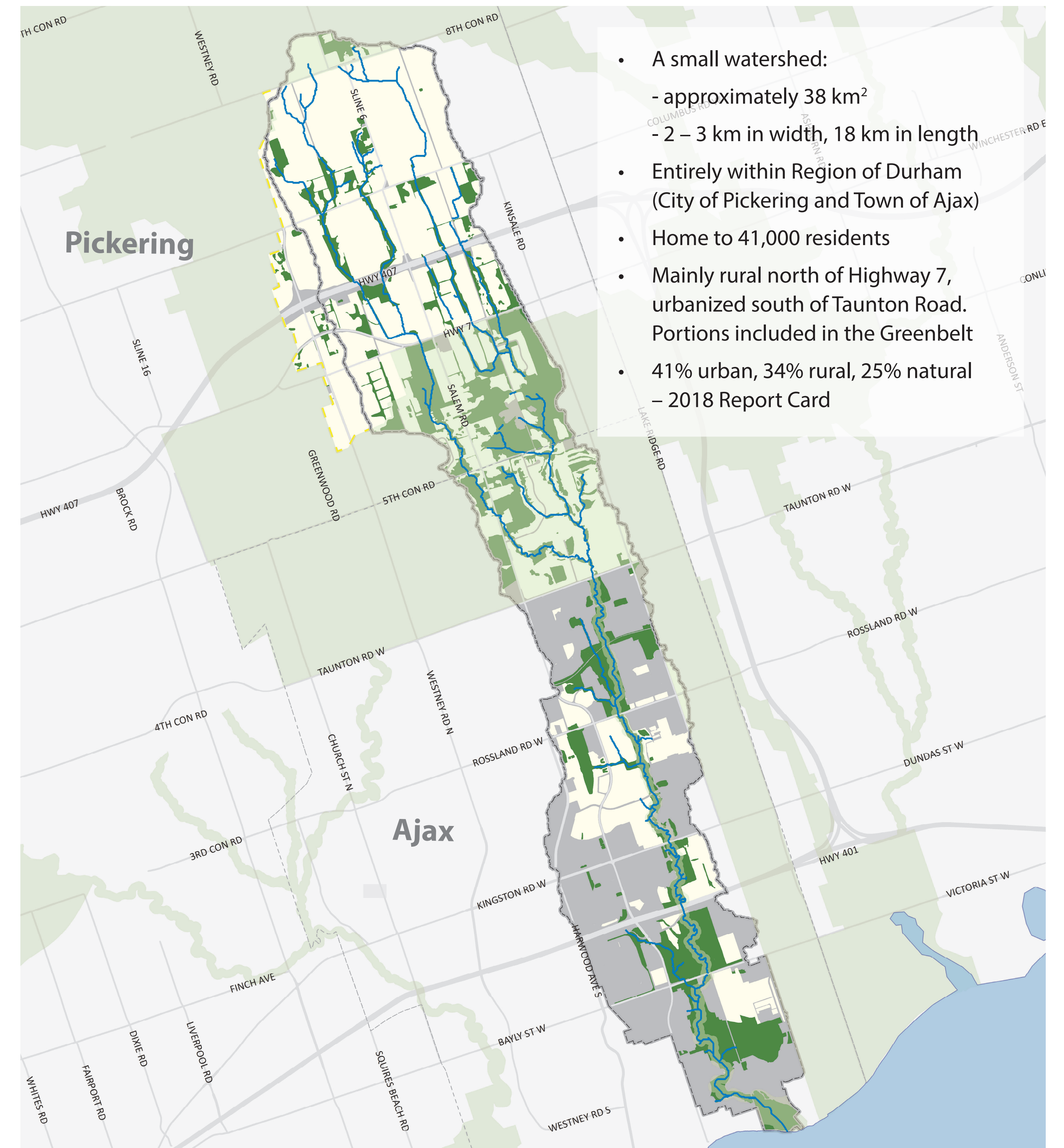
## VISION

Carruthers Creek watershed is a healthy and resilient natural system that is managed through partnerships to balance resource protection with human activity. Sound science and best management practices will protect and restore ecosystem functions, protect watershed residents from natural hazards like flooding, and maintain our natural heritage and water resources for present and future generations.

**Please browse the posters, ask questions, and provide feedback!**

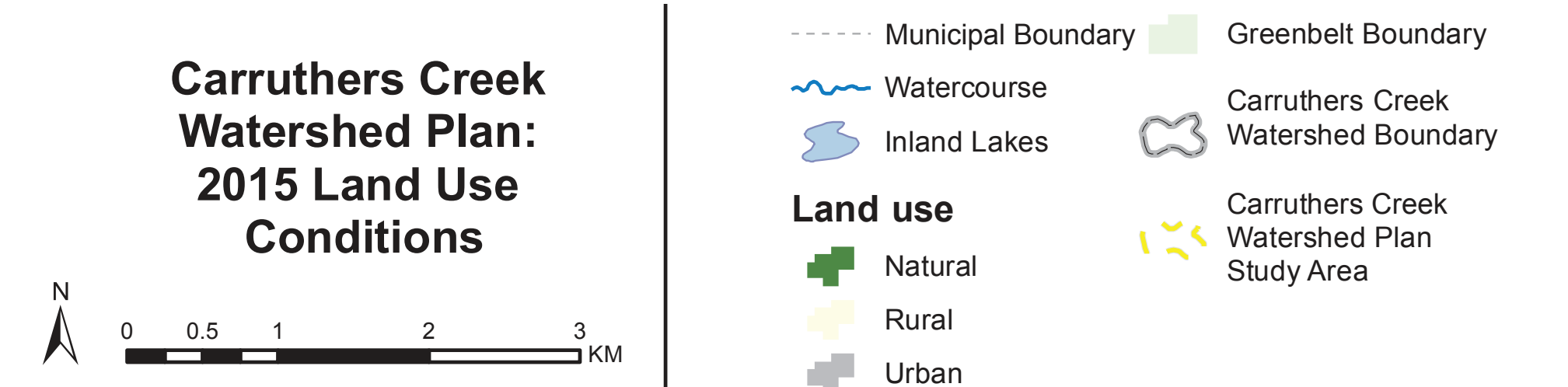


CARRUTHERS CREEK WATERSHED PLAN



- A small watershed:
  - approximately 38 km<sup>2</sup>
  - 2 – 3 km in width, 18 km in length
- Entirely within Region of Durham (City of Pickering and Town of Ajax)
- Home to 41,000 residents
- Mainly rural north of Highway 7, urbanized south of Taunton Road. Portions included in the Greenbelt
- 41% urban, 34% rural, 25% natural – 2018 Report Card

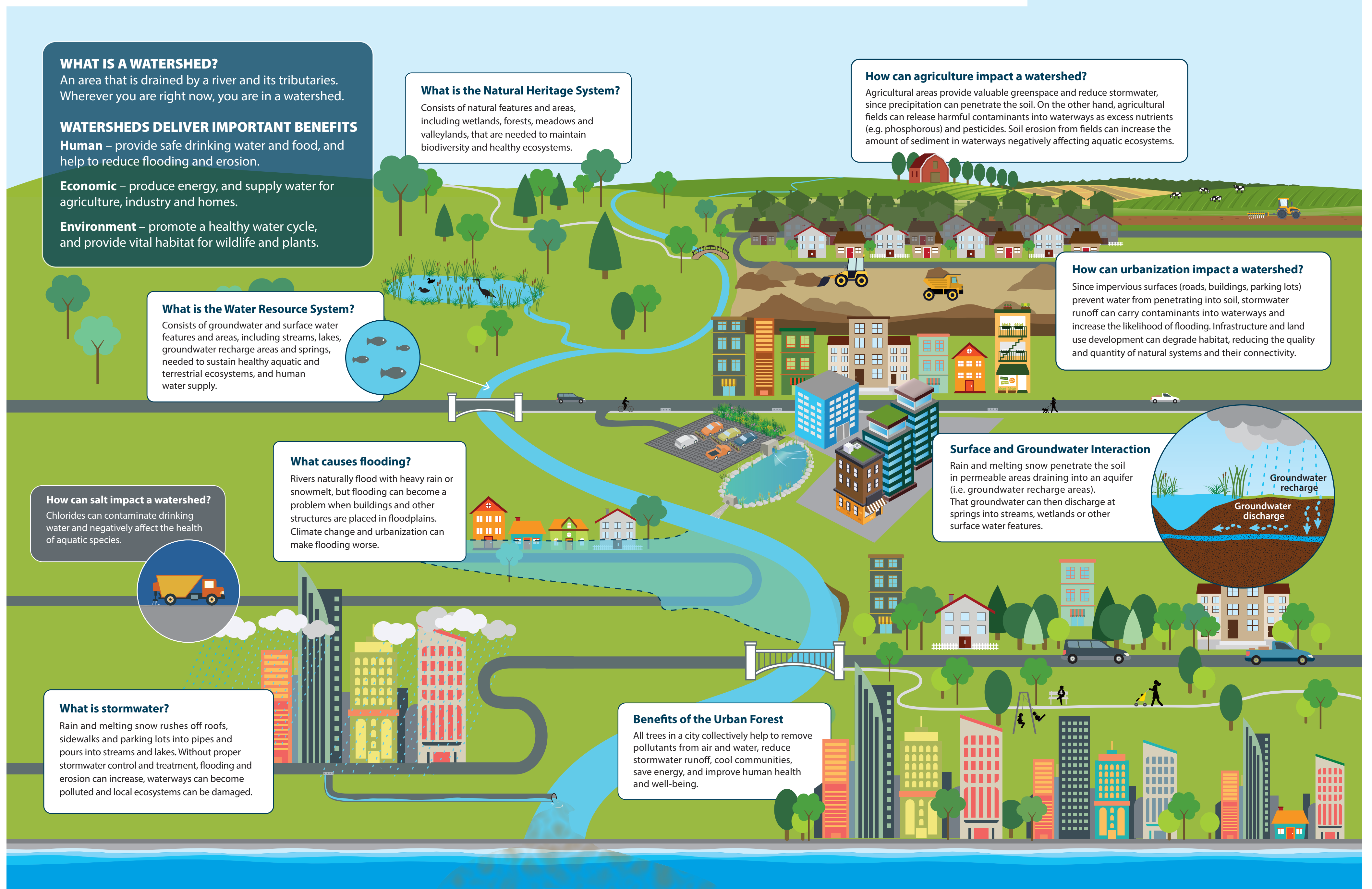
**Carruthers Creek Watershed Plan: 2015 Land Use Conditions**



Developed in collaboration with the Town of Ajax and City of Pickering



# CARRUTHERS CREEK WATERSHED



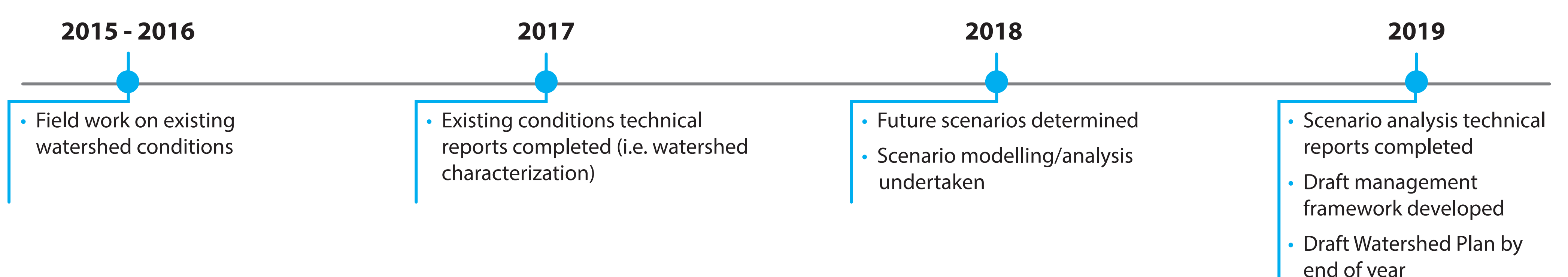
## What is watershed planning?

- Watershed planning is typically carried out for two purposes:
  1. To assess overall conditions (i.e. health) of the watershed
  2. To identify and prioritize measures to protect, restore or enhance the health of the watershed
- Watershed planning helps to inform land use and infrastructure decisions, while providing an understanding of the natural systems that sustain watershed health.

## Why are we developing a Watershed Plan for Carruthers Creek?

- This is an important update to the previous plan from 2003. Scientific understanding and land uses in the watershed have changed since then.
- Provincial policies require watershed planning to inform land use and infrastructure decisions.
- Municipalities are currently reviewing their Official Plans to ensure conformity with provincial policies.

## PROCESS FOR CARRUTHERS CREEK WATERSHED PLAN



# WATERSHED CHARACTERIZATION

## What is watershed characterization?

- Summarizes the existing conditions of the watershed's features and functions by identifying key issues, potential threats and opportunities.
- Think of watershed characterization like a report card on the state of the watershed.

## The key issues and opportunities for Carruthers Creek were identified to be:

### WATER RESOURCE SYSTEM

#### Issue: aquatic ecosystem is sensitive and near the threshold for its long-term sustainability

- Conditions across the watershed are currently impaired.
- Carruthers Creek is home to the endangered Redside Dace, which requires clean, cool water and grassy riparian habitat and is sensitive to urbanization.
- There are mussel beds in the lower part of the creek that are sensitive to land use change.

### NATURAL HERITAGE SYSTEM

#### Issue: not enough natural cover to maintain ecosystem resilience

- Proposed enhanced Natural Heritage System can address this issue and considers:
  - Ecological connectivity
  - Climate resilience
  - Ecosystem quality and diversity
- There are opportunities for urban tree canopy enhancements in existing urban areas.

### WATER QUALITY

#### Issue: water quality is impaired, requiring improvements to stormwater management

- The upper and lower portions of the watershed contain elevated levels of:
  - Total phosphorous
  - *E.coli* (bacteria)
  - Total suspended solids
  - Chlorides
- There is no stormwater management in some portions of the watershed. Opportunities for stormwater management retrofits and enhancements exist.

### FLOODING AND EROSION

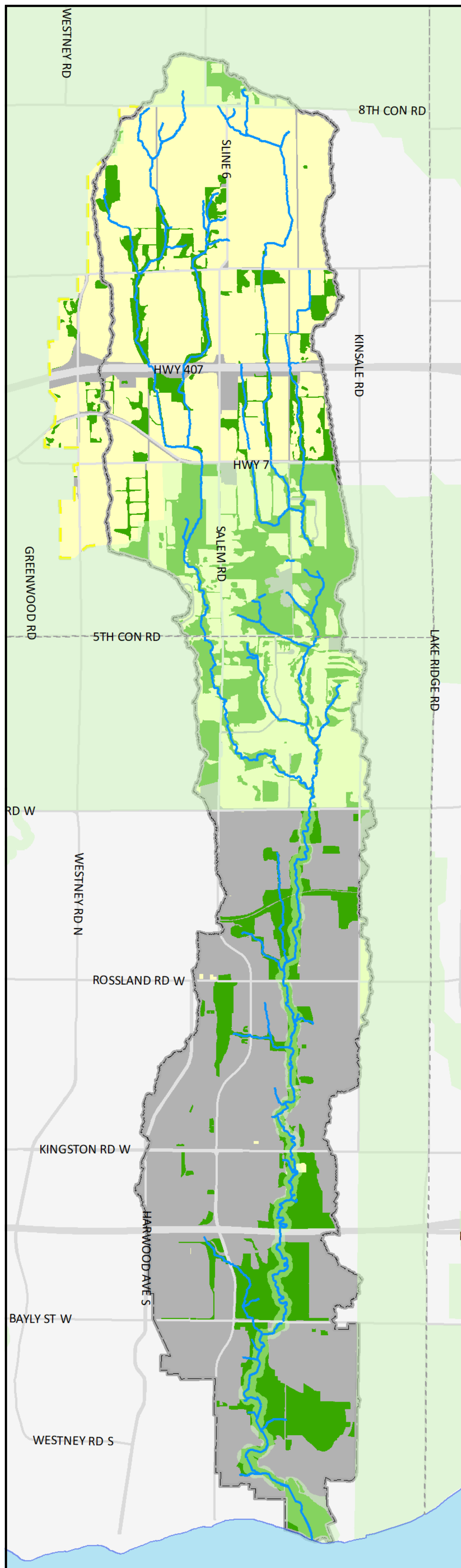
#### Issue: the flow of water through the watershed is out of balance

- There are existing flooding issues in Ajax. Future growth in the upper portions of Carruthers Creek could increase peak flows, intensifying downstream flooding.
- There is extensive tile drainage (for agricultural purposes) in the upper portions of Carruthers Creek, which can affect natural water flows, sediment transport and aquatic habitat.
- There are existing erosion sensitivities in the watershed.

# SCENARIO ANALYSIS

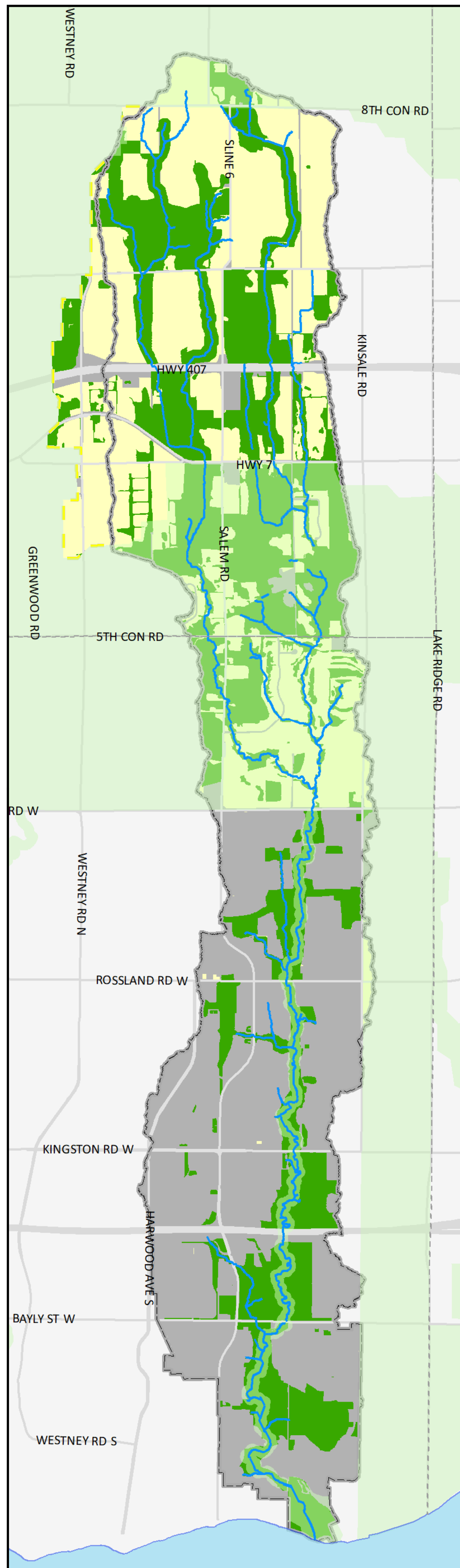
## What is scenario analysis?

- Involves evaluating the impacts of hypothetical future land use and infrastructure scenarios on the watershed.
- Scenario analysis helps to guide potential management recommendations and inform future land use and infrastructure decision-making.



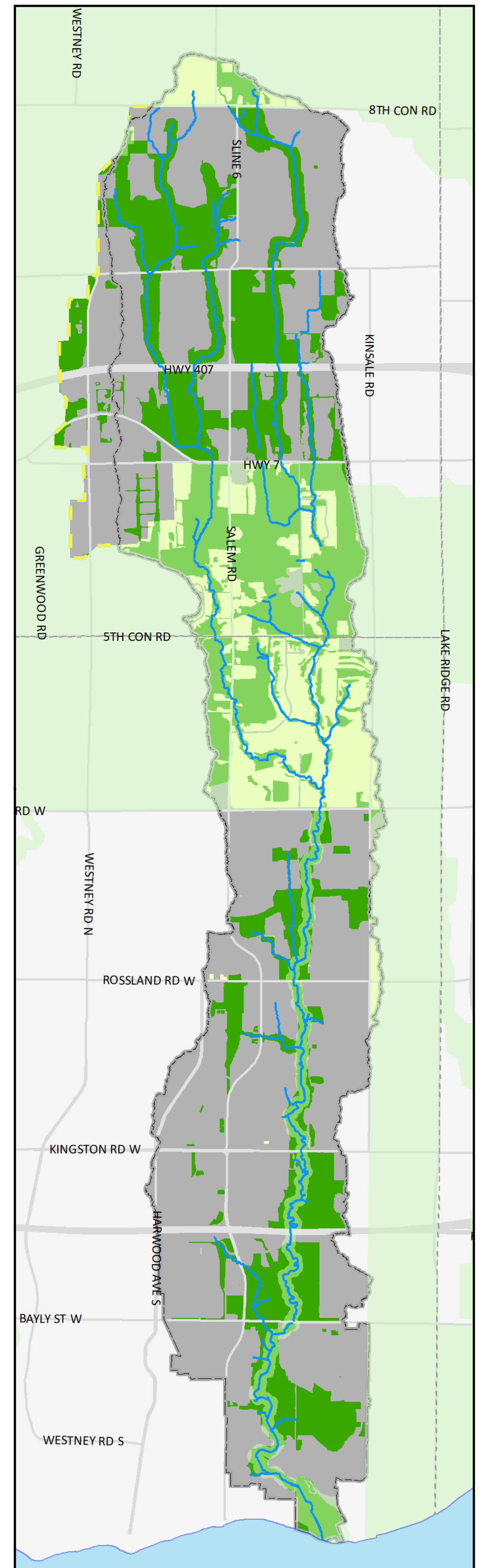
### SCENARIO 1 (+OP)

Assumes all lands south of the Greenbelt are developed as approved up to 2031 in Official Plans



### SCENARIO 2 (+NHS)

Assumes same development as scenario 1, but includes the proposed enhanced Natural Heritage System



### SCENARIO 3 (+ POTENTIAL URBAN)

Assumes post-2031 development in the headwaters of Carruthers Creek outside the proposed enhanced Natural Heritage System

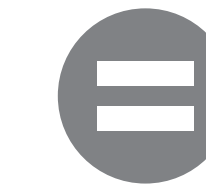
## Carruthers Creek Watershed Plan: Future Scenarios 1-3



- Municipal Boundary
- Greenbelt Boundary
- ~ Watercourse
- ~ Inland Lakes
- ~ Carruthers Creek Watershed Boundary
- ~ Carruthers Creek Watershed Plan Study Area
- Land use**
- Natural
- Rural
- Urban

# SCENARIO ANALYSIS RESULTS

Denote watershed component conditions for that scenario compared to 2015:



Similar



Improve



Deteriorate



Significant Deterioration

WATERSHED COMPONENT	SCENARIO 1 (+OP)	SCENARIO 2 (+NHS)	SCENARIO 3 (+POTENTIAL URBAN)
<b>WATER RESOURCE SYSTEM</b>			
<p><b>Includes:</b> the features and areas of the WRS, including aquatic habitat, and their functions.</p> <p>As of 2015, the WRS is sensitive and near its threshold for long-term sustainability.</p>	<ul style="list-style-type: none"> <li>Groundwater recharge and discharge decrease, surface water flows remain similar</li> <li>One wetland catchment potentially impacted from altered drainage</li> <li>Conditions for aquatic health and function remain similar</li> </ul>	<ul style="list-style-type: none"> <li>Groundwater recharge and discharge, and surface water flows remain similar</li> <li>One wetland catchment potentially impacted from altered drainage</li> <li>Conditions for aquatic health and function improve in one subwatershed</li> </ul>	<ul style="list-style-type: none"> <li>Groundwater recharge and discharge decrease, surface water flows increase</li> <li>30 wetland catchments potentially impacted from altered drainage</li> <li>Conditions for aquatic health and function in all four subwatersheds have poor to fair conditions</li> </ul>
<b>NATURAL HERITAGE SYSTEM</b>			
<p><b>Includes:</b> the features and areas of the NHS, including terrestrial habitat and their functions.</p> <p>As of 2015, there is not enough natural cover to maintain ecosystem resilience.</p>	<ul style="list-style-type: none"> <li>Natural and urban cover remain similar</li> <li>Overall habitat quality remains similar</li> <li>Small loss of open/fallow field habitat to residential, or commercial land uses leading to decreased habitat quantity and connectivity</li> </ul>	<ul style="list-style-type: none"> <li>Natural cover increases, urban cover remains similar</li> <li>Increase in overall habitat quality</li> <li>Open/fallow field habitat retained, and habitat connectivity improved</li> </ul>	<ul style="list-style-type: none"> <li>Natural cover and urban cover increase</li> <li>Overall habitat quality decreases due to loss of open/fallow field habitat and increase in urban cover</li> <li>Habitat connectivity decreases</li> </ul>
<b>WATER QUALITY</b>			
<p>Focused on parameters of concern associated with agriculture and urbanization</p>	<ul style="list-style-type: none"> <li>Total phosphorus, total nitrogen and total suspended solids remain similar</li> <li>Increases to parameters associated with urbanization expected (e.g. chlorides)</li> </ul>	<ul style="list-style-type: none"> <li>Total phosphorus and total nitrogen decrease, total suspended solids remain similar</li> <li>Additional natural cover expected to mitigate parameters of concern</li> </ul>	<ul style="list-style-type: none"> <li>Total phosphorus and total nitrogen decrease significantly, total suspended solids increase</li> <li>Significant urbanization expected to decrease water quality without additional mitigation measures</li> </ul>
<b>FLOODING AND EROSION</b>			
<p>As of 2015, there are existing flooding and erosion issues in Carruthers Creek.</p>	<ul style="list-style-type: none"> <li>Overall a slight increase to peak regulatory and 100-year flows compared to 2015 conditions</li> <li>Erosion risk expected to slightly increase</li> </ul>	<ul style="list-style-type: none"> <li>Peak regulatory and 100-year flows decrease marginally compared to 2015 conditions</li> <li>Additional natural cover provides slight erosion benefits</li> </ul>	<ul style="list-style-type: none"> <li>Peak regulatory and 100-year flows increase significantly compared to 2015 conditions. Distributed stormwater management and low impact development will be required to mitigate risks</li> <li>Erosion risk will moderately increase</li> </ul>

The flooding and erosion modelling analysis assumptions, in regards to the NHS, for Scenarios 2 and 3 were conservative.

# DRAFT MANAGEMENT FRAMEWORK

## Carruthers Creek Watershed Plan Management Framework

- Outlines how the watershed plan will be implemented and progress evaluated
- The draft management framework consists of:
  - **Goals** – broad outcomes to achieve
  - **Objectives** – specific statements to achieve the goals
  - **Indicators** – explain how objectives will be evaluated
  - **Management recommendations** – outline what needs to be done to accomplish the objectives
  - **Monitoring program** – will be used to evaluate implementation success and the overall health of the watershed

## GOALS

### LAND USE

Achieve sustainable land use and infrastructure development patterns to protect, enhance and restore water quality and maintain stable water balance

#### LAND USE OBJECTIVE 1

Minimize the impacts of land uses through sustainability policies and the use of low impact development and green infrastructure

#### INDICATOR

Report on implementation of sustainable development policies/standards

Number of priority crossings installed to facilitate hydrologic function and ecological connectivity

#### LAND USE OBJECTIVE 2

Install and upgrade stormwater infrastructure using best available technologies to reduce runoff; resulting in improved water balance and water quality

#### INDICATOR

Report on the status of stormwater management in the watershed

#### LAND USE OBJECTIVE 3

Manage the risks of natural hazards through appropriate mitigation measures and restoration.

#### INDICATOR

Reduce number of flood vulnerable structures and flood vulnerable roads

#### LAND USE OBJECTIVE 4

Encourage the use of agricultural best management practices to minimize agricultural runoff and improve rural land stewardship

#### INDICATOR

Work with agricultural community to track implementation of best management practices

### NATURAL HERITAGE SYSTEM

Protect, enhance and restore the Natural Heritage System and urban forest within the watershed to improve ecosystem resilience and sustainability

#### NATURAL HERITAGE SYSTEM OBJECTIVE 1

Improve the quality and quantity of the Natural Heritage System across the watershed through ecosystem protection, enhancement and restoration, and implement of relevant policies

#### INDICATOR

Increase total natural cover in the watershed

Appropriate policy designations are in place for the Natural Heritage System

#### NATURAL HERITAGE SYSTEM OBJECTIVE 2

Ensure habitat exists for native terrestrial species to thrive throughout the watershed

#### INDICATOR

Maintain, or increase, the number and area of species and vegetation communities of concern

#### NATURAL HERITAGE SYSTEM OBJECTIVE 3

Increase the urban forest cover within the developed portion of the watershed to improve social and environmental well-being

#### INDICATOR

Increase total tree canopy in the watershed

### WATER RESOURCE SYSTEM

Protect, enhance and restore the areas and features that make up the Water Resource System (including aquatic habitat) for ecosystem resilience and sustainability

#### WATER RESOURCE SYSTEM OBJECTIVE 1

Implement appropriate policies and programs that protect, enhance and restore the areas and features that comprise the Water Resource System

#### INDICATOR

Appropriate policy designations are in place for the Water Resource System

#### WATER RESOURCE SYSTEM OBJECTIVE 2

Promote aquatic habitat connectivity to facilitate native fish movement throughout the watershed

#### INDICATOR

Maintain, or improve, aquatic health rankings

# DRAFT MANAGEMENT RECOMMENDATIONS

## Goal: Achieve sustainable land use and infrastructure development patterns to protect, enhance and restore water quality and maintain stable water balance

### LAND USE OBJECTIVE 1: Minimize the impacts of land uses through sustainable policies and the use of low impact development and green infrastructure

Municipalities, in collaboration with TRCA, to adopt green development standards and require new developments, and re-developments, to utilize low impact development and green infrastructure techniques.

Municipalities, in collaboration with TRCA, to develop mechanisms to track and report on implementation of sustainable development practices to assess the effectiveness of policies and standards.

If it is determined that a Settlement Area Boundary Expansion is required in the headwaters of Carruthers Creek, in accordance with Growth Plan policies, municipalities, in collaboration with TRCA, to develop a Terms of Reference outlining requirements for further studies in support of subwatershed planning that includes:

- a. how natural hazards will be assessed and mitigated
- b. how the Natural Heritage System and Water Resource System will be protected, enhanced and restored
- c. how water quality and quantity will be protected.

During planning for transportation infrastructure improvement projects, or new projects, municipalities to implement best management practices for road design, road expansions and road widenings in accordance with TRCA's Crossing Guideline for Valley and Stream Corridors, and ensure consistent policies and standards are in place to facilitate hydrologic function (e.g. prevent flooding) and ecological connectivity (e.g. wildlife passage). See map 7 for priority crossings as projects are planned.

Improve the management of excess soils and prevent fill deposition that is incompatible with the soils and hydrology of the area by:

- a. ensuring adequate policies are in place to manage excess soil
- b. improving compliance and enforcement of policies through collaboration between TRCA and municipalities
- c. conducting education and outreach on:
  - i. the importance of proper soil management
  - ii. existing regulatory requirements
  - iii. regulatory responsibilities of various agencies, including who to contact with concerns.

Municipalities, in collaboration with other levels of government and TRCA, work to reduce the amount of chlorides entering the watershed by:

- a. continuing to implement best management practices for winter de-icing procedures on public property
- b. continuing education and outreach on salt management for private property.

### LAND USE OBJECTIVE 2: Install and upgrade stormwater infrastructure using best available technologies to reduce runoff; resulting in improved water balance and water quality

Municipalities through stormwater master planning continue to:

- a. employ best management practices for stormwater management and consistent design criteria to manage runoff quantity and quality
- b. consider stormwater rate payer fees for cost recovery
- c. examine opportunities to retrofit outdated stormwater infrastructure and install stormwater controls in areas without controls through long-term planning and investment strategies
- d. refine existing policies to ensure modern stormwater controls are required
- e. adaptively manage stormwater infrastructure through operation maintenance schedules and procedures.

Municipalities, in collaboration with TRCA, to develop mechanisms to track the status and effectiveness of stormwater management infrastructure.

For new development, require hydraulic analysis and erosion threshold assessments downstream of potential stormwater management facilities that need to demonstrate no negative, or adverse, downstream impacts, prior to municipal approvals.

Explore opportunities to enhance stormwater management in the South Ajax Flood Vulnerable Area by retrofitting infrastructure to meet modern stormwater design criteria, as much as possible, given site characteristics.

### LAND USE OBJECTIVE 3: Manage the risks of natural hazards through appropriate mitigation measures and restoration

For new developments, geomorphic studies will be undertaken to assess and refine meander belt widths, erosion hazard corridor and erosion thresholds to identify future planform and assist in siting of infrastructure.

TRCA, in collaboration with municipal partners, to prioritize the restoration of the erosion hazard sites identified on map 3. Additional channel restoration, or increased stream bank protection may be required as preventative measures in areas downstream of new developments.

Municipalities, in collaboration with TRCA, will identify potential hazard risks to sewer and existing road infrastructure associated with in-stream creek erosion.

Implement the appropriate flood mitigation measures for the Pickering Beach community in the Town of Ajax.

TRCA, in collaboration with municipalities, to educate property owners in high flood risk areas about proper lot level practices (e.g. removing hydraulic impairments).

TRCA to complete comprehensive floodplain mapping based on new models and best available information to inform land use and infrastructure decisions.

### LAND USE OBJECTIVE 4: Encourage the use of agricultural best management practices to minimize agricultural runoff and improve rural land stewardship

In collaboration with the agricultural community and provincial ministries, TRCA and municipal partners to identify opportunities to expand best management practices that reduce agricultural runoff and improve water management, such as:

- a. use cover crops and/or leave crop residue
- b. adopt no till farm practices during non-growing season
- c. conduct soil testing for nutrients and adjust fertilizer application rates, if required.

In collaboration with the agricultural community and provincial ministries, TRCA and municipal partners to identify opportunities to improve rural land stewardship best management practices through:

- a. natural buffers between agricultural lands and natural and/or water resource features and areas
- b. implementation of Environmental Farm Plans and other rural land stewardship programs (e.g. TRCA's Rural Clean Water Programs)
- c. education/outreach about the benefits of utilizing best management practices to improve habitat (e.g. meadows for sensitive bird species).

# DRAFT MANAGEMENT RECOMMENDATIONS

## Goal: Protect, enhance and restore the Natural Heritage System and urban forest within the watershed to improve ecosystem resilience and sustainability

### **NATURAL HERITAGE SYSTEM OBJECTIVE 1:** Improve the quality and quantity of the Natural Heritage System across the watershed through ecosystem protection, enhancement and restoration, and implementation of relevant policies

Municipalities, in collaboration with TRCA, will ensure the protection, enhancement and restoration of the enhanced Natural Heritage System (map 1) by:

- updating Official Plan policies and associated zoning by-laws to adequately protect the enhanced Natural Heritage System
- assessing existing standards and guidelines for land use and infrastructure development to ensure they reflect current provincial policy direction to maintain, restore or enhance the Natural Heritage System
- minimizing infrastructure development in the enhanced Natural Heritage System, with the exception of stormwater outfalls and low impact development technologies
- adopting municipal policies for ecosystem compensation, in accordance with TRCA's Guideline for Ecosystem Compensation, where development in the enhanced Natural Heritage System is unavoidable
- applying a minimum 30 metre vegetation protection zones along features at the boundary of the enhanced Natural Heritage System to protect ecological function
- ensuring development and redevelopments be designed and approved to prevent encroachment into the enhanced Natural Heritage System.

TRCA, in collaboration with municipalities, to prioritize the restoration of the terrestrial sites identified on map 3, which have been selected for contributing to the following criteria:

- increasing habitat quantity
- enhancing habitat quality and connectivity
- ensuring biodiversity persists
- adapting for climate vulnerabilities.

TRCA, in collaboration with municipalities, to explore opportunities to secure the sites identified on map 4 for ecological protection and to increase public land ownership and connectivity along the main channel of Carruthers Creek south of Taunton Road.

TRCA and municipalities to regularly update their trail guidelines and standards for consistency, and to ensure that any new, or modifications to existing trails, use best practices, such as prioritizing the use of boardwalks in sensitive areas (e.g. wetlands), and methods to ensure trail users stay on marked trails (e.g. signage, barriers to humans, but not other species, and limited access during breeding season).

TRCA, in collaboration with municipalities, to minimize impacts to the enhanced Natural Heritage System from recreation and community access by:

- ensuring proper trail management and signage
- education and outreach on the importance of the Natural Heritage System
- promoting community stewardship to maintain and monitor the Natural Heritage System for improper trail usage (e.g. off-trail compaction and erosion), illegal dumping and invasive species, while encouraging community restoration programs (e.g. tree plantings).

Wetland water balance studies that demonstrate how the hydrological function of the wetland should be protected will be undertaken by the landowner for any potential future growth in the areas identified in map 5, or other areas identified during subwatershed planning, prior to any planning approvals.

### **NATURAL HERITAGE SYSTEM OBJECTIVE 2:** Ensure habitat exists for native terrestrial species to thrive throughout the watershed

Municipalities, TRCA, landowners and other agencies collaborate to manage problematic invasive species.

TRCA continue to work with landowners to restore meadow habitat areas in support of open country bird species at risk, in accordance with the terrestrial restoration priorities identified on map 3.

### **NATURAL HERITAGE SYSTEM OBJECTIVE 3:** Increase the urban forest cover within the developed portion of the watershed to improve social and environmental well-being

Municipalities, in collaboration with TRCA, to update existing urban forest studies and consolidate a comprehensive study that:

- accounts for all public and private lands
- develops targets for public and private lands for inclusion in an urban forest strategy
- develops indicators for the quality and quantity of the urban forest for inclusion in an urban forest strategy.

Municipalities, in collaboration with TRCA, to develop a comprehensive urban forest strategy that:

- enhances tree and soil conservation in accordance with Preserving and Restoring Healthy Soil: Best Practices for Urban Construction at any new development, or redevelopment, (e.g. Carruthers Creek Business Area), and on regional roads and operational facilities (e.g. along Taunton Road) as depicted on map 7
- focuses urban forest tree planting programs in the Town of Ajax as depicted on map 7
- encourages an urban forest with diverse tree species and class sizes
- ensures consistent policies and by-laws for tree conservation on public and private lands
- explores opportunities to increase the capacity of the Region of Durham to implement an Urban Forest Strategy consistent with this management recommendation
- encourages participation in knowledge-sharing and collaboration through the Regional Public Works Commissioners of Ontario's Urban Forestry Sub-working Group and Ontario's Municipal Arborist and Urban Foresters Association
- includes urban forest targets for existing developed areas and any future development as part of the strategy.

## Goal: Protect, enhance and restore the areas and features that make up the Water Resource System (including aquatic habitat) for ecosystem resilience and sustainability

### **WATER RESOURCE SYSTEM OBJECTIVE 1:** Implement appropriate policies and programs that protect, enhance and restore the areas and features that comprise the Water Resource System

Municipalities, in collaboration with TRCA, to ensure the protection of the Water Resource System (map 2) and its functions by:

- updating Official Plans and zoning bylaws to adequately protect the Water Resource System
- assessing existing standards and guidelines for land use and infrastructure development to ensure they reflect current provincial policy direction to protect, enhance and restore the quality and quantity of water.

TRCA, in collaboration with municipal partners, to consolidate mapping data layers for all components of the Water Resource System.

TRCA, in collaboration with municipal partners, to prioritize the restoration of the aquatic sites identified on map 3, which have been selected for contributing to the following criteria:

- enhancing habitat quality and watershed connectivity
- ensuring biodiversity persists
- improving watershed resiliency to climate change.

If it is determined that a Settlement Area Boundary Expansion is required in the headwaters of Carruthers Creek, in accordance with Growth Plan policies, it must be demonstrated, through a subwatershed plan (or equivalent) that:

- key hydrologic features will be avoided
- appropriate mitigation measures can be implemented at key hydrologic areas to maintain downstream hydrologic function
- there will be no negative or adverse downstream effects in terms of flooding or erosion.

### **WATER RESOURCE SYSTEM OBJECTIVE 2:** Promote aquatic habitat connectivity to facilitate native fish movement throughout the watershed

Remove the six priority barriers to fish movement identified in map 8.

Identify and implement avoidance, conservation, design and mitigation measures for the protection and/or recovery of Redside Dace and its habitat, in accordance with Guidance for Development Activities in Redside Dace Protected Habitat (MNR 2016). For activities that affect Redside Dace habitat, consult with MECP and DFO to determine requirements under species at risk legislation.

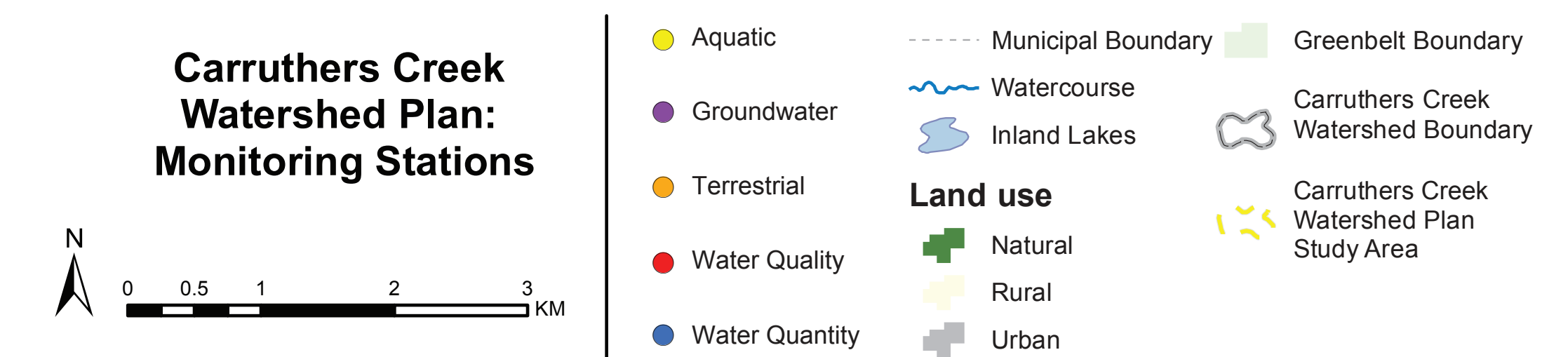
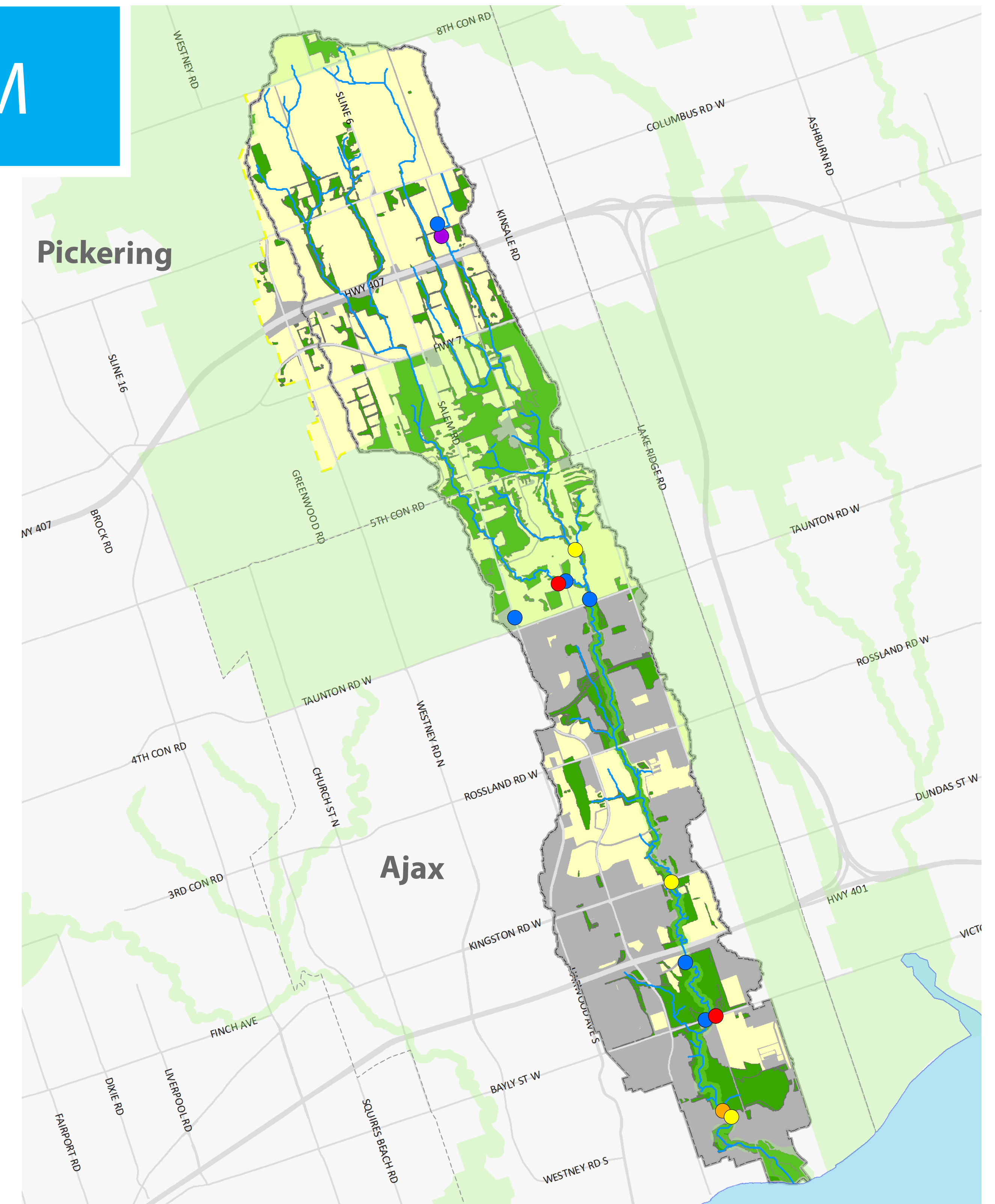


# CARRUTHERS CREEK MONITORING PROGRAM

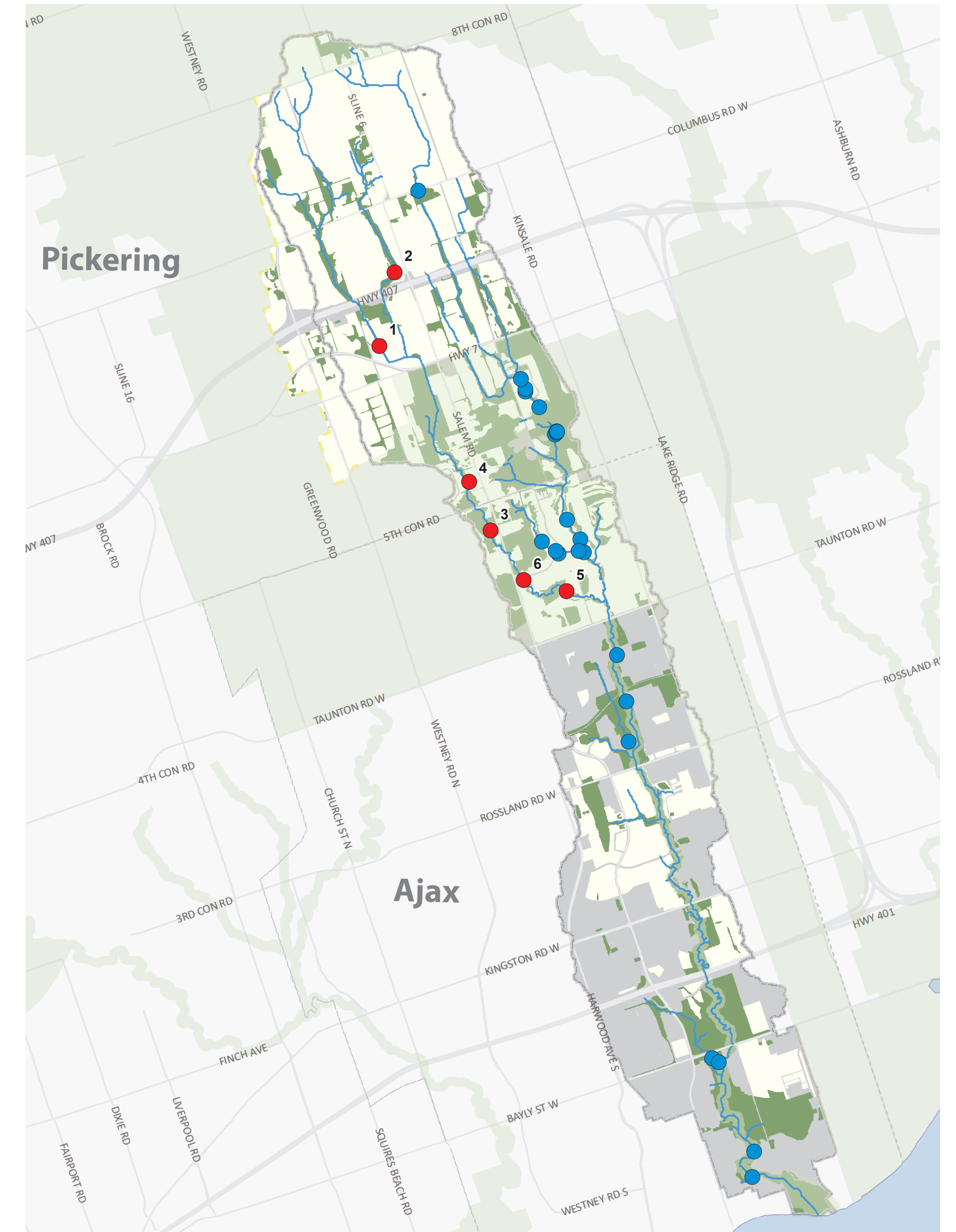
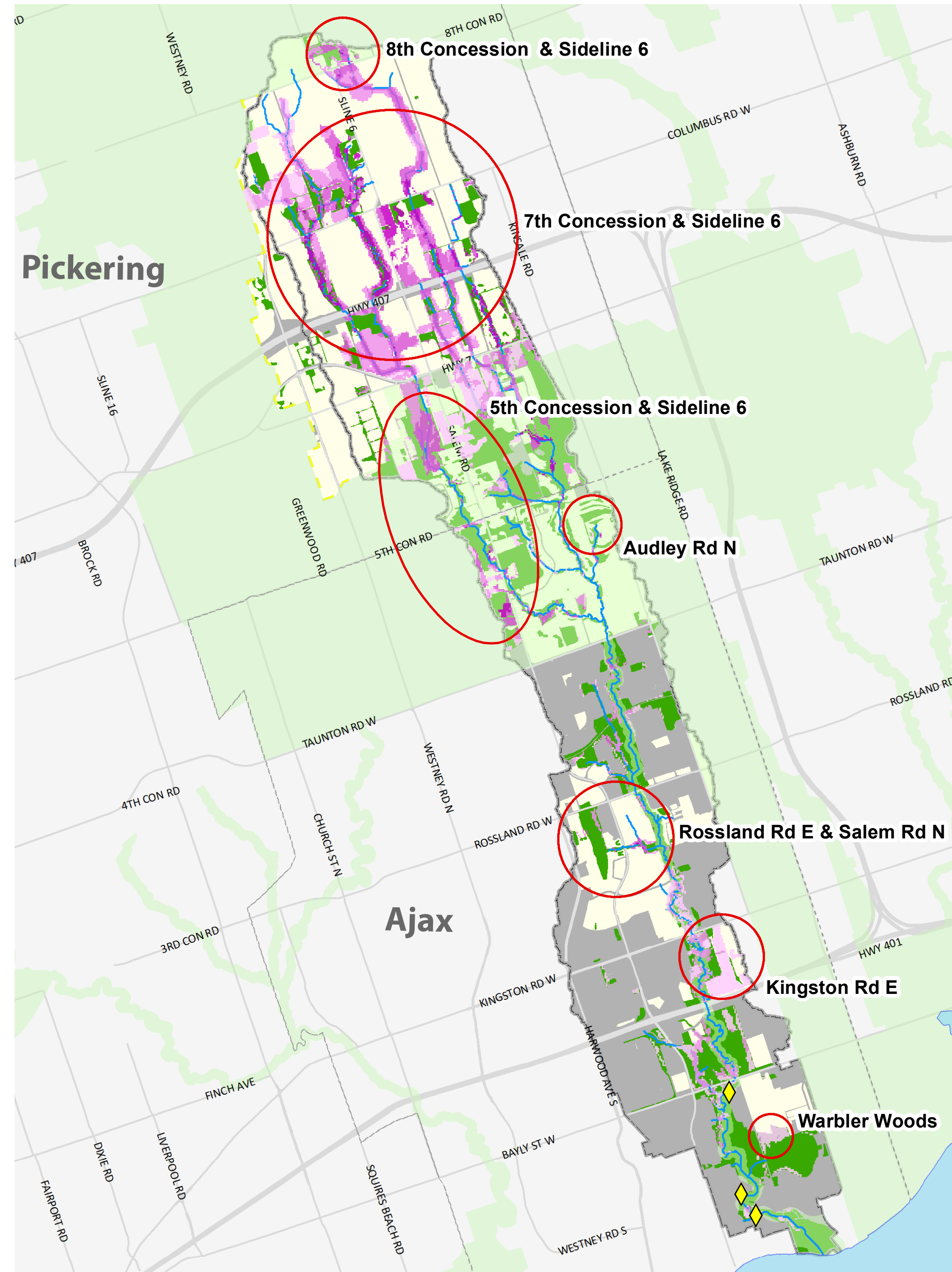
The Carruthers Creek monitoring program will:

- Track the identified indicators associated with the objectives
- Continue TRCA’s watershed monitoring program to evaluate overall watershed health
- Allow TRCA, in collaboration with its municipal partners, to assess progress on implementation of the watershed plan

	# of Stations	Monitoring Frequency	What do we monitor?	Why do we monitor it?
<b>Water Resource System (aquatic habitat)</b>	3	Every three years	Fish community, habitat, benthic invertebrate community	Helps to understand the health of the aquatic community
<b>Natural Heritage System (terrestrial habitat)</b>	1	Annually	Vegetation and forest birds	Helps to understand changes to species composition over time
<b>Water Quality</b>	2	Monthly	Water chemistry (e.g. nutrients), metals, bacteria, temperature	Helps to understand the impacts of land uses on water quality
<b>Water Quantity</b>	7	Continuous real-time	Stream level, discharge, precipitation, temperature, groundwater (quality/quantity)	Helps to understand the interconnections between surface and groundwater systems and assists with flood forecasting



# MAP SAMPLES

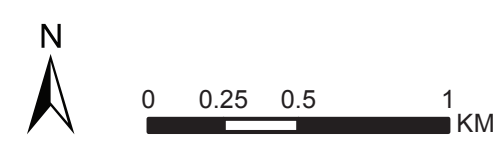


**Carruthers Creek Watershed Plan: Restoration Priorities**



- Erosion Priority Restoration
- Restoration Opportunity Priority Areas
- Municipal Boundary
- Watercourse
- Land use**
- Natural
- Rural
- Urban
- Greenbelt Boundary
- Carruthers Creek Watershed Boundary
- Carruthers Creek Watershed Plan Study Area
- Ecological Benefit of Restoration Opportunity**
- High Benefit

**Carruthers Creek Watershed Plan: Priority Urban Forestry Sites**



- Road Priorities
- Parks in Priority Neighbourhoods
- Priority Conservation Neighbourhood
- Priority Planting Neighbourhoods
- Municipal Boundary
- Watercourse
- Greenbelt Boundary
- Carruthers Creek Watershed Boundary
- Carruthers Creek Watershed Plan Study Area
- Land use**
- Natural
- Rural
- Urban

**Carruthers Creek Watershed Plan: Fish Barriers**



- Priority Barriers
- Other Barriers
- Municipal Boundary
- Watercourse
- Inland Lakes
- Land use**
- Natural
- Rural
- Urban
- Greenbelt Boundary
- Carruthers Creek Watershed Boundary
- Carruthers Creek Watershed Plan Study Area

These maps represent a sample of some of the mapping that will be included in the watershed plan

# NEXT STEPS

**Please submit feedback by:**

- a) Filling out a hard copy feedback form
- b) Online at the open house, or later at home

**Comments are appreciated by October 18th**

Address feedback on draft management framework

Complete draft watershed plan

Public review of draft watershed plan

Approvals and release of Carruthers Creek Watershed Plan expected mid 2020



## VISIT

[yoursay.ca/carruthers-creek](https://yoursay.ca/carruthers-creek)

to subscribe and find more information