

## Executive Summary

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The City of Toronto (City) initiated a Transportation Master Plan (TMP) to study five municipal bridges within the Rouge National Urban Park (RNUP). The objective of this TMP is to develop long-term strategies for improving the transportation infrastructure for each bridge.

The bridges included in the TMP study are:

- Sewell's Road Bridge (Site No. 812) – Bridge A;
- Milne's Bridge (Site No. 813) – Bridge B;
- Hillside Bridge (No. 806) – Bridge C;
- Maxwell's Bridge (No. 802) – Bridge D; and
- Stott's Bridge (No. 803) – Bridge E.

While the five bridges are within the RNUP, which is owned and operated by Parks Canada, the City maintains ownership, jurisdiction and management responsibility for public roads and bridges on its right-of-way within RNUP boundaries. The bridges and the road right-of-way (ROW) are owned and operated by the City of Toronto.

This TMP has been completed in accordance with the 2023 amended MCEA process following Approach #2 for Master Plans (as described in Appendix 4 of the MCEA). This approach requires a level of investigation, consultation, and documentation to fulfill the requirements for Schedule "B" projects, as a minimum, including the completion of Phases 1 and 2 of the MCEA process. This TMP report documents the study process and findings, including the existing conditions, consultation and engagement activities, evaluation of alternative solutions, and the long-term improvement strategy for each of the five bridges.

### Existing Conditions

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Four of the five bridges (Sewell's Bridge, Stott's Bridge, Maxwell's Bridge, and Hillside Bridge) retain cultural heritage value and are designated under Part 4 of the *Ontario Heritage Act*. The Milne Bailey Bridge crossing, currently listed on the City's Heritage Register also retains cultural heritage value. A Scoped Heritage Impact Assessment (HIA) was completed for the five bridges. The HIA evaluated the Milne Bailey Bridge against

Regulation 9/06 criteria and found the bridge to retain cultural heritage value or interest.

A Stage 1 Archaeological Assessment (PIF# P1066-0163-2020) indicated the presence of 42 registered archaeological sites within one kilometre of the study bridges, and one site within 50 m of Hillside Bridge on Meadowvale Road.

The Cultural Heritage Resource Assessment (ASI, 2022) identified 11 built heritage resources and/or cultural heritage landscapes within the surrounding road right-of-way for a distance of 500 metres from the centre of each bridge.

The transportation network within the RNUP Study Area serves traffic that is visiting the park as well as those who are travelling through. With the City of Pickering directly east of the park and the City of Scarborough directly to the west, vehicles traveling between the two have the option of traveling through the park, either via Finch/Old Finch Avenue, or Twyn Rivers Road/Sheppard Avenue. Primary destinations within the park include the Toronto Zoo and the many trails and natural areas.

As part of the TMP, a natural heritage existing conditions background review and scoped field program were undertaken. There are several designated natural heritage features associated with the RNUP located within the Project Study Area, including:

- Rouge River;
- Rouge River Valley Area of Natural and Scientific Interest (ANSI), Life Science;
- Candidate Pickering-Scarborough Iroquois Beach Candidate ANSI, Life Science;
- Cedar Grove Wetland Complex Provincially Significant Wetland (PSW);
- Townline Swamp Wetland Complex PSW;
- Unevaluated wetlands; and
- Woodland.

Seventeen SAR designated as Threatened or Endangered under the provincial *Endangered Species Act, 2007* and/or designated as Threatened or Endangered under the federal *Species at Risk Act, 2002* and eleven (11) Species of Conservation Concern defined as nationally, provincially (SRank of S1-S3), regionally or locally rare (LRang L1-L3) and/or species listed as Special Concern under the *Endangered Species Act, 2007* have the potential occur within the vicinity of the five bridges.

## Phase 1: Problem/Opportunity Statement

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The Problem/Opportunity statement for this project is as follows:

The City of Toronto is undertaking a TMP study to determine preferred alternatives for the future of five bridges located within the Rouge National Urban Park, recognizing the need to:

- **Address the deteriorating condition** of the bridges;
- **Maintain the rural character of the roadways** and the right-of-way, consistent with City policies;
- **Support the local transportation network** within the Park, including access for emergency services;
- **Follow heritage conservation principles** at each bridge;
- **Improve the safety and function** of these sites for all users; and
- **Mitigate potential impacts to the natural environment** of the RNUP.

## Phase 2: Alternative Solutions

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The following alternative solutions were developed for each of the five crossings:

- **Retain** – Retention of the existing bridge means keeping the bridge in its existing configuration with **minimal changes**, if any. It may include maintenance repairs, or improvements to roadway approaches, sign lines, signage, or other ancillary features. However, functional improvements that change the cross-section of the bridge, or strengthening that substantially alters the form and appearance of the structure are not considered in this alternative;
- **Rehabilitate** – Rehabilitation of the existing bridge means strengthening and altering the existing bridge substantially to improve its function. This may include adding structural components to supplement the existing ones, replacing components of the structure or other similar improvements. **Significant alterations** in form and appearance may occur in this alternative. For the types of bridges in this study, widening through a major rehabilitation would require such an extensive dismantling and replacement of the original structure and abutments that it is not considered feasible; and

- **Replace** – Replacement of the existing bridge means complete removal of the existing bridge and construction of a **new structure at the same location**. This allows the greatest improvement in the functional characteristics of the bridge such as load-carrying capacity, width, and service life. For replacement of heritage bridges, it must be demonstrated through a Heritage Impact Assessment that the other alternatives are not suitable before replacement is considered.

A total of 19 individual criteria were considered for each bridge across the following six categories:

- Bridge Condition and Function;
- Transportation;
- Cultural Heritage and Archaeology;
- Natural Environment and Hydraulics;
- Public Uses in RNUP; and
- Implementation.

Based on the evaluation of alternatives and feedback received during stakeholder engagement and Indigenous consultation, the Preferred Solution for Sewell's Bridge and Maxwell's Bridge is retention with sympathetically designed maintenance repairs and the Preferred Solution for Milne Bridge, Stott's Bridge, and Hillside Bridge is replacement with a sympathetically designed replacement structure.

## Stakeholder Engagement and Indigenous Consultation

Consultation activities for this project were divided into two phases.

- Phase 1 (December 2020 to December 2021) of public consultation focused on collecting information on users' experiences of the bridges and adjacent roadways. Phase 1 consultation activities included consultation with the public, agencies, and Indigenous communities as well as targeted consultation with local stakeholder organizations, Parks Canada, and the TRCA. A virtual public meeting (PIC #1) was hosted in October 2021; and
- Phase 2 (January 2022 to August 2022) of public consultation focused on presenting the evaluation of alternatives and the recommendations for each bridge. Phase 2 consultation activities included consultation with the public, agencies, and Indigenous communities as well as targeted consultation with local stakeholder

organizations. A virtual public meeting (PIC #2) was held on July 20, 2022, and an online survey was available from July 11, 2022, to August 10, 2022, to provide feedback.