

Staff Report

Report To: Council

Report From: Geoff Aitken, CET – Director, Infrastructure and Public Works

Meeting Date: February 11, 2025

Subject: IPW-2025-05 – Bridge Prioritization Program

Recommendations:

That in consideration of staff report 'IPW-2025-05 – Bridge Prioritization Program', Council:

- 1. Approves the recommendations for Replacement/Rehabilitation as outlined in the Bridge Prioritization Program study; and
- 2. Accepts the recommendations for candidate structures for closure as outlined in the Bridge Prioritization Program study.

Highlights:

- West Grey has over 100 bridge and culvert structures.
- To aid in prioritizing structures, West Grey has formalized a *Bridge Prioritization Program*.
- This program has identified for replacement the top 10 structures that are vital
 to West Grey's transportation network, and identifies structures that, upon
 reaching the end of their respective service lives, are considered candidates
 for closure.
- The cost to replace the top 10 structures is estimated at \$19.7 million.

Previous Report/Authority:

Bridge Prioritization Program

September 18, 2024-Special Council Meeting-Bridge & Culvert-Agenda & Presentation

October 3, 2024-Bridge & Culvert Prioritization Program – Public Open House

<u>February 2025 - Municipality of West Grey-Bridge Prioritization Report-Final (Report only)</u>

Environmental Assessments

June 6, 2024-Structure G-044 & G-033 Bridge – Public Information Centre

August 22, 2024-Environmental Study Report, Schedule B, Structure G-044

Staff Reports

<u>IPW-2023-10 – Biannual Bridge Inspection Reports</u>

<u>IPW-2024-20 – Bridge N-051</u>

IPW-2024-21 - Bridge N-055

IPW-2024-22 – Posted Speed Reduction (Bridges B-008 & G-032)

IPW-2024-24 – Bridge B-003

<u>IPW-2024-28 – Bridge B-025</u>

<u>IPW-2024-29 – Bridges G-037 & G-038</u>

<u>IPW-2024-31 – Bridge N-060</u>

IPW-2024-33 – Bridge N-056

Analysis:

In 2024, three significant parallel and interconnected bridge processes took place. These included: Council receiving nine staff reports about 10 bridges, six of which were closed on short notice; an environmental assessment that involved a public information center discussing the closure of one structure and replacement of another; and, as a result of the first two processes, the establishment of a West Grey Bridge Prioritization Program.

The primary focus of this report is the Bridge Prioritization Program (Program) and its report. In its simplest form the program generates a list of structures that are vital to the West Grey transportation network and prioritizes the structures for either rehabilitation or replacement. Similarly, the program identifies structures that are not as vital to the transportation network and, at the end of their respective service lives, are candidates for closure and ultimately removal. Two tables are attached to this report that identify these structures.

A decision-making matrix was developed to minimize subjective bias and is based on criteria like bridge condition index, average daily traffic, detour length, emergency response time, and local access. The probability and consequence of failure/closure was assessed to determine total risk of asset failure. While cost was noted, it did not influence probability, consequence, or total risk evaluations.

Financial Implications:

There is no financial impact because of this report. There is a Special Council meeting scheduled for March 11, 2025, to further discuss the financing of the Bridge Prioritization Program. In 2024 dollars, it is estimated that replacement of the top 10 priority structures that are vital to West Grey's transportation network would cost \$19.7 million.

In the 2025 capital budget, there is \$2 million for the replacement of structure G-044 and \$300,000 for rehabilitation efforts of another structure (TBC).

Climate and Environmental Implications:

Some of the most significant environmental impacts occur during the demolition and construction phases of bridge work. This can include "in water works" that are subject to permits required by the Department of Fisheries and Oceans (DFO) and the local conservation authorities. The main focus areas are fish habitat, spawning grounds, and effective watershed stewardship. Unique aspects of bridge construction include geological considerations, soil load-bearing capacity, and the depth to stable bedrock.

Communication Plan:

Communication of this report is through the posting of Council meeting agendas on the West Grey website.

Consultation:

Chief Administrative Officer

Director, Legislative Services/Clerk

Director, Finance/Treasurer

Supervisor, Rural Operations

Triton Engineering

Attachments:

Structure Priority List

Candidate Structures for Closure

Recommended by:

Geoff Aitken, CET, Director, Infrastructure and Public Works

Submission approved by:

Michele Harris, Chief Administrative Officer

For more information on this report, please contact Geoff Aitken, Director, Infrastructure and Public Works at publicworks@westgrey.com or 519-369-2200 Ext. 227.