

INFRASTRUCTURE COMMITTEE MEETING

AGENDA

4 DECEMBER 2018

Your attendance is required at a meeting of the Infrastructure Committee to be held in the Council Chambers, 232 Bolsover Street, Rockhampton on 4 December 2018 commencing at 12.30pm for transaction of the enclosed business.

CHIEF EXECUTIVE OFFICER 27 November 2018

Next Meeting Date: 26.02.19

Please note:

In accordance with the *Local Government Regulation 2012*, please be advised that all discussion held during the meeting is recorded for the purpose of verifying the minutes. This will include any discussion involving a Councillor, staff member or a member of the public.

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1 OPENING

2 PRESENT

Members Present:

Councillor A P Williams (Chairperson)
The Mayor, Councillor M F Strelow
Councillor R A Swadling
Councillor N K Fisher
Councillor C E Smith
Councillor C R Rutherford
Councillor M D Wickerson

In Attendance:

Mr M Crow – Acting General Manager Regional Services (Executive Officer) Mr E Pardon – Chief Executive Officer

3 APOLOGIES AND LEAVE OF ABSENCE

4 CONFIRMATION OF MINUTES

Minutes of the Infrastructure Committee held 20 November 2018

5 DECLARATIONS OF INTEREST IN MATTERS ON THE AGENDA

6 BUSINESS OUTSTANDING

Nil

7 PUBLIC FORUMS/DEPUTATIONS

Nil

8 OFFICERS' REPORTS

8.1 REANEY STREET BOAT RAMP ACQUISITION

File No: 8026

Attachments: 1. Map of Reaney Street Boat Ramp

Authorising Officer: Chris Ireland - Manager Regional Development and

Promotions

Tony Cullen - General Manager Advance Rockhampton

Martin Crow - Manager Infrastructure Planning

Author: Wade Clark - Acting Senior Executive Economic and

Business Development

SUMMARY

The Queensland Government, through the Department of Transport and Main Roads (TMR), is seeking to relinquish the Reaney Street boat ramp at North Rockhampton. It is recommended that Council acquires this asset and continues to manage the boat ramp site on behalf of the community.

OFFICER'S RECOMMENDATION

THAT Council agrees to acquire the Reaney Street boat ramp from the Queensland Government through Department of Transport and Main Roads.

COMMENTARY

The Reaney Street boat ramp located adjacent to the Fitzroy Bridge in North Rockhampton (See Attachment 1) has been a longstanding boat ramp servicing both the local community and visitors. It is a smaller ramp having one lane, a landing and 12 car parks. In terms of ownership, TMR owns the physical ramp and Council owns the carpark. Council also manages and maintains the facility on behalf of TMR

TMR officers have indicated that they intend to relinquish the Reaney Street boat ramp as an asset from their asset register and have asked if Council would be willing to acquire it at no cost.

The boat ramp has been inspected. It is of good quality and does not require any foreseeable work in the next five to ten years other than the already scheduled maintenance for the carpark area.

It is recommended that Council agrees to acquire the Reaney Street boat ramp from the Queensland Government through TMR for the following reasons:

- It is located next to the Riverside Tourist Caravan Park, allowing boating tourists to quickly access the Fitzroy River.
- It provides the local boating community with a boat ramp lane to access the Fitzroy River. Currently there are ten lanes accessing the estuarine / saltwater areas of the region. The region requires 17 lanes to meet local demand according to the Recreational Boating Facilities Demand Forecasting Study 2017.
- It provides a back-up boat ramp if there were to be any issues with the recently constructed North Rockhampton boat ramp or the Quay Street boat ramp.
- Acquiring the boat ramp will allow Council flexibility to potentially lease the asset for an income-earning venture such as a boat hire if it so chooses.

If Council decides it does not want to acquire the boat ramp, TMR will have the asset demolished at their expense and it will be returned to parkland.

PREVIOUS DECISIONS

13 SEPTEMBER 2016 COUNCIL RESOLUTION

THAT Council adopts the Rockhampton Recreational Fishing Development Strategy.

BUDGET IMPLICATIONS

There is no additional budget implications for Council in the short to medium term as the boat ramp will not require maintenance.

The boat ramp carpark will be maintained as scheduled and is currently factored into the Council budget.

STAFFING IMPLICATIONS

No further staffing implications.

CORPORATE/OPERATIONAL PLAN

Social - Community Expectation - Regional Infrastructure and Facilities

Safe, accessible, reliable and sustainable infrastructure and facilities

Regional public places that meet our community's needs

Economic – Community Expectation – Regional Profile and Services

A destination sought for lifestyle, community events and tourism

CONCLUSION

Council has been successful in developing and progressing boat ramps across the Region. Acquiring the Reaney Street boat ramp will ensure that the Region keeps an additional boat ramp lane open in an area which supports local tourism businesses such as the Riverside Tourist Caravan Park.

REANEY STREET BOAT RAMP ACQUISITION

Map of Reaney Street Boat Ramp

Meeting Date: 4 December 2018

Attachment No: 1

8.2 NORTH ROCKHAMPTON FLOOD MITIGATION STAGE 2

File No: 1743

Attachments: 1. Executive Summary 1.

2. Afflux Maps

Authorising Officer: Martin Crow - Acting General Manager Regional

Services

Author: Stuart Harvey - Coordinator Strategic Infrastructure

SUMMARY

Council has been progressively implementing the North Rockhampton Flood Mitigation Investigation Area implementation strategy over the past 4 years. Several Stage 2 investigations have taken place to mitigate internal drainage and sewerage impacts when the NRFMA scheme is operational. A review of these options and a concept design report has been developed. This report presents this concept design report as well as an update on the Water Street Scheme.

OFFICER'S RECOMMENDATION

THAT Council:

- 1. Endorse the North Rockhampton Flood Mitigation Investigation Stage 2 Concept Design Report;
- 2. Pursue funding opportunities for the infrastructure works identified in the Concept Design Report; and
- 3. Engage in community consultation with affected residents regarding the Water Street Scheme

COMMENTARY

Council has engaged AECOM to investigate and provide concept designs for stormwater and sewerage infrastructure to mitigate the impacts on the respective networks when the NFRMA Stage 1 scheme is in place. In a Fitzroy River flood event, sewer infrastructure has difficulty discharging into the North Rockhampton Sewerage Treatment Plant. Additionally the NRFMA Stage 1 temporary flood barrier and backflow prevention devices prevent local catchment rainfall from draining. It is important to note that the NRFMA Stage 1 works provide a net benefit to properties even when a coincident rainfall event occurs. This report investigates options to improve sewer and stormwater impacts and quantifies their benefits. A copy of the executive summary is attached (Attachment 1) however, due to the size of the report and appendices, a drop box link containing the full report has been sent to Councillors. Please note that this report refers to the stormwater and sewer infrastructure schemes as Stage 2 works.

Stormwater Infrastructure:

The report investigates improvements to the stormwater network to reduce flood impact in the event of a coincident local catchment and Fitzroy river flood. The stage 2 works are focussed on improvements to Zones 2-4 within the original NFRMA project. Several different flooding scenarios were modelled, each with different stormwater infrastructure options. The options were centred on a similar stormwater scheme which consisted of the following:

- Two overflow diversion lines from Rodboro Street / Berserker Street area
- Two open channels within Elizabeth Park to remove floodwaters from historical detention / storage areas
- A drop inlet and a line to convey the open channel flow to the pump station
- A stormwater pump station including a stilling basin.

 A rising main that coveys stormwater from Elizabeth park to Nobbs Street and under Lakes Creek Road and the Rail line before discharging into an outfall basin south of Lakes Creek Road.

The various scenarios involved different sizing for the stormwater pump station and the sizing of the inlet and outlet lines.

The various scenarios were modelled across a range of local catchment design rainfall events and the building impacts were calculated. While the flood depths/levels and extents increase for all events, the difference mapping shows that the largest differences are seen in the smaller flood events (39% and 18% AEP). This was anticipated as during these events the local area would gain the most benefit from the current drainage network, which is closed due to the installation of Backflow Prevention Devices (BPD's). The table below highlights number of buildings inundated in each scenario. Comparison to Series 2 shows the potential reduction in buildings impacted by a coincident event.

Table 1: Building impact summary (1%AEP Fitzroy River & 18% AEP Local Catchment Event)

Scenario	io Description						
Series 0a	Local catchment Base case scenario (2018 drainage network)						
Series 1	Coincidental Local Catchment and Fitzroy River 1% AEP Flood Event (2015 drainage network – i.e. pre-NRFMI works)						
Series 2	es 2 Do nothing scenario (2018 drainage network with NRFMI Stage A-1 in place)						
Series 6	ries 6 Diversion lines (900mm & 600x600mm), two open channels and 3m ³ /s PS						
Series 8	Diversion lines (1200mm & 600x600mm), two open channels and 4m ³ /s PS						
Series 9	Series 9 Diversion lines (1200mm & 600x600mm), western open channel only and 4m³/s PS						
Series 4	Diversion lines (900mm & 600x600mm), two open channels and 4m ³ /s PS						
Series 7	Series 7 Diversion lines (1200mm & 600x600mm), two open channels and 6m ³ /s PS						

^{*} The significant number of impacted buildings in Series 1 is largely a result of 1% AEP Fitzroy River conditions.

Based upon the flooding improvements of each scenario, Series 4 and 7 are the preferred options to progress to detailed design. Series 4 and Series 7 result in a reduction in Average Annual Damages of \$183,000 and \$210,500 respectively, and have a concept estimate price of \$4,500,522 and \$5,097,222.

Sewerage Infrastructure:

The concept design report revises the sewerage strategy that was originally developed as part of the NRFMA Stage 1 report. The sewerage strategy has a progressive implementation plan that escalates to the next stage in the strategy if the prior stage isn't as effective as is required. The strategy proposes the following measures:

- Sewer refurbishment program
- Ingress reduction works and non- return valves.
- Gravity Overflow to common Sewage Pump Station and Rising Main
- Dean Street Trunk Sewer Connection.

FRW have been progressively relining sewer mains within the NFRMA project area and have been completing ingress reduction works as well. The cost for the ingress reduction works is estimated at \$1,193,400 and the Sewage Pump Station is estimated at \$4,931,550. The Dean Street Trunk Sewer connection will result in an increase in cost to the common Sewage pump station scheme as it will involve a gravity discharge into the sewerage pump station and an increase in pump size.

Water Street:

Council are currently progressing the raising of Water Street and installation of backflow prevention devices on the culverts under Water Street. This work, combined with the temporary flood barrier, will increase the size of the NRFMA scheme and will protect an additional 97 properties. The attached maps (Attachment 2) show the afflux as a result of the implementation of the Stage A works (Rodboro and Ellis Street temporary barrier) and the Stage B works (Water Street Levee).

It is not envisaged that the implementation of Water Street barrier would significantly change the operation of the sewer network. Inflow and Ingress would still potentially be a problem however significant work has been performed to seal the sewer network and the reduction in the area of inundated sewer network should improve network performance. Council may require the installation of a temporary sewage pump station whilst the barrier is operational however this is not dissimilar to the current arrangements for Stage A (Roboro and Ellis Street barrier). Further analysis is required to understand the flood impact of coincident rainfall and river events on the newly protected area. As the Water Street local catchment is larger than the catchment reporting to Stage A (area protected by Rodboro and Ellis Street barrier) it may be necessary to construct additional stormwater infrastructure to mitigate these impacts. It is recommended that further modelling and concept designs are performed for this new protected area as a future stage of this project. Additionally it is recommended that community consultation is undertaken with residents that will be contained within the new protected area under the Stage B (Water Street scheme). This will be a similar consultation process as was used for the Rodboro and Ellis Street barrier.

BACKGROUND

North Rockhampton Flood Mitigation works (Stage 1) were completed in 2015 with the following items successfully constructed and implemented:

- Purchase of a temporary flood barrier for Ellis and Rodboro Streets
- Construction of Dowling Street / Fraser Street earth levee
- Installation of backflow prevention devices on stormwater outlets along Lakes Creek Road
- Refurbishment of sewer manholes and relining of sewer mains (ongoing)

Works are currently underway to reconstruct and raise Water Street and install backflow prevention devices. This will increase the benefits and number of residents protected by the NFRMA scheme.

BUDGET IMPLICATIONS

The proposed Stormwater infrastructure as part of Stage 2 is estimated to cost either \$4,500,522 or \$5,097,222 depending on the chosen scheme. The Sewerage infrastructure is estimated to cost \$1,193,400 - \$6,124,950 depending on how effectively the non-return valves and ingress works seal the sewer network from inflow. It is recommended that these items are pursued through external funding grants when the opportunities arise.

RISK ASSESSMENT

There is residual flood risk associated with the NRFMA flood mitigation works. These risks include the following.

- Potential overtopping of mitigation works in larger floods;
- Potential failure of flood mitigation measures;
- Potential flooding from local storms and associated stormwater; and,
- Potential surcharge of the sewer network during floods.

Strategies to recognise and manage these residual risks include the following.

- NRFMA Stage 1 works to reduce the risk of floodwater entering the sewer network and surcharging in the NRFMA;
- Operation and Maintenance and Emergency Action Plans are being finalised for the NRFMA Stage 1 works;
- Public awareness communication materials are being finalised to ensure residents and businesses located in the NRFMA understand the extent of the Stage 1 mitigation measures and the residual risks; and,
- Monitoring the performance of the flood mitigation measures during an actual flood.

CORPORATE/OPERATIONAL PLAN

The report contributes to Council's Corporate Plan goals of providing safe, secure and reliable infrastructure, and, providing a safe, caring and healthy community.

CONCLUSION

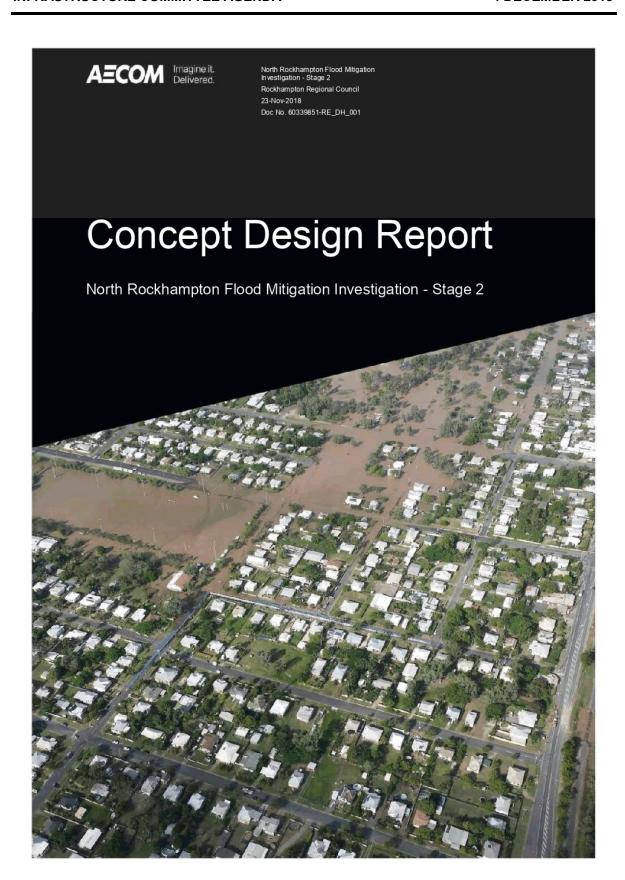
The Stage 2 Concept Report for the North Rockhampton Flood Mitigation Project has been completed and provides recommendations to improve Stormwater and Sewerage infrastructure. This report, along with an update on the Water Street Scheme B has been provided to Council for endorsement.

NORTH ROCKHAMPTON FLOOD MITIGATION STAGE 2

Executive Summary

Meeting Date: 4 December 2018

Attachment No: 1



AFCOM

North Rockhampton Flood Mitigation Investigation - Stage 2 Concept Design Report

Executive Summary

In 2014 AECOM Australia Pty Ltd (AECOM) was engaged by Rockhampton Regional Council (RRC) to investigate possible flood mitigation options to reduce existing flood risk for identified areas of North Rockhampton. This investigation, which became known as the North Rockhampton Flood Mitigation Investigation (NRFMI), was undertaken concurrently with the South Rockhampton Flood Levee (SRFL) planning and design project, and provided recommendations and a prioritised works strategy which aligned with Council's overarching Flood Management Strategy for the Rockhampton area.

Following on from this study, RRC has commissioned AECOM to undertake Stage 2 of the NRFMI project, which includes further investigation and development of concept designs for mitigation Schemes A-2 and A-3, as identified within the NRFMI Implementation Strategy Report (AECOM, 2014). Stage 2 includes the following schemes:

Scheme A-2 incorporates the development of sewerage network mitigation works identified by the previous stage of the NRFMI project, which are proposed to assist in reducing the risk of backflow into the Zone 2-4 area from a Fitzroy River flood event via the existing North Rockhampton Sewerage System (NRSS).

Scheme A-3 relates to the introduction of designated drainage infrastructure (including pump stations) to help reduce the risk of flooding within NRFMI Zones 2 to 4 as a result of interior catchment runoff occurring concurrently with an external Fitzroy River flood event, which could result from the closure of proposed backflow prevention devices (BPDs) on the outfalls of the internal drainage network within the NRFMI area.

Updated Report to Reflect 2018 Conditions

For a number of reasons, including completion of additional investigatory works and the 2017 Fitzroy River flood event, there has been a delay between the draft and final versions of this report. In the time since delivery of the draft report in August 2015 the following works have been completed:

- Implementation of Stage A-1 works (refer Section 1.4.1).
- Commencement of Stage A-2 works by Fitzroy River Water (FRW), including sewer manhole and trunk main relining works, to complement previously completed sewer relining works and prevent infiltration and inflow during flood events. A copy of the relined sewer lines as at 24 September 2018 has been included in Appendix E.
- Commencement of Stage B-1 Water Street reconstruction.
- Completion of design and construction of Stage C-1 Fraser Street / Dowling Street flood levee.
- Deployment of the NRMFI Stage 1 temporary barrier during the 2017 Fitzroy River flood event.
 - Refer to Section 1.4.2 for lessons learnt during the 2017 flood event.
- Commencement of Water Street works to facilitate NRFMI Stage 2, which RRC are currently progressing.

As such this Updated Report is essentially a *reset* to bring the original 2015 investigation to 2018 conditions. Consequently discussions within this report will generally be related to 2018 conditions.

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North Rockhampton Flood Mitigation Investigation - Stage 2 Concept Design Report

Scheme A-2 Overview

The key task for the Stage 2 investigation into the NRSS was the development of concept designs for mitigation **Scheme A-2**, which identified the progressive implementation of the NRFMI Sewerage Strategy Stages S1 – S4, which included:

- Stage S1 → Reduce Floodwater Ingress in the Downstream Portion of the Network.
- Stage S2 → Install Combined Stormwater/ Sewage Pump Stations.
- Stage S3 → Install Knife Gate Valves.
- Stage S4 → Augment Existing Inlet Pump Stations at the NRSTP.

Through the investigations into the operational performance of the NRSS and the development of the concept design of the identified mitigation strategy options undertaken, it has been identified that the sewerage strategy previously identified in the NRFMI Implementation Strategy requires revision. This update is considered necessary to amend the proposed progression of sewerage mitigation works to include the works identified within this study, with the intent of progressively reducing the risk to Council associated with the backflow and surcharge of sewage and stormwater into the NRFMI Zone 2 to 4 area from the NRSS. The updated Scheme A-2 includes:

- Stage S1a Sewer Refurbishment Program.
- Stage S2a Ingress Reduction Works and Non-Return Valves to NRFMI Zone 2 to 4 (Option 1).
- Stage S3a Installation of Sewage Pump Stations.
- Stage 4a Dean Street Trunk Sewer Connection.

Further details of each updated stage are provided in Section 3.3.

Scheme A-3 Overview

The objective of the Stage 2 investigation into the stormwater network was the development of concept designs for mitigation **Scheme A-3** of the NRFMI Implementation Strategy, which identified the construction of pump stations to cater for interior catchment runoff in coincidental events, considering the need for joint use stormwater/sewage pump stations and the possibility of using natural detention (i.e. Elizabeth Park) to reduce pump sizing.

Initial assessments of the anticipated operation of a combined stormwater / sewage pump station presented significant environmental and regulatory approval concerns regarding the expected discharge from the system into Fitzroy River floodwaters. In addition, preliminary investigations into each network also identified a large disparity in the magnitude of the expected stormwater flows (3-6m³/s) in relation to the PWWF sewage flows (approx. 0.2m³/s) anticipated for the catchment. From this it was determined that the difference in the required pump capacities would make the construction of combined stormwater / sewage pump station impractical. As such the Stage 2 investigations were then undertaken under the assumption that any drainage mitigation options proposed would operate in isolation from the sewerage network.

A TUFLOW hydraulic model was developed to assess drainage mitigation options. It is noted that the Series 0 Basecase model developed as part of the NRFMI Implementation Strategy Report (AECOM, 2014) was used for the draft version of this report and represented the drainage network conditions as at 2015. As noted above, there have been a number of updates to the drainage network since 2015 and consequently the Series 0 Basecase scenario has been updated to 2018 conditions as Series 0a:

- Series 0a → Basecase with the NRFMI Stage A-1 works in place, local catchment only.
 - Intended to show current local catchment impacts, with Stage A-1 BPDs in place.
- Series 1 → Basecase coincident local catchment and Fitzroy River event.
 - Intended to show coincident event impacts prior to any NRFMI works being completed.
- Series 2 → Basecase with the NRFMI Stage A-1 works in place, coincident local catchment and Fitzroy River event.
 - Intended to show worst case coincident event impacts, with no mitigation works in place.

North Rockhampton Flood Mitigation Investigation - Stage 2

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- Series 3 → Used for model development testing only, not reported.
- Series 4 \rightarrow Developed Case with Scheme A-1 works in place, inclusion of 900mm RCP drainage diversion, Elizabeth Park eastern open channel and western open channel plus 4m³/s pump station. Coincident local catchment and Fitzroy River event.
 - Intended to target mitigation works in impacted areas identified in Series 2, to offset impacts.
- Series 5 → Same as Series 4 except without Scheme A-1 works in operation (i.e. BPDs open and temporary flood barrier not in place. Local catchment event only.
 - Intended to show the benefit of Series 4 mitigation works during local catchment only events.
- Series 6 → Same as Series 4 except with a 3m³/s pump station. Coincident local catchment and Fitzroy River event.
 - Intended to balance Pump Station costs with predicted mitigation benefits.
- Series 7 → Same as Series 4 except with a 1200mm RCP drainage diversion and 6m³/s pump station. Coincident local catchment and Fitzroy River event.
 - Intended to show what mitigation works may be required to return impacts to close to Base Case conditions.
- Series 8 -> Same as Series 4 except with a 1200mm RCP drainage diversion. Coincident local catchment and Fitzroy River event.
 - Intended to combine Series 4 and Series 7 to optimise costs with benefits.
- Series 9 → Same as Series 8 except with the removal of the eastern open channel.
 - Intended to optimise Series 8 by better targeting impact areas.

Building Impact Assessment

Taking this approach, the various design scenarios can be seen to provide a progressive reduction of the risk to Council, via a similar reduction in the number of buildings expected to be impacted.

It is noted that a residential building is considered impacted if flood waters encroach above the average ground surface level within the building footprint, while a commercial building is considered affected if flood waters are identified to be 100mm above the average ground surface level within the building footprint. Throughout the report buildings may be referred to as impacted or inundated in accordance with the methodology noted above.

This progression for a coincident 18% AEP local catchment / 1% AEP Fitzroy River flood event can be seen in Table 1. Scenarios have been ordered from highest to lowest building impacts for ease of

Building Impact Summary (1% AEP Fitzroy River & 18% AEP local catchment event)

Scenario	Description							
Series 0a	Local catchment Basecase scenario (2018 drainage network)							
Series 1	Coincidental Local Catchment and Fitzroy River 1% AEP Flood Event (2015 drainage network – i.e. pre-NRFMI works)							
Series 2	Do nothing scenario (2018 drainage network with NRFMI Stage A-1 in place)							
Series 6	Diversion lines (900mm & 600x600mm), two open channels and 3m ³ /s PS							
Series 8	Diversion lines (1200mm & 600x600mm), two open channels and 4m ³ /s PS							
Series 9	Series 9 Diversion lines (1200mm & 600x600mm), western open channel only and 4m³/s PS							
Series 4	Diversion lines (900mm & 600x600mm), two open channels and 4m ³ /s PS							
Series 7	Diversion lines (1200mm & 600x600mm), two open channels and 6m ³ /s PS							

^{*} The significant number of impacted buildings in Series 1 is largely a result of 1% AEP Fitzroy River conditions.

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North Rockhampton Flood Mitigation Investigation - Stage 2 Concept Design Report

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Flood Damages Assessment

A flood damages assessment was undertaken for all Basecase and Developed Case scenarios, with the Annual Average Damage (AAD) calculated for each.

Using the WRM damage curves results in a Basecase AAD of approximately \$358,000, with the O2 curves giving an AAD of approximately \$398,000. The difference is largely the result of increased damages in more extreme events when using the O2 Environmental curves, as they extend above a depth of 2m (the WRM curves cease at 2m). Table 2 summarises the AAD of each scenario.

Scenarios have been ordered from lowest to highest AAD reduction for ease of comparison to the building impact table above. Series 4 and Series 7 scenarios result in the lowest AAD for any Developed Case assessed for coincident Local Catchment and Fitzroy River flood events.

Table 2 AAD Summary

Scenario	Description		Change in		
Scendino	Bescription	WRM	02	Average	AAD (\$) *
Series 0a	Base Case with 2018 drainage network – Local catchment event only	\$358,000	\$398,000	\$378,000	-
Series 2	Base Case with 2018 drainage network – Coincident events	\$585,000	\$669,000	\$627,000	+\$249,000
Series 6	Developed Case – 3m³/s PS and 900mm Drainage Network Augmentation	\$422,000	\$493,000	\$457,500	-\$169,500
Series 9	Same as Series 8 with removal of Eastern Open Channel	\$413,000	\$484,500	\$448,750	-\$178,250
Series 8	Developed Case – 4m³/s PS and 1200mm Drainage Network Augmentation	\$412,500	\$484,000	\$448,250	-\$178,750
Series 4	Developed Case – 4m³/s PS and 900mm Drainage Network Augmentation	\$408,000	\$479,000	\$443,500	-\$183,500
Series 7	Developed Case – 6m³/s PS and 1200mm Drainage Network Augmentation	\$381,000	\$452,000	\$416,500	-\$210,500
Series 5	Same as Series 4 – Local catchment event only	\$346,000	\$386,000	\$366,000	-\$12,000

Series 1 has not been included in the table as the static 1% AEP Fitzroy River flood level artificially skews AAD, causing them to be incomparable with other scenarios.

To assist in the assessment of the various stormwater network mitigation options proposed, a series of concept level estimates has been prepared for each of the developed case scenarios. A summary of each of these "order of magnitude" estimates is shown in Table 3, along with a comparison of cost to AAD reduction for each scenario. Scenarios have been ordered to match the tables above for comparison.

 $^{^{\}ast}$ Series 2 and 5 are compared to Series 0a. Series 4, 6, 7, 8 and 9 are compared to Series 2.

North Rockhampton Flood Mitigation Investigation - Stage 2 Concept Design Report

Table 3 Ratio of Cost to AAD

Model Scenario	Concept Cost Estimate [#]	Total AAD Reduction (\$)	Ratio of Capital Cost to AAD Reduction		
Series 6	Series 6 \$4,186,026		1:24.7		
Series 9 \$4,605,822		-\$178,250	1 : 25.8		
Series 8	\$4,640,922	-\$178,750	1 : 26.0		
Series 4	\$4,500,522	-\$183,500	1 : 24.5		
Series 7	\$5,097,222	-\$210,500	1:24.2		

[#]Refer to Section 11.3 for assumptions and limitations for the Concept cost estimates.

It is noted that the above does not constitute a Cost:Benefit Ratio (CBR). At this stage a CBR has not been undertaken for the project.

Technical Recommendation

As identified above, the 'Do Nothing' (Series 2) scenario represents a risk to Council. While there is some merit to this option, it is expected that its adoption would result in a negative response / perception from the community. Based on the building impact assessment, flood damage assessment and preliminary cost estimates, it is considered that the construction of drainage mitigation works to reduce the impact of the BPDs on internal catchment flooding is necessary.

In determining the recommended mitigation strategy for the catchment the flood depth, building impacts and the preliminary cost estimates developed for each scenario have been evaluated. Based on this assessment it is recommended that Council adopt either the Series 4 or Series 7 mitigation options, with the only difference between the options being the size of the pump station and associated rising main proposed.

Consideration could also be given to a hybrid of these two options, where the larger rising main for the 6m³/s pump station and a 4m³/s pump station is constructed initially, but provision is made within the pump station for the subsequent addition of another pump (to achieve 6m³/s) if deemed required by Council in the future. Again, this concept would need to be confirmed and optimised during the detailed design phase of the project.

Learnings from 2017 Fitzroy River Flood Event

Operation of the NRFMI Stage A-1 during the 2017 Fitzroy River flood identified a number of 'lessons learnt' and potential improvements during future mobilisation and demobilisation associated with Scheme A and B, including the need for:

- A review and update of Council's NRFMI Levee Emergency Response Plan (ERP) and Operation and Maintenance (O&M) Manual (both currently in Draft form), in light of Best Practice ERP / O&M documentation guidelines.
- A review of the mobilisation and demobilisation procedure for the temporary barrier system.
- A review of the system's performance during the 2017 flood event, with specific review of stormwater and sewerage system performance.
 - This should include backflow prevention device and sewer relining performance.
- Review of the method for deploying pump lines across Lakes Creek Road, with the goal of keeping the non-flooded section of Lakes Creek Road open to local traffic during a flood event.
- Review of the need to install additional access chambers on the southern side of Lakes Creek Road, to allow pumped seepage to be discharged without causing disruption or damage to the Yeppoon Branch Rail Line.
- Investigation of seepage at the Lakes Creek Road culverts directly to the west of Ellis Street (refer Sections 1.5 and 12.0 for further details).

AECOM

North Rockhampton Flood Mitigation Investigation - Stage 2 Concept Design Report

Revised NRFMI Implementation Strategy

Based on the findings of the Stage 2 investigations undertaken and the concept design of possible drainage and sewer mitigation strategies for the NRFMI Zone 2 to 4 area, the implementation strategy developed as part of the initial NRFMI project has been revised.

This revised NRFMI Implementation Strategy can be seen in Table 4.

Table 4 Revised NRFMI Implementation Strategy

Scheme	Stage	Overview of Works Required	Preliminary Cost Estimate
	A-1	Condition assessment, detailed design and construction of Backflow Prevention Devices for Zones 2, 3 and 4. Purchase of temporary flood barrier for use along Ellis Street and Rodboro Street (in liaison with product manufacturer). [RRC have completed Stage A-1]	\$1,193,700*
A	A-2	Progressive implementation of NRFMI Revised Sewerage Strategy Stages S1a – S3a (as required). This should include ongoing monitoring to ensure inflow and infiltration reduction targets are met. [FRW have completed Stage S1a]	\$1,050,000* (Stage S1a) \$1,193,400 (Stage S2a) \$4,931,550 (Stage S3a)
	A-3	Construction of drainage mitigation works (Series 4 or Series 7) to assist with the removal of impacts to interior catchment runoff in coincidental events.	\$4,500,522 (Series 4) \$5,097,222 (Series 7)
В	B-1	Detailed design, reconstruction and raising 150m of Water Street to allow for the installation of temporary barrier. Requires scheme A works to be completed. Review the condition of the Ellis / Rodboro Street temporary barrier and purchase additional barrier sections if required for use along Water Street. [RRC are currently progressing Stage B-1]	\$727,900*
	B-2	Continued implementation of remaining NRFMI Sewer Strategy (Stage 4a – Dean Street Trunk Sewer Connection) as required to progressively reduce the risk of sewer surcharge within the flood protected area. [Requires Scheme B-1 to be completed]	Subject to further investigations
С	C-1	Detailed design and construction of Fraser Street / Dowling Street levee in Zone 1. Consideration should be given to approval requirements. [RRC have completed Stage C-1]	\$553,900*
	D-1	Development of a Precinct Strategy Plan for Zone 1, including an assessment of any necessary infrastructure upgrades, filling plans and approvals required.	N/A
D	D-2	Investigate re-zoning of existing residential properties along Lakes Creek Road in Zone 6. Develop strategy for Council acquisition of residential properties along Lakes Creek Road as they become available.	N/A
Е	E-1	Further investigations on the recommended flood mitigation options associated with Zones 5 and 6.	Subject to further investigations

^{*} From NRFMI Implementation Strategy Report (AECOM, 2014).

AFCOM

North Rockhampton Flood Mitigation Investigation - Stage 2 Concept Design Report vii

Future Progression of Stage A-2 and Stage A-3

The following tasks are recommended to be undertaken to assist in the further progression of Stage A-2 and A-3 of the implementation strategy:

- Implement operational improvements that arose from Stage A-1 installation during the April 2017 flood event.
- Investigate the cause of seepage through Lakes Creek Road culverts directly to the west of Ellis Street
- Progressively implement NRFMI revised sewerage strategy stages S1a (continuation of the sewer refurbishment program) and S2a. Pump stations associated with stage S3a are not recommended unless it is deemed warranted following ongoing performance monitoring of stages S1a and S2a.
- 4. Recommendation to progress Series 4 or 7 mitigation works has been based on technical evaluations completed to date. It is noted that a significant capital investment will be required for these works and it is recommended that a final implementation decision is subject to a formal economic evaluation.
- 5. Council should consider availability of external funding sources to progress Stages A-2 and A-3.
- Consideration should be given to the way in which Council will communicate the proposed Stage 2 mitigation strategies to the community. It is expected that a number of stakeholder will also need to be consulted as the project progresses (i.e. TMR, QR, Ergon, relevant users of Elizabeth Park, etc).
- Detailed field survey will be required to confirm site conditions, in relation to the proposed drainage and sewerage network mitigation works.
- Detailed design of the proposed interior drainage and sewerage mitigation works will be required for subsequent construction.

NORTH ROCKHAMPTON FLOOD MITIGATION STAGE 2

Afflux Maps

Meeting Date: 4 December 2018

Attachment No: 2

8.3 LOCAL GOVERNMENT CYCLE NETWORK GRANTS PROGRAM

File No: 5732

Attachments: 1. Attachment 1.

Authorising Officer: Martin Crow - Acting General Manager Regional

Services

Author: Stuart Harvey - Coordinator Strategic Infrastructure

SUMMARY

The Department of Transport and Main Roads have recently called for funding submissions under the Cycle Network Local Government Grants Program. Council Officers are proposing to submit a project under this program.

OFFICER'S RECOMMENDATION

THAT Council:

- 1. Endorse the submission under the Cycle Network Local Government Grants Program to provide on-road and off-road cycle facilities on Canning Street, from North Street to Cambridge Street; and
- 2. Agree to fund \$357,500 (50% of the project cost) should the funding submission be successful.

COMMENTARY

The Queensland Government is seeking project applications for the 2019-20 Cycle Network Local Government Grants Program. Applications close on 21 December 2018 with successful projects anticipated to be announced in June/July 2019.

Local governments that have formally endorsed their region's Principal Cycle Network Plan are eligible to apply for a 50% grant for the design and/or construction of cycling infrastructure that contributes to the delivery of their regional cycle network.

Council successfully submitted the following projects to the previous rounds of the Program:

- Norman Road and Moores Creek Road cycle facilities
- Kerrigan Street underpass
- Upper Dawson Road off road cycle facilities
- North Street cycling facilities. Stage 2 works from Victoria Parade to Campbell Street is currently under construction. Next stage (Stage 3) of works from Campbell Street to West will commence in June 2019

The following project is now proposed to be submitted to the 2019/2020 round of the Program:

• Canning Street on-road and off-road cycle facilities from North Street to Cambridge Street (Attachment 1). Works will include line marking, pavement symbols, signage, drainage modifications, retaining walls and off-road paths. The constrained road width between Archer Street and Cambridge Street has precluded on-road cycle lanes along this section of canning street and instead off-road share paths are proposed. The shared path will also provide safer access for pedestrians, particularly on the northern side of Canning Street. The total cost for this project is estimated at \$715,000.

Construction for Canning Street is expected to commence by June 2020 if successful.

BACKGROUND

Since June 2015, Council Officers have been working with the Department of Transport and Main Roads (TMR) and their consultants on three priority routes / areas. TMR's consultants

were asked to look at gaps or deficiencies and make some recommendations in relation to the three priority routes or areas nominated by Council Officers.

The three areas that were nominated form the spine of the cycle network in Rockhampton are:

- Norman Road and Moores Creek Road through to the Fitzroy River crossings (Route 1);
- North Street into Canning Street and into and along Upper Dawson Road (Route 2); and
- Cycle access on the three Fitzroy River crossings and the interconnectivity between them (Route 3).

These priority routes are also now identified in and supported by a Central Queensland Cycle Options Analysis Planning Report (December 2015).

The Cycle Network Local Government Grants Program allows the Queensland Government to work with local governments to deliver best practice, high quality and safe cycling infrastructure and facilities on principal cycle networks across Queensland.

Projects eligible for this funding include the detailed design and/or construction of:

- off-road exclusive use bikeways
- off-road shared paths
- physically separated on-road bicycle lanes
- advisory lanes
- on-road facilities, including shoulder widening, line marking, lane and intersection reconfiguration and priority signalling
- crossing provisions including at-grade treatments, bridges or underpasses
- mid-trip facilities and end-of-trip facilities.

PREVIOUS DECISIONS

On 4 June 2014, Council resolved that the Rockhampton sub-region section of the *Central Queensland Principal Cycle Network Plan* be endorsed.

On 8 September 2015, Council resolved to submit the Upper Dawson Road (Nathan Street to Blackall Street) and North Street (Canning Street to West Street) projects to the 2015/16 round of the Cycle Network Local Government Grants Program, and agreed to fund 50% of the project costs should the funding submissions be successful.

On 27 January 2016, Council resolved to submit the Norman Road (Yeppoon Road to Moores Creek Road), Moores Creek Road (Norman Road to Yaamba Road) and Kerrigan Street underpass projects to the 2016/17 round of the Cycle Network Local Government Grants Program, and agreed to fund 50% of the project costs should the funding submissions be successful.

On 24 January 2017, Council resolved to submit the North Street (Victoria Parade to Campbell Street) and Canning Street (Derby Street to Cambridge Street) projects to the 2017/18 round of the Cycle Network Local Government Grants Program, and agreed to fund 50% of the project costs should the funding submissions be successful.

On 12 December 2017, Council resolved to submit the North Street (West Street to Campbell Street) project to the 2018/19 round of the Cycle Network Local Government Grants Program, and agreed to fund 50% of the project costs should the funding submissions be successful.

BUDGET IMPLICATIONS

Cost estimates indicate the Canning Street project will cost in the order of \$715,000. Council will need to allocate \$357,500 over the 2019/20 and 2020/21 budgets to fund its 50% share of this project should the application be successful.

CORPORATE/OPERATIONAL PLAN

The endorsement of the CQPCNP and the delivery of projects on the network support Strategy 3 within the Community Plan: "A community that enjoys a range of strategically placed and integrated pedestrian and cycle paths".

CONCLUSION

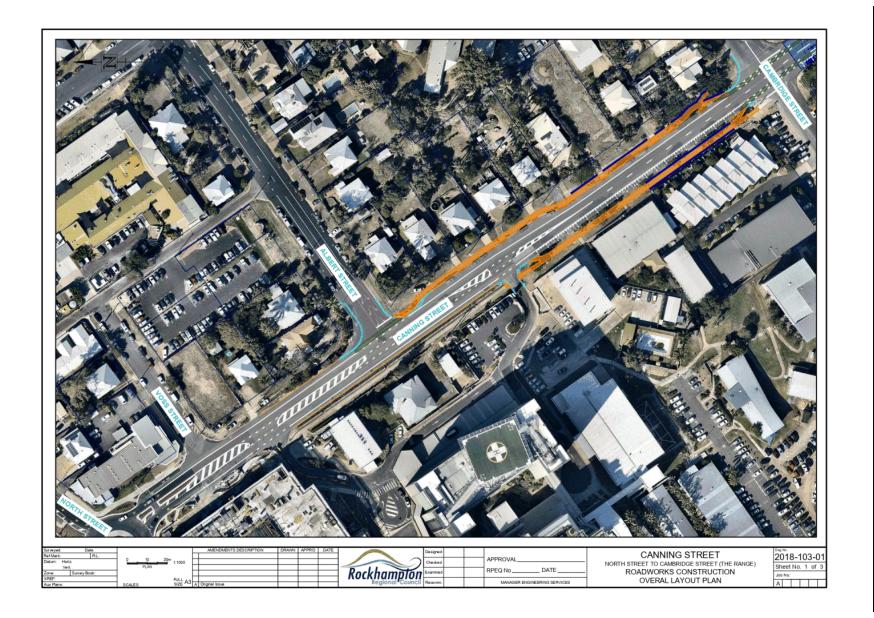
Council is proposing to submit another application to the Cycle Network Local Government Grants Program. This project, on Canning Street between North Street and Cambridge Street, will provide safer cyclist and pedestrian facilities, and if the project submission is successful, Council will need to allocate capital funds to meet their 50% funding obligation.

LOCAL GOVERNMENT CYCLE NETWORK GRANTS PROGRAM

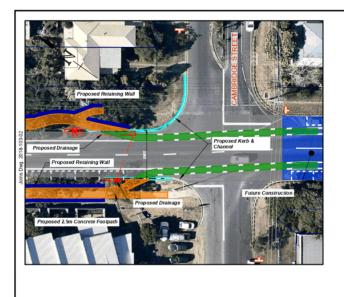
Canning Street On-Road and Off-Road Cycle Facilities from North Street to Cambridge Street

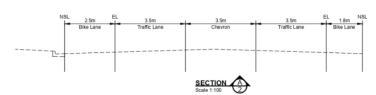
Meeting Date: 4 December 2018

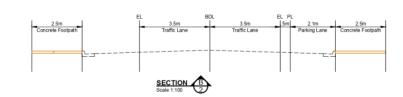
Attachment No: 1













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8.4 CIVIL OPERATIONS MONTHLY OPERATIONS REPORT

File No: 7028

Attachments: 1. Monthly Operations Report as at 20

November 2018

Authorising Officer: Martin Crow - Manager Infrastructure Planning

Author: David Bremert - Manager Civil Operations

SUMMARY

This report outlines Civil Operations Monthly Operations Report on the activities and services in November 2018.

OFFICER'S RECOMMENDATION

THAT the Civil Operations Monthly Operations Report on the activities and services in November 2018 be received.

COMMENTARY

The Civil Operations Section submits a monthly report outlining the details of the programmed works for the upcoming month to assist Council's Executives and Councillors when they receive enquiries from their constituents in relation to road and associated road reserve works.

CIVIL OPERATIONS MONTHLY OPERATIONS REPORT

Monthly Operations Report as at 20 November 2018

Meeting Date: 4 December 2018

Attachment No: 1

MONTHLY OPERATIONS REPORT

CIVIL OPERATIONS
PERIOD ENDED 20 NOVEMBER 2018



1. Operational Summary

Highlights

Construction

Haig Street and Main Street works completed.

Quay Street flood damage works completed.

North Street Cycle path and Winter Gardens Carpark started.

Innovations, Improvements and Variations

Nil

Legislative Compliance and Standards (including Risk and Safety)

WHSQ issued Council with an Improvement Notice for working near powerlines due to not following a control as noted in our Safe Work Method Statement (SWMS). The issue was resolved by updating our SWMS to reflect the actual control measures that we implement on site.

INFRASTRUCTURE COMMITTEE AGENDA 4 DECEMBER 2018

1. Customer Service Requests

Traffic Light Report was not available at time of submission for report.

2. Capital Projects

Details of capital projects not reported regularly to Council or a particular Committee in other project specific report updates as at period ended 20

November — 42% of year elapsed.

In terms of scope, schedule and budget, the project is;
on track
generally on track,
with minor issues

Project Description	Planned Start Date	Planned End Date	Budget Estimate	YTD Actual (incl committals)
CP422 CAPITAL CONTROL RURAL OPERATIONS WEST – 46% spent				
RWC-Annual Reseal Program	02/07/2018		410,000.00	0.00
RWC-BDG-Calmorin Rd Hansons Bridge (Revenue)	14/12/2018	01/03/2019	925,000.00	0.00
RWC-BDG-Calmorin Road-Hansens Bridge Replacement			0.00	342,827.33
RWC-BDG-Glenroy Rd - Louisa Creek Bridge	02/07/2018	02/07/2018	51,000.00	0.00
RWC-BDG-Mount Hopeful Road Ch 0.4km	05/03/2019	18/04/2019	378,999.96	0.00
RWC-FW-Glenroy Marlborough Rd - Ch 25.98	06/08/2019	12/08/2019	35,000.04	0.00
RWC-FW-Gum Tree Avenue - Ch 0.40 (upgrade floodway)	14/11/2018	13/12/2018	200,000.04	67,490.73
RWC-FW-Kalapa Black Mtn Rd - Ch 4.04 5.71 6.68 & 7.99	23/04/2019	24/05/2019	147,999.96	0.00

Project Description	Planned Start Date	Planned End Date	Budget Estimate	YTD Actual (incl committals)
RWC-FW-Morinish Rd - Ch 6.07	19/07/2019	26/07/2019	30,000.00	0.00
RWC-FW-Moses Rd - Ch 3.13 & 5.29	12/06/2019	18/07/2019	69,999.96	140.22
RWC-FW-Nine Mile Rd floodway Ch7.85-10.68	07/08/2018	13/11/2018	513,000.00	250.47
RWC-FW-Rosewood Road Ch 36.55	29/07/2019	02/08/2019	35,000.04	0.00
RWC-FW-Rosewood Road Ch 42.48			0.00	687.81
RWC-FW-Rosewood Road Ch 45.64			0.00	500.20
RWC-FW-Rosewood Road Ch 47.85			0.00	588.24
RWC-FW-Seymour Rd - Ch 0.26 0.82	28/05/2019	11/06/2019	75,000.00	0.00
RWC-NC-Renewal of Unsealed Road Gravel Program A	02/07/2018	01/08/2019	2,053,000.00	0.00
RWC-GR-Bills Rd Marmor TBA				11,447.22
RWC-GR-Bowlin Road Port Curtis Ch 4250 to 7100Km				21,468.44
RWC-GR-E Williams Rd Kabra Ch 0.6-1.85 km				13,660.02
RWC-GR-Edmistone Rd Pink Lilly Ch 0.79-1.89 km			0.00	31,559.42
RWC-GR-Fairview Rd Morinish Ch 1.2-1.8 2.8-2.9 3.5-3.55			0.00	27,819.92
RWC-GR-Goodwin Rd Gracemere Ch 0.15-1.26 km				29,472.39
RWC-GR-Halfpenny Rd Gracemere Ch 0.10-0.725 0.755-0.85 k				15,291.04
RWC-GR-Hunt Rd Alton Downs Ch 1.45-3.20 3.40-4.60 km			0.00	87,406.32
RWC-GR-Hunt Rd Bouldercombe Ch TBA			0.00	13,404.90
RWC-GR-Kabra Scrubby Creek Rd Kabra Ch 0.8 - 1.8 km			0.00	6,043.51
RWC-GR-Kirk Rd Bajool Ch 1.24 - 2.24 km				362.10
RWC-GR-Martin Rd Pink Lily Ch 0.00-0.18 km			0.00	9,030.65

RWC-GR-Morinish Rd Morinish Ch 0.4-0.8 1.8-2.0 2.4-3.3 3			0.00	-39.73
Project Description	Planned Start Date	Planned End Date	Budget Estimate	YTD Actual (incl committals)
RWC-GR-Murphy Rd Kabra Ch 0.0-0.35 km				4,621.63
RWC-GR-North Langmorn Marmor Ch: 0.33 - 1.60Km				241.13
RWC-GR-Punter Rd Ch 0.300-0.700-1.75-1.85Km			0.00	4,530.32
RWC-GR-Scott Rd Alton Downs Ch 0.1-0.6 km			0.00	17,383.63
RWC-GR-Smith Rd Rockwood Ch 11.2 - 12.7km				33,368.78
RWC-GR-South Yaamba Rd South Yaamba Ch 21.77-21.94 km			0.00	29,266.40
RWC-GR-Stanley Rd Gracemere Ch 0.312600Km				8,879.39
RWC-GR-Stanwell Waroula Rd Dalma Ch 10.63-11.7 11.9-12.5				485.02
RWC-GR-Yarra Road Gogango Ch 6.3-6.5 7.0-7.3 km				2,137.50
RWC-LSS-South Ulam Road CH 7.0-8.0 km			0.00	1,981.37
RWC-MC-South Yaamba Rd Sandy Creek			0.00	10,867.53
RWC-NC-Kabra Scrubby Creek Rd Kabra - bitumen seal CH 0.			10,000.00	4,365.57
RWC-NC-South Ulam Road-Widening 2017 use 1078559	06/02/2019	07/03/2019	306,000.00	0.00
RWC-RC-Alton Downs to 9 Mile Rd - Ch 1.50 to Ch 4.70 reh			0.00	23,179.64
RWC-RC-Cherryfield Rd (Reigal to Ashford) seal road	01/08/2018	14/09/2018	400,000.00	285,048.26
RWC-RC-Griffith St (Stanwell) - Ch 0 to 0.25	11/10/2018	18/10/2018	72,999.96	82,392.78
RWC-RC-Hanrahan Road Floodway-Fitzroy River (Revenue 111			0.00	8,601.11
RWC-RC-Kabra Road - Boongary Rd Intersection				883.47
RWC-RC-Malchi-Nine Mile Road-Ch 7.5 to Ch 9.5			0.00	391.87
RWC-RC-Malchi-Nine Mile Road-Ch 9.5 to 9.7			14,000.00	43,535.14

RWC-RC-Nine Mile Rd Pink Lily Ch 1.75-2.53 Pavement Reha			0.00	508,117.89
RWC-RC-Nine Mile Road Floodway Stage 3 Ch 7.8 - 8.4 km			0.00	573,821.90
Project Description	Planned Start Date	Planned End Date	Budget Estimate	YTD Actual (incl committals)
RWC-RC-Thirsty Creek Road - CH 0.0 to 14.5 km			0.00	1,390.26
RWC-RS-Childs Ave Bouldercombe Ch 0.00-0.50km				19,053.84
RWC-RS-Edmistone Rd Alton Downs Ch 0.00-0.80km				1,741.92
RWC-RS-Kroombit Dr Bouldercombe Ch 0.00-0.80km				20,264.83
RWC-RS-Mt Hopeful Rd Bajool Ch 0.00 to 0.49			0.00	477.74
RWC-RS-Nicholson Rd Alton Downs Ch 0.00-1.44 km				1,605.56
RWC-RS-Nine Mile Rd Pink Lily Ch 1.75-1.94 2.00-2.16 2.2			0.00	206,273.25
RWC-RS-Old Gracemere Rd Fairy Bower Ch 0.05-0.8 km			0.00	25,373.66
RWC-RS-Richmont Dr Bouldercombe Ch 0.00-0.1.10km				5,712.18
RWC-RS-Six Mile Rd Alton Downs Ch 2.76-3.52 km				7,401.89
RWC-SW-Arthur St Wwood-Ch 2.49			0.00	1,515.06
RWC-SW-Melville Street Open Channel				413.16
RWC-SW-Murphy Rd Ch 3.30				3,104.50
RWC-SW-Neerkol Rd Stanwell			0.00	12,962.49
			5,727,000	2,630,801.87

Project Description	Planned Start Date Planned End Date		Budget Estimate	YTD Actual (incl committals)
CP428 CAPITAL CONTROL WEST URBAN OPERATIONS – 31% spent				
UWC-Annual Reseal Program	02/07/2018		400,000.00	0.00
UWC-SLS-Middle Road (Johnson Rd - Capricorn St)	13/08/2018	17/08/2018	0.00	46,675.60
UWC-BS-Morgan Street Long Range Coach Stop	06/02/2019	27/02/2019	50,000.00	0.00
UWC-FP-Bland St Johnson rd (Cemetery frontage) to Arlott			80,000.00	69,159.08
UWC-FP-Gracemere CBD W4Q Round 2 Bgt only (Revenue 1079	08/01/2019	17/05/2019	494,000.00	5,836.98
UWC-FP-Morgan Street - CBD inc improve seating and rubbi	06/02/2019	05/06/2019	450,000.00	283.07
UWC-Low cost sealing of minor roads	13/11/2018	04/12/2018	103,000.00	58.06
UWC-NC-Byrnes Parade-Service Road	05/12/2018	07/12/2018	6,000.00	0.00
UWC-NC-Kent Street - Bouldercombe Ch 0.00-0.80				4,286.92
UWC-RC-Baree Crescent	11/12/2018	18/12/2018	27,000.00	0.00
UWC-RC-Macquarie St- Sommerset Rd-Middle Road GIA W4Q Ro	11/03/2019	02/07/2019	405,000.00	544,621.69
UWC-RC-Macquarie St-Somerset Rd to Middle Rd			0.00	11,362.31
UWC-RC-Morgan Street Upgrade as part of streetscape	23/05/2019	24/07/2019	185,000.00	1,882.06
UWC-RC-Railway Parade (outside 96 James St)			0.00	23,372.64
UWC-RC-Ranger St - Fisher St to Lawrie St			105,999.96	0.00
UWC-SW-Railway Parade - Extension at new SPS			0.00	377.05
UWC-SW-Replace Stormwater Inlets	24/07/2018	10/08/2018	0.00	215.18
			2,308,399.96	715,651.61

Project Description	Planned Start Date	Planned End Date	Budget Estimate	YTD Actual (incl committals)
CP427 CAPITAL CONTROL CENTRAL URBAN OPERATIONS – 28.27%	spent			
UCC-AS-Annual Reseal Program	02/07/2018		3,595,000.00	0.00
UCC-AS-Agnes Street - Archer Street to Roundabout			0.00	82,628.80
UCC-AS-Agnes Street - Denham Street to Roundabout			0.00	118,133.59
UCC-AS-Alma Street - Denham Street to Roundabout			0.00	1,838.00
UCC-AS-Archer Street - Canning St to Talford St			0.00	2,430.01
UCC-AS-Berserker Street - Kerrigan Street to Roundabout				29,041.95
UCC-AS-Canning Street - Derby Street to Denham Street				7,424.50
UCC-AS-Cowap Street (17 Cowap St - End)			0.00	55,241.58
UCC-AS-Daniel Street - Stenhouse Street to Horner Street				28,031.42
UCC-AS-Dean Street - Vallis Street to Robinson			0.00	46,147.07
UCC-AS-Denham Street - Alma Street to Denison Street				97,166.35
UCC-AS-German Street - Norman Road to Rosewood Drive				2,439.36
UCC-AS-Richardson Road-MacNevin Street to Norman Road			0.00	38.13
UCC-AS-Talford Lane - Albert Street to North Street				11,538.80
UCC-SLS-Arrow Street - Campbell Street to End			5,400.00	5,413.08
UCC-SLS-Barambah Street - Knutsford Street to Rundle Str			29,700.00	29,681.68
UCC-SLS-Beaconsfield Terrace - Bellevue Terrace to Denha			12,350.00	12,352.34
UCC-SLS-Bolsover Street - Wood Street to O'Connell Stree				49,882.22
UCC-SLS-Boreham - Melbourne Street to Cul-de-sac			3,700.00	3,721.47
UCC-SLS-Campbell Street (Shoulders) - Wood Street to 395			2,400.00	2,405.80

UCC-SLS-Dally Street - Lion Creek Road to Hamilton Aven			6,000.00	6,014.53
Project Description	Planned Start Date	Planned End Date	Budget Estimate	YTD Actual (incl committals)
UCC-SLS-Deacon Street - Musgrave Street to Edwards Stree				651.30
UCC-SLS-Gorle Street - Hunter Street to Melbourne Street			15,150.00	15,156.61
UCC-SLS-Harbourne Street - Stenhouse Street to Lakes Cre			8,600.00	8,525.58
UCC-SLS-Huntington Street - Melbourne Street to Cul-de-s			4,000.00	3,947.03
UCC-SLS-Jardine Street (North St - Wandal Rd)			0.00	168,208.39
UCC-SLS-McKelligett Street - Naughton Street to Norman S			40,000.00	39,996.58
UCC-SLS-Meade Street - Little Oackley Street to Herbert			8,750.00	8,743.60
UCC-SLS-Melbourne Street - Lund Street to End			9,500.00	9,472.87
UCC-SLS-Meter Street - Archer Street to Gardener Street			0.00	32,184.24
UCC-SLS-Naughton Street - Wandal Road to Jones Street			15,800.00	15,788.12
UCC-SLS-Parker Street - Pearson Street to Wambool Street			11,800.00	11,788.46
UCC-SLS-Paterson Avenue - Cooper Street to Rhodes Street			54,150.00	54,130.72
UCC-SLS-Paterson Street - Cooper Street to Mackay Street			26,300.00	26,313.55
UCC-SLS-Robert Street - North Street to End			5,600.00	5,623.56
UCC-SLS-Rundle Street - 118 Rundle Street to Naughton St			7,500.00	7,442.97
UCC-SLS-Rundle Street - Jardine Street to Naughton Stree			15,400.00	15,412.22
UCC-SLS-William Street - Davis Street to Caroline Stret			0.00	281.14
UCC-SLS-William Street - Murray Stret to Canning Street				185.89
UCC-SLS-Woodville Street (Wandal Rd - Rundal St)			0.00	51,334.38
UCC-BDG-Bridge Rehabilitation			250,000.00	45,036.77

UCC-BDG-Quay Street Bridge Major Renewal	02/07/2018		999,999.96	143,235.74
UCC-Blackspot Allocation for 100% Projects			500,000.04	0.00
Project Description	Planned Start Date	Planned End Date	Budget Estimate	YTD Actual (incl committals)
UCC-Bus Stop Program	08/01/2019	22/02/2019	308,000.00	52,009.41
UCC-Chancellors Estate defect repairs (Revenue 1078917)	02/07/2018		82,000.00	8,496.80
UCC-FP-Alma Street - Denham Street Roundabout	30/07/2018	21/09/2018	0.00	332,721.30
UCC-FP-Alma Street - Derby St to Town Hall Entrance W4Q	30/10/2018	30/11/2018	0.00	8,011.64
UCC-FP-Denham Street - Athelstane Ter to Canning St W4Q	19/07/2018	17/10/2018	0.00	78,406.78
UCC-FP-Footpath and cycleway Round 2 W4Q bgt (Revenue 1			284,961.00	0.00
UCC-FP-German Street-Rosewood Drive to Sunset Drive	02/07/2018	18/07/2018	12,400.00	12,489.10
UCC-FP-Pilbeam Drive - Bridge to Existing Path W4Q Round			0.00	94,470.22
UCC-FP-Pilbeam Drive Walkway connection to Frenchville R	24/09/2018	20/12/2018	839,000.00	179,389.36
UCC-FP-Pilbeam Walkway Stage 1 Mt Archer				1,198.86
UCC-FP-Reconstruction Footpaths-To be determined from Asset			256,000.00	13,723.19
UCC-FP-Rockonia Road (Connor to Stack previou - Division 3			8,200.00	8,291.99
UCC-FP-Spencer Street - Agnes St to Gardens W4Q Round 2	18/06/2018	02/07/2018	0.00	860.57
UCC-FP-Thozet Road-Lilley Ave to Zervos Ave Design only			200,000.00	279,372.47
UCC-Heavy Patching across Urban Area from Asset Management I	02/07/2018		410,000.00	2,733.34
UCC-Kerb Ramp Program - Bulk Allocation	03/12/2018	20/12/2018	24,999.96	0.00
UCC-Marine Infrastructure Design			100,000.00	0.00
UCC-MC-Thozet Cr & Frenchmans Ck Debris community resile				291.63
UCC-MISC-Heritage Village Mini Railway Relocation (Reven				1,147.31

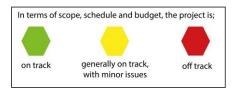
UCC-MISC-PCYC Berserker Flood Valves W4Q Round 2 (Rev 10	26/07/2018	24/08/2018	90,000.00	67,742.57
UCC-NC-Canning St-Cambridge St to Derby St cycle path				228.24
UCC-NC-Jones St -Brosnan Cr to Norman Rd	08/01/2019	05/02/2019	400,000.00	9,758.64
Project Description	Planned Start Date	Planned End Date	Budget Estimate	YTD Actual (incl committals)
UCC-NC-North St-Victoria Pde to Campbell St cycle path	27/11/2018	17/08/2018	364,000.00	51,325.71
UCC-NC-Wintergarden Carpark Alma St	16/10/2018	30/11/2018	0.00	118,430.49
UCC-Pilbeam Drive - Safety Audit Works			30,000.00	0.00
UCC-Pilbeam Drive Reseal	02/07/2018		315,000.00	0.00
UCC-RC-Alexander St - Richardson Rd to Moores Creek Rd	27/11/2018	24/09/2019	2,100,000.00	76,493.12
UCC-RC-Bennett St - Ford St to Eldon St	11/04/2019	01/07/2019	204,999.96	6,433.63
UCC-RC-Berserker St-Simpson St-Robinson St			175,000.00	3,176.50
UCC-RC-Bridge Street (Yeppoon Railway to Queen Elizabeth	29/06/2018	11/07/2018	200,000.00	191,713.92
UCC-RC-Clanfield St (Wooster St to Simpson St)	02/07/2018	03/08/2018	400,000.00	234,624.50
UCC-RC-Dean st Talbort to Elphinstone			71,500.00	75,203.71
UCC-RC-Denham Street-Campbell Street Roundabout (Revenue			6,500.00	11,482.28
UCC-RC-Farm St-Alexandra St (Maloney-Hinchliff-Hollingsw				376.17
UCC-RC-Glenmore Road-(Main St-NC Railway)	02/05/2019	19/02/2019	305,000.00	39,084.81
UCC-RC-Haig Street-Wandal Road to Cavell Street	27/08/2018	26/10/2018	500,000.04	318,333.45
UCC-RC-Haynes Street - Hollingsworth to Byrne St			72,399.96	0.00
UCC-RC-Haynes Street (Hollingsworth St to Byrne St)			0.00	668.56
UCC-RC-Hindley Street-Elphinstone Street to Livingstone	30/10/2018	20/12/2018	189,999.96	47,299.06
UCC-RC-Main St pavement failures	02/07/2018	24/10/2018	470,000.00	367,828.98

UCC-RC-Mason Ave-Hotham CI to Norman Rd	02/07/2018	14/11/2018	834,999.96	1,056,807.04
UCC-RC-North St - Hospital to Hunter Stret	08/04/2019	04/06/2019	204,999.96	1,951.93
UCC-RC-Pavement rehabiliation of Bolsover - Archer to St			0.00	1,007.83
UCC-RC-Pavement rehabiliation of Quay St (William to Der	08/01/2019	11/03/2019	713,000.00	0.00
Project Description	Planned Start Date	Planned End Date	Budget Estimate	YTD Actual (incl committals)
UCC-RC-Quay Ln & Pilbeam Theatre Carpark (Revenue)	12/04/2019	19/07/2019	513,000.00	6,401.30
UCC-RC-Schultz St - Denham St Ext to Verney St	25/02/2019	10/04/2019	188,000.04	9,542.94
UCC-RC-Stanley Street-Alma Street Intersection (Revenue			12,100.00	12,111.11
UCC-RC-Thozet Rd-Lakes Creek Rd-Elphinstone St				813.31
UCC-RC-Upper Dawson Rd (Nathan St to Wakefield St)	15/03/2019	16/07/2019	0.00	51,921.80
UCC-RC-Upper Dawson Rd-Nathan-Wakefield			543,000.00	4,854.83
UCC-RF-Pilbeam Drive guard rails			50,000.00	0.00
UCC-RF-Replacement & straightening Street Signage W4Q Ro	02/07/2018	04/12/2018	76,000.00	7,390.93
UCC-RS-Road Safety Minor Works Program	25/02/2019	17/04/2019	204,999.96	39,166.61
UCC-SL-Streetlighting Improvement Program	02/07/2018		50,000.04	0.00
UCC-SW-231 Victoria Place Drainage Improvements			0.00	4,213.11
UCC-SW-Alexander Street Drainage			100,000.00	200,766.86
UCC-SW-Caribbea Estate Stg 2			0.00	7,039.48
UCC-SW-Dean St Drainage_Rodboro St to Peter St			0.00	136,107.13
UCC-SW-No30 Archer View Terrace				1,650.52
UCC-SW-Park Street Drainage 5A - Tung Yeen Street (Reven	18/09/2018	01/02/2019	887,592.00	415,043.35
UCC-SW-Quay Lane_North St to Albert St	25/10/2018	23/11/2018	65,000.04	3,732.11

UCC-SW-Replace Stormwater Inlets	07/08/2018	12/09/2018	95,000.04	52,453.98
UCC-SW-Satinwood Avenue - Pipe Replacements			0.00	8,801.10
UCC-SW-South Rockhampton Main Drain			20,000.00	20,932.56
UCC-SW-Stormwater general allocation for small projects	18/06/2018	14/09/2018	99,999.96	0.00
UCC-SW-Venables Street Drainage			0.00	1,792.96
Project Description	Planned Start Date	Planned End Date	Budget Estimate	YTD Actual (incl committals)
UCC-SW-Wackford Street Drainage	20/05/2019	19/09/2019	720,000.00	309.55
UCC-SW-Webber park Stage 1B inlets/outlets	12/03/2019	15/07/2019	1,209,999.96	78,672.05
UCC-TL-Berserker St and Simpson Street - Blackspot (Reve	03/12/2018	16/01/2019	0.00	-209,454.11
UCC-TL-Misc Traffic Light Upgrades- (PAPL to Radio Link)	02/07/2018		156,999.96	0.00
UCC-TL-Elphinstone St and Dean St (Bulbs)			0.00	4,066.39
UCC-TL-Graeme Action Way pedestrian crossing (Controller			0.00	19,883.72
UCC-TL-Main St and Haynes St (Bulbs)			0.00	31,581.37
UCC-TL-Norman Rd and Farm St (Controller)			0.00	69.90
UCC-TM-Canning Street - Derby Street Roundabout			0.00	72,028.51
UCC-TM-Enhanced School Zone Program 2018-2019			0.00	2,926.50
UCC-W&S Belmont Rd Widening - FRW Entrance to South Boun	02/07/2018		219,999.96	0.00
	21,103,402.76	6,054,803.65		

3. Operational Projects

As at period ended 16 November 2018 – 42% of year elapsed.



Project	Planned Start Date	Planned End Date	On Track	Comment	Budget Estimate	YTD actual (incl committals)
Urban	1 July	30 June		As planned – 49.1%	6,444,247	3,166,892
Rural	1 July	30 June		As planned – 33.4%	4,851,841	1,621,011
Urban West	1 July	30 June		As planned – 43.7%	1,066,520	466,297

4. Budget

Financial performance as expected for the reporting period.

2018.2019 - As	- CAPITAL	38.1%		
	Adopted Budget	Actual Expenditure	Actual Expend inc Committals	
Rural	\$5,727,000	\$2,133,956	\$2,630,802	45.94%
Urban Central	\$21,603,403	\$5,373,818 [*]	\$6,107,531	28.27%
Urban West	\$2,308,400	\$643,067	\$715,652	31.00%
Capital Total	\$29,638,803	\$8,150,841	\$9,453,985	31.9%

Comments

As at 16 November 2018 – approximately 42% of year elapsed – year to date expenditure is **32%** – expenditure is within set target.

2018.2019 - As o					
	Adopted Budget	Actual Revenue	Actual Expenditure	Actual Expend inc Committals	
Rural	\$4,851,841	\$0	\$1,595,342	\$1,621,011	33.4%
Urban Central	\$6,444,247	\$0	\$3,116,620	\$3,166,892	49.1%
Urban West	\$1,066,520	\$0	\$462,784	\$466,297	43.7%
	\$12,362,608	\$0	\$5,174,746	\$5,254,200	42.5%
RMPC		-\$389,898	\$438,542	\$439,419	\$49,521
Private Works		-\$1,898,561	\$1,476,909	\$1,507,426	-\$391,135
	\$12,362,608	-\$2,288,459	\$7,090,197	\$7,201,045	58.25%
Works other Units		-\$42,653	\$46,498	\$46,907	\$4,254

Comments

As at 16 November 2018 – approximately 42% of year elapsed – year to date expenditure is 43%.

5. Section Statistics

Service Level	Target	Current Performance	Service Level Type (Operational or Adopted)
Conquest Inspections – Customer Request / Conquest Inspections (finalised within 14 working days) as at 20 November 2018.	100%	100%	Adopted

Rural Grading – YTD – July to June 2019

Road Name	KM	Cost	Road Name	KM	Cost
Arthur Street	2.49	13,705.07	Kime Road	5.10	39,555.10
Bills Road - Marmor	4.65	18,502.20	Lanyon Road	1.57	9,598.17
Black Gin Creek Road	1.13	11,963.98	Laurel Bank Road	0.71	1,731.57
Butler Road	0.70	1,671.44	Lion Mountain Road	11.15	42,114.05
Callan Road	2.10	9,342.05	Marble Ridges Road	5.71	14,766.56
Calmorin Road	5.00	15,982.82	Milner Road	0.25	1,552.93
Dalma - Ridgelands Road	1.33	6,231.55	Mount View Road	1.10	5,846.12
Dargel Road	1.00	6,281.65	Nugget Avenue	1.00	3,154.55
Dee Road	0.50	1,236.82	O'Brien Road	1.80	12,474.46
Donovan Road	5.24	22,413.42	Old Coach Road	7.90	42,537.58
Edmistone Road	3.30	16,308.48	Pink Lily Road	0.75	2,452.18
Evergreen Road	5.85	20,376.35	Redbank Road	8.52	63,918.99
Fairview Road	7.60	54,424.34	Scott Road	0.90	1,605.49
Glenroy Road	30.00	148,731.00	Sheldrake Road	2.70	11,404.47
Goodwin Road - Gracemere	2.38	7,304.76	South Yaamba Road	19.11	47,425.00
Grantleigh Road	4.40	18,011.82	Spragg Road	0.70	2,986.64
Hanrahan Road	5.83	30,607.85	Stewart Park Road	1.10	4,501.02
Hansen Road	1.77	9,032.83	Sunray Avenue	0.30	817.48
Harding Road	2.00	9,581.66	Tee Tree Road	0.90	3,435.50
Harnsworth Road	0.80	3,935.37	Thirsty Creek Road	2.00	7,320.50
Hinchliff Avenue	0.30	718.90	Von Allmen Road	1.65	9,427.64
Hume Road	3.80	23,098.95	Wedel Road	1.70	3,537.39
Hunt Road - Alton Downs	3.38	26,812.06	Weir View Road	0.75	3,747.57
Inslay Avenue	1.30	3,480.48	Subtotal 2	77.37	\$335,910.96
Subtotal 1	96.85	\$479,755.85	TOTAL	174.22	\$815,666.81



Reporting Month	December 18
Project	Nine Mile Road Floodway
Project Number	2019-020
Project Manager	Steve Hughes
Council Committee	Infrastructure

PROJECT SCOPE

- Widening the existing narrow concrete floodway to 6.50m
- Extend existing drainage structures

PROJECT MILESTONES							
ITEM		T DATE	COMMENTARY				
TTEW	ORIGINAL	REVISED	COMMENTANT				
Project Planning	July 18	July 18					
Design Development	July 18	July 18					
Procurement	August 18	August 18					
Construction	November 18	November 18	Construction commenced 06 Aug 2018 Completed 07 Nov 2018				

FINANCIAL PROFILE

	Project Life			Current Year				
	Total Budget	Actual to date	Committ als	Remainin g Budget	Budget	Actual to date	Committal s	Remainin g Budget
Expenditur e					\$513,00 0	\$484,54 8	\$21,533	\$6,919
External Funding								

PROJECT STATUS

Project completed 07 Nov 2018



Reporting Month	December 18
Project	Gum Tree Avenue - Bouldercombe
Project Number	2019-037
Project Manager	Steve Hughes
Council Committee	Infrastructure

PROJECT SCOPE

- Replace the single lane / low level concrete floodway with a double lane structure with improved immunity
- Oct 2018 Scope reviewed to reduce width to 4.20m to save large trees

PROJECT MILESTONES							
ITEM	TARGE	T DATE	COMMENTARY				
11 EW	ORIGINAL	REVISED	COMMENTANT				
Project Planning	August 18	August 18					
Design Development	October 18	October 18					
Procurement	October 18	October 18	Concrete components delivered early Nov 2018				
Construction	November 18	November 18	Construction commenced 14 Nov 2018				

FINANCIAL PROFILE

Budget on track

	Project Life			Current Year				
	Total Budget	Actual to date	Committ als	Remainin g Budget	Budget	Actual to date	Committal s	Remainin g Budget
Expenditur e					\$200,00 0	\$49,959	\$19,873	\$130,16 8
External Funding								

PROJECT STATUS

Three trees removed
Side track constructed
Old concrete floodway removed

New concrete bases & culverts being placed 20 Nov



Reporting Month	December 18
Project	Cherryfield Road
Project Number	2018-053
Project Manager	Steve Hughes
Council Committee	Infrastructure

PROJECT SCOPE

- Widening the existing pavement and bitumen seal 6.50m wide between Reigal Drive and Ashford Street
- Minor upgrading to several driveways
- Cement stabilisation and bitumen sealing of two floodways

PROJECT MILESTONES							
ITEM		T DATE	COMMENTARY				
	ORIGINAL	REVISED					
Project Planning	December 17	December 17					
Design Development	July 18	July 18					
Procurement	August 18	August 18					
Construction	August 18	August 18	Construction completed 21 Sept 2018				

FINANCIAL PROFILE

Completed under budget

	Project Life				Current Year			
	Total Budget	Actual to date	Committ als	Remainin g Budget	Budget	Actual to date	Committal s	Remainin g Budget
Expenditur					\$400,00	\$285,04		\$114,95
е					0	8		2
External Funding								

PROJECT STATUS

Project completed 21 Sept 2018



Reporting Month	December 18
Project	Calmorin Road – Hanson's Bridge replacement
Project Number	2017-185
Project Manager	Steve Hughes
Council Committee	Infrastructure

PROJECT SCOPE

- Replace existing single lane timber bridge with RCBC structure 7.0m wide
- Minor re-alignment of approaches to improve safety

PROJECT MILESTONES							
ITEM		T DATE	COMMENTARY				
112111	ORIGINAL	REVISED	COMMENTANT				
Project Planning	March 18	March 18					
Design Development	August 18	September 18					
Procurement	November 18	November 18	Culverts ordered early Nov 2018				
Construction	December 18	December 18					

FINANCIAL PROFILE

Budget on track

	Project Life				Current Year			
	Total Budget	Actual to date	Committ als	Remainin g Budget	Budget	Actual to date	Committal s	Remainin g Budget
Expenditur e	\$925,00 0	\$29,904	\$333,30 6	\$582,17 3	\$925,00 0	\$9,521	\$333,30 6	\$582,17 3
External Funding	· · · · · · · · · · · · · · · · · · ·							

PROJECT STATUS

Design completed
Concrete box culverts ordered



Reporting Month	December 18
Project	Pilbeam Drive Footpath and Carpark – W4QR2
Project Number	2016-087
Project Manager	Natalie Chapman
Council Committee	Infrastructure

PROJECT SCOPE

- Widening of Pilbeam Drive to accommodate turning lane/entry to carpark.
- Extension of kerb and channel and concrete footpath.
- Construction of 21-space carpark.

PROJECT MILESTONES						
ITEM	TARGE	T DATE	COMMENTARY			
11 EW	ORIGINAL	REVISED	COMMENTANT			
Project Planning	September 18					
Design Development	September 18					
Procurement	September 18					
Construction	January 19					

FINANCIAL PROFILE

On track

	Project Life				Current Year			
	Total Budget	Actual to date	Committ als	Remainin g Budget	Budget	Actual to date	Committal s	Remainin g Budget
Expenditur	\$950,00	\$315,27	\$6,075	\$628,65	\$650,00	\$290,72	\$6,075	\$353,20
е	0	1	ψ0,073	4	0	5	φ0,075	0
External Funding	\$950,00 0	-		-	\$650,00 0	-		-

PROJECT STATUS

- Carpark constructed to subgrade level
- Roadworks on Pilbeam Drive almost ready for primerseal
- Concrete footpath constructed to piped road crossing awaiting advice on guardrail treatment



Reporting Month	December 18
Project	Mason Avenue
Project Number	2017-105
Project Manager	Natalie Chapman
Council Committee	Infrastructure

PROJECT SCOPE

- Construction of new replacement stormwater culvert crossing on Mason Avenue.
- Reconstruction of road pavement on Mason Avenue, incl construction of kerb and channel.
- Construction of new stormwater culvert crossing on Norman Road, incl property accesses.
- Pavement widening on Norman Road.
- Overland drainage channels within 981 987 Norman Road.

PROJECT MILESTONES						
ITEM	TARGE		COMMENTARY			
11 =	ORIGINAL	REVISED				
Project Planning	May 17					
Design Development	May 17					
Procurement	June 18					
Construction	November 18					

FINANCIAL PROFILE

Expected cost to finish \$80,000 - may require minor additional funds.

	Project Life				Current Year			
	Total Budget	Actual to date	Committal s	Remaini ng Budget	Budget	Actual to date	Committal s	Remainin g Budget
Expenditur e	\$1,568,4 09	\$1,053,78 5	\$44,115	\$470,509	\$1,133,5 37	\$1,017,4 05	\$44,115	\$72,017
External Funding	\$1,568,4 09	-		-	\$1,133,5 37	-		-

PROJECT STATUS

- Substantially complete.
- Intersection reopened to traffic.
- Fencing reinstated to school property this week.
- Pavement widening, table drain along Norman Road to be completed.
- FRW almost completed commissioning of new 600mm watermain.



Reporting Month	December 18
Project	Wintergarden Carpark
Project Number	C1129027
Project Manager	Matthew Smith
Council Committee	Infrastructure

PROJECT SCOPE

Construct Carpark at the Wintergarden site.

- Reshape existing ground levels
- New pavement
- 2 coat Spray Seal
- New Drainage infrastructure
- Kerb and Channel

PROJECT MILESTONES								
ITEM	TARGE	T DATE	COMMENTARY					
I I CIVI	ORIGINAL REVISED		COMMENTART					
Project Planning								
Design Development								
Procurement								
Construction	October 18		1 week behind schedule due to wet weather					

FINANCIAL PROFILE

The project is currently on budget.

	Project Life					Current Year			
	Total Budget	Actual to date	Committ als	Remainin g Budget	Budget	Actual to date	Committal s	Remainin g Budget	
Expenditur e	\$260,00 0	\$92,200	\$33,000	\$125,20 0	\$260,00 0	\$92,200	\$33,000	\$125,20 0	
External Funding									

PROJECT STATUS

The car park is scheduled to open on Monday 3rd December 2018. There is a wait on the stormwater filtration unit that is to be installed. This will be completed after the opening of the carpark. It is expected that it will affect 4 of the 124 car parking spaces available.



Reporting Month	December 18
Project	Macquarie Street Upgrade (Somerset Road to Foster St) Works For Queensland Project
Project Number	C1112828
Project Manager	Matthew Smith
Council Committee	Infrastructure

PROJECT SCOPE

- Widen existing road width on Macquarie Street & Somerset Road
- Install new Kerb and Channel and drainage infrastructure on the western side of Macquarie St

PROJECT MILESTONES								
ITEM	TARGE	T DATE	COMMENTARY					
TTEW	ORIGINAL	REVISED	COMMENTANT					
Project Planning								
Design Development								
Procurement								
Construction	August 18	August 18	Works completed 14 th November 2018					

FINANCIAL PROFILE

Financial Summary

Design Cost - \$95,000

Engineer Estimate - \$435,000

Additional 300m³ pavement on Somerset Road. This was not part of the design but required to be done while boxing out Somerset Road. – \$55,000

Additional Road widening at Somerset Road and Capricorn Street to improve detour safety during works \$15,000.

Adjusted Budget - \$600,000 for Project Life.

Estimated Actual to Date with Actual Committals \$620,000.

		Project Life				Current Year			
		Total Budget	Actual to date	Committ als	Remainin g Budget	Budget	Actual to date	Committal s	Remainin g Budget
Expe	enditur e	\$500,00 0	\$599,00 0	\$63,000	\$162,00 0	\$405,00 0	\$504,00 0	\$63,000	\$162,00 0
	ternal nding	\$405,00 0				\$405,00 0			

PROJECT STATUS

Works were completed 14th November 2018.



Reporting Month	December 18
Project	Alexandra Street – Reconstruction
Project Number	C1125972
Project Manager	Matthew Smith
Council Committee	Infrastructure

PROJECT SCOPE

Full road reconstruction from Richardson Road to Sheehy Street

- Reconstruct Pavement
- New Drainage infrastructure
- · Replace existing kerb and channel
- New centre medians
- Asphalt overlay

PROJECT MILESTONES							
ITEM	TARGE	T DATE	COMMENTARY				
I I CIVI	ORIGINAL	REVISED	COMMENTARY				
Project Planning							
Design Development	November 18		Design Complete.				
Procurement							
Construction	November 18		Project set to commence 27/11/2018. Construction period 9 months.				

FINANCIAL PROFILE

Current expenditure to date is for design and preliminary investigation works.

\$421,000 External Funding - Roads to Recovery

	Project Life				Current Year				
		Total Budget	Actual to date	Committ als	Remainin g Budget	Budget	Actual to date	Committal s	Remainin g Budget
Ex	penditur e	\$2,100,0 00	\$77,500	\$0	\$2,022,50 0	\$2,100,00 0	\$77,500	\$0	\$2,022,50 0
	xternal unding	\$421,000				\$421,000			

PROJECT STATUS

Project set to commence 27/11/2018 with a construction period of 9 months.

Variable Message Boards have setup to give notice of the upcoming works.

Letter Box drop to affected residents and businesses was completed 16th November 2018.



Reporting Month	December 18
Project	North St (Victoria Pde – Campbell St)
Project Number	2018-093
Project Manager	Jason Pierce
Council Committee	Infrastructure

PROJECT SCOPE

- Install 42 m of 675 diameter stormwater pipes for future works
- Construct 1 stormwater chamber
- Construct 3 stormwater inlet chambers
- Construct 75 metres of kerb and channel
- Construct 225 m2 of raised concrete roadway
- Construct 282 m2 of concrete pathways
- New pavement marking in North St from Victoria Pde to Campbell St
- Turfing and Landscaping

PROJECT MILESTONES							
ITEM	TARGE	T DATE	COMMENTARY				
TIEW	ORIGINAL	REVISED	COMMENTART				
Project Planning							
Design Development	20 September 2018		Design Approved				
Procurement							
Construction	Dec 2018	March 2018	Anticipated Completion				

FINANCIAL PROFILE

On budget

	Project Life				Current Year			
	Total Budget	Actual to date	Committ als	Remainin g Budget	Budget	Actual to date	Committal s	Remainin g Budget
Expenditur e	\$364,00 0	\$50,100	\$3,395	\$310,50 5	\$364,00 0	\$50,100	\$3,395	\$310,50 5
External Funding								

PROJECT STATUS

- 42 metres of 675 diameter SW pipe installed
- One SW chamber completed



Reporting Month	December 18		
Project	North St (Victoria Pde – Campbell St)		
Project Number	2018-093		
Project Manager	Jason Pierce		
Council Committee	Infrastructure		

PROJECT SCOPE

- Install 42 m of 675 diameter stormwater pipes for future works
- Construct 1 stormwater chamber
- Construct 3 stormwater inlet chambers
- Construct 75 metres of kerb and channel
- Construct 225 m2 of raised concrete roadway
- Construct 282 m2 of concrete pathways
- New pavement marking in North St from Victoria Pde to Campbell St
- Turfing and Landscaping

PROJECT MILESTONES								
ITEM	TARGE	T DATE	COMMENTARY					
I I CIVI	ORIGINAL	REVISED	COMMENTART					
Project Planning								
Design Development	20 September 2018		Design Approved					
Procurement								
Construction	Dec 2018	March 2018	Anticipated Completion					

FINANCIAL PROFILE

On budget

		Proje	ct Life		Current Year						
	Total Budget	Actual to date	Committ als	Remainin g Budget	Budget	Actual to date	Committal s	Remainin g Budget			
Expenditur e	\$364,00 0	\$50,100	\$3,395	\$310,50 5	\$364,00 0	\$50,100	\$3,395	\$310,50 5			
External Funding											

PROJECT STATUS

- 42 metres of 675 diameter SW pipe installed
- One SW chamber completed



Reporting Month	December 18
Project	Hindley St (Elphinstone St – Livingstone St)
Project Number	2016-131
Project Manager	Jason Pierce
Council Committee	Infrastructure

PROJECT SCOPE

- Replace 220 lm of kerb and channel
- Replace 20 m2 of driveways
- Construct 750 of new gravel road pavement including 40mm thick asphalt overlay

PROJECT MILESTONES										
ITEM		T DATE	COMMENTARY							
1120	ORIGINAL	REVISED	COMMENTANT							
Project Planning										
Design Development	August 18		Design Approved 24 August 2018							
Procurement										
Construction	October 18	January 19	Anticipated Completion							

FINANCIAL PROFILE

On budget

		Proje	ct Life		Current Year							
	Total Budget	Actual to date	Committ als	Remainin g Budget	Budget	Actual to date	Committal s	Remainin g Budget				
Expenditur e	\$ 190,000	\$ 54,760	\$ 785	\$ 134,445	\$ 190,000	\$ 54,760	\$ 785	\$ 134,445				
External Funding	nil											

PROJECT STATUS

Works in progress

- Kerb and channel to be completed by Saturday 24 November
- Asphalt reseal before Christmas

8.5 INFRASTRUCTURE PLANNING MONTHLY OPERATIONS REPORT - NOVEMBER 2018

File No: 7028

Attachments: 1. Infrastructure Planning Monthly Operations

Report - November 2018

Authorising Officer: Martin Crow - Acting General Manager Regional

Services

Author: Martin Crow - Acting General Manager Regional

Services

SUMMARY

This report outlines Infrastructure Planning Monthly Operations Report for the period to the end of November 2018.

OFFICER'S RECOMMENDATION

THAT the Infrastructure Planning Monthly Operations Report for November 2018 report be received.

The Infrastructure Planning Section submits a monthly operations report outlining issues faced by the section and performance against nominated service level criteria. Due to the reporting timeframes and agenda requirements of the Infrastructure Committee, the statistics utilised in the reports will lag the committee meeting dates by approximately 1 month.

INFRASTRUCTURE PLANNING MONTHLY OPERATIONS REPORT NOVEMBER 2018

Infrastructure Planning Monthly Operations Report - November 2018

Meeting Date: 4 December 2018

Attachment No: 1



1. Highlights

Civil Design

During November and December, Civil Design Unit will complete the majority of the Capital Budget Project Designs for the 18/19 period.

Major design projects which have been completed and are at final review and approval stage are:

- Yaamba Road Off-Road Cycleway (Stage 2) Est. 30/11/18
- Alexandra Street Reconstruction Est. 30/11/18
- Berserker Street / Simpson Street Traffic Signals Est. 30/11/18
- Mount Morgan Long Range Coach Stop Est. 30/11/18
- Gracemere CBD Footpath Upgrade Est. 30/11/18
- South Ulam Road widening Est. 30/11/18
- McMillan Avenue Water Main Replacement Est. 30/11/18
- Stanley Street Water Main Replacement Est. 30/11/18
- Brecknell Street Sewer Est. 30/11/18

During November, the Coordinator Civil Design participated in a 50% Design Review of the proposed Riverslea Bridge Replacement, which is part of the Sunwater Rookwood Weir Project.

Strategic Infrastructure

Officers have been working with Water Modelling Solutions to validate the low cost gauge network and flood warning system. Work has been done to ensure that the trigger points for the flood warning system are at the correct heights and that they are working effectively. Work is continuing on the design and analysis of the east Parkhurst stormwater drainage network. Officers are modelling a drainage system to cater for developed case design flows and also to incorporate the scheme adopted by RRC and DTMR resulting from the RNAU works.

Water and Sewer have had several requests for Water and Sewer network analysis for developments in the region. These have consumed a large amount of officer time. Officers are also documenting the analysis of the relationship between Water usage and Sewer loading so a clear record of the process is kept. This update to the modelling has ensured that the sewer models are more closely aligned with current operating conditions.

Analysis of the intersection of Moores Creek Road / Feez Street and Kerrigan Street continues as officers attempt to stage upgrade works in order to maximise the life of the intersection. The cost of an ultimate signalisation will be significant due to the size of the intersection and so a staged work program is being considered at this location. Norman Road corridor study (from Yeppoon Road to Nagle Drive) is almost complete with several intersection and link upgrades proposed over the next 10 years. These works will be driven by development progress in the Norman Gardens area.

Assets and GIS

Road Condition Assessments

Routine condition assessments and ongoing defect monitoring activities continue to be performed as planned.

Asset Data Reviews

Work has continued on the review of Council's asset data in both GIS and Conquest.

ESRI and GeoCortex Upgrades

The ESRI and GeoCortex_upgrades have commenced and are progressing as planned. The test site for the new external environment has now been completed.

Disaster Management / SES Operations

Local Disaster Management Group Meeting

The Local Disaster Management Group (LDMG) met on Monday 19 November. The QFES and Bureau of Meteorology preseason weather update was provided to the Group. The Group met to consider current capability and capacity, for the season.

Local Disaster Management Group Exercise

Following the LDMG meeting, the annual exercise was conducted, facilitated by the District Disaster Management Executive Officer. This scenario looked at a realistic event that could affect the region; significant fires, followed by significant rainfall. The Group considered the multiagency arrangements that would be required to coordinate this, the agencies available, their local capacity, the roles, responsibilities, communication arrangements and the points where requests for assistance would be required.

Queensland Disaster Management Arrangements Training

On 19 November Queensland Fire and Emergency Services delivered Queensland Disaster Management Arrangements training for approximately 50 Council employees who have expressed an interest in working within the Local Disaster Coordination Centre (LDCC), during events and approximately 10 representatives from agencies.

Local Disaster Coordination Centre establishment

This season, if it is needed to be activated, the Local Disaster Coordination Centre (LDCC) will be established within the Councillors' Room. A trial set up of the LDCC was carried out on 15 November. This room will be appropriate for this purpose. It was identified that some additional minor IT equipment would benefit the centre, and this will be purchased.

SES Preseason Preparedness

SES Local Controller carried out planning and preparedness activities to evaluate resources available and have equipment positioned at the SES Headquarters. The Unit's training and competencies where reviewed and training activities were conducted. The SES Local Controller is working with QFES to obtain information on the current operational functions of SES Groups and capacity of each active SES member in the Rockhampton Unit.

Fitzroy Catchment Resilience Pilot

Cr Williams, Council's Senior Infrastructure Planning Engineer - Floodplain Management and Coordinator Disaster Management attended the 'Co-Design' workshop for the Fitzroy Regional Resilience Pilot on 16 November in Emerald, to put forward priorities and expectations of this project relevant to the Rockhampton region. The next meeting will be in Rockhampton in the new year.

Site Tour - Flood Mitigation Infrastructure Significant Points of Interest

Cr Williams, Council's Senior Infrastructure Planning Engineer - Floodplain Management, Design Engineer and Coordinator Disaster Management, on 8 November, visited newly commissioned stations for situational awareness. While on site there was the opportunity for testing and some bugs were identified, which are now being addressed.

Site Tour - SES Regional Facilities

Cr Williams, SES Local Controller, Coordinator Community Facilities and Coordinator Disaster Management on 21 November, visited the SES facilities. The visit provided an opportunity to meet with volunteers, identifying any works required or issues pending.

Key meetings/workshops

- Queensland Emergency Risk Management Framework (QERMF) and community engagement and risk mitigation, 12 November, planning for 2019 risk assessment process
- Floodplain Management Australia Workshop, 14 November
- Opening of the Central Region Area Office and Deployment Centre, 19 November
- QFES Central Region Operations Centre exercise, to review arrangements to connect with LDMG and LDCC, 23 November
- District Disaster Management Group (DDMG), 27 November
- Bureau of Meteorology proactive discussions on proposed Flood levee and forecasting/warning relationship, 27 November
- Multi agency community engagement and education, development of 12/24 month plan(s), 29 November
- Inspector General Emergency Management (IGEM)'s Disaster Management Officer (DMO) State networking teleconference 30 November
- SES Task Force Catalyst QFES Steering Group and QFES Communication, Kedron
- Feedback was provided to QFES, by the SES Local Controller, regarding the Volunteer Strategy and QFES 2030 Plan
- SES Local Controller attended ANZAC Day Committee, SAR Regional Committee
- FESSEN planning meeting regarding SES Welfare issues
- Get Ready and SES community engagement and education activities; radio, TV, social media, community meetings.

2. Innovations, Improvements and Variations

Civil Design Unit

Civil Design Unit staff have been using a web based tool named "Trello" to improve the organisation of their projects and workflows. In its basic form the software is free, with limitations on storage and some functionality. This tool allows staff to list the projects they are working on (or scheduled to work on) and identify associated tasks and timeframes required. This platform can be made available to supervisors and other civil designers so that project progress can be tracked. This tool has been beneficial in sending email reminders to persons that may be reviewing the project or providing information, minimising downtime while design progress is on hold.

Assets & GIS

Earlier this year Officers created an Esri Story Map for Advance Rockhampton to promote the Fitzroy River Agriculture Corridor . This was the first time an Esri Story Map had been created by Council for the purpose of presenting information, including spatial data, to the community. This tool has many other potential uses across Council.

3. Customer Service Requests

Response times for completing customer requests in this reporting period for October 2018 are within the set timeframes.



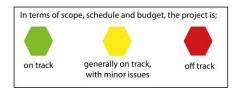
All Monthly Requests (Priority 3) Infrastructure Planning 'Traffic Light' report October 2018

			Current Month NEW Requests		TOTAL				Avg W/O Completion		Avg	Avg		Avg	Avg Duration
	Balance B/F	Completed In Current Mth	Received	Completed	INCOMPLETE REQUESTS BALANCE	Work Orders Issued	On Hold	(days) 12 months	Standard (days)	Time	npletion e (days) rent Mth	Completion Time (days) 8 Months		Completion Time (days) 12 Months	(days) 12 Months (complete and Incomplete)
Disaster Management / SES	0	0	0	0	0	0	0	0.00	14	•	0.00	0.00	1	8.33	0.00
Flood Management Creeks/Rivers	0	0	4	3	1	0	0	3.81	14	•	0.33	5.15	. (17.67	4.33
Flood Levee	0	0	7	4	3	0	0	0.00	14	•	3.00	4.13	1	6.50	3.83
GIS - Map Production Requests	0	0	0	0	0	0	0	0.00	10		0.00	14.50	۱ (6.83	2.50
Infrastructure Planning - General Enquiry	0	0	2	1	1	0	0	0.00	5		1.00	1.00	۱ (1.00	1.50
Speed Limits/Traffic Volumes (Not related to MTCE)	0	0	1	0	1	0	0	3.62	28	•	0.00	6.2°		11.95	8.49
Traffic Management – General Enquiry	4	2	13	7	8	0	0	1.19	28		4.86	14.07		14.07	12.23
Signs & Lines (New Request - not already existing)	4	1	18	2	19	0	0	128.93	28	•	7.00	7.19	•	8.30	7.48

INFRASTRUCTURE COMMITTEE AGENDA 4 DECEMBER 2018

4. Capital Projects

Details of capital projects not reported regularly to Council or a particular Committee in other project specific report updates as at period mid-November 2018 – 37.5 % of year elapsed

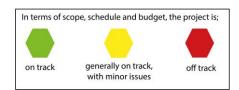


Project	Planned Start Date	Planned End Date	On Track	Budget Estimate	YTD actual (incl committals)
Land Acquisitions and Resumptions	01/07/2018	30/06/2019		\$375,000	0
LDCC Equipment Upgrade	01/07/2018	30/06/2019		\$100,000	\$58,962
Preliminary design and conceptual layouts	01/07/2018	30/06/2019		\$197,000	0
New Design Office Survey Equipment	01/07/2018	30/06/2019		\$60,000	\$59,953
Webber Park Drainage Scheme Stage 1	01/07/2018	30/06/2019		\$5,000	\$2,149
Purchase of Charles Street Residence (SES)	01/07/2018	30/06/2019		\$6,500	\$848

INFRASTRUCTURE COMMITTEE AGENDA 4 DECEMBER 2018

5. Operational Projects

As at period mid- November 2018 – 37.5% of year elapsed



Project	Planned Start Date	Planned End Date	On Track	Comment	Budget Estimate	YTD actual (incl committals)
Traffic/Transport Planning Consultancy Budget	01/07/2018	30/06/2019		Traffic models for Rockhampton and Gracemere and secondment for transport planning.	\$100,000	\$132,619
Stormwater Drainage Planning Consultancy Budget	01/07/2018	30/06/2019		Continuation of stormwater and flood mitigation investigations.	\$300,000	\$60,335
Road Safety Consultancy Budget	01/07/2018	30/06/2019		Road Safety Audits	\$25,000	0
Roads Alliance Consultancy Budget	01/07/2018	30/06/2019		Technical Coordinator support to the Regional Roads and Transport Group	\$55,000	\$50,000
Water and Sewerage Planning Consultancy Budget	01/07/2018	30/06/2019		Water Loss and Sewer Infiltration Investigations	\$15,000	0

Project	Planned Start Date	Planned End Date	On Track	Comment	Budget Estimate	YTD actual (incl committals)
Design Services Consultancy Budget	01/07/2018	30/06/2019		Technical Support for the Design Services section when required.	\$15,000	\$15,516
Disaster Management Consultancy Budget	01/07/2018	30/06/2019		Master Planning SES Facilities Flood Gauge Investigations	\$50,000	0
Road Management and Risk Assessment Consultancy Budget	01/07/2018	30/06/2019		Road management services and risk assessment of heritage bridges	\$45,000	\$35,000
Asset & GIS Operational Consultancy Budget	01/07/2018	30/06/2019		Asset and GIS operational projects	\$50,000	\$48,058
Stormwater Network Consultancy Budget	01/07/2018	30/06/2019		Stormwater network	\$20,000	\$35,449
Bridge Management System Consultancy Budget	01/07/2018	30/06/2019		Bridge management system	\$30,000	\$17,700

9 NOTICES OF MOTION

Nil

10 URGENT BUSINESS/QUESTIONS

Urgent Business is a provision in the Agenda for members to raise questions or matters of a genuinely urgent or emergent nature, that are not a change to Council Policy and can not be delayed until the next scheduled Council or Committee Meeting.

11 CLOSURE OF MEETING