



INVERELL
SHIRE COUNCIL

BUSINESS PAPER

**Civil and Environmental Services
Committee Meeting
Wednesday, 10 March 2021**

INVERELL SHIRE COUNCIL**NOTICE OF CIVIL AND ENVIRONMENTAL SERVICES COMMITTEE MEETING**

5 March, 2021

A Civil and Environmental Services Committee Meeting will be held in the Committee Room, Administrative Centre, 144 Otho Street, Inverell on Wednesday, 10 March, 2021, commencing at **9.00AM**.

Your attendance at this Civil and Environmental Services Committee Meeting would be appreciated.

Please Note: Under the provisions of the Code of Meeting Practice the proceedings of this meeting (including presentations, deputations and debate) will be webcast. An audio recording of the meeting will be uploaded on the Council's website at a later time. Your attendance at this meeting is taken as consent to the possibility that your voice may be recorded and broadcast to the public.

I would like to remind those present that an audio recording of the meeting will be uploaded on the Council's website at a later time and participants should be mindful not to make any defamatory or offensive statements.

P J HENRY PSM

GENERAL MANAGER

Agenda

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Ethical Decision Making and Conflicts of Interest

A guiding checklist for Councillors, officers and community committees

Ethical decision making

- Is the decision or conduct legal?
- Is it consistent with Government policy, Council's objectives and Code of Conduct?
- What will the outcome be for you, your colleagues, the Council, anyone else?
- Does it raise a conflict of interest?
- Do you stand to gain personally at public expense?
- Can the decision be justified in terms of public interest?
- Would it withstand public scrutiny?

Conflict of interest

A conflict of interest is a clash between private interest and public duty. There are two types of conflict:

- **Pecuniary** – regulated by the *Local Government Act 1993* and Office of Local Government
- **Non-pecuniary** – regulated by Codes of Conduct and policy. ICAC, Ombudsman, Office of Local Government (advice only). If declaring a Non-Pecuniary Conflict of Interest, Councillors can choose to either disclose and vote, disclose and not vote or leave the Chamber.

The test for conflict of interest

- Is it likely I could be influenced by personal interest in carrying out my public duty?
- Would a fair and reasonable person believe I could be so influenced?
- Conflict of interest is closely tied to the layperson's definition of 'corruption' – using public office for private gain.
- Important to consider public perceptions of whether you have a conflict of interest.

Identifying problems

- 1st** Do I have private interests affected by a matter I am officially involved in?
2nd Is my official role one of influence or perceived influence over the matter?
3rd Do my private interests conflict with my official role?

Local Government Act 1993 and Model Code of Conduct

For more detailed definitions refer to Sections 442, 448 and 459 or the *Local Government Act 1993* and Model Code of Conduct, Part 4 – conflicts of interest.

Disclosure of pecuniary interests / non-pecuniary interests

Under the provisions of Section 451(1) of the *Local Government Act 1993* (pecuniary interests) and Part 4 of the Model Code of Conduct prescribed by the Local Government (Discipline) Regulation (conflict of interests) it is necessary for you to disclose the nature of the interest when making a disclosure of a pecuniary interest or a non-pecuniary conflict of interest at a meeting.

A Declaration form should be completed and handed to the General Manager as soon as practicable once the interest is identified. Declarations are made at Item 3 of the Agenda: Declarations - Pecuniary, Non-Pecuniary and Political Donation Disclosures, and prior to each Item being discussed: The Declaration Form can be downloaded at [Declaration Form](#)

Quick Reference Guide

Below is a legend that is common between the:

- Inverell Shire Council Strategic Plan;
- Inverell Shire Council Delivery Plan; and
- Inverell Shire Council Operational Plan.



1 APOLOGIES

2 CONFIRMATION OF MINUTES

RECOMMENDATION:

That the Minutes of the Civil and Environmental Services Committee Meeting held on 10 February, 2021, as circulated to members, be confirmed as a true and correct record of that meeting.

**MINUTES OF INVERELL SHIRE COUNCIL
CIVIL AND ENVIRONMENTAL SERVICES COMMITTEE MEETING
HELD AT THE COMMITTEE ROOM, ADMINISTRATIVE CENTRE, 144 OTHO STREET,
INVERELL
ON WEDNESDAY, 10 FEBRUARY 2021 AT 9.00AM**

PRESENT: Cr Di Baker (Chairperson), Cr Paul Harmon (Mayor), Cr Stewart Berryman, Cr Neil McCosker via Zoom (late attendance) and Cr Anthony Michael (Deputy Mayor).

IN ATTENDANCE: Cr Jacki Watts, Cr Kate Dight, Cr Paul King OAM.

Paul Henry (General Manager), Brett McInnes (Director Civil & Environmental Services), Justin Pay (Manager Civil Engineering), Greg Doman (Manager Environmental Health) Paul Pay (Manager Financial Services) and Sharon Stafford (Executive Assistant).

1 APOLOGIES

Nil

2 CONFIRMATION OF MINUTES

COMMITTEE RESOLUTION

Moved: Cr Stewart Berryman

Seconded: Cr Paul Harmon

That the Minutes of the Civil and Environmental Services Committee Meeting held on 11 November, 2020, as circulated to members, be confirmed as a true and correct record of that meeting.

CARRIED

3 DISCLOSURE OF CONFLICT OF INTERESTS/PECUNIARY AND NON-PECUNIARY INTERESTS

Nil

4 PUBLIC FORUM

Nil

5 INFORMATION REPORTS

COMMITTEE RESOLUTION

Moved: Cr Stewart Berryman

Seconded: Cr Paul Harmon

That the information reports be received and noted.

CARRIED

5.1 MYALL CREEK BRIDGE DAMAGE S28.10.MR134

At this juncture, the time being 9.03am, Cr McCosker arrived.

5.2 WORKS UPDATE S28.21.1/14

5.3 REVIEW OF THE RURAL EXTENSION OF THE TINGHA DOMESTIC WASTE COLLECTION SERVICE S31.16.11/13

5.4 UPDATE ON TEMPORARY TRAFFIC MANAGEMENT ARRANGEMENTS FOR DROUGHT RELIEF TRANSPORT S28.15.3/11

6 GOVERNANCE REPORTS**6.1 GOVERNANCE - PERFORMANCE REPORTING ON ROAD MAINTENANCE COUNCIL CONTRACTS S1.2.3/14****COMMITTEE RESOLUTION**

Moved: Cr Paul Harmon

Seconded: Cr Stewart Berryman

That the information be received and noted.

CARRIED

The Meeting closed at 9.25am.

3 DISCLOSURE OF CONFLICT OF INTERESTS/PECUNIARY AND NON-PECUNIARY INTERESTS

4 PUBLIC FORUM

5 DESTINATION REPORTS

5.1 REPAIR PROGRAM UPDATE - BUNDARRA ROAD ADJACENT TO RACECOURSE

File Number: S15.8.22 / 21/7357

Author: Justin Pay, Manager Civil Engineering

SUMMARY:

Council's nominated REPAIR Program project for 2020/2021 is the Rehabilitation of Bundarra Road, adjacent to the racecourse. The design for this project is now complete and Council is requested to formally allocate the funds.

RECOMMENDATION:

That the Committee recommend to Council that the 2020/2021 REPAIR Program budget be allocated to the upgrade of Bundarra Road adjacent to the racecourse.

COMMENTARY:

Council's Regional Road Rehabilitation program 2020-2024 identified Segments 40 and 50 of Bundarra Road as Council's highest priority for rehabilitation. This segment is adjacent to the Racecourse and has been subject of investigation and design in concurrence with the drainage upgrade project in that area.

In a report to the February Council meeting, the REPAIR program was identified as the relevant funding source for the road upgrade project and it was resolved that the project be designed and developed and a further report be presented to Council with costings.

The design and project development for the road rehabilitation portion of the project is completed, while design works for the drainage upgrade are ongoing. In order to fully expend REPAIR program funds by the end of the financial year it will be required for the road rehabilitation project to commence in April 2021.

Sufficient hydrological assessment and design has been completed to model the catchment and determine relevant drainage structure sizing for the structures crossing Bundarra Road, this drainage work is included in the REPAIR program project. Design of the remainder of the drainage upgrade project is ongoing.

Design and costing for the road rehabilitation are completed with the scope of works to include, removal of the existing trees, replacement of pipe culverts under the road, extension of existing box culvert under the road, reshaping table drains to improve drainage, increasing the pavement depth to provide increased strength and kerb and gutter at the intersection of Rifle Range Road to improve drainage and traffic flow. Design Plans will be tabled at the Committee meeting.

In order to complete the road works in an efficient manner it will be necessary to remove the trees adjacent to the road. This avenue of Claret Ash trees adjacent to Bundarra Road are decaying and require replacement. Suitable replacement species have been identified by a Senior Consulting Arborist. It is intended that the replacement planting will be undertaken during the next suitable planting window after completion of the road upgrade project, which will be spring 2021. Council is currently in the process of determining availability and securing suitable replacement species. Further information on replacement trees will be provided at the Committee meeting. Suitable actions will be taken to make the community aware of the proposed replantings.

The cost for the above works is estimated at \$1,080,088 and the REPAIR program allocation is \$1,089,986. The Committee is requested to recommend to Council to formally allocate the 2020/2021 REPAIR program funds to the rehabilitation of Segments 40 and 50 of Bundarra Road.

A further report will be presented to Council once design is completed for the drainage upgrade project.

RISK ASSESSMENT:

Nil

POLICY IMPLICATIONS:

Nil

CHIEF FINANCIAL OFFICERS COMMENT:

Nil

LEGAL IMPLICATIONS:

Nil

ATTACHMENTS:

Nil

5.2 COPETON TOWN WATER SUPPLY PRODUCTION CAPACITY**File Number:** S32.15.19 / 21/7638**Author:** Michael Bryant, Manager Environmental Engineering**SUMMARY:**

The purpose of this report is to advise the Committee on the current capacity of the Copeton town water supply scheme and options to increase capacity as required in the future.

RECOMMENDATION:

That the Committee recommend to Council that:

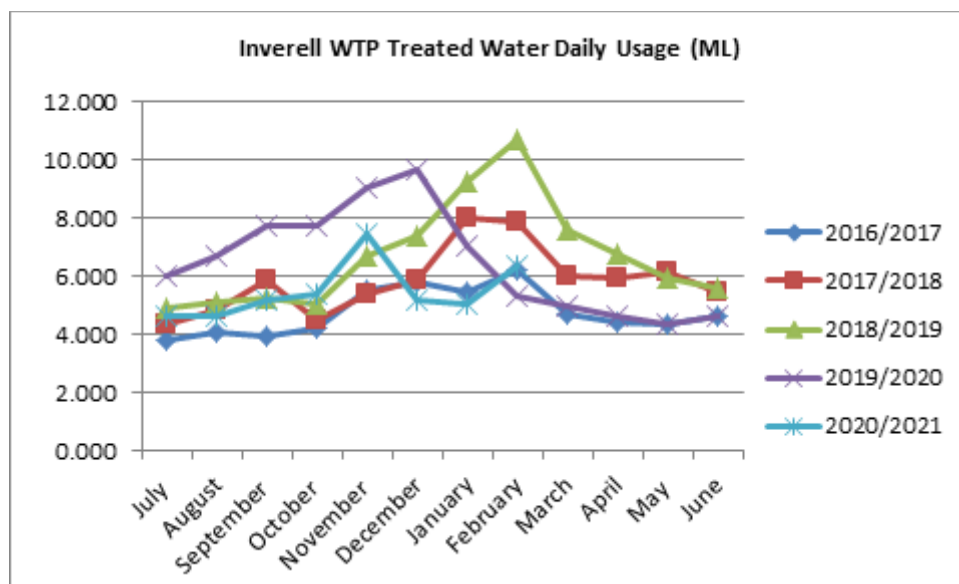
- 1. The information be received and noted;*
- 2. Council continue to monitor peak summer demand and report accordingly;*
- 3. Investigations be undertaken in regards to cost and implications associated with increasing Council's annual allocation from Copeton Dam;*
- 4. Further evaluation of augmentation options and technologies continue;*
- 5. Council continue to promote and encourage suitable water conservation measures; and*
- 6. Council be provided with an ongoing annual report regarding the above matters.*

COMMENTARY:

At the November 2020 meeting Council resolved to conduct a review of options for increasing the production capacity of treated water for the Inverell water supply area.

Background

The recent severe extended drought over a few years combined with record high summer temperatures placed unprecedented demand on the Copeton town water supply. The average monthly usage for the Copeton water supply over the four (4) previous water years is summarised in the graph below.



Demand for water is low during cooler months of the year ranging from around 4ML to 5ML/day comprising mostly internal domestic use plus business. Bindaree Food Group is a major business consuming up to approximately 2.3ML/day. Peak monthly summer demand for the Copeton supply of 11ML/day is attributed to the severest drought on record, with demand comprising mainly outdoor watering plus additional demand for water drawn from Council standpipes.

The Copeton water supply was commissioned in 1982 to serve Inverell and subsequently extended to supply Delungra, Gilgai and Tingha, paving the way for development along the 70km pipeline corridor. Copeton Dam is a very reliable source of high security water with restrictions not having to be imposed over the past 39 years of operation.

Council has a 3,054ML Town Water Supply Licence from Copeton Dam which proved adequate during the recent drought. Raw water drawn from the dam over the past four (4) water years is listed in the table below.

Raw Water Sourced From Copeton Dam	
Water Year	Volume (ML)
2016 / 2017	1,929
2017 / 2018	2,361
2018 / 2019	2,563
2019 / 2020	2,558
Average	2,353

Demand ranged from 1,929ML in 2016/2017 during a wet year, to 2,563ML in 2018/2019 during an extreme drought. The 2,563ML represents 84% of Council's annual water allocation and will continue to be monitored going forward during any extended severe drought sequences, to ensure the annual allocation is not exceeded. Accordingly, before Council embarks upon any form of augmentation the issue of water allocation would need to be addressed. It is likely Council would need to compete in the open market if it was to supplement the existing Town Water Supply allocation with High Security water.

Recent modelling by the NSW Government as part of the Draft Gwydir Regional Water Strategy indicated that Inverell is not expected to experience a supply shortfall in any year based on climate variability or climate change modelling, which is reassuring for Copeton town water supply users.

Hydraulic Capacity of the Copeton Scheme (Dam to Inverell WTP)

Council has two (2) pump stations at Copeton Dam to lift raw water to Balance Tank (BT) No 2 from where it gravitates via a 525mm diameter main to the Copeton Water Treatment Plant (WTP). Treated water gravitates from the WTP via a 525mm main to the Inverell West reservoir complex for distribution around Inverell and outlying areas. The hydraulic capacities of the current infrastructure based on 22 hours per day operation are summarised below.

Copeton Pump Station No 1 (Dam level at 10.5% capacity)

Pumps to BT No 1 located at Pump Station No 2

Two (2) pumps running 25ML/day

Copeton Pump Station No 2

Pumps to BT No 2 via a 450mm diameter main

Two (2) pumps running 14.6ML/day

525mm diameter Gravity Main from BT No 2 to Copeton WTP

Current maximum flow 12.8ML/day (improves to 14.6ML/day when main scoured)

Copeton WTP

Maximum production 15ML/day

The gravity main from BT2 to the Copeton WTP was designed to match the current capacity of WTP of 15ML/day however; the flow rate does drop off with build-up of sediment plus biofilm along pipe walls. As of November 2020 flow in the main was 12.8ML/day. It is proposed that during the winter of 2021 the main be scoured which should increase flow to around 14.6ML/day matching the maximum flow from PS No 2. Going forward the maximum transfer rate will continue to be monitored and main scouring implemented in winter as necessary. The main scouring takes several weeks and therefore can only be performed during periods of low demand in winter. With scouring of large water mains there is always a risk of a main failure due the disturbance placed on the main, which must be allowed for in the scouring program.

Cleaning of a large diameter main is difficult as it requires a significant flow of water to achieve scouring velocities. In more recent times large trunk raw water mains of this nature containing turbid raw water are constructed with pigging stations to allow the insertion and retrieval of a large sponge or plastic swab or pig used to push material along the main using water pressure in the main. Retrofitting pigging stations is not considered practical on the asbestos cement Copeton gravity pipeline as asbestos cement pipes are not as robust as ductile iron pipes and may be damaged by pigging. There is also the extended disruption to the only source of water during the retrofitting process which is not feasible. The pipeline is the only source of raw water and if a pig became stuck in the main it may be difficult to locate and retrieve by open excavation.

A new technology called ice pigging has emerged where a slurry of iced water is pushed through the main using existing hydrants and scour valves however, not practical on large mains such as the Copeton main. Likewise air scouring, a mixture of water and compressed air, is pumped into the main however, is not feasible on large mains, and may also cause damage to the main.

In summary the current method of scouring the Copeton raw water line during periods of low winter demand is the most practical and cost effective means of maintaining higher flow rates.

With occasional scouring of the 525mm raw water gravity main from BT No 2 to Copeton WTP the system has capacity to supply and treat 14.6ML/day, which is 33% higher than the peak February average daily demand experienced during the recent worst drought on record. Unless there is a significant change in the local climate, or a major wet industry attracted to the Inverell area, or significant expansion of existing industry, the current water supply infrastructure should cope well into the future staving off augmentation works.

Increasing Hydraulic Capacity

It must be noted that the existing Copeton water supply scheme was designed over forty years ago and would need to be closely reassessed to determine the most cost effective options for increasing the capacity of the system, including capital and ongoing operation and maintenance costs.

Some provisions were made in the Copeton scheme design to augment the capacity of the raw water supply and WTP, should it be required sometime in the future.

The WTP capacity could be increased from 15ML/day to 21ML/day by installing a third sedimentation tank at the head of the plant along with two (2) more filters providing a total of six (6) filters.

Copeton PS No 1 already has the capacity to supply 25ML/day to BT No 1.

Copeton PS No 2 and the 525mm diameter gravity line to the WTP would need reassessing to increase the capacity from 14.6ML/day to 21ML/day. A number of options have been put forward including booster pumps and duplication of the existing supply line.

Augmentation to the WTP and the raw water pipeline preliminary estimates are in the order of \$20M, comprising gravity pipeline \$16M and WTP \$4M.

Demand Management

Water supplies are designed to meet peak summer demand, which is mainly outdoor watering. During drought periods demand increases significantly as the town water supply is used to supplement residents not connected to a potable water supply, and in some instances for protecting property during bush fires, such as the recent Tingha plateau fires.

Demand management can play a role in suppressing peak summer demand and delay the significant cost of major capital works. Council's Drought Management Plan already has provision for not watering during the heat of the day during daylight saving times to avoid wastage of water. Demand management can involve water saving initiatives such as mulching gardens, planting native trees, water efficient irrigation systems, replacement of inefficient devices such as shower heads, toilet cisterns and household appliances with more water efficient devices. Installation of reasonable sized rainwater tanks can also offset town water supply usage.

Water pricing with a steeper inclined block tariff can also encourage more efficient usage of water. At present Council charges residential consumers \$1.65/KL for usage up 600KL per year, and \$1.95/KL for 600KL and above. Introducing more steps in the inclined block tariff would send out pricing signals to consumers to conserve water.

The above provides some demand management initiatives that have been partly implemented, or can be introduced to reduce demand, particularly peak summer demand, keeping the Copeton town water supply within the annual extraction limit and stave off expensive capital works associated with augmenting water supply infrastructure.

Conclusion

The existing Copeton water supply infrastructure has the capacity to meet current peak summer demand including drought periods and growth in demand without any major augmentation. The current bottleneck in the raw water supply chain is the 18km of gravity main between BP Tank No 2 and the WTP, which requires periodic scouring to remove sediment and biofilm to maintain a flow of around 14.6ML/day. Detailed investigations would be required to more accurately quantify future augmentation options including costs.

Curtailing peak summer demand has long term financial benefits in delaying significant capital works required to increase the capacity of the Copeton town water supply scheme and also avoid exceeding the Town Water Supply annual allocation of 3,054ML.

At this point in time it is proposed that Council continue to carefully monitor peak demand and further evaluate augmentation options in preparedness for any future augmentation.

RISK ASSESSMENT:

Nil

POLICY IMPLICATIONS:

Nil

CHIEF FINANCIAL OFFICERS COMMENT:

Nil

LEGAL IMPLICATIONS:

Nil

ATTACHMENTS:

Nil

6 INFORMATION REPORTS

6.1 UPDATE ON TRANSGRID'S UPGRADE TO THE QUEENSLAND - NEW SOUTH WALES INTERCONNECTOR: DUMARESQ SUBSTATION

File Number: S18.6.12/14 / 21/6435

Author: Matthew Turner, Development Planner

SUMMARY:

The purpose of this report is to provide Committee Members with information relating to TransGrid's upgrade of the Queensland and New South Wales Interconnector at the Dumaresq Substation.

COMMENTARY:

Since May 2020, a \$230M upgrade to TransGrid electrical transmission lines and substations has been undertaken across Queensland and New South Wales. The purpose of the upgrade is to provide a more reliable electricity source for customers. An information report was provided to the Ordinary Meeting of Council on 22 April, 2020 in relation to this matter.

There are three (3) substations that will be receiving major upgrades during the construction process being the Tamworth Substation, Dumaresq Substation and Armidale Substation. The Dumaresq Substation is located within the Inverell Shire, 110km North of Inverell. It is addressed as 9077 Bruxner Way, Bonshaw, approximately 18 kilometres south-east of the Bonshaw Village.

To date, earthworks at the Dumaresq Substation have been completed and civil work is currently underway, which includes the construction of a new building on the site. All works associated with the upgrade are contained within the substation boundary. As of January 2021, the Dumaresq Substation upgrade is sitting at 32% complete and is estimated to be completed by December 2021.

The upgrade works did not require any approval from Council, with TransGrid undertaking a review of environmental factors under Part 5 of the *Environmental Planning and Assessment Act 1979*. During the construction period, TransGrid have implemented the following measures to mitigate potential construction impacts:

- Traffic Control Plans to manage temporary impacts on local roads;
- Stockpiles are covered to reduce dust;
- The use of water spraying to reduce dust when needed; and
- Upon completion of works, the substation site will be rehabilitated and landscaped.

A copy of the fact sheet of the TransGrid upgrade to the Queensland – New South Wales Interconnector has been included as **Attachment 1** for the Committee Members information.

ATTACHMENTS:

1. TransGrid Fact Sheet



Work is 40% complete on a major upgrade to boost interstate power flows.

This \$230 million upgrade will increase the transfer capacity between Queensland and NSW to ensure more reliable supply of electricity to customers at all times, including during periods of peak demand.

Easier and more efficient sharing of generation – including lower cost renewables – will help reduce energy bills. It is expected 155 jobs will be created during construction.

Upgrading transmission lines

TransGrid is upgrading 300 kilometres of transmission lines between Liddell Power Station and our Muswellbrook and Tamworth substations. The work involves raising the height of the lines to enable more power to be transferred.

Activities include replacing 58 transmission towers with new steel pole structures and minor modifications to other towers.

We had a construction break over summer due to bushfire risk and high power demand, although there will be some rehabilitation and tower removal work over January and February.

Pole installation and tower modification works on the transmission lines will restart in March 2021 and should be completed by June 2021.

We will continue to work closely with landowners to minimise impacts as much as possible. Where access to private land is required, a TransGrid representative will contact landowners to discuss upcoming activities.

Upgrading substations

We are undertaking major upgrades of substations at Tamworth, Dumaresq and Armidale, as well as some minor works at Muswellbrook and Liddell substations.

Earthworks at all substation sites are complete. Civil work is now underway, including construction of new buildings at Tamworth and Dumaresq substations.

All work is taking place within TransGrid's existing substation boundaries.

Construction progress

Transmission lines

Foundations for replacement pole structures:

100% complete

Installation of replacement pole structures:

74% complete

Modifying conductor attachments on existing towers:

55% complete

Substations

Tamworth substation upgrade:

27% complete

Armidale substation upgrade:

32% complete

Dumaresq substation upgrade:

32% complete

JANUARY 2021



Work underway at Dumaresq substation

What to expect

There will continue to be some disturbance during construction, which we will make every effort to keep to a minimum.

To reduce dust, we will cover stockpiles and use water spraying when needed. We expect to re-use most of the spoil on-site.

Traffic Control Plans will be prepared to manage any temporary impacts on local roads where needed.

Work hours

Work hours at all sites are generally 7am to 6pm, Monday to Friday, and 7am to 1pm on Saturday. On rare occasions there may be some essential activities undertaken out of hours, such as delivery of oversized equipment. We will notify nearby residents in advance of these activities.

When we're finished

Following completion of construction, all work areas will be rehabilitated. At the substations, we will plant native trees and do some landscaping.



Modifying conductor attachments on existing tower

Key project dates

Start of site preparation works for transmission lines

● May 2020

Construction break on transmission lines over summer due to bushfire risk

● Dec 2020 – Feb 2021

Completion of substation upgrades / Project commissioning

● Dec 2021

● June 2020

Start of work at substation sites

● June 2021

Completion of transmission line upgrades

Contact us

To contact the project team, phone 1800 222 537 or email community@transgrid.com.au



6.2 WORKS UPDATE**File Number:** S28.21.1/14 / 21/6720**Author:** Justin Pay, Manager Civil Engineering**SUMMARY:**

This report is intended to keep Council updated on the capital works and maintenance programs.

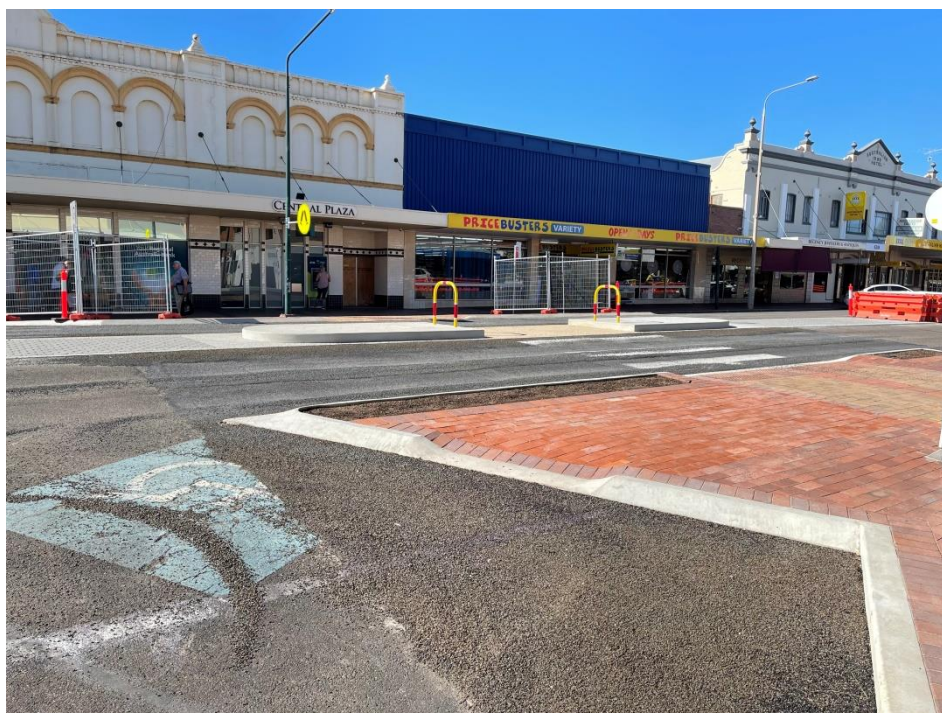
COMMENTARY:**Byron Street – Town Centre Renewal Plan (TCRP) Project –Vivian Street to Lawrence Street**

Council has allocated \$1.401M for stage three (3) of the Town Centre Renewal Plan (TCRP). This stage is located along Byron Street from Vivian Street to Lawrence Street. The stage consists of the removal of 11 plane trees, planting of eight (8) new Pin Oak trees in the newly constructed centre median plus five (5) Chanticleer Pear edge plantings. The existing raised crossings will also be removed and replaced with an at grade level crossing. The project is estimated to cost \$1.401M and was expected to take 16 weeks to complete. This follows on from Stage two (2) in Byron Street, which was completed early 2020.

Works are well underway and are progressing well on the Byron Street TCRP project. A total of 11 Plane trees were removed on Thursday, 14 January 2021, following this, works commenced on replacing the pedestrian crossing between Vivian Street and Lawrence Street. The new crossing is to have the same shape as the previous however, the raised ramp has been removed and damage to the surrounding kerb and gutter is being repaired.

Works crews have completed the removal of the midway crossing and have poured concrete for kerbs and garden surrounds.

The trenching of the new centre median has been completed and all infrastructure has been put in place. The paving has been completed and the chairs and bins were being installed at the time of writing this report. Works remaining are tree planting, asphalt pavement rehabilitation and provision of water services to the roundabouts and associated gardens. The asphalt is scheduled to be completed mid-March and the tree planting in April, 2021. Water barriers will remain in place around the tree pits for safety purposes. Byron Street was reopened for two (2) way traffic on Friday, 26 February 2021.



TCRP Stage 3 – Progress Photo of Byron St Midway Crossing



TCRP Stage 3 – Progress Photo of Median Strip

Oliver Street Extension

An extension of Oliver Street, from Arthur Street to Swanbrook Road has been programmed by Council. Works involve construction of a new sealed pavement, kerb and gutter, associated water main and drainage construction through the land formerly used as the Community Gardens. The project also involves constructing a cul-de-sac in Arthur Street adjacent to Ashford Road and extending the kerb and gutter along the southern side of Swanbrook Road from Ashford Road to Oliver Street.

The seal and linemarking has now been completed and the road has been opened to the public. The indented carparking works have commenced. Works on constructing the cul-de-sac in Arthur Street are scheduled to commence early March now that the TCRP works are being finalised and awaiting asphalt repaving.

SR246 Elsmore Road Causeway Upgrade

Council has allocated \$115,500 for the replacement of the concrete causeway on Elsmore Road. The source of funding being:

ACRD Culverts and Causeways - \$72,500

ACRD Bitumen Renewal - \$43,000

The existing causeway slab has poor alignment and has deteriorated to the point that it is no longer economically viable to continue to undertake constant maintenance. The replacement slab improves the alignment due to the approaches being slightly realigned and the extra width and length improves the ride quality.

Temporary work has been completed on the slab approaches in order to reopen the road to the public. The regrading of the approaches will commence once Arthur Street works are completed.

HW12 Gwydir Highway Swanvale Pavement Rehabilitation and Overlay

Council have been successful in obtaining \$1.181M in funding under the RMCC Ordered Works arrangements with TfNSW to undertake pavement rehabilitation and overlay works on a 1.58km section of the Gwydir Highway, 35km west of Inverell at Swanvale.

The approved design, undertaken and completed by TfNSW, utilises the existing pavement as a foundation to construct a pavement overlay whilst providing for a widened one (1) metre shoulder and improved batters. Enhanced line marking and guardrail will complete the project.

Works recommenced on this project early January 2021 and this project is now at practical completion. The base layer was constructed early February 2021 with a primer seal placed on Tuesday, 16 February 2021. The remaining guardrail installation was completed on 20 February 2021 with the line marking planned for the first week in March 2021. A final seal will be applied in December 2021 in conjunction with Council's annual resealing program.



HW12 Gwydir Hwy Swanvale – Completed Primer Seal and Guardrail

HW12 Gwydir Highway Elsmore Road Safety Treatment Works – Shoulder Widening

Council have been successful in obtaining \$1.19M in funding under the RMCC Ordered Works arrangements with TfNSW to undertake safety treatment works on a 2.2km section of the Gwydir Highway, east of the Runnymede Intersection.

The approved safety treatment works utilises the existing pavement as a foundation to construct a nominal pavement overlay with an additional treatment of boxing out the existing road shoulders providing for a 2.5 metre sealed shoulder. Guardrail, curve alignment markers and audio tactile line marking will complete the safety upgrade works. The safety treatment works were identified by TfNSW as part of a Road Safety Audit and is funded under the NSW Blackspot Program. A number of accidents including serious injuries and a fatality have occurred on this section of road over the past five (5) years prompting the safety upgrade works.

Council's Rural Construction Crew has established the site compound at the Runnymede Rest Area and has commenced works. Vegetation contractors have completed the clearing and grubbing and tree removal works with the drainage extension works currently underway. Shoulder

widening works will commence shortly after completion of the drainage extension works and will continue over the next several weeks until the Easter break. It is planned for the Rural Construction Crew to move to the Bundarra Road Racecourse Project after the Easter Break to undertake and complete another project prior to 30 June 2021. The construction crew will then return to this project to complete the outstanding safety treatment works. TfNSW indicate project completion was required by 30 June 2021 however, initial discussions with TfNSW indicate Council may be able to extend Project completion out to the end of July 2021.



HW12 Gwydir Hwy Safety Treatment Project – Site establishment

Fixing Local Roads Funding Grant

Council has been successful in obtaining \$2.62M from the Fixing Local Roads Funding Grant to complete works on various roads throughout the shire.

These roads include the following:

- SR050 Bukkulla Road
- SR035 Coolatai Road
- SR192 Copeton Dam Road

- SR246 Elsmore Road
- SR101 Gragin Road
- SR123 Mount Russell Road
- SR214 Old Bundarra Road
- SR048 Pindari Dam Road

Works commenced late October 2020, which included shoulder grading on each of the roads.

Shoulder grading has already been completed on Copeton Dam Road and Mount Russell Road. Vegetation removal has been completed on Copeton Dam Road and is continuing on Elsmore Road, Bukkulla Road and Pindari Dam Road. Heavy patching is still occurring on Mount Russell Road and has also commenced on Copeton Dam Road.

These works are programmed to be completed by the end of the 2020/21 financial year.



Heavy Patching works on SR192 – Copeton Dam Road



Tree Trimming Works on SR246 – Elsmore Road

County Lane Upgrade

Works are underway to upgrade County Lane (lane between Otho Street and Campbell Street). The project involves constructing kerb and gutter, upgrading the pavement to a sealed standard and improving the underground drainage in the area. Works have commenced and are progressing well. The project is due for completion in April 2021.

Maintenance Grading

The following maintenance grading works were undertaken during February 2021.

Road Number	Road Name	Length Graded (km)
SR 167	Sheep Station Creek Road	1.02 km
SR 166	Reserve Creek Road	8.88 km
SR 426	Dry Creek Road	4.25 km
	TOTAL	14.15km

Reactive Spot Grading

The following reactive spot grading works were undertaken during February 2021.

Road Number	Road Name	Length Graded (km)
SR 26	Camp Creek Road	14.5km
SR 33	Limestone Road	23.3km
SR 34	Sandy Creek Road	6.7km
SR 74	Gobberts Road	15.6km
	TOTAL	60.1km

Gravel Patching

The following gravel patching works were undertaken during February 2021.

Road Number	Road Name	Area Re-sheeted (m2)
SR 223	Byron Station Lane	350m2
SR 153	Brosnans Lane	200m2
SR 277	McLean Lane	200m2
	TOTAL	750m2

Gravel Re-sheeting

The following gravel re-sheeting works were undertaken during February 2021.

Road Number	Road Name	Area Re-sheeted (m2)
SR 17	Holdfast Road	6,000m2
SR 91	Gunyan Road	23,000m2
	TOTAL	29,000m2

Heavy Patching

The following heavy patching works were undertaken during February 2021.

Road Number	Road Name	Area Re-sheeted (m2)
SR 192	Copeton Dam Road	12,615m2
MR 137	Inverell-Bonshaw Rd	20,000m2
	TOTAL	32,615m2

Other Maintenance Activities

Council's State, Regional and Local Roads, Urban and Village Street maintenance activities, such as bitumen patching, drainage and shoulder repairs as well as vegetation control, are continuing as required. Town maintenance will continue as programmed.

ATTACHMENTS:

Nil

6.3 CONTRACT MAINTENANCE GRADING OUTCOMES

File Number: S28.9.12/14 / 21/7275

Author: Justin Pay, Manager Civil Engineering

SUMMARY:

During the first half of the current financial year contractors were engaged to complete maintenance grading works on Council's unsealed road network. This report is intended to update the Committee on the outcomes of these works.

COMMENTARY:

Due to the large volume of projects on Council's current works program, contractors were engaged to complete maintenance grading works on sections of Council's unsealed road network during the first half of the current financial year.

A request for quotation process was undertaken and two (2) contractors were selected to complete works.

Gore Earthmoving completed works on the following roads:

- SR17 Holdfast Road
- SR16 Keetah Road
- SR10 Tarwoona Road
- SR65 Tucka Tucka Road
- SR17 Bedwell Downs Road

Rollers Australia completed works on the following Roads:

- SR46 Pocket Road
- SR60 Nullamanna Road

The total length of contractor grading was 115.86km at a cost of \$168,912, with the cost per kilometre being \$1,458. It should be noted that this rate does not include any cost associated with Council supervision. The current unit rate for Council crews to carry out maintenance grading is \$1,242 per kilometre.

Council received positive and negative feedback from the public regarding the contractors work. Council maintenance supervisors closely monitored the works to ensure public safety on the worksite as well as suitable workmanship. Comments from the maintenance supervisors as well as engineering inspections noted that generally the works completed by the contractors were to a reasonable standard. However, some roads did not receive suitable drainage maintenance works and some sections of road did not receive the same level of moisture, ripping or heavy cutting that would have been applied by Council crews.

Overall the contractors provided an adequate level of service at a rate that provided Council with value for money. Council maintenance grading crews remain more cost effective than contractors, however, contractors may be utilised in the future to supplement resource gaps during heavy workloads. It is also a possibility to utilise contractors during periods where environmental conditions are suitable. For instance after periods of rain when Council resources are fully utilised, it may be possible to utilise contractors to complete works in more isolated localities on the unsealed road network, pending contractor availability.

ATTACHMENTS:

Nil

6.4 MAINTENANCE GRADING 2019/2020**File Number: S28.21.1/14 / 21/7276****Author: Justin Pay, Manager Civil Engineering****SUMMARY:**

This report is intended to keep the Committee informed of the outcomes of maintenance grading works completed during the 2019/2020 financial year.

COMMENTARY:

In the 2019/2020 budget, Council allocated \$1,767,739 for maintenance grading. The program was completed within this budget allocation.

A summary of total grade lengths completed each financial year since 2006/07 appears below:

Financial Year	Grade Length Completed (km)
2006/07	1252
2007/08	1256
2008/09	963
2009/10	1216
2010/11	1228
2011/12	1224
2012/13	1324
2013/14	1416
2014/15	1635
2015/16	1513
2016/17	1288
2017/18	1306
2018/19	1248
2019/20	1439
Average	1307

In the 2019/2020 financial year Council's maintenance crews completed a total of 1439km of maintenance grading on the unsealed road network. The actual expenditure to complete those works was \$1,739,407. The total expenditure was within 1.6% of the budget allocation.

A comparison of cost per kilometre of grade length, since the 2009/10 year is provided below:

Financial Year	Total Expenditure	Total Kilometres Graded	Avg. cost per Kilometre
2009/10	\$855,613	1216	\$703
2010/11	\$919,220	1228	\$748
2011/12	\$1,063,883	1224	\$869

2012/13	\$1,224,212	1324	\$924
2013/14	\$1,199,069	1416	\$846
2014/15	\$1,403,956	1635	\$858
2015/16	\$1,301,650	1513	\$860
2016/17	\$1,149,479	1288	\$891
2017/18	\$1,352,213	1306	\$1035
2018/19	\$1,404,605	1248	\$1125
2019/20	\$1,739,407	1439	\$1242

The average cost per kilometre for maintenance grading during the 2019/2020 financial year was 10% higher than the preceding year. A number of factors contributed to the increase in the unit rate, including:

- The first half of the 2019/2020 financial year was a dry period with drought conditions being declared on areas of the Northern Tablelands of New South Wales. These conditions make it hard to source water close to the roads that are being maintained which leads to greater costs to haul water.
- The second half of 2019/2020 financial year was a significantly wet period. During this period extensive drainage maintenance was required and works crews undertook greater quantum of works on the road network to fix issues that had persisted as a result of recent drought impacts.
- Council's works program during the 2019/2020 year was significantly larger than normal. Resource availability was an issue and hired plant was required in order to achieve Council's outcomes. Hired water cart and rollers are more expensive to use than items of Council's fleet.
- Greater emphasis was placed on quality of work, particularly work on table drains and other drainage structures. This was prudent due to the drier weather patterns which allowed machinery to enter the table drains and also resulted in a higher quality outcome. The trade off is the longer time taken to complete a kilometre of grading.

Council's maintenance grading crews continue to provide cost effective grading works at a unit rate that is very competitive to contractors. The unit rate for maintenance grading has increased significantly over the previous five (5) years. This is a matter that staff will continue to monitor and review to ensure that the most cost effective service is being provided.

ATTACHMENTS:

Nil

6.5 COUNCIL RURAL ROAD NETWORK - HIGHER MASS LIMITS

File Number: S15.8.100 / 21/7368

Author: Justin Pay, Manager Civil Engineering

SUMMARY:

Council has received grant funding under the State Government Fixing Local Roads program for assessment of bridge structures to determine suitability for inclusion in the Higher Mass Limit network. This report is to update the Committee on the progress of this assessment project.

COMMENTARY:

Council has received grant funding under the State Government Fixing Local Roads Program for assessment of bridge structures to determine suitability for inclusion in the Higher Mass Limit (HML) network. Council has engaged contractors to assess all bridge/drainage structures that are greater than 6M in length on the Council local rural road network. Council staff will assess all smaller structures. The completion of these assessments will indicate which roads can be opened to Higher Mass Limit vehicles and will provide a list of bridges that require upgrade works to achieve HML access.

At the completion of the project a further report will be presented to Council in order for suitable routes to be gazetted as HML routes and to identify a works program for bridge upgrades so that grant funding can be applied for.

The above works on the local road network supplement the previous works completed under the Fixing Local Roads program, where Council's Regional Road network was assessed and subsequently approved for HML access.

ATTACHMENTS:

Nil