

5.6. BRIDGE RENEWAL PROGRAM - POLETTI'S BRIDGE

REPORT AUTHOR(S): Michael Matthews, Project Engineer
GENERAL MANAGER: Michael Kriedemann, Acting General Manager Operations
DEPARTMENT: Infrastructure

RECOMMENDATION

That Council resolves to:

- **apply to the Australian Government to have surplus grant funding of \$439,000 approved under Round Three of the Bridges Renewal Program for Diggers Bridge Replacement Program to be transferred to the Poletti's Bridge Renewal Project;**
- **commit to providing the required capital funds of \$511,000 to complete the Poletti's Bridge Renewal Project should the application to transfer the grant funding be successful; and**
- **delegates authority to the CEO under section 257 of the *Local Government Act 2009* to finalise any and all matters associated with the transfer of grant funds application.**

EXECUTIVE SUMMARY

Council undertakes regular inspections of its bridges and major culvert structures. Condition and performance monitoring of these structures utilise the Department of Transport and Main Road Bridge Inspection Manual which closely aligns the performance of assets to the level of service provided to customers. This is generally measured in terms of reliability, availability, capacity and meeting customer demands and needs.

Council has recently completed the annual program of structure inspections to update the current condition status for each structure and to determine the annual maintenance program.

The Poletti's Bridge inspection previously identified the structure to be in poor condition and a further inspection by a qualified engineer / bridge inspector determined that the structural issues have deteriorated further and recommended a temporary bypass be installed for the cane crushing season to ensure the current 10(t) load limit can be strictly enforced.

The proposal is to renew Poletti's Bridge with a single span post tensioned concrete beam structure. This new structure will mitigate the risk associated with the current ageing infrastructure and will deliver economic benefits for the local industry currently operating in the valley accessed via Poletti's Road. Poletti's Bridge is a shovel ready project as the detailed design and documentation is completed and this project has successfully gained all approvals required for construction. A construction budget of \$950,000 is required for the construction and project management phases.

BACKGROUND

Poletti's Bridge provides access to a small number of sugar cane growing properties. The existing structure has been assessed as being in condition state 4 (on a scale of 1 - 5) and all measures have been actioned to keep this structure in service. Council recently completed a Level 2 bridge inspection and the recommendation has been to reduce the load limit to 10 (t) tonne. To ensure cane harvesters and bin haulers can access the farms in the area, a temporary gravel causeway was constructed at the beginning of the harvest season.

The proposal is to renew Poletti's Bridge with a single span post tensioned concrete beam structure. This new structure will mitigate the risk associated with the current ageing infrastructure and will deliver economic benefits for the local industry currently operating in the valley accessed via Poletti's Road.

Poletti's Bridge is a shovel ready project as the detailed design and documentation is completed and this project has successfully gained all approvals required for construction. A construction budget of \$950,000 is required for the construction and project management phases.

COMMENTS

The Bridge Renewal Program has strategically prioritised the upgrade or replacement of bridges and major culverts based on several key criteria:

- Economic benefits to the local and wider community;
- Current structure condition and intervention options available; and
- Potential for catastrophic failure and the risk of personal injury.

Based on the above program priorities, Council nominated Noah Creek Bridge and Diggers Bridge for external funding. In 2017 Council was successful in gaining funding through the Australian Government Bridge Renewal Program Round 3 for Diggers Bridge.

At the Ordinary Council Meeting of 21 November 2017, Council resolved to match the Bridge Renewal Program Round Three grant funding on a 50/50 basis (Council contribution of \$1,339,250) and this commitment was included in the 2018/19 budget. At the Ordinary Council Meeting of 15 May 2018, Council resolved to award the construction contract to Kenmac Constructions for \$1,658,000 (GST exclusive).

PROPOSAL

That Council resolves to:

- apply to the Australian Government to have surplus grant funding of \$439,000 approved under Round Three of the Bridges Renewal Program for Diggers Bridge Replacement Program to be transferred to the Poletti's Bridge Renewal Project;
- commit to providing the required capital funds of \$511,000 to complete the Poletti's Bridge Replacement Project should the application to transfer the grant funding be successful; and
- delegates authority to the CEO under section 257 of the *Local Government Act 2009* to finalise any and all matters associated with the transfer of grant funds application.

FINANCIAL/RESOURCE IMPLICATIONS

Council has allocated the following amounts in the capital budget to the Diggers Bridge Replacement Project:

Approved Budget 18/19 (Including Carry Over Budget)	\$1,339,250
Transport Infrastructure Development Scheme	\$1,339,250
Total Approved Budget	<u>\$2,678,500</u>
Awarded Contract to Kenmac Construction	\$1,658,000
Contingencies including Project Management	\$142,500
Total anticipated actuals	<u>\$1,800,500</u>
Unallocated Budget	\$878,000

Digger Bridge Project is under budget and on schedule. A saving of \$439,000 (determined on a 50:50 project contribution split) is anticipated from Council's capital contribution. The Funding Agreement conditions specifically detailed funds saved cannot be used on other bridge renewal projects. It is proposed that Council apply to the Australian Government to have the savings from the grant (\$439,000) transferred to the Poletti's Bridge project.

The Poletti's Bridge renewal has been designed and is ready for construction. It is proposed that \$439,000 be transferred from the Diggers Bridge project and an additional \$72,000 be allocated to the Poletti's Bridge Renewal Project, giving a Council contribution of \$511,000. It is further proposed that the savings from the Australian Government grant for Diggers Bridge \$439,000 be reallocated to the Poletti's Bridge project (at the approval of the Australian Government).

RISK MANAGEMENT IMPLICATIONS

Council must plan and deliver a suitable works program to ensure that its assets are able to service the needs of the communities with Douglas Shire. Council has a statutory obligation as a service provider to ensure it is able to provide transport services to customers.

Council's reputation and local industry would suffer if it is unable to maintain assets and service levels at necessary standards. The consequence of inadequate maintenance and upgrade of capital assets will be increased costs in the future.

This project will be completed through an open tender process to select a Principal Contractor. Council's tender assessment process includes a ranking of the tender for value for money and the contractors experience in role of the Principal Contractor for similar size projects. Council contract supervision and project management for this type of project will ensure regular communication, understanding of the construction processes and timeframes are maintained to the required standard and budgets allocated.

This project will be constructed during the winter dry period, which is also the peak cane crushing season. Traffic delays are not expected during construction as a temporary bypass will be implemented during construction.

SUSTAINABILITY IMPLICATIONS:

Economic: This project will improve safety at this section of the valley, increase flood resilience and provide a robust asset. Tourists and tour operators will be able to enjoy increased access to the various areas and communities in the Shire once the project is completed. The proposed use of local contractors in the supply of goods and services for the construction of essential public assets provides economic opportunities within the Shire.

Environmental: The design of the Poletti's Bridge replacement structure incorporated Wet Tropics Management Authority (WTMA) principles and environmental conditions have been addressed.

Social: Improved resilience for public infrastructure is necessary to provide safe and useable transport networks for the movement of goods and services, particularly in rural areas and during the preparation and recovery from natural disaster. Well maintained and safe road networks are vital for ensuring communities are connected and have access to goods, services and community networks.

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:

Asset-Owner Meeting the responsibilities associated with owning or being the custodian of assets such as infrastructure.

ATTACHMENTS

1. 8011 - Poletti Road Bridge - 2 Span Timber bridge - 182725 **[5.6.1]**

Level Two Structure Inspection Report

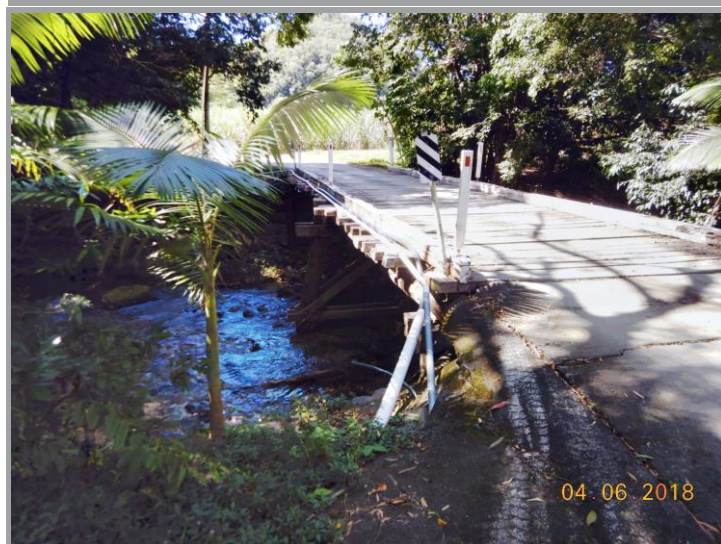
Attachment 5.6.1

78 of 198

A2/1

Structure ID:	8011	Name:	Poletti Road Bridge - 2 Span Timber brid
Crossing:	Saltwater Creek	Road Number:	
Structure Type:	Bridge	Road Name:	Poletti Road
Construction Type:	Girder	Owner:	Douglas Shire Council
Construction Material:	Timber	District:	Miallo
Inspector:	Mark de Hayr	Local Authority:	DSC
Latitude:	-16.407509	Longitude:	145.356155
Inspection Date:	4/06/2018	Max Height (M)	4.5
Next Inspection Date:	4/06/2019	Width (M)	4.5
Total Length (M)	18	Bearing - AP1-AP2	East
Carriageway		Load Limit	10
Footway	None	Status	Active
Chainage (Km)		From	To

Inspection Level 2 ☒ Level 3 ☐ Programmed ☒ Exceptional ☐ Underwater ☐



Inspection Comments:

Two Span Timber Girder Bridge crossing Saltwater Creek on Poletti's Road. Approach One is deemed to be Western Side and is Give Way controlled. Structure is currently Load Limited to 10t.

Temporary Works has been emplaced by adding a Fender Pile to Pier One RHS (Upstream Side).

Overall Condition State

ModificationName	CS 1	CS 2	CS 3	CS 4	Comments
Original	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Structure is in Very Poor Condition

Defect Comments:

Bridge is in Overall Poor Condition. The Snipes/notching have been incorrectly applied in most girders and could be rectified through anti split treatments. Pile Two has been previously Spliced at mid height. Pile Three in Pier is completely rotted through and the load is expected to be currently only be supported through the bracing timber. The Wale in Face Two in the pier (at Pile 3) has split resulting in no support. Piles 1 and 2 in Abutment Two are in CS3 from dill testing but have been elevated to CS4 due to loss of section from surface rot from being in contact with the concrete abutment sheeting. The distributors have missing/insufficient fixings. A "Fender Pile" has been installed by Council on the RHS of Pier One - This is not considered to be significantly adding to the Structural Capacity of the structure.

Girder One and Four in Span One and Girders Three and Four in Span Two have 20-30mm (40-60mm of effective dia) loss of

sapwood through surface rot and would be classed in CS3 without the over sniping issue.

Attachment 5.6.1

79 of 198

RECOMMENDATIONS: As per the Timber Bridge Inspection Manual - Pile Two has previously been Spliced and Pile Three is in CS4 there is no option but to fully replace one or more of the Piles in the Pier or to replace / upgrade the existing structure. Piles One and Two in Abutment Two should be replaced.

SUGGESTIONS: The addition of further Guideposts in the approach is suggested. Advance warning signage of "Load Limited Bridge Ahead" at the intersection of Syndicate Road and Poletti Road is warranted.

Inventory Report

A2/2

Modification	Group	Component	Standard Number	Exposure Class	Quantity	Unit	CS 1	CS 2	CS 3	CS 4	Mtce Required	Comments
O	AP1	AP	700	2	1	Each	0	0	1	0	<input checked="" type="checkbox"/>	4.5m Bitumen wearing surface in approach has transverse cracking through - consideration for additional guide posts is suggested. Approach One is Give way controlled. Advance warning signage of "Load Limited Bridge Ahead" at the intersection of Syndicate Road and Poletti Road is warranted. [See Photo] - DSCN5941.JPG, DSCN5939.JPG, DSCN5938.JPG, DSCN5940.JPG
O	S1	K	3T	2	19	Lin m	0	19	0	0	<input type="checkbox"/>	Hardwood timber kerbs has minor to medium decay not sufficient to affect the serviceability
O	S1	D	29T	2	38	m2	0	38	0	0	<input type="checkbox"/>	Hardwood Timber Planks are in fair condition - The Distributors require additional fixings [See Photo] - DSCN5942.JPG
O	S2	K	3T	2	18	Lin m	0	18	0	0	<input type="checkbox"/>	Hardwood timber kerbs has minor to medium decay not sufficient to affect the serviceability [See Photo] - DSCN5944.JPG, DSCN5945.JPG
O	S2	D	29T	2	36	m2	0	36	0	0	<input type="checkbox"/>	Hardwood Timber Planks are in fair condition - The Distributors require additional fixings
O	AP2	AP	700	2	1	Each	0	1	0	0	<input checked="" type="checkbox"/>	4.5m Bitumen wearing surface in approach is in fair condition - consideration for additional guide posts is suggested [See Photo] - DSCN5943.JPG
O	A1	ABS	52C	2	10	m2	0	10	0	0	<input type="checkbox"/>	Cast in situ Abutment Sheeting is in fair condition. NOTE: the sheeting has not been correctly installed as is attributing to the surface rot in the pile. [See Photo] - DSCN5946.JPG
O	A1	H	54T	2	2	Each	0	2	0	0	<input type="checkbox"/>	280x180 hardwood headstocks are in fair condition
O	A1	P	56T	2	3	Each	0	2	1	0	<input type="checkbox"/>	Pile Three has Full depth split to 1m from top of pile. Pile Two has doey (soft drilling) at top. [See Photo] - DSCN5948.JPG
O	S1	G	22T	2	4	Each	0	0	0	4	<input type="checkbox"/>	All girders have been over sniped/notched thus resulting in CS4 rating. Girders 1-3 would be in CS2 by drill rating. Girder 1 and 4 has 40-50mm loss of surface section (80-1000mm effective diameter) due to surface rot. [See Photo] - DSCN5947.JPG
O	P1	COR	27T	2	4	Each	0	3	1	0	<input type="checkbox"/>	Corbel 2 is in CS4 due to over sniping, (CS2 by drill testing)
O	P1	H	54T	2	2	Each	0	2	0	0	<input type="checkbox"/>	280x180 hardwood headstocks are in fair condition [See Photo] - DSCN5949.JPG, DSCN5952.JPG

Structure ID:		8011		Bridge Name		Poletti Road Bridge - 2 Span Ti		Road Name:		Poletti Road			
Inspection Date:		Attachment 5.6.1 14/06/2018		District:		Miallo		81 of 198		Authority:		DSC	
O	P1	P	56T	2	3	Each	0	1	1	1	<input type="checkbox"/>	Pile One has extensive surface splitting and 80mm piping at the top. Pile Three is completely rotted throughout. Face Two Whale has severe spilt. A fender Post has been installed on the Upstream (RHS) to Pile Three. Pile Two has been Previously Spliced and is in Fair Condition [See Photo] - DSCN5950.JPG, DSCN5951.JPG	
O	S2	G	22T	2	4	Each	0	0	0	4	<input type="checkbox"/>	All girders have been over sniped/notched thus resulting in CS4 rating. Girders 1-4 would be in CS2 by drill rating. Girder 3 and 4 (20-30mm) loss of surface section (40-60mm effective diameter) due to surface rot. Girder One and Three would be in CS3 due to the side splitting.	
O	A2	ABS	52C	2	10	m2	0	10	0	0	<input type="checkbox"/>	Cast in situ Abutment Sheeting is in fair condition. NOTE: the sheeting has not been correctly installed as is attributing to the surface rot in the piles. [See Photo] - DSCN5953.JPG	
O	A2	H	54T	2	2	Each	0	1	1	0	<input type="checkbox"/>	280x180 hardwood headstocks are in fair condition. Headstock One has 400x100mm section of rot at top of pile Two. "White Rot" is developing along the front face of Headstock One. [See Photo] - DSCN5955.JPG	
O	A2	P	56T	2	2	Each	0	0	0	2	<input type="checkbox"/>	Pile One has Full depth split to 1m from top of pile. Pile Two has doey (soft drilling) at top. Piles are rated CS3 by drill rating and have been elevated to CS4 due to loss of section due to surface rot at the base where 20% has deteriorated where it has been in contact with the concrete batter protection. Pile Two has Lichen growth. [See Photo] - DSCN5956.JPG, DSCN5954.JPG, DSCN5957.JPG	
O	A2	P	56S	2	1	Each	0	1	0	0	<input type="checkbox"/>	Concrete Filled Steel Pile is in Fair Condition - Abutment Pile #3	

Structure ID:	8011	Bridge Name:	Poletti Road Bridge - 2 Span Ti	Road Name:	Poletti Road
Inspection Date:	14/06/2018	District:	Miallo	Authority:	DSC

Defective Components Report

A2/3

Modification	Group	Component	Standard Number	Exposure Class	Condition State 3	Condition State 4	Defect Description	Monitor	Level 3 Inspection	Other
O	AP1	AP	700	2	1	0	Install Additional Approach Delineation, install additional advanced warning sign at Syndicate Road intersection	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O	AP2	AP	700	2	0	0	Install Additional Approach Delineation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O	A1	P	56T	2	1	0	Replace Pile	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
O	S1	G	22T	2	0	4	Replace Girders	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
O	P1	COR	27T	2	1	0	Replace Corbel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
O	P1	P	56T	2	1	1	Replace Pile and Whales	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
O	S2	G	22T	2	0	4	Replace Girders	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
O	A2	H	54T	2	1	0	Replace Headstock	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
O	A2	P	56T	2	0	2	Replace Pile	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Structure ID:	8011	Bridge Name:	Poletti Road Bridge - 2 Span Ti	Road Name:	Poletti Road	
Inspection Date:	14/06/2018	District:	Miallo	83 of 198	Authority:	DSC

Standard Procedure Exceptions Report

A2/4

Modification	Group	Component	Standard Number	Exposure Class	Undefined Component	Component Not Inspected	Less than 25% Comp Inspected	Other	Comments *Description *Photographic reference *Reason component not inspected *Any other exceptions
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No Exceptions Noted

Structure ID:	8011	Bridge Name	Poletti Road Bridge - 2 Span Ti	Road Name:	Poletti Road
Inspection Date:	14/06/2018	District:	Miallo	Authority:	DSC

Attachment 5.6.1

84 of 198

Photographs and Sketches Record List

A2/6

Reference	Modification	Group	Component	Description *Deck Surface (full width and alignment) *Side View (waterway, spans, piers, etc) *Underside (deck and pier construction) *Deficient Component and Major Defects *Undefined Elements
DSCN5939.JP	O	AP1	AP	Approach One
DSCN5940.JP	O	AP1	AP	Transverse cracking in Approach One Bitumen Wearing Surface
DSCN5941.JP	O	AP1	AP	Minor Scouring at Approach One LHS
DSCN5938.JP	O	AP1	AP	Approach One
DSCN5942.JP	O	S1	D	General view of Deck Plank from Approach One
DSCN5944.JP	O	S2	K	RHS view from Approach Two
DSCN5945.JP	O	S2	K	Hardwood Timber Kerb rotted
DSCN5943.JP	O	AP2	AP	Approach Two
DSCN5946.JP	O	A1	ABS	Abutment One
DSCN5948.JP	O	A1	P	Surface rot in Abutment One Pile One
DSCN5947.JP	O	S1	G	Detail of surfce rot in Span One Girder One
DSCN5949.JP	O	P1	H	Pier One Face One
DSCN5952.JP	O	P1	H	Pier One Face Two
DSCN5950.JP	O	P1	P	Detail of "Fender " Pile added to Pier One Pile Three
DSCN5951.JP	O	P1	P	Detail of splitting in Whale in Pier One Face One RHS
DSCN5953.JP	O	A2	ABS	Abutment Two
DSCN5955.JP	O	A2	H	Detail of rot in Abutment Two Headsocks
DSCN5957.JP	O	A2	P	Detail of split and rot in Abutment Two Pile Two
DSCN5954.JP	O	A2	P	Detail of fully depth split in Abutment Two Pile One
DSCN5956.JP	O	A2	P	Detail of Lichen growth in Abutment Two Pile Two

Structure ID:	8011	Bridge Name	Poletti Road Bridge - 2 Span Ti	Road Name:	Poletti Road	
Inspection Date:	Attachment 5.6.1 4/06/2018	District:	Miallo	85 of 198	Authority:	DSC

Photographs and Sketches Record

A2/6

Modification:	Group:	Standard Number:	Component:
O	AP1	700	AP
ID:	DSCN5939.JPG	Inspection Date	4/06/2018

Description:

Approach One

Reference:	Sketch:

Modification:	Group:	Standard Number:	Component:
O	AP1	700	AP
ID:	DSCN5940.JPG	Inspection Date	4/06/2018

Description:

Transverse cracking in Approach One Bitumen Wearing Surface

Reference:	Sketch:

Modification:	Group:	Standard Number:	Component:
O	AP1	700	AP
ID:	DSCN5941.JPG	Inspection Date	4/06/2018

Description:

Minor Scouring at Approach One LHS

Reference:	Sketch:

Modification:	Group:	Standard Number:	Component:
O	AP1	700	AP
ID:	DSCN5938.JPG	Inspection Date	4/06/2018

Description:

Approach One

Reference:	Sketch:



Structure ID:	8011	Bridge Name:	Poletti Road Bridge - 2 Span Ti	Road Name:	Poletti Road
Inspection Date:	4/06/2018	District:	Miallo	86 of 198	Authority:

Modification:	Group:	Standard Number:	Component:
O	S1	29T	D
ID:	DSCN5942.JPG	Inspection Date	4/06/2018

Description:

General view of Deck Plank from Approach One

Reference:	Sketch:

Modification:	Group:	Standard Number:	Component:
O	S2	3T	K
ID:	DSCN5944.JPG	Inspection Date	4/06/2018

Description:

RHS view from Approach Two

Reference:	Sketch:

Modification:	Group:	Standard Number:	Component:
O	S2	3T	K
ID:	DSCN5945.JPG	Inspection Date	4/06/2018

Description:

Hardwood Timber Kerb rotted

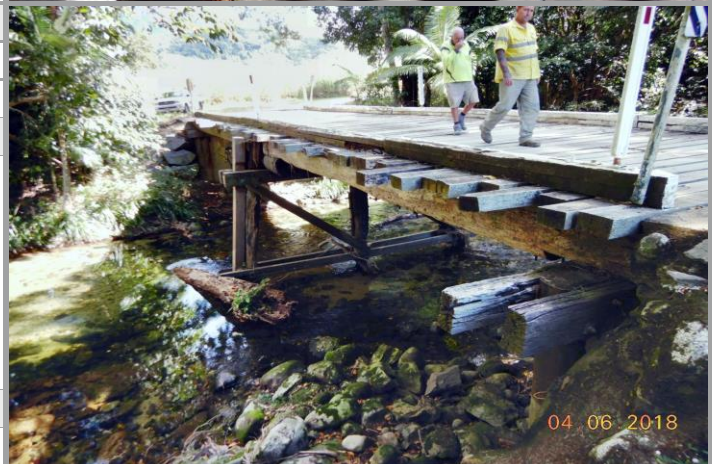
Reference:	Sketch:

Modification:	Group:	Standard Number:	Component:
O	AP2	700	AP
ID:	DSCN5943.JPG	Inspection Date	4/06/2018

Description:

Approach Two

Reference:	Sketch:



Structure ID:	8011	Bridge Name	Poletti Road Bridge - 2 Span Ti	Road Name:	Poletti Road	
Inspection Date:	Attachment 5.6.1 4/06/2018	District:	Miallo	87 of 198	Authority:	DSC

Modification:	Group:	Standard Number:	Component:
O	A1	52C	ABS
ID:	DSCN5946.JPG	Inspection Date	4/06/2018

Description:

Abutment One

Reference:	Sketch:

Modification:	Group:	Standard Number:	Component:
O	A1	56T	P
ID:	DSCN5948.JPG	Inspection Date	4/06/2018

Description:

Surface rot in Abutment One Pile One

Reference:	Sketch:

Modification:	Group:	Standard Number:	Component:
O	S1	22T	G
ID:	DSCN5947.JPG	Inspection Date	4/06/2018

Description:

Detail of surface rot in Span One Girder One

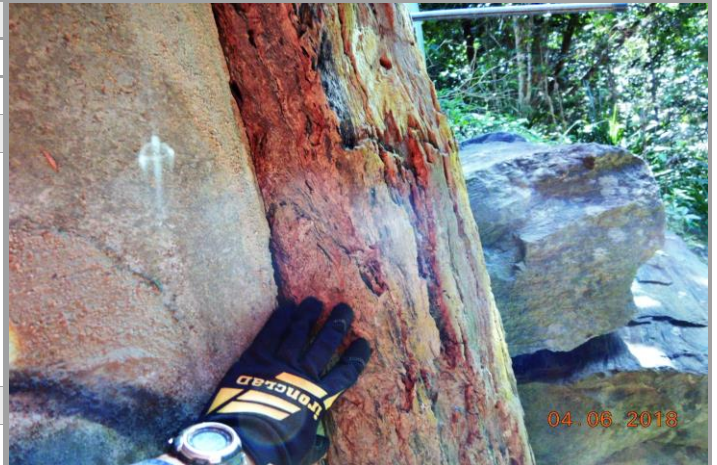
Reference:	Sketch:

Modification:	Group:	Standard Number:	Component:
O	P1	54T	H
ID:	DSCN5949.JPG	Inspection Date	4/06/2018

Description:

Pier One Face One

Reference:	Sketch:



Structure ID:	8011	Bridge Name	Poletti Road Bridge - 2 Span Ti	Road Name:	Poletti Road	
Inspection Date:	Attachment 5.6.1 4/06/2018	District:	Miallo	88 of 198	Authority:	DSC

Modification:	Group:	Standard Number:	Component:
O	P1	54T	H
ID: DSCN5952.JPG	Inspection Date		4/06/2018

Description:

Pier One Face Two

Reference:	Sketch:

Modification:	Group:	Standard Number:	Component:
O	P1	56T	P
ID: DSCN5950.JPG	Inspection Date		4/06/2018

Description:

Detail of "Fender " Pile added to Pier One Pile Three

Reference:	Sketch:

Modification:	Group:	Standard Number:	Component:
O	P1	56T	P
ID: DSCN5951.JPG	Inspection Date		4/06/2018

Description:

Detail of splitting in Whale in Pier One Face One RHS

Reference:	Sketch:

Modification:	Group:	Standard Number:	Component:
O	A2	52C	ABS
ID: DSCN5953.JPG	Inspection Date		4/06/2018

Description:

Abutment Two

Reference:	Sketch:



Structure ID:	8011	Bridge Name:	Poletti Road Bridge - 2 Span Ti	Road Name:	Poletti Road
Inspection Date:	4/06/2018	District:	Miallo	89 of 198	Authority:
DSC					

Modification:	Group:	Standard Number:	Component:
O	A2	54T	H
ID:	DSCN5955.JPG	Inspection Date	4/06/2018

Description:

Detail of rot in Abutment Two Headsocks

Reference:	Sketch:

Modification:	Group:	Standard Number:	Component:
O	A2	56T	P
ID:	DSCN5957.JPG	Inspection Date	4/06/2018

Description:

Detail of split and rot in Abutment Two Pile Two

Reference:	Sketch:

Modification:	Group:	Standard Number:	Component:
O	A2	56T	P
ID:	DSCN5954.JPG	Inspection Date	4/06/2018

Description:

Detail of fully depth split in Abutment Two Pile One

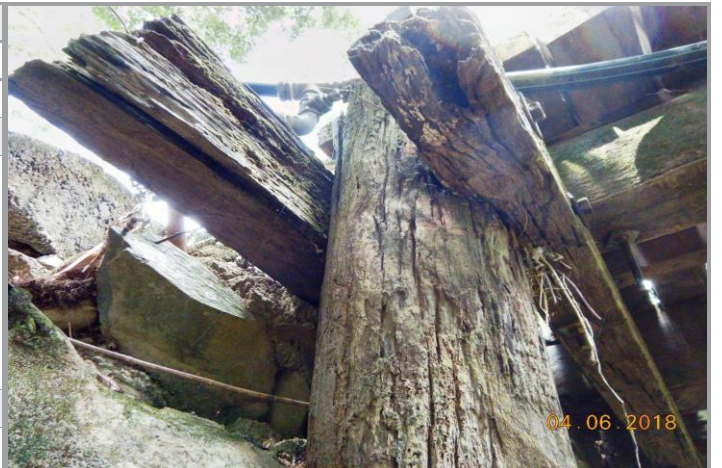
Reference:	Sketch:

Modification:	Group:	Standard Number:	Component:
O	A2	56T	P
ID:	DSCN5956.JPG	Inspection Date	4/06/2018

Description:

Detail of Lichen growth in Abutment Two Pile Two

Reference:	Sketch:



Structure ID:	8011	Bridge Name:	Poletti Road Bridge - 2 Span Ti	Road Name:	Poletti Road	
Inspection Date:	Attachment 5.6.1 4/06/2018	District:	Miallo	90 of 198	Authority:	DSC

Structure Maintenance Schedule

A4

Structure ID:	8011	Name:	Poletti Road Bridge - 2 Span Timber brid
Crossing:	Saltwater Creek	Road Number:	
Structure Type:	Bridge	Road Name:	Poletti Road
Construction Type:	Girder	Owner:	Douglas Shire Council
Construction Material:	Timber	District:	Miallo
Inspector:	Mark de Hayr	Local Authority:	DSC
Latitude:	-16.407509	Longitude:	145.356155
Inspection Date:	4/06/2018	Max Height (M)	4.5
Next Inspection Date:		Width (M)	4.5
Total Length (M)	18		
Chainage (Km)		From	To
Inspection Level 2	<input checked="" type="checkbox"/>	Level 3	<input type="checkbox"/>
Programmed	<input type="checkbox"/>	Exceptional	<input type="checkbox"/>
Underwater	<input type="checkbox"/>		



Defect Comments

Bridge is in Overall Poor Condition. The Snipes/notching have been incorrectly applied in most girders and could be rectified through anti split treatments. Pile Two has been previously Spliced at mid height. Pile Three in Pier is completely rotted through and the load is expected to be currently only be supported through the bracing timber. The Wale in Face Two in the pier (at Pile 3) has split resulting in no support. Piles 1 and 2 in Abutment Two are in CS3 from dill testing but have been elevated to CS4 due to loss of section from surface rot from being in contact with the concrete abutment sheeting. The distributors have missing/insufficient fixings. A "Fender Pile" has been installed by Council on the RHS of Pier One - This is not considered to be significantly adding to the Structural Capacity of the structure.

Girder One and Four in Span One and Girders Three and Four in Span Two have 20-30mm (40-60mm of effective dia) loss of sapwood through surface rot and would be classed in CS3 without the over sniping issue.

RECOMMENDATIONS: As per the Timber Bridge Inspection Manual - Pile Two has previously been Spliced and Pile Three is in CS4 there is no option but to fully replace one or more of the Piles in the Pier or to replace / upgrade the existing structure. Piles One and Two in Abutment Two should be replaced.

SUGGESTIONS: The addition of further Guideposts in the approach is suggested. Advance warning signage of "Load Limited Bridge Ahead" at the intersection of Syndicate Road and Poletti Road is warranted.

Structure ID:	8011	Bridge Name:	Poletti Road Bridge - 2 Span Ti	Road Name:	Poletti Road	
Inspection Date:	14/06/2018	District:	Miallo	91 of 198	Authority:	DSC

Inspectors Comments:

Summation of Defect Maintenance costs is indicative only. Final costs to be determined by Authorities existing practices

Stewards_Comments:

To Be Advised - upon completion of Maintenance Activities

Total MTCE Backlog Amount **\$64,428**

Structure ID:	8011	Bridge Name:	Poletti Road Bridge - 2 Span Ti	Road Name:	Poletti Road	
Inspection Date:	14/06/2018	District:	Miallo	92 of 198	Authority:	DSC

Maintenance Schedule

M1

Modification Group/ Component/ StandardNumber ComponentName: O AP1 AP 700 Approach

Inventory Comments							
Install Additional Approach Delineation, install additional advanced warning sign at Syndicate Road intersection							
ActivityNo:	Description:	Unit:	Qty	UnitRate:	Amount:	Priority:	Completed
APP01	Add Approach Delineation	Each	3	\$110.00	\$330.00	2	<input type="checkbox"/>

Modification Group/ Component/ StandardNumber ComponentName: O AP2 AP 700 Approach

Inventory Comments							
Install Additional Approach Delineation							
ActivityNo:	Description:	Unit:	Qty	UnitRate:	Amount:	Priority:	Completed
APP01	Add Approach Delineation	Each	3	\$110.00	\$330.00	2	<input type="checkbox"/>

Modification Group/ Component/ StandardNumber ComponentName: O A1 P 56T Piles & Encasements

Inventory Comments							
Replace Pile							
ActivityNo:	Description:	Unit:	Qty	UnitRate:	Amount:	Priority:	Completed
TR61	Replace timber pile	each	1	\$3,267.00	\$3,267.00	2	<input type="checkbox"/>

Modification Group/ Component/ StandardNumber ComponentName: O S1 G 22T Girders

Inventory Comments							
Replace Girders							
ActivityNo:	Description:	Unit:	Qty	UnitRate:	Amount:	Priority:	Completed
TR10	Replace timber girder	each	3	\$5,794.00	\$17,382.00	2	<input type="checkbox"/>

Modification Group/ Component/ StandardNumber ComponentName: O P1 P 56T Piles & Encasements

Inventory Comments							
Replace Pile and Whales							
ActivityNo:	Description:	Unit:	Qty	UnitRate:	Amount:	Priority:	Completed
TR68	Add new braces/wales - timber	m	2	\$279.00	\$558.00	2	<input type="checkbox"/>
TR61	Replace timber pile	each	1	\$3,267.00	\$3,267.00	2	<input type="checkbox"/>

Modification Group/ Component/ StandardNumber ComponentName: O S2 G 22T Girders

Inventory Comments							
Replace Girders							
ActivityNo:	Description:	Unit:	Qty	UnitRate:	Amount:	Priority:	Completed
TR10	Replace timber girder	each	3	\$5,794.00	\$17,382.00	2	<input type="checkbox"/>

Modification Group/ Component/ StandardNumber ComponentName: O A2 H 54T Headstock

Inventory Comments							
Replace Headstock							
ActivityNo:	Description:	Unit:	Qty	UnitRate:	Amount:	Priority:	Completed
TR56	Replace headstock in timber	each	2	\$4,650.00	\$9,300.00	2	<input type="checkbox"/>



Structure ID:	8011	Bridge Name:	Poletti Road Bridge - 2 Span Ti	Road Name:	Poletti Road
Inspection Date:	14/06/2018	District:	Miallo	Authority:	DSC

Modification Group/ Component/ StandardNumber		ComponentName:	O	A2	P	56T	Piles & Encasements	
Inventory Comments								
Replace Pile								
ActivityNo:	Description:	Unit:	Qty	UnitRate:	Amount:	Priority:	Completed	
TR61	Replace timber pile	each	1	\$3,267.00	\$3,267.00	2	<input type="checkbox"/>	

Modification Group/ Component/ StandardNumber		ComponentName:	O	P1	COR	27T	Corbels	
Inventory Comments								
Replace Corbel								
ActivityNo:	Description:	Unit:	Qty	UnitRate:	Amount:	Priority:	Completed	
R13	Replace Fasteners	P/SU	1	\$9,345.00	\$9,345.00	2	<input type="checkbox"/>	