

STAFF REPORT

TO: Chair and Members, Engineering Services Committee

FROM: Gary Clark, Transportation Manager

REFERENCE: B601

SUBJECT: **Proposed Bridge Replacements 2010/2011 and 2011/2012 – RESC-10-11-03** - Report prepared for meeting of 11 November 2009

1 PURPOSE

- 1.1 The purpose of this report is to gain the Engineering Services Committee's approval for specific bridges to be replaced within the subsidised roading programme in the current and next financial years, 2010/2011 and 2011/2012.

2 BACKGROUND

- 2.1 Within the subsidised roading allocation from the New Zealand Transport Agency (NZTA) there is a category for bridge "Improvement, Expansion or Replacement", subject to meeting economic criteria. Within Council's Ten Year Plan there is an allocation of about \$450,000 per year for the replacement of bridges, which would be funded from this NZTA category.
- 2.2 Yellow Pine Bridge on Pakawau Bush Road in Golden Bay and Narrow Bridge on the Motueka Valley Highway have been identified as being at the top of the list for replacement. A further bridge on Awaroa Road is also in need of replacement due to the overall condition of the structure.

3 DISCUSSION

- 3.1 Yellow Pine Bridge is a six metre long single lane bridge on a very poor alignment. Built in the 1920s there is spalling occurring in the concrete and given the proximity to the coastal environment, corrosion of the reinforcing steel is also occurring. A design has been completed to replace the bridge with a box culvert and remove the chicane alignment across the bridge.
- 3.2 The bridge has no side protection and the alignment causes damage on numerous occasions to heavy vehicle trailer wheels. The road provides access to the Westhaven area and Kahurangi National Park. It is used by tourists, the agriculture sector, recreational fishermen and residents for business and access.
- 3.3 This replacement would be funded from a combination of Bridge Replacement (estimated \$260,000), Minor Improvements (estimated \$250,000) and maintenance (estimated \$50,000).
- 3.4 Narrow Bridge is located just north of Ngatimoti and is a six metre long single lane bridge on a very poor alignment. Also built in the 1920s there is no significant

maintenance requirement, however there is frequent damage to the bridge guardrail caused by vehicle crashes. One approach on to the bridge is signposted as a 25 km/hr curve and in winter the road is constantly covered with ice and grit.

- 3.5 A preliminary design has been undertaken which indicates a culvert on a new alignment with 500 metres of road realignment would have an estimated cost of \$1 million plus contingency. It is likely that this cost can be reduced through refinement of the design including a possible reduction in design speed. This would be funded through a combination of Bridge Replacement, Minor Improvements, Maintenance and unsubsidised allocation.
- 3.6 The replacement of the Awaroa Road Bridge is the next highest priority due to condition. It is proposed that design be undertaken to allow accurate estimates to be prepared. Construction will take place only if there is available funding within the subsidised roading accounts, or in the event that one of the above bridge replacements cannot proceed.

4 SIGNIFICANCE

- 4.1 The Ten Year Plan has an allocation for bridge renewals of about \$450,000 in each of the 2010/2011 and 2011/2012 financial years. In the Transportation Activity Management Plan Yellow Pine Bridge was shown as due for replacement in 2009/2010, this was changed with two bridges shown for replacement in 2010/2011 due to condition assessments indicating the 2010/2011 bridges be replaced first. These two bridge replacements have been completed.

5 OPTIONS

- 5.1 The options of not proceeding with replacement of these bridges, particularly Yellow Pine and Awaroa, will lead to an increase in deferred maintenance. Replacing Narrow Bridge will remove the last single lane bridge from the Motueka Valley Highway.

6. RECOMMENDATIONS

- 6.1 THAT the report RESC10-11-03 Proposed Bridge Replacements be received by the Engineering Services Committee.**
- 6.2 THAT the Committee approves the replacement of Yellow Pine Bridge in the 2010/11 year as noted in the report RESC10-11-03.**
- 6.3 THAT the Committee approves detailed design of Narrow Bridge with a view to reducing the overall project cost and, subject to available funding, construction in the 2011/12 year as outlined in the report RESC10-11-03.**
- 6.4 THAT the Committee approves the design work for the replacement of the Awaroa Road Bridge, construction of which will only proceed if existing funding allocations permit, as outlined in the report RESC10-11-03.**

Gary Clark
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