



Report to: Development Services Committee

Meeting Date: April 8, 2025

SUBJECT: Rouge River Watershed Plan Update

PREPARED BY: Mark Head, Manager, Natural Heritage, Ext. 2005

REVIEWED BY: John Yeh, Acting Senior Manager, Policy and Research,
Ext. 7922

RECOMMENDATION:

- 1) That the report entitled “Rouge River Watershed Plan Update”, be received; and,
- 2) That Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

The purpose of this report is to provide an overview of the proposed scope of work, process and timing for the Rouge River Watershed Plan Update (RRWP) which is being led by the Toronto and Region Conservation Authority (TRCA).

The RRWP will be launched in 2025 to update and replace the current watershed plan that was prepared in 2007. The RRWP will be updated through a multi-year process with participation of partner municipalities, Williams Treaties First Nations, Mississaugas of the Credit First Nation and the Rouge National Urban Park.

BACKGROUND:

A watershed plan is a key guiding document that helps understand the current and potential future environmental conditions of a watershed and the actions needed to protect, enhance and restore watershed health. Watershed planning looks at all land drained by a river and recognizes that human activities in one part of the watershed may have downstream or cumulative impacts on other parts including lands in a different municipality. Watershed plans are not statutory documents but are required by the Province to guide land use, infrastructure and other environmental management decisions and initiatives.

The Rouge River watershed is 336 km² in extent, encompassing almost 80 percent of the City of Markham (see Figure 1 attached). The Watershed drains lands from the Oak Ridges Moraine to Lake Ontario through the Rouge River. Tributaries of the Rouge include Beaver Creek, Berczy Creek, Bruce Creek, Eckardt Creek, Robinson Creek and the Little Rouge Creek. Currently, the watershed is 25% natural, 32% rural, and 43% urban. About 288,318 residents in Markham live in the watershed.

Watershed planning direction is provided in the Oak Ridges Moraine Conservation Plan, Greenbelt Plan and Provincial Planning Statement. Provincial direction requires large and fast-growing municipalities, including the City of Markham, to undertake watershed

planning to inform land use and infrastructure planning decisions. The City of Markham recognizes watershed planning and its ecosystem-based approach to resource management as an important tool for guiding planning, infrastructure, restoration and climate adaptation actions needed to protect water and land resources and to help mitigate/reduce natural hazard risks.

DISCUSSION:

Purpose and Scope of the Review:

The RRWP will be based on an integrated, systems approach to understand current and future watershed conditions and identify actions to protect, enhance and restore watershed health.

The RRWP will:

- Improve understanding of watershed conditions and ecosystems affected by land use and climate change; and
- Identify priority actions to protect, restore, and enhance watershed health, safety, and resilience.

Key Steps and Timing:

The RRWP will be developed over a three-year period in four stages following TRCA’s watershed planning framework. Stage 1 is currently underway and Stages 2, 3 and 4 will be completed in 2025, 2026 and 2027, respectively. The final plan will be provided for endorsement in 2027/2028. The four stages are illustrated in the figure below:

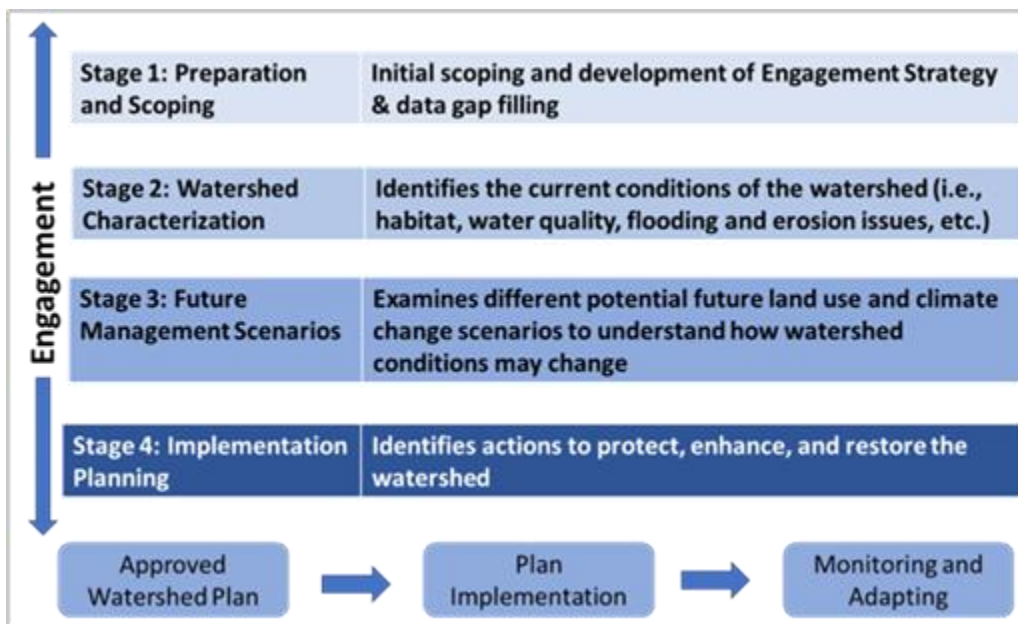


Figure 2: Overview of the Integrated Watershed Planning Process

The scope of work will assess watershed conditions for four key components of watershed health including natural hazards for flooding and erosion risks, natural heritage, water resources and water quality in the context of both land use change and climate change. Future growth scenarios with and without climate projections will be evaluated to fully understand how these variables impact watershed health and how management actions can improve or address the health, safety and resilience of the watershed.

Benefits to Markham:

The RRWP will provide an integrated, science-based understanding of the key components of watershed health with recommendations for coordinated implementation across municipal jurisdictions. The information provided on current and future conditions affecting watershed health will ensure that priority actions can be identified and implemented for the health, safety, and resilience of the watershed and its communities within Markham and beyond.

Key benefits of the watershed plan are highlighted below:

- Provides support for strategic plans including Markham's Strategic Plan, Official Plan, Greenprint Sustainability Plan, and Urban Forest Management Plan (underway).
- Addresses Provincial policy requirements requiring municipalities to complete watershed plans to inform land use and infrastructure planning decisions.
- Informs climate adaptation and resilience planning for land use, infrastructure, stormwater and water/wastewater planning, flood mitigation, urban forest planning, and the effectiveness of nature-based solutions, and other mitigation measures.
- Identifies priorities for ecosystem restoration planning and management.
- Provides baseline information, technical modelling and recommendations to support future settlement area expansion decision making and more detailed subwatershed and secondary planning level studies due to the scalable nature of the information that will be collected.

The final RRWP and the data associated with it will help inform various TRCA and municipal initiatives including land use and infrastructure planning, stormwater management (including upcoming CLI ECA-related monitoring), erosion and flooding risk mitigation, climate adaptation, and ecosystem restoration and management.

Consultation and Next Steps:

Official launch of the RRWP is planned in Q2 2025 with the formation of a Steering Committee to confirm the proposed project scope and an engagement strategy. Broader stakeholder and public consultation will follow later in the process. The process will be informed by input and feedback from all partner municipalities across administrative

boundaries, First Nations and Indigenous communities, stakeholders, and the public through a range of engagement activities including through social media, virtual engagements, regular update notifications and a dedicated project webpage. Participating members on the Steering Committee will include City of Markham Planning and Engineering staff representatives to provide technical feedback and coordinate reporting with Council, as needed.

TRCA will be providing regular notifications and updates to all municipal Councillors (within the watershed boundaries) through TRCA's Government and Community Relations Team and Clerk's Office including notifications about watershed plan kick-off, major milestones and engagement at various stages, and for consultation on the draft and final watershed plans.

TRCA is also planning to host a watershed tour after the draft plan is released to highlight partnerships and key messages from the watershed plan. Municipal Councillors, TRCA Board members, senior level municipal staff, TRCA project and senior leadership staff, and Steering Committee members will be invited to attend this event.

FINANCIAL CONSIDERATIONS

This report has no financial impact to the Operating Budget or Life Cycle Reserve Study. The updating of the RRWP is funded through TRCA's Watershed Planning and Reporting Program capital budget, which is approved by York Region and the City of Toronto. If enhancements to the project scope beyond what can be supported by TRCA's current capital funds are recommended during finalization of the work plan by the Steering Committee, these will be subject to future TRCA budget processes or supplementary funding contributions provided by the participating municipalities. Additional funding contributions from the City of Markham may be identified subject to finalization of the work plan and put forth for consideration during the capital budget process.

HUMAN RESOURCES CONSIDERATIONS

Not applicable.

ALIGNMENT WITH STRATEGIC PRIORITIES:

The RRWP update supports direction in Building Markham's Future Together Goal 3 to enhance the natural environment through sustainable and integrated planning and infrastructure management. The project supports several City planning and infrastructure initiatives including the City's stormwater management program and implementation of the City of Markham Official Plan direction for watershed planning. The work will also provide analysis and recommendations to support the City of Markham Official Plan Review's growth management, water resources and climate change components.

BUSINESS UNITS CONSULTED AND AFFECTED:

Financial Services, Engineering, Environmental Services and Planning staff were consulted in the preparation of this report.

RECOMMENDED BY:

Giulio Cescato, RPP, MCIP
Director, Planning and Urban Design

Arvin Prasad, RPP, MCIP
Commissioner, Development Services

ATTACHMENTS:

Attachment A – Map of the Rouge River Watershed Boundaries in Markham