



## The Corporation of the Municipality of Tweed Staff Report

Date: February 14, 2023 Committee of the Whole Meeting  
Report to: Council  
Report from: CAO/Treasurer  
Department: Public Works  
Title: Potential Bridge Closure – Lost Channel Bridge (6)

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### **PURPOSE:**

To provide Council relevant information to consider potential a bridge closure at the end of it's useful life.

### **BACKGROUND:**

Every 2 years we are required to complete Ontario Structure Inspection Manual (OSIM) inspections of all bridges. The 2022 OSIM report indicates that of our 52 structures (1 being closed but not fully removed), 32 structures are less than a 70 out of 100 on the Bridge Condition Index (BCI). Of these structures, \$1,249,390 of immediate rehabilitation costs and \$1,448,200 of immediate replacement costs required in addition to \$14,732,140 rehabilitation costs in next 1 to 5 years and \$4,031,705 of full replacement costs in next 1 to 5 years. In 6 to 10 years, another \$3,556,200 of rehabilitation costs plus \$1,934,765 replacement costs are estimated to be required. This is a total of \$26,952,400 in the next 10 years on 32 bridges/culverts. Staff have been looking at alternatives.

In 2020 and in 2022, it was identified by Public Works that 8 bridges would be potential candidates for consideration of closing at the end of their life due to limited community impact and limited detour routes. The Lost Channel Bridge on Lost Channel Road (Bridge #6) is one of these.

Bridge 6 is a 1 lane bridge on an 80 km/h road that was constructed in 1920. This bridge is indicated in the OSIM as a 16<sup>th</sup> priority and requires removing and replacing the superstructure and patch/reface substructure. The estimated costs for this is \$44,000 immediately and \$3,459,880 in next 1 to 5 years.

This bridge would have an approximate detour of about 8 to 10 km and impacts 5 houses on the east side to Carrs Rd plus Paradise Lane and 4 houses plus 1 apartment building plus Lost Channel Court on the west side. A proposed detour route has been attached.

## **OPTIONS:**

1. Maintain structure until load limit reaches below 15 tonnes per axle and then permanently close structure, removing for liability and safety reasons at that time.
2. Maintain structure for a set time period such as 3 more years and then permanently close structure, removing for liability and safety reasons at that time.
3. Continue to maintain and schedule replacement as identified in OSIM as planned.
4. Arrange to close structure in 2023, including removal of structure for liability and safety reasons.

## **FINANCIAL IMPLICATIONS:**

Maintaining the bridge until closure will cost substantially less than the necessary repairs and replacement. Costs would be limited to \$44,000 of immediate repairs considered necessary and the cost of removal of a structure (substantially lower than the \$3.5 million for 1 to 5 year rehabilitation costs).

## **IMPACT:**

Closure of any bridge should not be taken lightly and will require public input and notice. A proposed communication plan of mailing all those on the affected roads and those within a set distance as well as signage indicating this proposal and an open house for public to come and ask questions and provide input and concerns would be required.