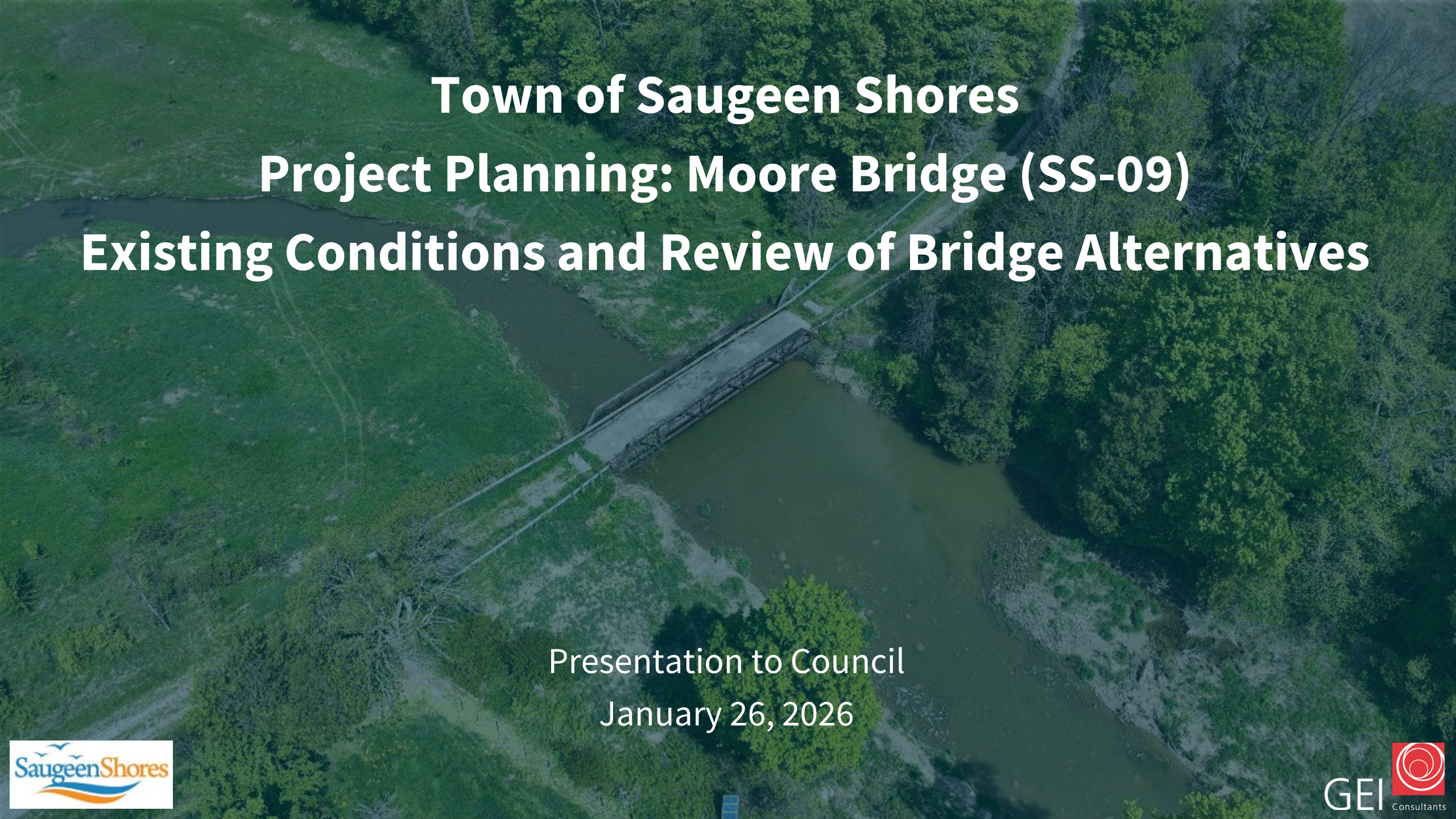


# Town of Saugeen Shores
# Project Planning: Moore Bridge (SS-09)
# Existing Conditions and Review of Bridge Alternatives

Presentation to Council

January 26, 2026

SaugeenShores

GEI Consultants

# Presentation Overview and Objectives

- Provide an overview of the study area
- Summary of existing conditions and background studies
- Alternatives considered & overview of the design and potential impacts → Project Recommendation
- Comments and Questions

# Project Background & Scope

Moore Bridge has been closed to vehicular traffic for more than a decade due to the deteriorated condition of the structure.  Alternative solutions considered generally include removal, repair, or replacement.

Rehabilitation and replacement alternatives may simultaneously require consideration for the design and profile of the road approaches to an appropriate standard.

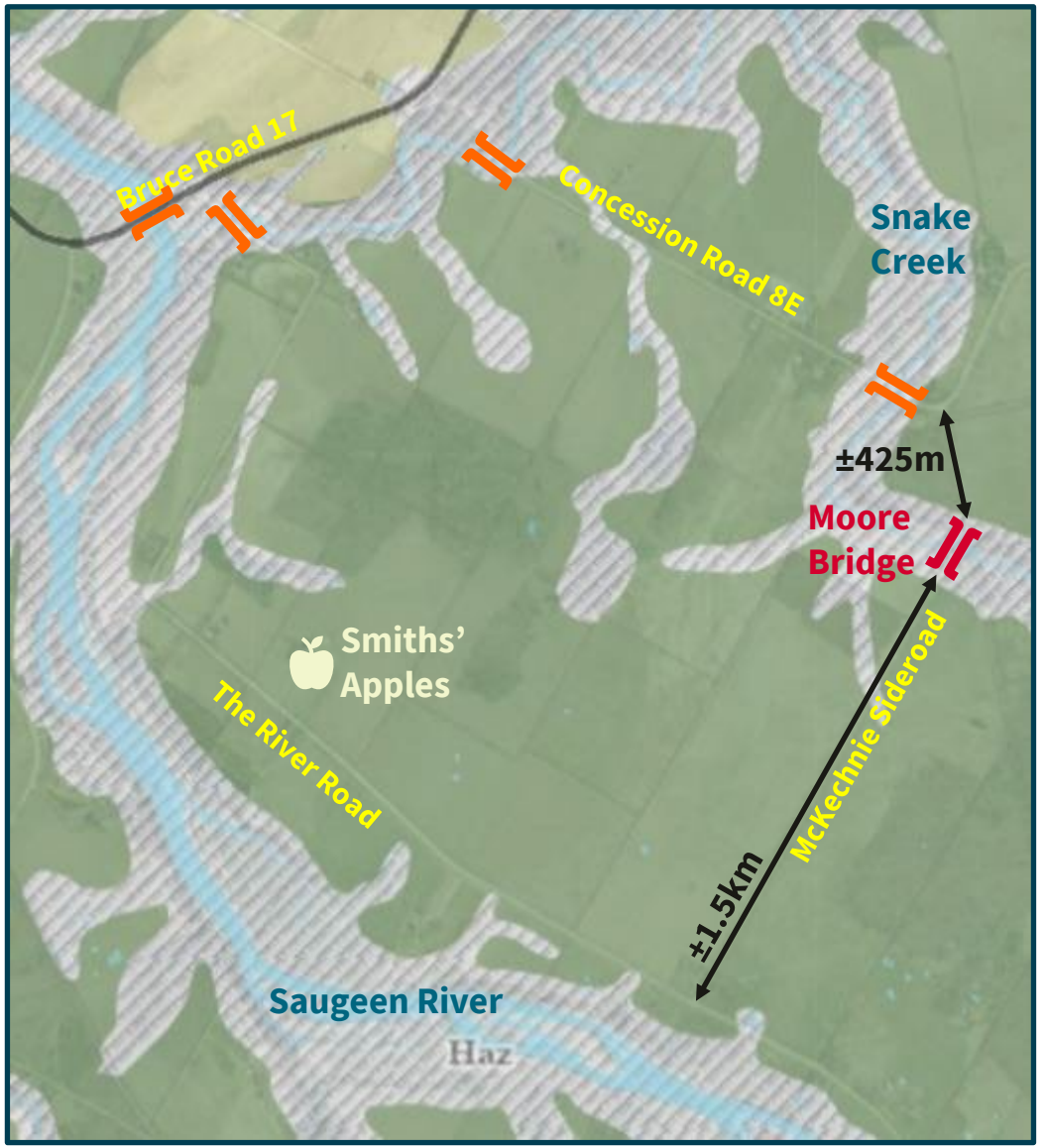
# Study Area & Surrounding Environment

## Moore Bridge

- Built in about 1920 and was closed to traffic in 2013
- One lane single span steel truss structure
- Clear span is 24.2 meters
- Forms part of McKechnie Sideroad spanning over Snake Creek
- Low traffic volumes, estimated to have been less than 100 vehicles per day (AADT reported to be 25 vehicles in 1992)
- Currently used for recreational purposes

## Surrounding Area

- McKechnie Sideroad, currently a double track granular surface with organic growth, provides a direct connection between Concession Road 8E and The River Road
- Road was not maintained in winter at time of bridge closure
- Land use in the area is primarily agricultural



# Cultural Environment

## Cultural Heritage (ASI 2025)

- Evaluation determined that the bridge does not have cultural heritage value or interest.
- In consideration of the bridge replacement alternatives identified for this project and based on the findings of the cultural heritage evaluation, planning for this project is not subject to the more formalized Environmental Assessment (EA) process.

## Archaeological Assessment (PHC 2024)

- Stage 1 background assessment concluded that the study area exhibited archaeological potential.
- Stage 2 test pit survey did not result in the identification of archaeological materials.
- No further archaeological assessment is recommended.

# Natural Environment

## Scoped Environmental Impact Study (Aboud 2024)

- Potential impacts primarily involve the removal of vegetation communities, site grading, impacts to aquatic habitat, wildlife disturbance, and sediment run-off.
- There are opportunities in the study area for edge enhancement, restoration, and compensation planting to mitigate and offset potential impacts.
- Snake Creek: Quality and character of hydrologic systems, features and functions will need to be maintained or enhanced.

## SVCA Floodplain and Safe Access & Egress Requirements (GEI, 2024)

Safe access & egress refers to the accessibility and capability of both vehicles and pedestrians to enter and exit a location during flooding events and during emergency situations.

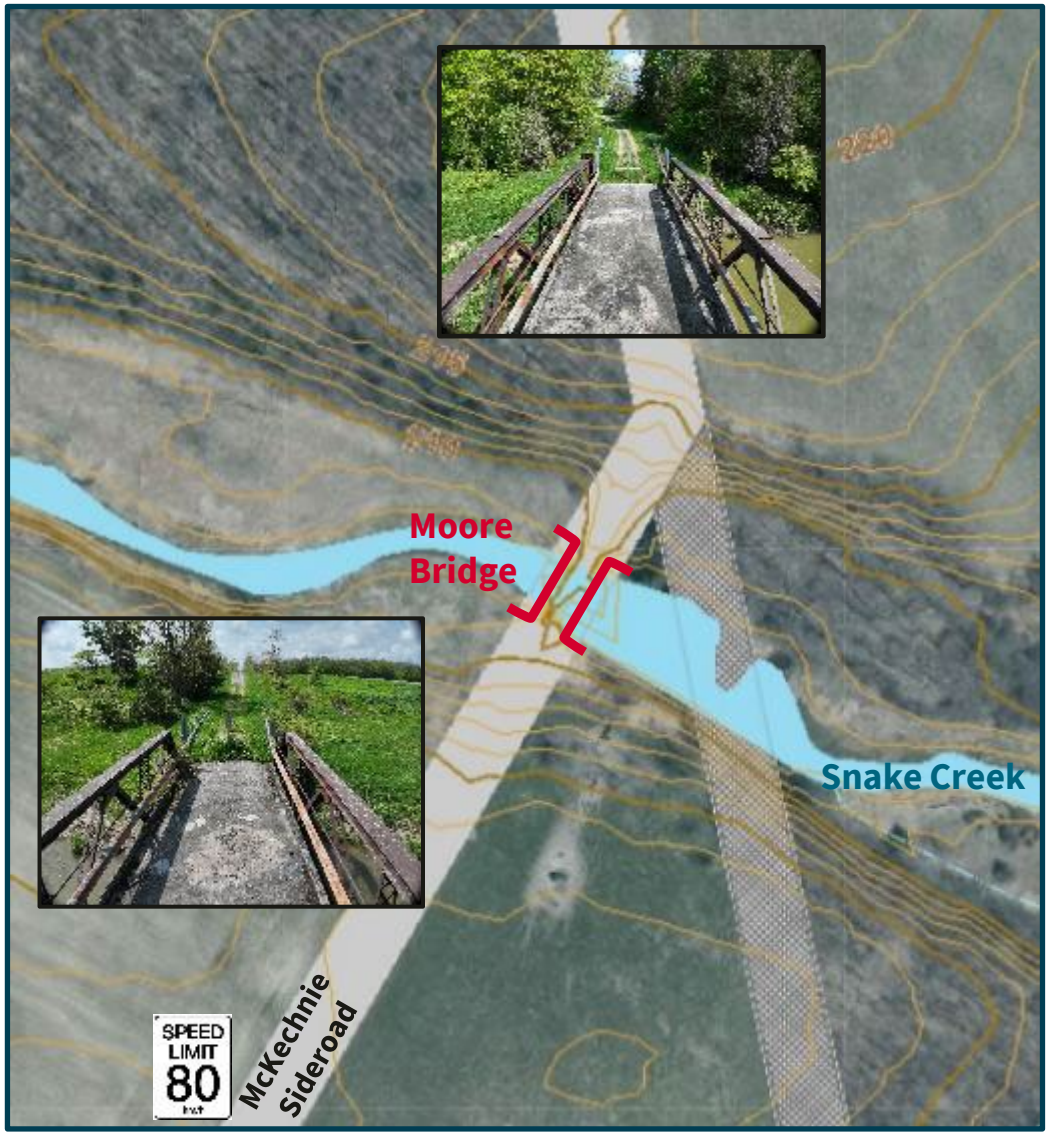
**FINDINGS**

- The existing structure cannot provide safe access and egress under Regional Storm conditions; therefore, it was recommended that the bridge geometry be adjusted.
- **For all bridge replacement alternatives, major design changes would be required including a 50% increase in the bridge span (to 37.2 meters) and a 1-meter increase in abutment height.**

# Technical Considerations

## Bridge and Road Approaches

- Bridge closed due to severe deterioration of the wingwalls, abutments, bridge deck and steel trusses
- Sloped approaches to bridge from the north and south
- To the north of the bridge the sightline is poor due to bend road
- Speed limit is 80 km/hr.  Reduction in speed limit to 50km/hr recommended if bridge is replaced
- Should the bridge be re-opened to vehicular traffic, McKechnie Sideroad would simultaneously require significant upgrades along a 2-kilometer section of road



# Bridge Alternatives

i. Do Nothing
ii. Repair the Existing Structure

iii. Bridge Removal
iv. Replace with a Pedestrian Bridge
v. Replace with a Single Lane Bridge
vi. Replace with a Two-Lane Bridge

**Bridge Repair:**

OSIM Report (2012) suggested that bridge repairs may no longer be a viable option due to the advanced state of deterioration. Repairs would only serve to extend the service life of the bridge in the short term and may not necessarily restore its functionality as a vehicular bridge.

# Bridge Replacement

| | |
|---|---|
| Service Life | Would be designed for a minimum service life of 75 years |
| Carrying Capacity | Load capacity would be appropriate for bridge usage |
| Design | All bridge replacement alternatives would require major design changes:<br>▪ 50% increase in span to 37.2 meters<br>▪ A raised deck height (by 1-meter) |
| Road Approaches | Should the bridge be re-opened to vehicular traffic, McKechnie Sideroad would require significant upgrades along a 2-kilometer section of road. These would need to meet applicable road design standards. |
| Capital Cost (Estimates) | Pedestrian Bridge (and Recreational Vehicles) — $1.6M to $2.0M<br>Single Lane Bridge** — $3.0M to $3.5M<br>Two-Lane Bridge** — Greater than $5M<br>**Includes for improvements to McKechnie Sideroad |
| On-going Costs | Inspection and maintenance cost would be relatively low in the short term and would be expected to increase as the structure ages |

# Bridge Removal

| | |
|---|---|
| Implications | ▪ Bridge would be removed<br>▪ McKechnie Sideroad would be permanently closed to vehicular traffic |
| Property Access | ▪ Access to all properties would be maintained<br>▪ Most southerly section of McKechnie Sideroad would need to be maintained, a road section of about 100 to 150 meters, to provide access to 2 residential properties at its intersection with The River Road. |
| Natural Environment | ▪ Both sides of Snake Creek would be restored to a more natural condition<br>▪ Adjacent grading & embankments could be cut back to reduce the impediment to the river |
| Capital Cost | Bridge removal, including restoration of the riverbanks = ±$600K to $800K. |
| On-going Costs | None |
| Social Impact | ▪ Bridge is currently used for recreational purposes<br>▪ McKechnie Sideroad is not an integral part of the Town's broader transportation system<br>▪ Alternate routes are available to local residents |

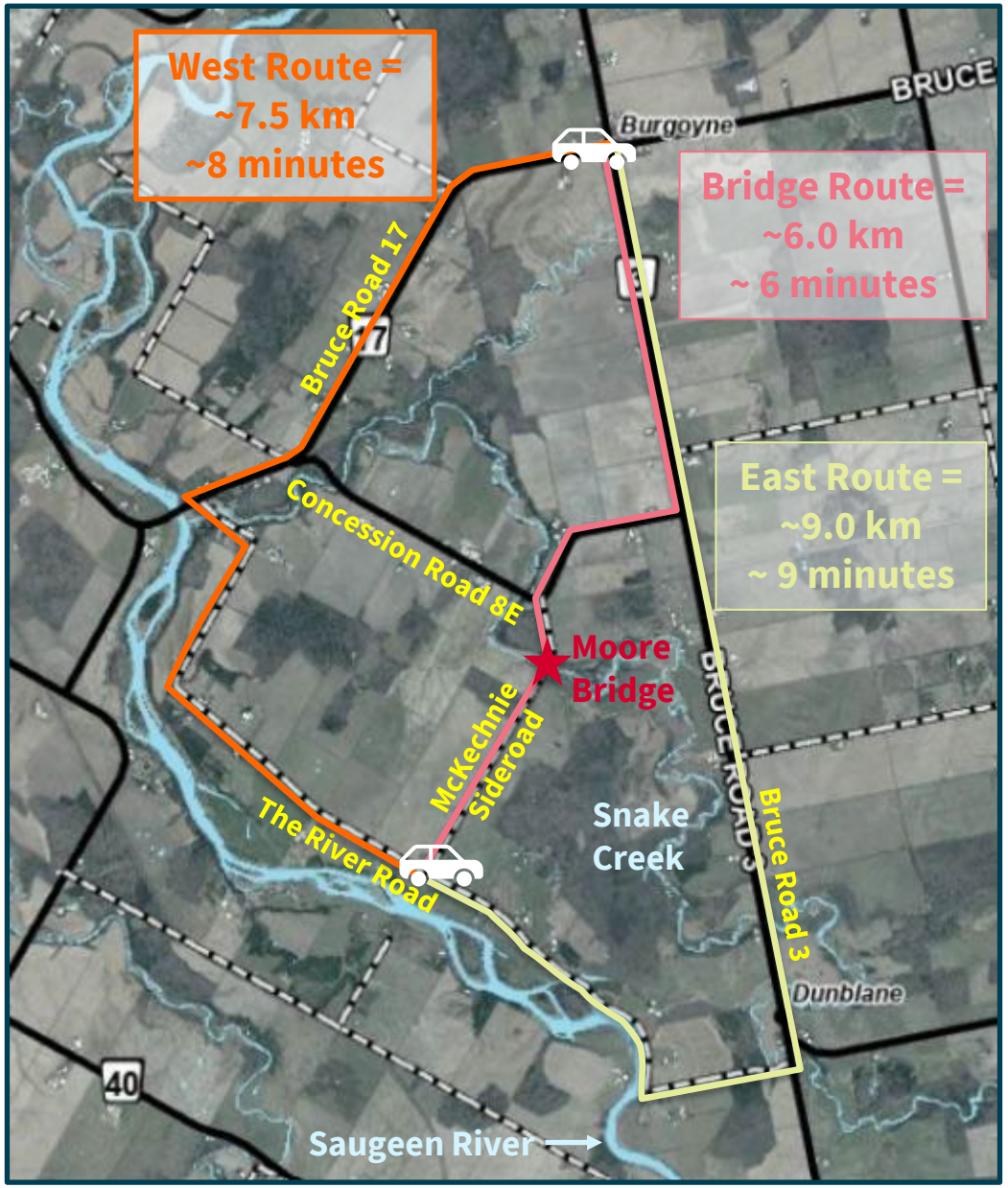
# Alternate Routes

**North: Between The River Road and Burgoyne**

- Impacts are most significant to the local community, particularly those that reside along The River Road
- Has the potential to add ± 1.5 to 3 kilometers to the travel distance
- Adds up to 2 to 3 minutes of travel time (from the intersection of McKechnie Sideroad with The River Road)

**Southbound from The River Road**

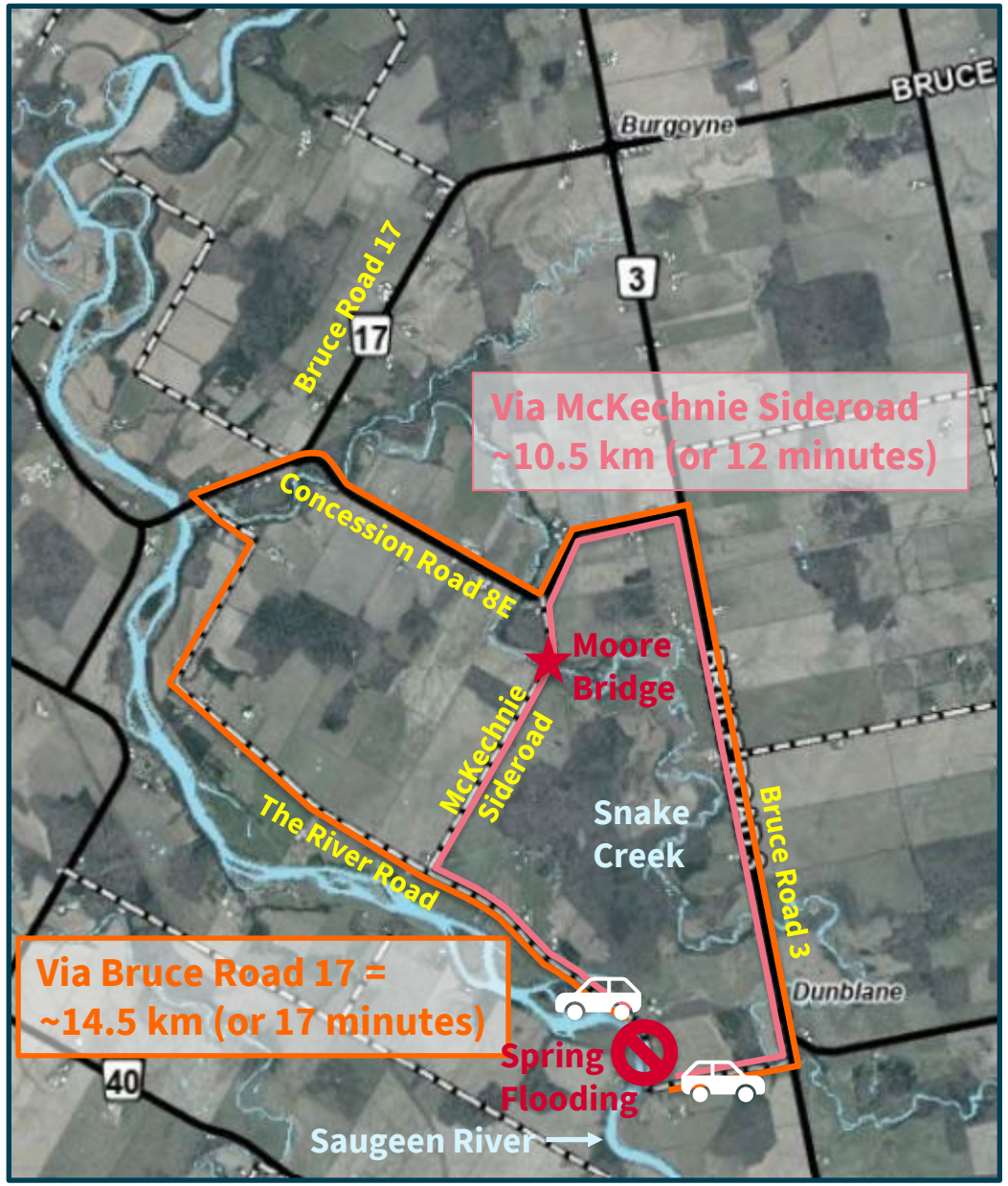
Constrained by the Saugeen River. Must connect to Bruce Road 17 to the west or Bruce Road 3 to the East before continuing south.



# Spring Conditions

**Flooding reportedly occurs along The River Road in the area to the west of Dunblane.**

Permanent closure of Moore Bridge has the potential to add up to 5 minutes of travel time to persons travelling from the Dunblane area to the west side of the flooded area, along The River Road (or vice-versa).



# Recommendation

## ~ BRIDGE REMOVAL ~

**Based on the consideration of several factors including, but not limited to,**

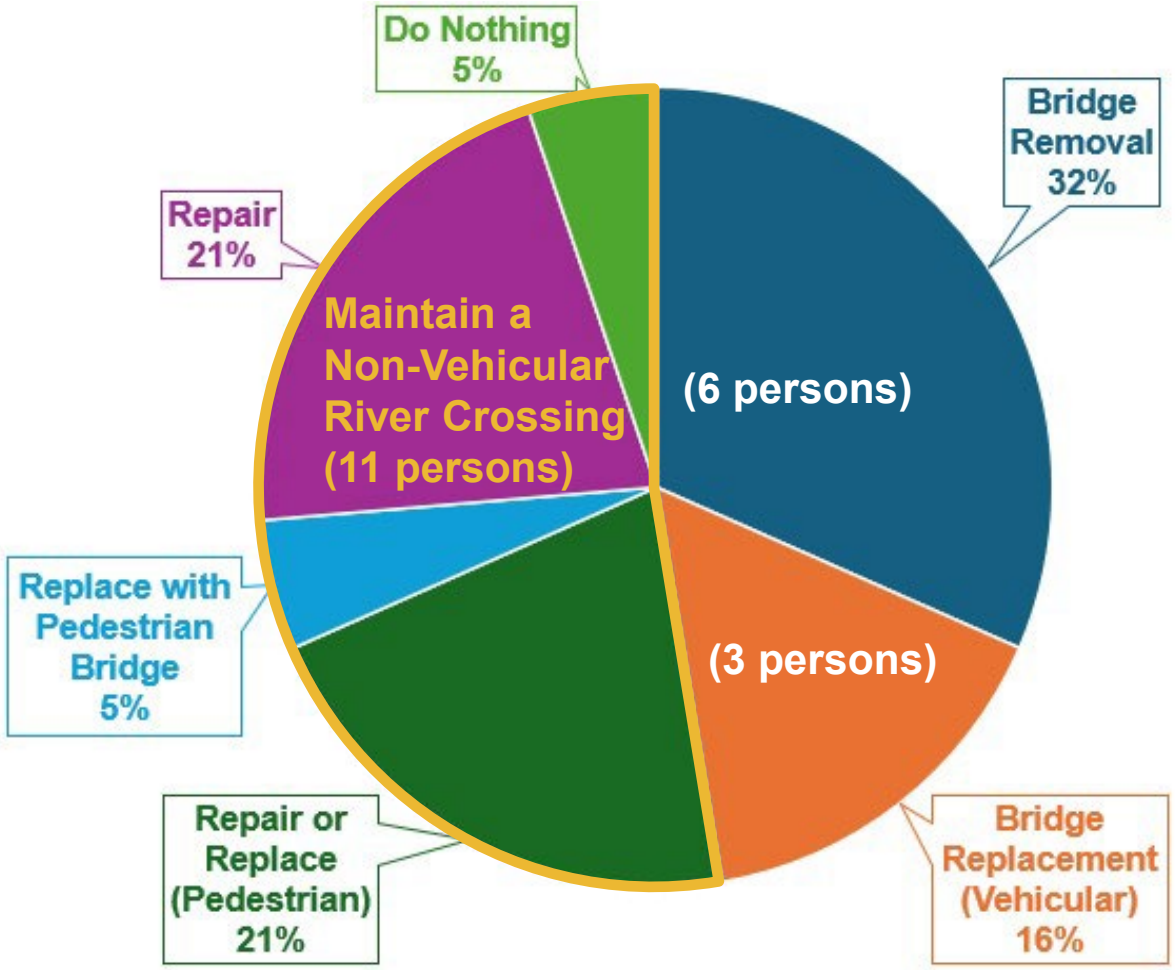
- The availability of alternate routes that provide direct connection to the broader road network
- Maintenance of property access
- The condition and alignment of McKechnie Sideroad (a 2-kilometer section of road)
- Low traffic volumes
- The natural environment
- The need for a longer span (i.e., 37.2 m) and a higher deck

**the costs associated with maintaining a river crossing at this location, (i.e., bridge replacement, potential road upgrades and on-going maintenance) appear to outweigh the benefits.**

# Public Consultation

## Key comments conveyed to the project team

- Recognition that removal would result in improvements to the natural environment & have the least economic impact.
- Maintaining a non-vehicular bridge would maintain an alternate route for cyclists and the Mennonite community. It could also continue to be used for walking, ATV's, etc.
- Replacement with a vehicular bridge would re-establish the local rural 'connecting link' and provide a less dangerous route for local agricultural equipment.
- It was suggested that the AADT of 25 vehicles (reported in 1992) underestimated the actual bridge usage. Traffic volumes of less than 100 vehicles per day are technically considered to be low. Although bridge closure did not occur until 20 years later, it is not thought that the traffic will have increased significantly. Further, while low traffic counts are considered in the assessment of bridge alternatives, it is one of several factors that provide the rationale to justify bridge removal.




- It was noted that the estimated cost for repair was only slightly greater than removal. However, overall cost associated with ongoing inspection, maintenance & repairs would be significantly greater in the long term.

# Next Steps

1. Presentation to Council - Questions/Comments?
2. Council decision
3. Proceed to implementation (i.e., approvals, tender and construction)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**Thank You!**