5.08. BLOOMFIELD RIVER BRIDGE

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DEPARTMENT: Management Team Responsibility

RECOMMENDATION

That Council resolve to:

1. **Advise the Department of Transport and Main Roads that Council will not take ownership and ongoing operational responsibility for the Bloomfield River Bridge for the reasons expressed in the report; and**

2. **If required, enter into discussions with the Department of Infrastructure, Local Government and Planning requesting assistance to advocate Council's position.**

EXECUTIVE SUMMARY

The Bloomfield River Bridge was constructed by Contractors appointed by the Department of Transport and Main Roads (DTMR). The bridge was opened to traffic on 1 August 2014 and the construction was subject to a defects liability period of 360 days. The defects liability period expired on 8 August 2015 and DTMR has advised that the ownership and ongoing operational responsibility for the bridge is now passed to Douglas Shire Council (DSC). All relevant senior staff have formed a cohesive view of this issue and have contributed to this report. Officers believe there are strong grounds on which to refute DTMR's assertion and now seek Council's direction.

DSC was not involved in the project scoping, negotiations in relation to contractual arrangements or agreements relating to ownership responsibilities; to the knowledge of officers, these decisions were made by DTMR and Queensland Reconstruction Authority (QRA), with some input from Cairns Regional Council (CRC) prior to de-amalgamation. There was no contractual agreement in place that tied DSC to the construction or funding of the bridge. Additionally, there is no contract or Memorandum of Understanding between CRC and DTMR outlining the ownership responsibilities.

The bridge is located on the extreme northern boundary of the Douglas Local Government Area, primarily servicing the residents of the Wujal Wujal Aboriginal Shire Council area.

Over past years, the state government has encouraged local government to carefully consider whether there are sound reasons to take ownership of an asset that is provided to Council by others, including the ability or inability to afford the life cycle and maintenance costs of that asset. Councils have been encouraged not to accept such assets in the absence of an informed decision to do so. Queensland Treasury Corporation (QTC) has developed the Project Decision Framework for use by Councils to assist in its decision-making process, and officers have utilised this tool in the course of formulating the content and recommendation in this report.

BACKGROUND

The existing low level concrete causeway was damaged during the Severe Tropical Cyclone Yasi event in February 2011. CRC applied for grant assistance through the Natural Disaster Relief and Recovery Arrangements (NDRRA) and received funding approval from QRA totalling $926,635 excl. GST. This funding was not taken up by DSC as the project scope changed from replacing 'like for like' to a betterment project and hence open to challenge by NDRRA and the subsequent risk of expenditure being assessed as ineligible.

It appears that DTMR and QRA determined that instead of reconstructing the damaged low level concrete causeway, it was more appropriate to design and construct a two-lane concrete bridge (at a cost of $12 million). It is understood that funding for construction came from ATSI TIDS through DTMR. CRC did not contribute to the cost of construction and had no contractual relationship with either DTMR or the construction contractor.

COMMENT

The Bloomfield Track is a 4WD-only track that winds its way north from Cape Tribulation to Cooktown, through the Daintree Rainforest. The track serves small communities within the DSC local government area and connects to Wujal Wujal Aboriginal Shire and Cook Shire. The Track crosses a number of creeks and very steep mountain ranges and is often closed to vehicular traffic during heavy rainfall.

The low level concrete causeway at the Bloomfield River was owned and maintained by DSC and achieved a higher level of service than the natural creek crossings to the south. Officers are of the opinion that DSC would not have considered constructing a $12 million concrete bridge across the Bloomfield River as the track is at the northern limit of the shire and the causeway (or bridge) primarily serves the communities outside the Douglas Shire. Additionally, the bridge is located mid-way along the track and during heavy rain events is inaccessible due to the natural creek crossing being impassable.

Had DSC been in existence at the time of Cyclone Yasi, it is reasonable to assume in all the circumstances that it may have secured NDRRA funding to restore this asset on a like-for-like basis, and to reconstruct the existing low level concrete causeway and continue to maintain this asset, fund its depreciation and provide the same level of service to the community as was provided prior to Cyclone Yasi. It was a State Government decision to upgrade to causeway to a bridge structure.

Wujal Wujal Aboriginal Shire Council has also requested that it install water infrastructure on the bridge, further demonstrating that that the bridge structure has a role in servicing the Wujal Wujal community. That request is on hold pending resolution of the ownership of the bridge.

Over the next 10 years, DSC has a number of significant infrastructure upgrade projects that need to be funded. These projects have a higher priority than the Bloomfield River Bridge and perform critical infrastructure roles. Some of these projects and indicative cost estimates are listed below:

• Port Douglas Reservoir	$13,400,000
• Mossman Waste Water Treatment Plant	$6,000,000
• Mossman to Port Douglas Trunk Water Main	$7,000,000
• Sewer Reticulation – Wonga	$7,000,000
• Sewer Reticulation – Newell Beach	$5,000,000
	$38,400,000

In addition to the above it is likely that this year's bridge inspection program will identify the need to do significant upgrades and renewals to Council's bridge network over the next five (5) - ten (10) years at significant cost.

PROPOSAL

That Council resolves to:

1. Advise the Department of Transport and Main Roads that Council will not take ownership and ongoing operational responsibility for the Bloomfield River Bridge for the reasons expressed in this report; and
2. Enter into discussions with the Department of Infrastructure, Local Government and Planning requesting assistance to advocate Council's position.

FINANCIAL/RESOURCE IMPLICATIONS

Officers have undertaken a financial analysis of the ongoing cost of taking responsibility for the ownership and maintenance of the Bloomfield Bridge. Officers have received advice from the Queensland Treasury Corporation (QTC) regarding the analysis and have prepared a number of financial models using the QTC whole-of-life costing tool.

Officers have also used the costing tool to analyse what the ongoing cost to Council may have been had the existing causeway across the Bloomfield River been replaced with a "like-for-like" causeway instead of the bridge. By taking this approach and comparing the outputs from the models, officers have been able to determine the estimated **additional** cost of ownership and maintenance of the bridge.

Consumer price Index

QTC has advised that the future estimated CPI rate will be between 2% and 3%. As the rate used can have a considerable impact on the financial analysis, officers have decided to prepare three models for each scenario (ie bridge vs causeway) utilising the following CPI rates:

- Model A = 2.0%
- Model B = 2.5%
- Model C = 3.0%

Bloomfield Bridge

Assumptions common to all three bridge models are as follows:

- Bridge cost $12m,
- Bridge life 100 years;
- Residual value $0;
- Annual maintenance cost 0.5% (QTC default value);
- Asphalt reseal cost $48,800 every 15 years; and
- Discount rate 6.25% (based on QTC advice).

Replacement Causeway

Assumptions common to all three causeway models are as follows:

- Causeway cost $1m;
- Causeway life 50 years;
- Residual value $0;
- Annual maintenance cost 0.5% (QTC default value); and
- Discount rate 6.25% (based on QTC advice).

Outputs

The following tables summarise the outputs from each of the models:

Model A – 2% CPI, 6.25% Discount Rate

Asset	Nominal Whole of Life Cost	Excluding Construction Cost	Discounted Whole of Life Cost	Excluding Construction Cost
Bridge	$31,849,774	$19,849,774	$13,502,365	$1,502,365
Causeway	$1,427,105	$427,105	$1,106,567	$106,567
Difference	**$30,422,669**	**$19,422,669**	**$12,395,798**	**$1,395,798**

Model B – 2.5% CPI, 6.25% Discount Rate

Asset	Nominal Whole of Life Cost	Excluding Construction Cost	Discounted Whole of Life Cost	Excluding Construction Cost
Bridge	$39,556,739	$27,556,739	$13,690,616	$1,690,616
Causeway	$1,493,477	$493,477	$1,116,066	$116,066
Difference	**$38,063,262**	**$27,063,262**	**$12,574,550**	**$1,574,550**

Model C – 3% CPI, 6.25% Discount Rate

Asset	Nominal Whole of Life Cost	Excluding Construction Cost	Discounted Whole of Life Cost	Excluding Construction Cost
Bridge	$50,765,522	$38,765,522	$13,923,273	$1,923,273
Causeway	$1,572,382	$572,382	$1,126,895	$126,895
Difference	**$49,193,140**	**$38,193,140**	**$12,796,378**	**$1,796,378**

Graphical results of the outputs are included in Appendix A.

Depreciation

Depreciation is not factored into the QTC whole-of-life costing tool however it is an additional expense that Council will incur if it takes over responsibility of the bridge. Whilst depreciation is a "non-cash" expense to Council it impacts on the following:

- Council's annual operating result;
- Council's financial sustainability ratios, in particular:
  - Operating surplus ratio, and
  - Asset sustainability ratio
- Council's future capital works program (as Council is required to expend the equivalent of 90% of its depreciation on asset renewals).

The following table provides a comparison of depreciation on the bridge versus depreciation on a replacement causeway and shows the increased annual and total depreciation expense that Council would incur with the bridge:

Asset	Construction Cost	Estimated Useful Life	Annual Depreciation	Total Depreciation Over Life Of Asset*
Bridge	$12,000,000	100 Years	$120,000	$12,000,000
Causeway	$1,000,000	50 Years	$20,000	$1,000,000
Difference			**$100,000**	**$11,000,000**

** Does not factor in any allowance for asset revaluation*

The ongoing cost to Council of taking responsibility for the ownership and maintenance of the Bloomfield Bridge would be much greater than the ongoing cost of maintaining a causeway in that location. Even by taking a conservative approach and using a 2% CPI rate in the QTC's whole-of-life costing tool the difference in the nominal whole of life cost (excluding the construction cost) would be $19,422,669 coupled with an increase in depreciation of $11,000,000 over the estimated useful life of the new asset. As demonstrated in the other tables above, use of a higher CPI rate within the range estimated by QTC would result in a much higher potential cost to Council.

The Department of Infrastructure, Local Government and Planning engaged QTC to assess Council's capacity to repay existing debt and establishment as a separate entity on 1 January 2014. This Credit Review was released in May 2015 and QTC rated Council as weak with a neutral outlook. The definition of weak as supplied by QTC is as follows:

> *"A local government with an acceptable capacity to meet its financial commitments in the short to medium-term and a limited capacity in the long-term. It has a record of reporting moderate to significant operating deficits with a recent operating deficit being significant. It is unlikely to be able to address its operating deficits, manage unforeseen financial shocks and any adverse changes in its business, without the need for significant changes to the range of and/or quality of services offered. It may experience difficulty in managing core business risks.*

Some of the most significant factors contributing to the weak rating are:

- Historical deficit combined with forecast operating deficits until FY2018
- Asset sustainability ratio indicative of under-investment
- Limited capacity to increase net rates, levies and charges

The aforementioned financial implications to Council will only add further burden to these significant factors identified by QTC in its Credit Review and increase the challenges Council is facing to achieve financial sustainability.

Additionally, having consideration of these financial forecasts and the effects on future budgets, it reinforces the point that had DSC been in existence at the time of damage to the causeway, Council would not have entered into an agreement to build this bridge and take ownership of it.

RISK MANAGEMENT IMPLICATIONS

DSC was not involved in the project scoping, negotiations in relation to contractual arrangements or agreements relating to ownership responsibilities; as these decisions were made by DTMR and others prior to de-amalgamation. There was no contractual agreement in place that tied DSC to the construction or funding of the bridge. Additionally, there is no contract or Memorandum of Understanding between CRC and DTMR outlining the ownership responsibilities.

The bridge has been designed and constructed to DTMR standards and has a design life of 100 years. The bridge deck is at the 1 in 2 year flood level and on average the bridge will be overtopped every 2 years. DSC staff have the skills and expertise to undertake minor routine maintenance on the structure but if substantial repairs are required, DSC will be required to contract in these services.

SUSTAINABILITY IMPLICATIONS

Economic: The ongoing cost to Council of taking responsibility for the ownership and maintenance of the Bloomfield Bridge would be much greater than the ongoing cost of maintaining a causeway in that location.

Environmental: The bridge provides an increased environmental outcome over the low level causeway due to an increased channel width and depth for marine life movement. The bridge deck is set to be overtopped in a 1 in 2 year rain event and is therefore considered a low level bridge in itself.

Social: The bridge is on the northern boundary of the shire and primarily serves the residents of other shires. Equitable access for travellers driving through the region is improved due to the bridge but during heavy rain events the natural creek crossings along the Bloomfield Track make it impossible to reach this isolated bridge.

CORPORATE/OPERATIONAL PLAN, POLICY REFERENCE

This report has been prepared in accordance with the following:

Corporate Plan 2014-2019 Initiatives:

Theme 5 - Governance

5.1.1 - Establish and develop long term financial, resource and infrastructure planning to ensure ongoing capacity to fund operations and capital works programs.

COUNCIL'S ROLE

Council can play a number of different roles in certain circumstances and it is important to be clear about which role is appropriate for a specific purpose or circumstance. The implementation of actions will be a collective effort and Council's involvement will vary from information only through to full responsibility for delivery.

The following areas outline where Council has a clear responsibility to act:

Advocate	Supporting communities and groups by advocating for certain actions from other organisations (usually other levels of government)
Asset-Owner	Meeting the responsibilities associated with owning or being the custodian of assets such as infrastructure.

CONSULTATION

Internal: In preparing this report, consultation was undertaken with the following Council Officers:

- Manager Infrastructure;
- Manager Finance and IT;
- General Manager Corporate Services;
- General Manager Operations; and
- Chief Executive Officer.

External: In preparing this report, consultation was undertaken with the following external groups:

- Queensland Treasury Corporation;
- Department of Infrastructure, Local Government and Planning;
- Department of Transport and Main Roads (FNQ district).

ATTACHMENTS

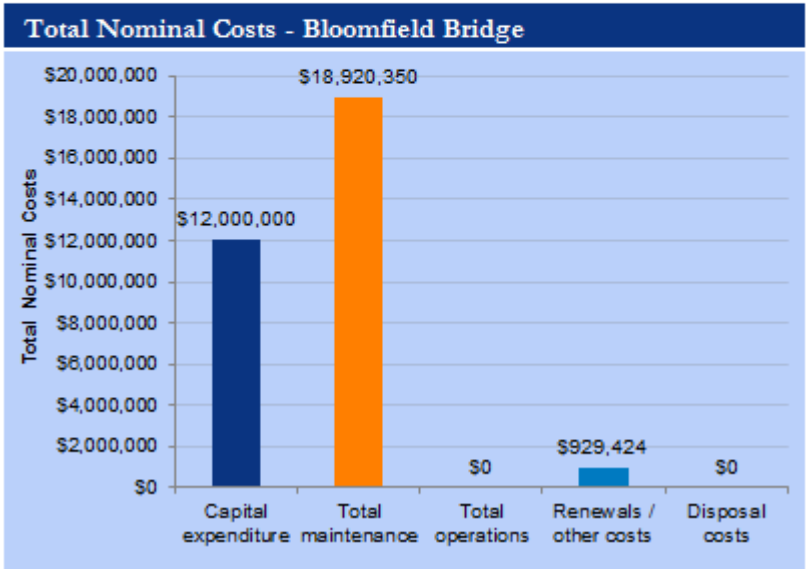
Attachment 1 - Graphical Results from QTC Whole-of-Life Costing Tool

Graphical Results from QTC Whole-of-Life Costing Tool

Model A – 2% CPI, 6.25% Discount Rate

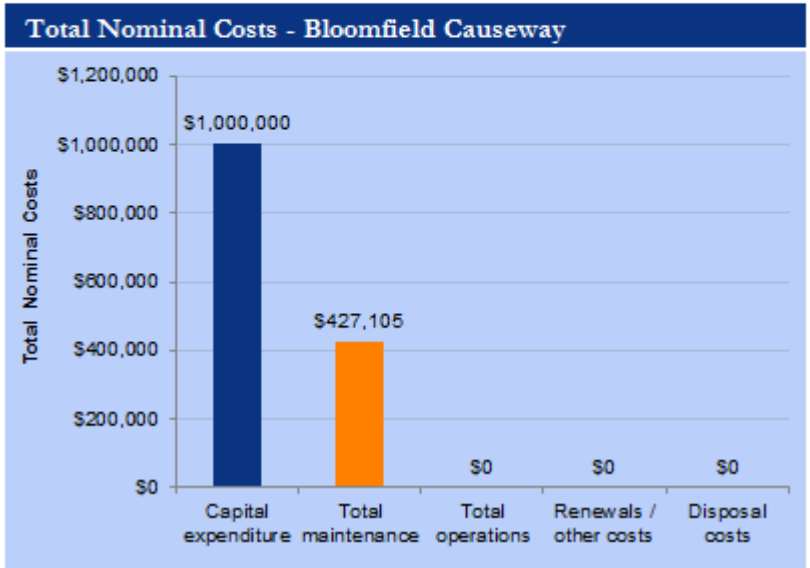
Bloomfield Bridge

Whole of Life Cost & Capex Multiple		
Nominal Whole of Life Cost	($) 31,849,774	2.7x
Whole of life cost without the consideration of time value		
Discounted Whole of Life Cost	($) 13,502,365	1.1x
Whole of life cost on a discounted cash flow basis		



Bloomfield Causeway

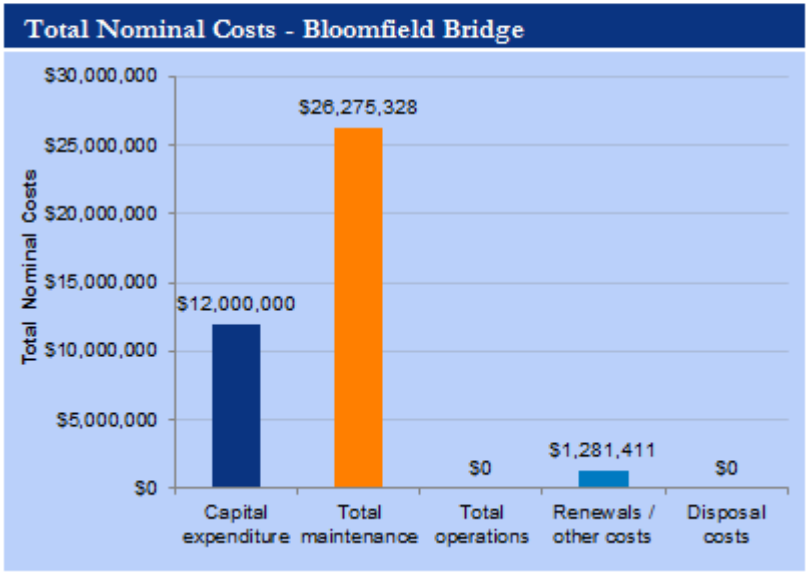
Whole of Life Cost & Capex Multiple		
Nominal Whole of Life Cost	($) 1,427,105	1.4x
Whole of life cost without the consideration of time value		
Discounted Whole of Life Cost	($) 1,106,567	1.1x
Whole of life cost on a discounted cash flow basis		



Model B – 2.5% CPI, 6.25% Discount Rate

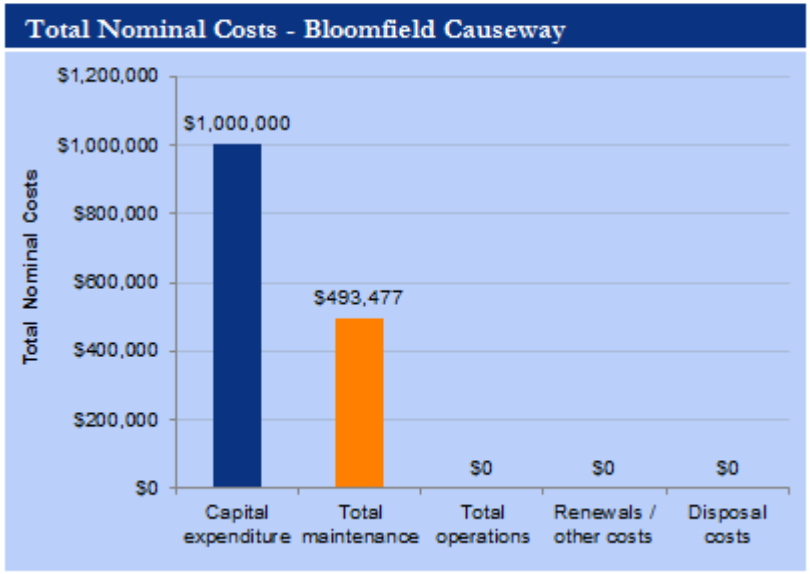
Bloomfield Bridge

Whole of Life Cost & Capex Multiple		
Nominal Whole of Life Cost	($) 39,556,739	3.3x
Whole of life cost without the consideration of time value		
Discounted Whole of Life Cost	($) 13,690,616	1.1x
Whole of life cost on a discounted cash flow basis		



Bloomfield Causeway

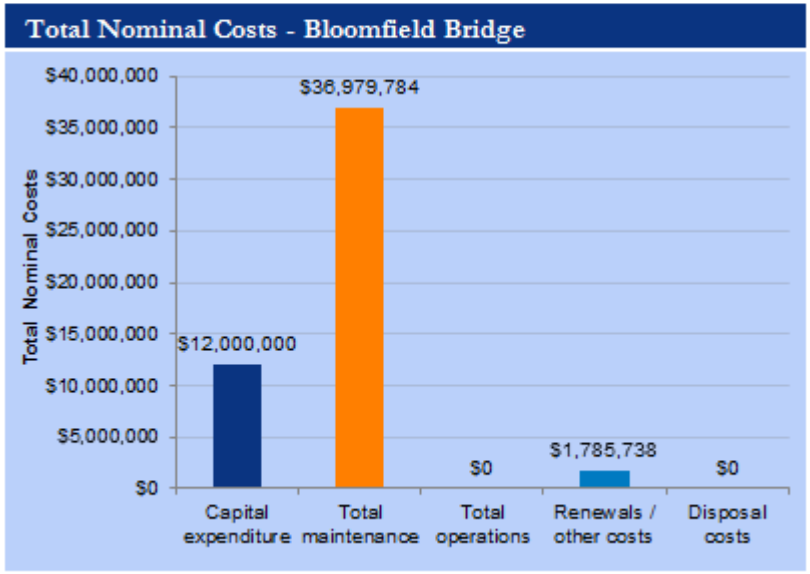
Whole of Life Cost & Capex Multiple		
Nominal Whole of Life Cost	($) 1,493,477	1.5x
Whole of life cost without the consideration of time value		
Discounted Whole of Life Cost	($) 1,116,066	1.1x
Whole of life cost on a discounted cash flow basis		



Model C – 3% CPI, 6.25% Discount Rate

Bloomfield Bridge

Whole of Life Cost & Capex Multiple		
Nominal Whole of Life Cost	($) 50,765,522	4.2x
Whole of life cost without the consideration of time value		
Discounted Whole of Life Cost	($) 13,923,273	1.2x
Whole of life cost on a discounted cash flow basis		



Bloomfield Causeway

Whole of Life Cost & Capex Multiple		
Nominal Whole of Life Cost	($) 1,572,382	1.6x
Whole of life cost without the consideration of time value		
Discounted Whole of Life Cost	($) 1,126,895	1.1x
Whole of life cost on a discounted cash flow basis