

9.2 INFRASTRUCTURE SERVICES, TECHNICAL SERVICES OPERATIONS REPORT - OCTOBER 2022

Date Prepared: 3 November 2022
Author: Manager Technical Services
Attachments: Nil

EXECUTIVE SUMMARY

The purpose of this report is to outline Council's Fleet, Design, Soils Lab, Survey, Quality, GIS, Project Management, Facilities and Investigation Services activities undertaken by Infrastructure Services during the month of October 2022.

RECOMMENDATION

That Council receives the Infrastructure Services, Technical Services Operations Report for October 2022.

BACKGROUND

Technical Services

Design, quality and investigations:

Investigation activities undertaken in October included:

Activity	Current Requests	Closed Requests
Road Infrastructure Review	38	8
Drainage Investigations	4	1
NHVR Permit Applications	0	14
Aerodrome Investigations	0	0
Traffic Count Surveys	0	9
Parks Investigations	3	2
Miscellaneous <i>e.g.</i> Planning; Local Laws	21	22
Before You Dig Assists Requests	0	132

Soil Laboratory:

Council's Soil Laboratory provides NATA-accredited soil and material testing for internal and external services.

Supplier	No. of Tests
Internal	42
External	161

Asset Inspections:

Work was primarily focused towards improving data for the water, sewerage, roads, underground stormwater and kerbs asset data sets.

Operational Works and Subdivisions

To ensure ongoing compliance with development conditions, both during construction and on-maintenance, Council undertakes routine inspection and monitoring of sites. The following developments remain current:

Locality	Subdivisions Name	Status
Mareeba	Prestige Gardens Stage 1-6	Under construction
Mareeba	Emerald End Road & Country Road	Under construction
Mareeba	Amaroo Stage 12	On-maintenance
Mareeba	7 Haren Street	On-maintenance
Koah	123 Fantin Road (Two Chain Road)	On-maintenance
Mareeba	Kenneally Estate Stage 4	On-maintenance
Mareeba	The Edge Stage 3	On-maintenance
Mareeba	Amaroo Stage 11	On-maintenance
Mareeba	Mareeba Roadhouse and Accommodation Park, Williams Close	On-maintenance - Monitoring
Kuranda	112 Barnwell Road widening	Monitoring

Disaster Recovery Funding Arrangements (DRFA)

The DRFA is jointly funded by the Commonwealth and Queensland governments to help alleviate the costs of relief and recovery activities undertaken in disaster-affected communities by delivering recovery activities to return affected eligible assets back to pre-event condition. The status of declared disaster events currently being managed are provided below:

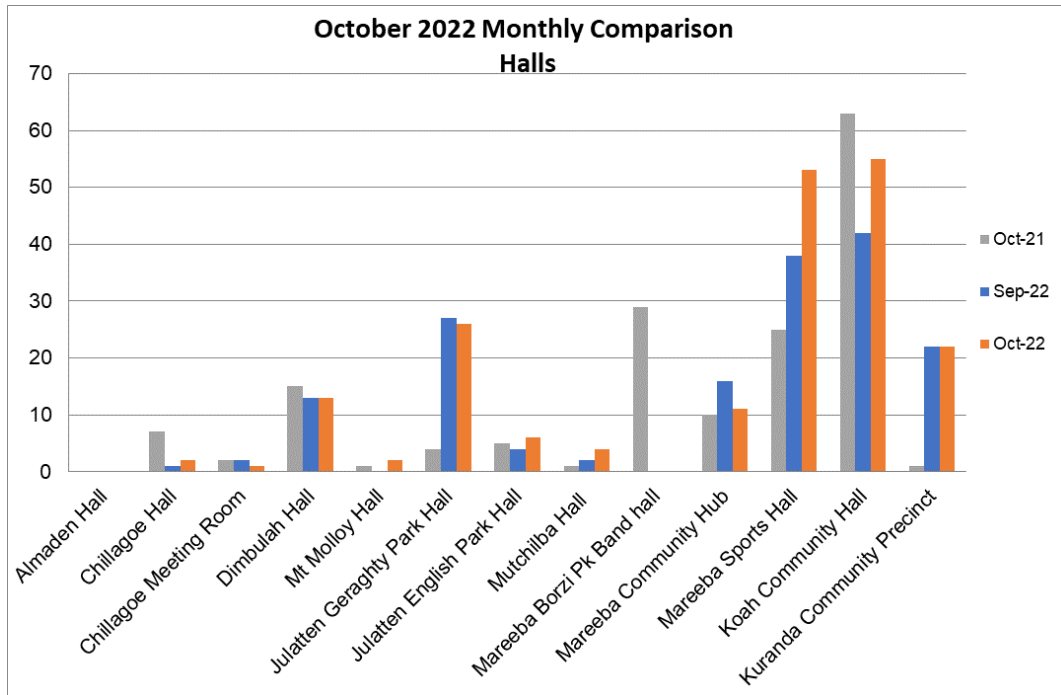
Program	Status
2021 DRFA Program General	Mareeba Shire activated DRFA assistance measures linked to Tropical Cyclone Imogen and associated low pressure system that occurred 2–12 January 2021. A consultant has been engaged to assist with delivery of the 2021 DRFA Program and delivery of the program is well progressed with half the contracts having reached practical completion.
2021 DRFA REPA Program	Council at its Ordinary Meeting, 15 December 2021, endorsed award of the REPA Contracts on condition of endorsement by QRA. Works have commenced on all restoration packages with works on track for completion prior to end of calendar year.
2022 DRFA	Mareeba Shire activated DRFA assistance measures linked Far North Queensland Low Pressure Trough, that occurred 1 – 7 February 2022. Council have nearly finalised all assessments of damage, emergency repairs and immediate restoration of impacted roads throughout the Shire. A consultant has been engaged to assist with delivery of the 2022 DRFA Program.
2022 Betterment	Officers are currently working on development of the proposed Betterment Program for submission to QRA for consideration prior to end of calendar year.

Facilities

Community Halls:

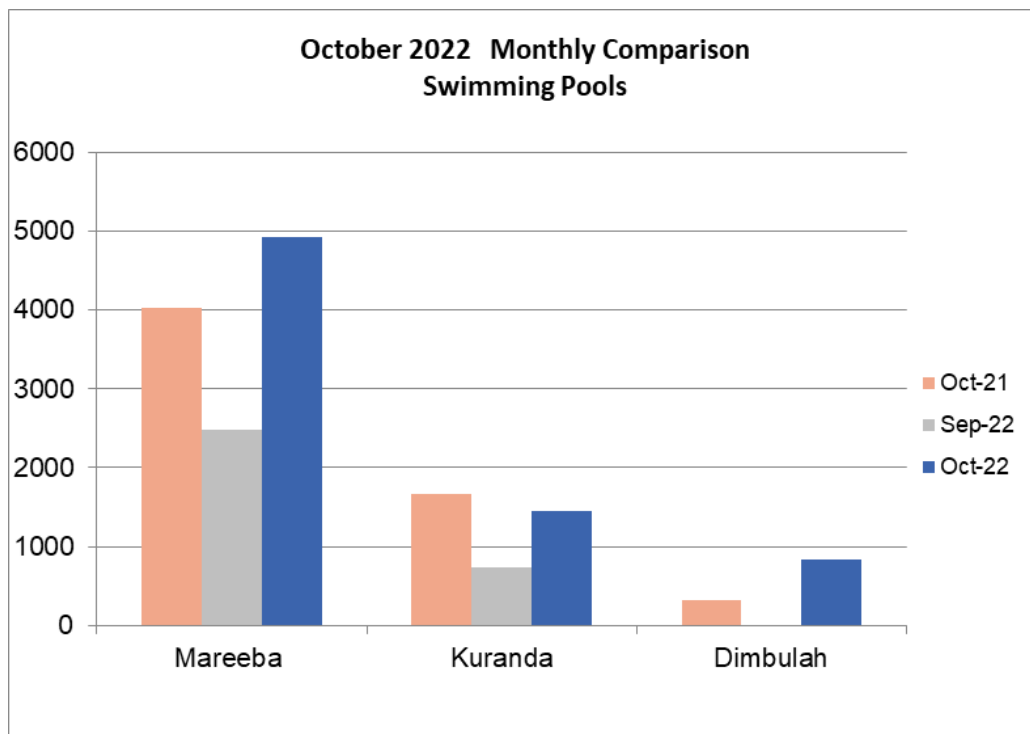
Maintaining safe and efficient access to Council Community Halls is recognised as an important aspect for the community's ongoing wellbeing.

October hall hires have recovered against the previous month and are generally showing strong improvements against previous years utilisation.



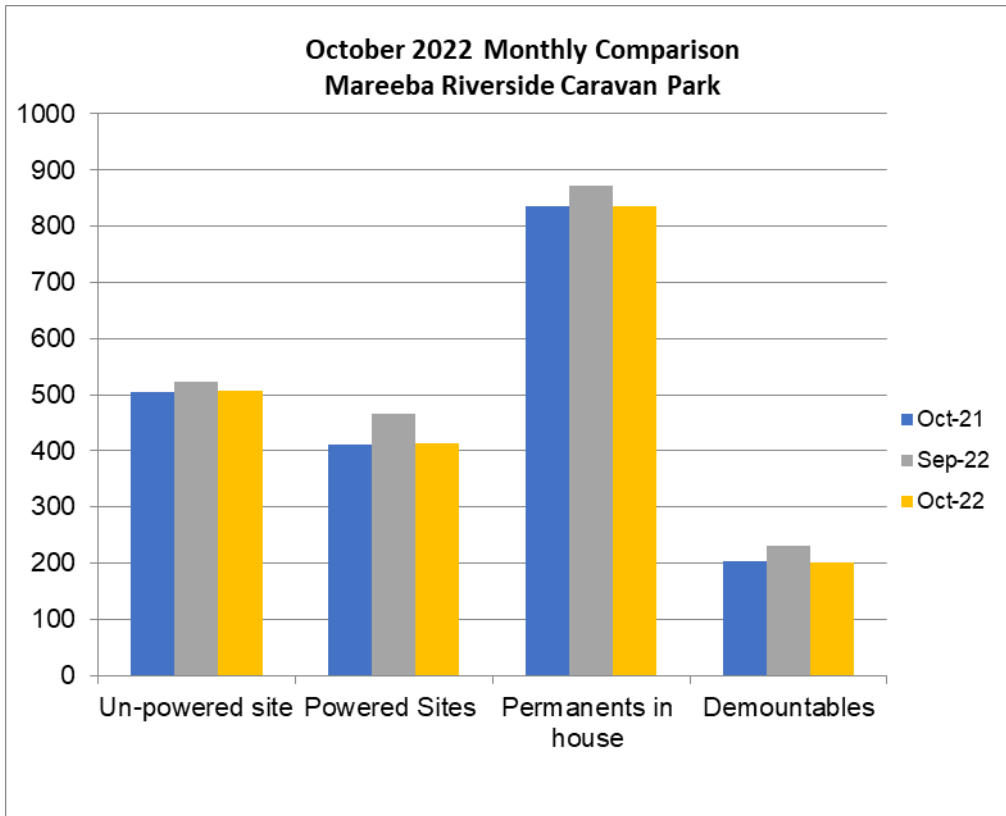
Aquatic Centres

With all facilities open to the public, a strong return to the pools has been recorded. It is anticipated that attendance numbers will continue to improve as we enter the hotter period of the year.

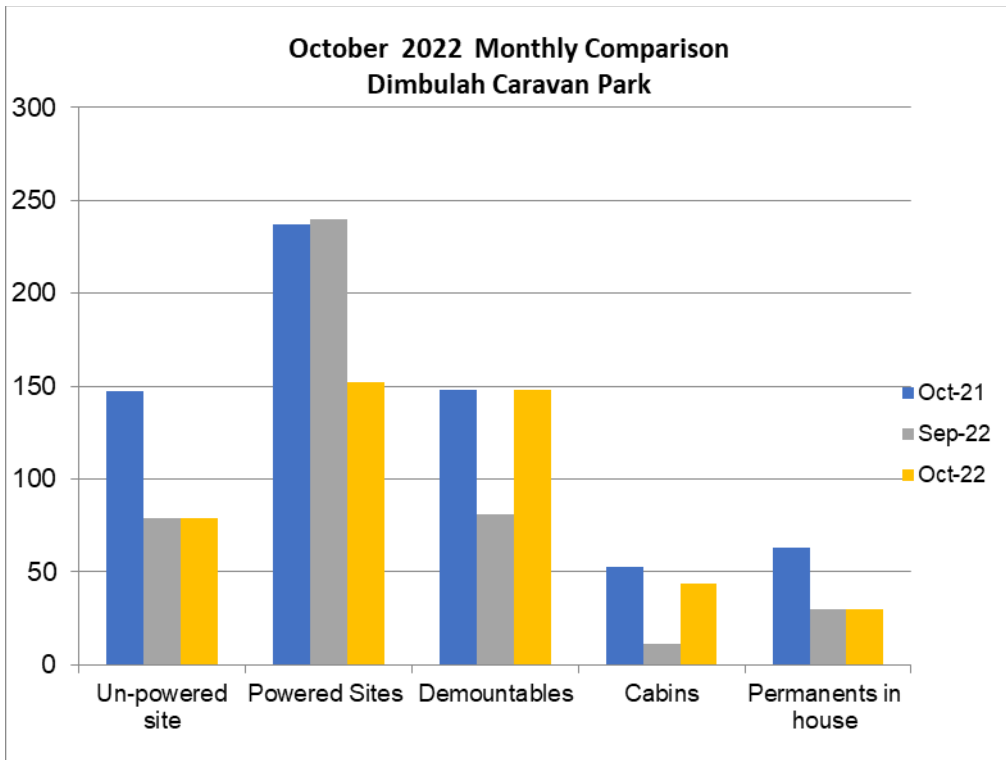


Caravan Parks:

Mareeba Riverside Caravan Park tenant numbers have remained strong across all sectors. Works to replace the Ablution Building are underway.



Although bookings for powered sites realised a decline for October, other accommodation offerings remained strong.



Vandalism & Graffiti:

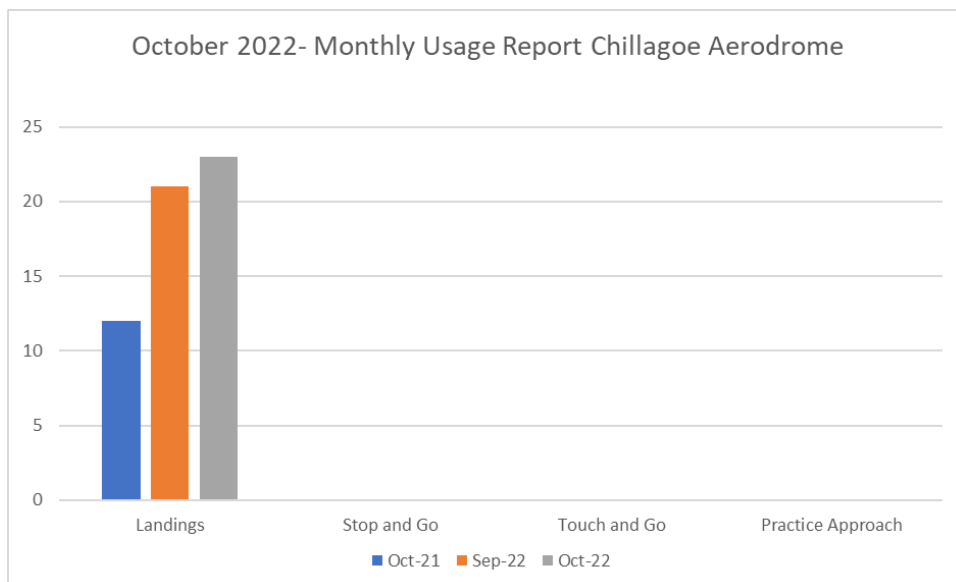
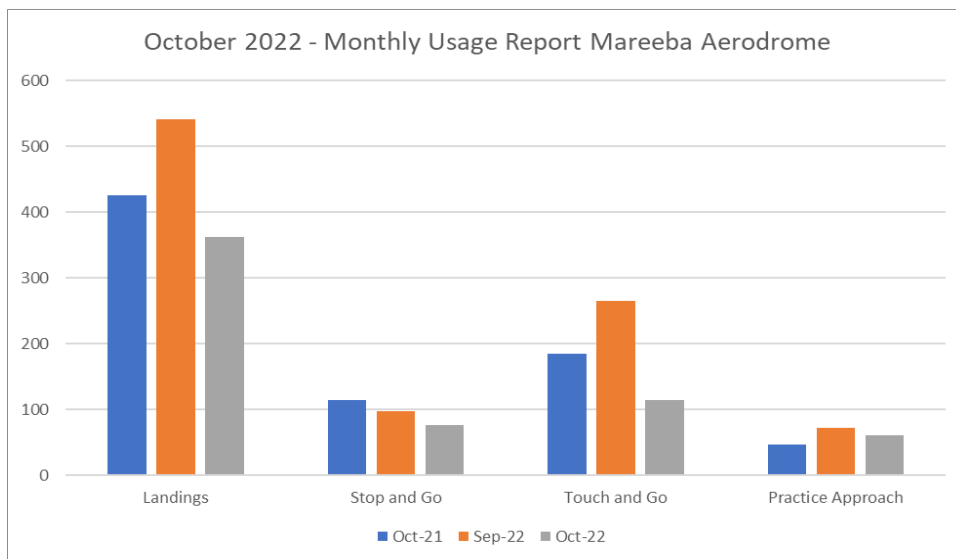
During October, 6 reports of vandalism/graffiti were recorded for Council facilities, with annual costs provided below;

Financial Year	Actuals	Comments – September 2022
2015/16	\$ 2,134.00	<ul style="list-style-type: none"> • Mareeba CWA Toilets - Vandalism x 2 • Mareeba Sports Hall - Vandalism x 1 • Mareeba Leagues Club - Graffiti x 1 • Dimbulah Memorial Hall - Graffiti x 2
2016/17	\$ 16,546.00	
2017/18	\$ 23,948.00	
2018/19	\$ 14,851.00	
2019/20	\$ 14,211.18	
2020/21	\$ 62,199.62	
2021/22	\$ 48,301.12	
2022/23	\$9,367.97	

Note - actuals for vandalism/graffiti do not reflect costs to repairs during that period. Incoming expenses for repairs carry over until works are completed.

Aerodromes

The data recorded below is current for the month of October, however there is usually a lag of data for each current month from the service provider, which continues to be updated into the next month.



FINANCIAL AND RESOURCE IMPLICATIONS***Capital***

Programs are being delivered in line with expectations, a small surplus across the portfolio is anticipated.

Operating

Additional cost associated with graffiti and vandalism is expected and will be accommodated within existing budget allocations.

LINK TO CORPORATE PLAN

Financial Sustainability: A council that continuously operates in a cost-effective manner while managing council's assets and reserves to ensure a sustainable future.

Transport and Council Infrastructure: The provision of quality services and infrastructure for our growing community that is planned and managed using sound asset management principles.

Community: An informed and engaged community which supports and encourages effective partnerships to enhance the liveability of the Shire.

Economy and Environment: A resilient economy that promotes and supports the shire's natural assets and local industry and encourages investment while preserving and future proofing for generations to come.

9.3 INFRASTRUCTURE SERVICES, CAPITAL WORKS MONTHLY REPORT - OCTOBER 2022

Date Prepared: 3 November 2022

Author: Director Infrastructure Services

Attachments:

1. **Capital Works Highlights - October 2022** [↓](#)
2. **Capital Works Summary - October 2022** [↓](#)

EXECUTIVE SUMMARY

The purpose of this report is to provide an update on capital works projects undertaken by the Infrastructure Services Department during the month of October 2022.

RECOMMENDATION

That Council receives the Infrastructure Services Capital Works Monthly Report for the month of October 2022.

BACKGROUND

Council's Capital Works program is focussed on renewal and upgrade of Council infrastructure to achieve Council's corporate vision of "A growing, confident and sustainable Shire". The program is funded through a combination of Council's own funding and external grants and subsidies.

RISK IMPLICATIONS**Financial**

The capital works program is tracking within budget.

Infrastructure and Assets

Projects included in the current capital works program were identified through Council's Project Prioritisation Tool (PPT) which uses a risk-based, multi-criteria approach to rank projects in order of priority. The PPT is aligned with Council's Long-Term Financial Plan and Asset Management sub-plans, which focus of renewal of existing assets.

FINANCIAL AND RESOURCE IMPLICATIONS**Capital**

All capital works are listed in and funded by the 2022/23 Capital Works Program.

LINK TO CORPORATE PLAN

Transport and Council Infrastructure: The provision of quality services and infrastructure for our growing community that is planned and managed using sound asset management principles.

IMPLEMENTATION/COMMUNICATION

Infrastructure Services Capital Works Report Project Highlights - October 2022



Project Name: Euluma Creek Road, Julatten - Rehabilitate and Widen

Program: Rural Roads

Background

Euluma Creek Road is classed as a Local Road of Regional Significance (LRRS) under the Roads and Transport Alliance and is eligible for a maximum of 50% funding from the Transport and Infrastructure Development Scheme (TIDS).

Several projects are currently listed in the FNQROC TIDS Program for the widening of sections of Euluma Creek Road between Black Mountain Road and McLeans Bridge Road to cater for increasing heavy traffic and to address ongoing defects, edge wear and edge drop.

Scope of Works

The second of these projects is the widening of the narrow sections of existing bitumen sealed road to 8m including the replacement and extension of existing culverts from Chainage 7010 to Chainage 9350.

Progress Update

The pavement rehabilitation and widening activities commenced in December 2021 and were subsequently put on hold due to the continued wet weather certain areas of the shire have experienced in 2022. Work recommenced in late May when site conditions improved enough to allow construction at several locations within the project footprint.

Work completed in October include:

Section A - Ch 7010 to 7180

Section B - Ch 7630 to 8295

- Drainage installation
- Remove unsuitable subgrade and replace with rock and bitum - both sides
- Install base layer - both sides

Section C - Ch 8385 to Ch 8760

- Complete

Section D - Ch 9010 to Ch 9350

- Complete

Infrastructure Services Capital Works Report Project Highlights - October 2022



Replacement of unsuitable subgrade - Section B



Completed rock mattress - Section B



Importing road base - Section B



Completed base gravel installation - Section B

Infrastructure Services Capital Works Report Project Highlights - October 2022



Project Name: Kanervo Road - Davies Creek Bridge Replacement

Program: Bridges

Background

A Level 3 engineering inspection and load assessment was undertaken on the Davies Creek bridge on Kanervo Road in 2015 which identified significant deterioration of some of the timber girders and a load limit of 14 tonnes was imposed on the bridge.

In August 2019, Council secured a grant under the Australian Government's Bridges Renewal Program towards upgrade of the existing bridge over Davies Creek on Kanervo Road. The purpose of this project is to restore the bridge to its original intended load limit, extend the life of the structure and provide accessibility for heavy vehicles.

Scope of Works

The scope of works includes replacing the existing timber girders and deck of the bridge over Davies Creek on Kanervo Road with concrete precast deck units and a concrete deck, in addition to strengthening of the existing abutments and pier and piers.

Progress Update

The Davies Creek Bridge on Kanervo Road was opened to traffic in late October, as scheduled, and the asphalt deck wearing surface and bridge approaches will be installed mid-November.



Western relieving slab formwork



Precast girder installation - western span



Western bridge approaches



Completed concrete superstructure

Infrastructure Services Capital Works Report Project Highlights - October 2022



Project Name: 2022/23 Gravel Resheet

Program: Gravel Resheet

Background

Funding has been allocated in the Capital Works Budget for resheeting works to be undertaken where required at various locations throughout the shire. The works are carried out generally in conjunction with Council's road maintenance unsealed road grading program to reduce the cost of mobilisation of plant.

Progress Update

During October, Horan Street and a 230m section of Ivicevic Road were resheeted with Type 2.1 road base in preparation for bitumen sealing under the 2022/23 Reseal and Asphalt Program.



Ivicevic Road Resheet



Ivicevic Road Seal



Horan Street Resheet



Horan Street Seal

Infrastructure Services Capital Works Report Project Highlights - October 2022



Project Name: 2022/23 Reseal and Asphalt Program

Program: Rural and Urban Roads

Background

Council undertakes an annual bitumen reseal and asphalt program in order to maintain its road network to a suitable standard. Bitumen resealing and asphalt resurfacing prevents moisture from penetrating through deteriorated bitumen and asphalt seals into the underlying pavement, protecting Council's roads from damage such as rutting and potholes.

Scope of Works

The scope of works includes bitumen reseals and asphalt overlays on a number of roads across Mareeba Shire to extend the useful life of the existing pavement.

Progress Update

Roads scheduled for reseal in the 2022/23 Reseal Program were prepared for resealing works during September and October and RPQ began resealing in late October. At the time of reporting the following sections of roads had been completed.

Road Name	Locality	Start Chainage	End Chainage	Length	Width	Area m ²
Barron Falls Road	Kuranda	1508	2280	772	5.2	4014.4
Barron Falls Road	Kuranda	2280	2310	30	15	450
Barron Falls Road	Kuranda	2310	2577	267	5.2	1388.4
Barron Falls Road	Kuranda	2577	2587	10	5.2	52
Masons Road	Kuranda	0	100	100	6.15	615
Masons Road	Kuranda	100	215	115	5	575
Masons Road	Kuranda	215	500	285	6.5	1852.5
Masons Road	Kuranda	500	544	44	7.3	321.2
Dickson Street	Mareeba	0	130	130	5.2	676
Dickson Street	Mareeba	130	215	85	9.4	799
Earl Street	Mareeba	0	85	85	7.8	663
Earl Street	Mareeba	85	325	240	9.3	2232
Ferguson Street	Mareeba	0	65	65	7.5	487.5
Fraser Street	Mareeba	0	30	30	4	120
Fraser Street	Mareeba	30	75	45	4	180
Kenneally Road	Mareeba	179	202	23	6	138
Kennedy Street	Mareeba	288	444	156	4.9	764.4
Kennedy Street	Mareeba	444	721	277	4.9	1357.3
Kennedy Street	Mareeba	721	840	119	7.2	856.8
Mason Street	Mareeba	0	50	50	10.5	525
Mason Street	Mareeba	0	475	475	17.8	8455
Strattmann Street	Mareeba	450	640	190	10.7	2033
Strattmann Street	Mareeba	640	740	100	6.5	650
Syd Beck Road	Mareeba	0	22	22	31.2	686.4

Infrastructure Services Capital Works Report Project Highlights - October 2022



Road Name	Locality	Start Chainage	End Chainage	Length	Width	Area m ²
Syd Beck Road	Mareeba	22	34.2	12.2	6.2	75.64
Syd Beck Road	Mareeba	34.2	155	120.8	7	845.6
Syd Beck Road	Mareeba	155	320	165	4.5	742.5
Walsh Street (shoulder Infills)	Mareeba	135	370	235	10	2350
Walsh Street (shoulder Infills)	Mareeba	370	555	185	10	1850
Walsh Street (shoulder Infills)	Mareeba	555	780	225	10	2250
Perkins Street	Mareeba	70	120	50	5	250
Algoma Road	Mutchilba	23	211	188	3.4	639.2
Algoma Road	Mutchilba	265	303	38	4	152
Catherine Road	Mutchilba	14	325	311	4.1	1275.1
Catherine Road	Mutchilba	340	1045	705	4.1	2890.5
Horse Creek Road	Mutchilba	0	18	18	14.4	259.2
Horse Creek Road	Mutchilba	18	455	437	4.1	1791.7
Horse Creek Road	Mutchilba	455	490	35	6.2	217
Horse Creek Road	Mutchilba	490	616	126	8.2	1033.2
Mutchilba Road	Mutchilba	0	22	22	15.4	338.8
Peace Road	Mutchilba	0	15	15	9	135
Peace Road	Mutchilba	15	970	955	4	3820
Total						50,807.34



Peace Road



Horse Creek Road



Horse Creek Road



Catherine Road

Infrastructure Services Capital Works Report Project Highlights - October 2022



Project Name: 2022/23 Minor Culvert and Causeway Renewal

Program: Drainage

Background

The 2022/23 Mareeba Shire Council Capital Works Program provided a budget for the continual renewal of drainage infrastructure across the shire where required.

Progress Update

During October culverts were installed at crossroad drainage points on Hawkins Road and Mclver Road.

The Hawkins Road RCP installation also required more than 200 tonne of unsealed road running surface to be imported due to the presence of rock at the pipe invert level.



Hawkins Road RCP



Hawkins Road RCP - completed



Mclver Road RCBC concrete base



Mclver Road RCBC - complete

Infrastructure Services Capital Works Report Project Highlights - October 2022



Project Name: Granite Creek Sewage Pump Station Upgrade

Program: Wastewater

Background

An allocation has been provided in the 2021/22 Capital Works Program to renew and upgrade the Granite Creek Sewage Pump Station, located on Byrnes Street, adjacent to Granite Creek. The ageing infrastructure is rapidly deteriorating and reaching capacity, is inadequate to achieve current safety standards for servicing and maintaining the asset, and there have been numerous odour complaints about the pump station in its present form.

The upgraded pump station will meet current design standards and cater for future growth in the catchment area, which includes all sewer areas of the Mareeba township south of Granite Creek.

Scope of Works

The scope of works includes removal of the existing pump station building, pumps, pipework and associated services, and construction of a new dry well, supply and installation of new pumps, pipework, valves and switchboard. Wastewater will need to be bypassed during construction and the scope of works includes provision of a temporary aboveground bypass system and standby pump for the duration of the project.

Progress Update

Works to remediate the internal divider wall are now completed and a new concrete top is being poured in early November. There is a 28 day curing process for the newly poured concrete and during the curing period other installation works will occur.



New pump station concrete top being set up ready for concrete pour

Infrastructure Services Capital Works Report Project Highlights - October 2022



Project Name: AC Pipe Renewal Water Main Upgrade Program – Anzac Avenue

Program: Wastewater

Background

An allocation has been provided in the 2022/23 Capital Works Program to replace the failed existing asbestos cement (AC) water mains throughout the Shire as part of Council's strategy to address critical water issues across the Shire over the next 10 years.

The upgrade of the Anzac Avenue Water Main is being undertaken with funding from the Local Roads and Community Infrastructure Program (LRCIP3).

Scope of Works

The scope of works included replacement of the existing water main with 300mm PVC Supermain and Ductile Iron (DICI) on road crossings, in addition to new service connections, valving and hydrants are being installed.

Progress Update

Works are continuing along Anzac Avenue with the contractor making good progress. The contractor is undertaking remediation of asphalt works being done as soon as practical to provide a seal over the excavations to keep the site tidy, with minimal disruption to traffic.



Anzac Avenue installation of the new 300mm diameter PVC Supermain water main



Project Description	Project Stage	Comments
Program: 01 Rural and Urban Roads Reseal Program (Renewal)		
22/23 Reseal & Asphalt Program	Construction	Bitumen reseals commenced 26/10/2022. Mareeba town reseals completed 28/10/2022 along with Mutchilba area. Horan St & Ivcevic Road seals completed. Contractor returning second week of November to complete Kuranda area & the remainder of Mareeba rural area.
BETTERMENT Co-Contribution	Planning	QRA & Council working on submission. Anticipate \$3.3M program
Program: 02 Gravel Resheet		
22/23 Gravel Resheet Program	Construction	Horan Street & Ivcevic Road have been re-sheeted & sealed
Program: 03 Urban Streets		
R2R Reynolds St Mba Replace K&C	Completed	Project completed August 2022. As constructed ongoing by GIS Officer.
TIDS Rankin/Walsh St Roundabout	Design	Consultant engaged and currently completing Options Study. Report to be
Program: 04 Rural Roads		
TIDS Euluma Ck Rd Ch7.01-9.325 Rehab	Construction	Asphalt overlay of Morrish Road intersection will be installed early November along with the cement stabilising of section B. The project will be completed by end of November weather permitting
TIDS Euluma Ck Rd Ch 9.350-10.130 Rehab	Procurement	The start date for the project has been pushed back to mid-April 2023 to allow for the construction of curve widening on Springmount Road, which is also a TIDS project that needs to be completed by 2023 FY end.
Borzi Rd Mba Widen & Seal Ch 0.03-0.67	Construction	Prestart meeting 02/11/2022. Project will commence 07/11/2022 with culvert widening.
TIDS Ootann Rd Section 1&2 Widen & Seal	Design	Section 1 design to be finalised prior to end of Calendar year 2022. Other sections now on hold until funding arrangements are clarified.
TIDS Springmount Rd Widen & Seal	Design	Consultant to provide finalised/Signed design 7 October 2022.
R2R Bilwon Rd Rehab & Culverts	Planning	Project is in planning stage with TS Group
R2R Wolfram Rd Stage 3 Priority Sections	Procurement	Programmed January 2023 to March 2023
Program: 05 Bridges		
BRP4 Kanervo Rd Davies Cr Br Rplc Bridge	Construction	Backfilling of the western abutment is complete, precast girders installed & bridge will be open to traffic 28/10/2022. Asphalt deck wearing surface will be installed in November
BRP5 Davies Ck Road Bridge Replacement	Close Out	Construction complete July 2022 & funding acquitted. Final certification is ongoing.
Granite Ck Mba Replace Footbridge Deck	Procurement	Designs received, works will be programmed for after the completion of Kanervo Road Bridge Upgrade
Palm Cl Mba Replace Footbridge Boards	Procurement	Designs received, works will be programmed for after the completion of Kanervo Road Bridge
Bicentennial Lakes F/bridge Safety Upgr	Procurement	Designs received, works will be programmed for after the completion of Kanervo Road Bridge Upgrade
Kauri Ck Bridge Speewah Rd Repl. Girders	Procurement	An outer girder failure at Kauri Creek Bridge has caused a load limit reduction to 5t. Work will be brought forward to "as soon as possible" & timing will be known once replacement girder supply is known. An update should be available late week of the 31/10.
Bullaburrah Ck Rd C'way Relieving Slab	Not Commenced	Programmed for March 2023, weather permitting
Clohesy River Barron St Inspect & Design	Planning	Geotechnical investigation to be completed, design of structure to be undertaken January - May 2023
Bolton Rd Inspect/Design/Repl Girders	Design	Level 2 Bridge Inspection and load assessment completed, awaiting report.
Barron Riv. Bridge Oakforest Rd Insp/Des	Planning	Level 2 Bridge Inspection and Load Assessment completed, awaiting report.
Barron River Cwy Henry H Dr Repl Slabs	Not Commenced	Programmed for April 2023, weather permitting.
Program: 06 Drainage		
Amaroo Mba Drainage Upgrade Stage 2	Close Out	Project completed August 2022



Project Description	Project Stage	Comments
22/23 Minor Culvert & C/ways Renewal	Not Commenced	The installation of a new RCP at Hawkins Road has been completed & Mclver Road is RCBC will be completed first week in November.
MBA Amaroo Drainage Upgrades	Not Commenced	Programmed for May 2023, weather permitting
MBA Hastings Dr Replace Concrete Pipe	Not Commenced	Programmed November/December 2022, weather permitting.
Program: 07 Traffic Facilities		
Mareeba Aerodrome Signage	Not Commenced	Manufacture of signs awarded to Savannah fabrications. works to be complete 28 November. RFQ for installation to be complete by 17 November2022
Program: 08 Parking		
Borzi Park Mba Carparking Masterplan	Planning	Design to be completed Feb 2023.
MBA Heritage Centre Carpark Extension	Design	Survey underway, design to be completed Dec 2022.
Program: 09 Footpaths		
MBA Rail Trail Stage 1 Mba to Airport	Construction	Vehicle regulation signage will be installed week of 31/10. Timber Railway bridge will be made suitable for pedestrian & cycle traffic during November by bridge crew.
MBA Walking Network Plan	Design	MSC draft priority works program needs to be finalised and endorsed for inclusion in the Zwart/ TMR walking network report. The individual sites listed in thepriority works program need to costed for the purposes of future application for TMR funding.
KDA Walking Network Plan	Planning	Zwart Consulting provided (7/11/2022) draft walking network plans for Council review approval.
22/23 Shire Wide Footpath Renewal Prog	Planning	Walking Network Report received. Initial review in late August identified several sections of new footpath & pedestrian safety improvements within the 500m CBDbuffer zone (centered at Anzac Park) would benefit pedestrians. A tender will be developed after further scoping & released for external delivery.
22/23 Walking Network Upgrade Program	Not Commenced	Kuranda Walking Network Plan Inception meeting held with the Consultant engaged to undertake the study and provide a report. MSC Community Services section advised of the public consultation requirement.
Program: 10 Parks and Gardens		
Parks & Open Spaces Strategy	Construction	Parks and Open Spaces Strategy and 3 year action plan adopted by Council in February 2022. Refer attached report for progress updates on individual projects.
LRCIP2 21/22 Park Entrance Sign Renewal	Close Out	10 Acre Park sign has been installed. Project complete August 2022
LRCIP2 Mba Byrnes Street Medians	Construction	Street bin installation on hold. Corporate Communications Officer sourcing pictorial wraps to cover new street bins.
DIM Town Hall Park Refresh	Planning	Scoping of project commenced.
KDA Centenary Park Playground Upgrade	Design	Playground construction commenced Monday 31 October and scheduled to be complete 25 November 2022.
MBA Bicentennial Lakes (Southern) D&C	Planning	A letter of intent issued to Trinity Engineering with ongoing discussion being undertaken in regard to development of the scope of works prior to the contract being finalised.
MBA Byrnes St Medians	Not Commenced	Work will be programmed for the second half of the current financial year
MBA Anzac Memorial Pk L'scaping & Safety	Construction	Works to commence Monday 14/11/2022
MBA Byrnes St Traffic Islands (BP)	Not Commenced	Work will be programmed for the second half of the current financial year
MBA Connection Rd/Byrnes St Intersection	Not Commenced	Work will be programmed for the second half of the current financial year
MBA Costin St Medians	Not Commenced	Work will be programmed for the second half of the current financial year
MBA Sunset Park Exercise Equip Renew	Not Commenced	Australian supplier of Norwell fitness equipment contacted to ascertain potential to refurbish damaged equipment.



Project Description	Project Stage	Comments
KDA Anzac Park Landscaping	Not Commenced	The landscape architect has provided 3 design/ refurbishment options for Council consideration.
KDA Coondoo Street Upper Refurb	Not Commenced	Footpath Repairs Ongoing discussion in regards the extent of works and methodology. Lighting Upgrade Aurecon have provided a draft report for review. The report providing recommendations for LED lighting upgrades to bring the street lighting up to standard.
KDA CBD Planter Boxes & Gardens	Not Commenced	
DIM Avenue of Trees Irrigation	Not Commenced	Work will be programmed for the second half of the current financial year
IRV School of Arts Park Seating & Shade	Not Commenced	
MBA Eastern Catchment Park Amaroo St1	Construction	Playground installation to commence 1/11/2022
Program: 11 Water		
WTP Staged start up water pump upgrade	Design	Design process has commenced with on site inspection in early September, survey and locations works completed and RFI feed back sent to designer so design can be progressed.
MWTP Filter 3 install backwash pumps	Not Commenced	Now that grant funding has been received this should now be rolled into Filtration Upgrade Project
Mba Optimise clarifer performance upgrad	Design	Some initial works commenced
Mareeba - Backwash operation renewal	Planning	Project pending outcome of grant application for new filtration system for Mba WTP and should be rolled into filtration project.
W4Q4 Mba AC & Defunct Pipe Rplcmnt 2.5km	Completed	Contractor progressing with connection works and once these are completed road reinstatements will be done and expect the project to be completed by early September.
Mba WTP Study for Upgrade of WW System	Construction	Works progressing well and now scheduled for completion early February.
BBRF Unconfirmed MWTP Filtration Upgr	Design	Project design works continuing and actual project grant funding confirmed through BOR program and set to go to tender early February.
MBA Clear Water Booster Pump Station	Design	Project design underway and design expected to be completed by end of December or early January.
22/23 Water Pipe Renewal Program	Construction	Project works well underway with contractor making good progress and slightly ahead of project schedule.
22/23 Water Telemetry/SCADA Upgrades	Planning	Works underway with our external provider.
DIM WTP New Turbidity Meters	Procurement	Procurement underway with quotes sourced and orders issued.
KDA WTP Auto Backwash on 3 Filter Cells	Planning	Treatment operations staff to liaise with City Water Technology and or suitably qualified person for the implementation works.
22/23 Smart Meters Replacement	Planning	Project commenced with the first 20 installed and a further 200 meters on order with a six month lead time on delivery.
22/23 Hydrant Renewal Program	Construction	Council officers reviewed recent maintenance works to determine number and locations for hydrant renewals, with installation works commenced .
MBA WTP Raw Water Pumps & Electrics	Design	Design underway with project site inspection and survey and locations done.
22/23 Valve Replacement Program (Retic)	Construction	Council reticulation staff currently installation valves and locations identified on the western side of Mareeba.
BOR6 22/23 Water Forward Design Program	Design	Works commenced with trials on alternate methods of dosing equipment and chemicals underway.
MBA Additional Pressure Reduction Valves	Planning	Locations of RPV's have been modelled and calculated during booster pump station design works and will have to be cells at the treatment plant and centenary park booster station.
MBA Deommission Basalt St Elevated Tank	Planning	Works to be undertaken in conjunction with the booster station project, can only be done as the new booster station is being commissioned.



Project Description	Project Stage	Comments
MBA Decommission Granite Ck Pump Station	Planning	Works to be undertaken in conjunction with the booster station project, can only be done as the new booster station is being commissioned.
MBA WTP Chemical Bund	Completed	Works now completed
DIM Caustic Soda Dosing Pumps & Shed	Construction	Project commenced and awaiting on steel to arrive for shed, once the steel is here it'll be erected and the new dosing equipment will then be installed.
WTP Minor Infrastructure Replacements	Construction	Equipment ordered and installation works will commence once equipment arrives and time will depend on supply chain delivery times.
MBA WTP Clarifier Infra Process Improv.	Design	Design underway, once their assessment has been completed they'll submit to Council officers for further review and options assessments.
MBA/KDA/DIM WTP Inst. Chloring Analysers	Procurement	Quotes were sourced and equipment ordered, when the equipment arrives it'll be installed and commissioned.
MBA Trial Chloring Dosing	Planning	Now that the filtration project has been funded this project needs to be rolled into that project.
DIM WTP Standby Generator Replacement	Not Commenced	Generator has been acquired and now on site, it will be lifted into position as soon as possible and connected to the site.
Program: 12 Wastewater		
21/22 W/water Telemetry/SCADA Upgrades	Completed	Works completed.
New Sewer Pump Stn Standby Generators x2	Construction	New generators have been installed and housing being made to protect them from vandalism and the elements, just finalizing the telemetry connection to the generators and project is then completed.
21/22 Mba Sewer CCTV & Relining Program	Construction	There were a few lines that run adjacent to the Barron River that didn't get completed prior to end of June and these are now being done in Nov/Dec.
21/22 Mba WWTP Component Renewals	Completed	Works essentially completed and once commitments are cleared project can be closed out.
Granite Ck Mba Sewerage Pump Stn Refurb	Construction	Works progressing well with re-concreting of the divider wall sections almost completed.
Mba Minor Pump Stn H2S Protect/Refurb	Completed	Project now completed and once final commitments are finalised the project can be closed out.
MBA Bi-Lakes Sewer Main Capacity	Design	Project design well underway and applications to TMR and QRail for crossing permits have been submitted as part of the project.
22/23 WW Telemetry/SCADA Upgrades	Planning	Program will see the Mareeba WWTP SCADA upgraded to latest version with work planned for first half of 2022-23 FY.
22/23 New Standby Generator Program	Procurement	new generators have been delivered and are now on site and will be electrically connected as soon as an electrician is available.
22/23 MBA Sewer CCTV & Relining	Planning	Project is scheduled to commence mid to late Nov or early Dec dependent on contractors staffing.
22/23 Manhole Rehab & Replace Program	Construction	Works underway with about 50 % of the 2022-23 scheduled program completed.
KDA TP Chlorine Dosing Pumps	Procurement	Goods are on order and potentially long lead time of delivery.
KDA TP RAS System Submersible Pumps	Planning	Assessment on selection of new pump will be done during routine maintenance works scheduled for November.
KDA TP Bioreactor Aeration Blower	Planning	New blower on order with potentially a six month lead time for delivery.
Minor WW Pump Station Refurbishments	Not Commenced	Project on hold as funds from this project diverted to Granite Creek SPS project.
22/23 WW Forward Works Design Program	Planning	Review of Atherton St SPS underway to determine if a new pump station is required or the existing pump station can be refurbished.
Program: 13 Waste		
MWF Buy Back Shop Construction	Completed	Project completed June 2022. Ident Survey still ongoing.



Project Description	Project Stage	Comments
MWF Construct New Landfill Cells	Design	Project design progressing however there is a lot of work required on the electrical side of the design works and council officers met with Golder/WSP to determine a way forward and Council officers have now provided Golder/WSP with further technical information which will hopefully allow the design to progress in the coming months then to completion.
MBA Transfer Station New Baler	Procurement	Grant funding source wanted the project plan updated which has been completed prior to signing the grant deed and progressing the project.
MBA/KDA Transfer Station Security Improv	Construction	Mareeba WTS CCTV Upgrade works completed, awaiting the delivery of a swivel pole for the Kuranda WTS. Once the pole arrives it'll be installed and CCTV upgraded.
Program: 15 Fleet		
GPS Vehicle Management System	Planning	GPS tracking equipment to be procured as part of fleet replacement program rather than one large capital expenditure.
Hydro Vac to Replace Jet Rodder	Completed	Secondhand Truck Mounted Hydrovac unit purchased, Unit available for service 1 October 2022.
Fleet Replace #676 Civil Works Truck	Completed	Project Completed May 2022
Fleet Renewal #509 Backhoe	Completed	New machine delivered 2nd August
Fleet Replace #4053 Husqvarna Zero Turn	Completed	Project completed, August 2022
Fleet Refurb Truck Mounted Water Tank	Planning	Business Case being developed.
Fleet Replace #621 Single Cab Tipper	Procurement	Purchase order raised July 2022. Wait time for delivery 8-10 months.
Fleet Replace #675 Crew Cab Tipper	Procurement	Purchase order raised July 2022. Wait time for delivery 8-10 months.
Fleet Replace #623 Crew Cab Tipper	Procurement	Purchase order raised July 2022. Wait time for delivery 8-10 months.
Fleet Replace #5006 Tractor	Procurement	Purchase order raised July 2022. Wait time for delivery 8-10 months.
Fleet Replace #6253 Road Broom	Planning	February 2023 Project.
Fleet Replace #1304 Landcruiser	Procurement	Purchase order raised and sent to supplier July 2022. Expected delivery 8-10 months.
Fleet Replace #1305 Landcruiser	Procurement	Purchase order raised and sent to supplier July 2022. Expected delivery 8-10 months.
Fleet Replace #1323 Triton	Procurement	Purchase order raised and sent to supplier July 2022. Expected delivery 8-10 months.
Fleet Replace #1337 Triton	Procurement	Purchase order raised and sent to supplier July 2022. Expected delivery 8-10 months.
Fleet Replace #1229 Hilux	Procurement	Purchase order raised and sent to supplier July 2022. Expected delivery 8-10 months.
Fleet Replace #2052 Triton	Procurement	Purchase order raised and sent to supplier July 2022. Expected delivery 8-10 months.
Fleet Replace #1315 Landcruiser	Procurement	Purchase order raised and sent to supplier July 2022. Expected delivery 8-10 months.
Fleet Replace #1328 Triton Trayback	Procurement	Purchase order raised and sent to supplier July 2022. Expected delivery 8-10 months.
Program: 16 Depots and Council Offices		
Rankin St MSC Admin Office Refurb	Construction	Roof works complete. Front entry tiling complete. Posts to finance area installed awaiting painting. Rear timber paling fence enclosure to be painted (contractor to advise schedule)
Kowa St MSC Depot Emergency Generator	Design	Generator costings forwarded to Manager TS for consideration.
Program: 17 Community Buildings		
Koah Tennis Court Replace Timber Poles	Construction	Poles delivered to site. Electrician advised installation mid-November.
Aquatic Facility Upgrades & Splash Park	Construction	Possession of site and preliminary site establishment works scheduled to commence 21/11/2022. Advised equipment in transit from Canada.



Project Description	Project Stage	Comments
Dimb/Mba/Kda Pools Chloring Dosing Impr	Planning	Project on hold until Aquatic Tenders finalised.
Mba PCYC Shire Hall Part Roof Replacemnt	Construction	Variations raised for water damaged timber fascia's and hood vents. Works commenced to manufacture new hood vents.
MBA Women's Restroom Refurb	Design	Tender for Lease prepared and programed for release to market week of the 7/11/2022
MBA Riverside CPark Amenities Replace	Construction	Existing amenities block removed from site. Pad area for new amenities ready for construction to progress.
22/23 Shire Toilet Facility Repl Program	Not Commenced	Projects are: Mareeba Aerodrome, Mareeba Cemetery, Mt Molloy Vains Park. To be commenced in New Calendar Year
MBA Community Hub Signage & Seating	Design	Concept design provided to Project Management Team for inclusion in delivery program. Pre-start (projects) not yet held.
DIM CPark Shower Septic Modifications	Procurement	Initial quotations received, however due to inconsistency in responses, further soil testing required. Project still targeted for delivery end of 2022.
MBA New CBD Toilet Facilities	Design	Further design work being undertaken to ensure all aspects investigated prior to handing over to Projects Team.
22/23 Facilities Refurbishment Program	Not Commenced	Restricted Use - Only to progress under direction of EMT to address Management Agreement constraints.
MBA Aquatic Cnt Entrance Upgrade & Paint	Not Commenced	
KDA Community Prec. Toilet Refurb	Not Commenced	Jan 2023 target timeline for pre-handover inspection with Project Team. Works to be completed second half of fin year.
KDA Aquatic Cnt 25m Pool Auto Fillers	Planning	On hold pending completion of Tender Process.
CHI Hub Sign Replacement	Cancelled	Following Community meeting in Chillagoe, project put on hold until further notice.
KDA Aquatic Cnt 25m Pool Cleaner	Not Commenced	On hold pending further investigation.
KDA Aquatic Cnt 25m Pool Aquaris Upgrade	Not Commenced	On hold pending further investigation.
22/23 MBA Roof Replacement Program	Planning	Procurement delayed due to requirement to re-scope. Scope finalized. Procurement to be finalized by 19/10/2022.
22/23 MBA Bitument Driveway Renewals	Procurement	Procurement via Works department. Program commenced. Works to be delivered by 22/12/2022.
MBA Timber Fascia Replacement	Planning	Project on hold. Timber fascia's not required at this time. Possible minor maintenance works to be delivered by Mareeba Community Housing Company.
22/23 DIM Bathroom Renewal Program	Planning	Scoping Commenced. Procurement to be finalized by 8/10/2022.
Program: 18 Non-Infrastructure Items		
Kuranda New Cemetery	Design	Draft Civil Plans received for commentary, delivery of designs anticipated prior to Dec 2022. Tender for construction to be undertaken February 2023, with construction in dry season of 2023.
DRFA Flood Warning Infra Network (Rn)	Completed	Physically completed June 2022, documentation closeout to be finalised by end of September 2022.
New Total Station Tilting Auto Pole	Not Commenced	preparing financial close out.
MBA Cemetery Lawn Plaque on Beam	Not Commenced	On hold.
DIM Cemetery Lawn Plaque on Beam	Not Commenced	
MBA MIP Expansion	Planning	Scope of works being refined to align with cost expectations. engagement to occur November, delivery of masterplan expected by March 2023.
Program: 20 KIAC		
KIAC - New Wayfinding Signage	Construction	Procurement for installation finalized. install works to commence 7/11/2022 and program to be complete 25/11/2022.

9.4 INFRASTRUCTURE SERVICES, WATER AND WASTE OPERATIONS REPORT - OCTOBER 2022**Date Prepared:** 1 November 2022**Author:** Manager Water and Waste**Attachments:** Nil**EXECUTIVE SUMMARY**

The purpose of this report is to summarise Council's Water and Waste activities undertaken by the Infrastructure Services Department during the month of October 2022.

RECOMMENDATION

That Council receives the Infrastructure Services, Water and Waste Operations Report for October 2022.

BACKGROUND**Water and Wastewater Treatment:**

All treatment plants are generally performing satisfactorily. Water demand was varied across all schemes with rainfall in some catchments resulting in varied consumption per connection whereas some were slightly higher due to lower rainfall.

Filter 2 at Mareeba Water Treatment Plant (WTP) has reached the end of its functional life and was shut down in October. While this has resulted in an overall reduction in the plant's capacity, the Mareeba WTP is producing sufficient volume of treated water to meet demand. The situation is being monitored, and there may be a need to introduce water restrictions if consumption begins to exceed the plant's capacity. Planning is currently underway, and funding committed for a project to upgrade the filtration system at Mareeba WTP in 2023.

Routine environmental monitoring did not detect any exceedances of environmental discharge limits. No anomalies or reportable notifications were reported in relation to routine water quality testing conducted during the month.

Water Treatment	Mareeba	Kuranda	Chillagoe	Dimbulah	Mt Molloy*
Water Plant average daily production (kL)	9,597	1035	287	447	146
Number of Connections	4,385	982	157	272	137
Average daily water consumption per connection (L)	2,189	1,054	1,828	1,643	1,292

* Mt Molloy is an untreated, non-potable water supply

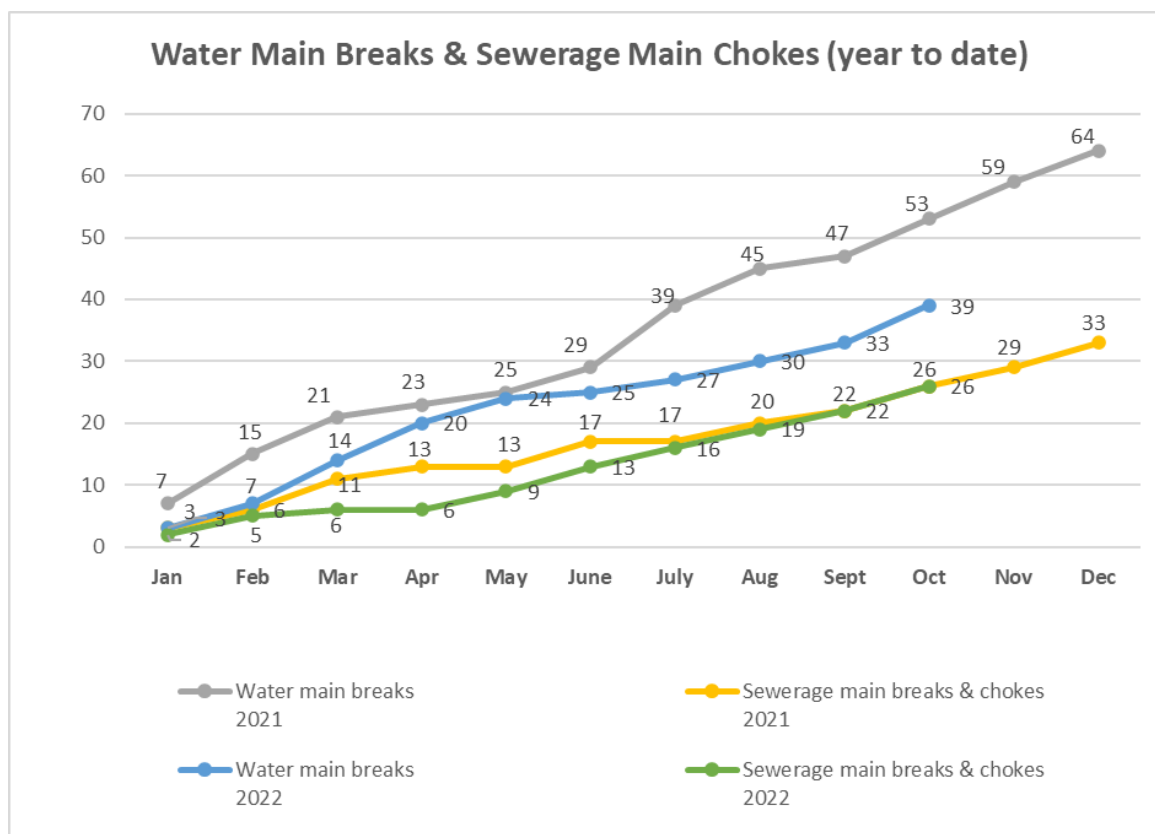
Wastewater Treatment	Mareeba	Kuranda
Wastewater Plant average daily treatment (kL)	1,708	163
Number of Connections	3,424	346
Average daily inflow per connection (L)	499	471

Water and Wastewater Reticulation:

Council's water reticulation crew attended to six (6) water main breaks and four (4) sewer main breaks/chokes this month, and average response times were within targets set out in Council's customer service standard for water services.

During the first two (2) days of November there were also a further three (3) water main breaks on Anzac Avenue in a section of thin-walled white PVC water main that is to be made redundant following the installation of new PVC Supermain.

Monthly statistics are shown on the water reticulation main breaks and sewerage main breaks and chokes:



Waste Operations:

ARUP's work on the Regional Resource Recovery Plan is continuing and feedback from several of the region's Councils saw a re-working of the issues and options paper which was provided to FNQROC for further review and discussion.

Following a review of the operations at the Mareeba and Kuranda Waste Transfer Stations there will be a slight change to the operating hours coming into effect 1 January 2023. Signage is underway with brochures being prepared to hand out to customers at sites during the affected timeframe.

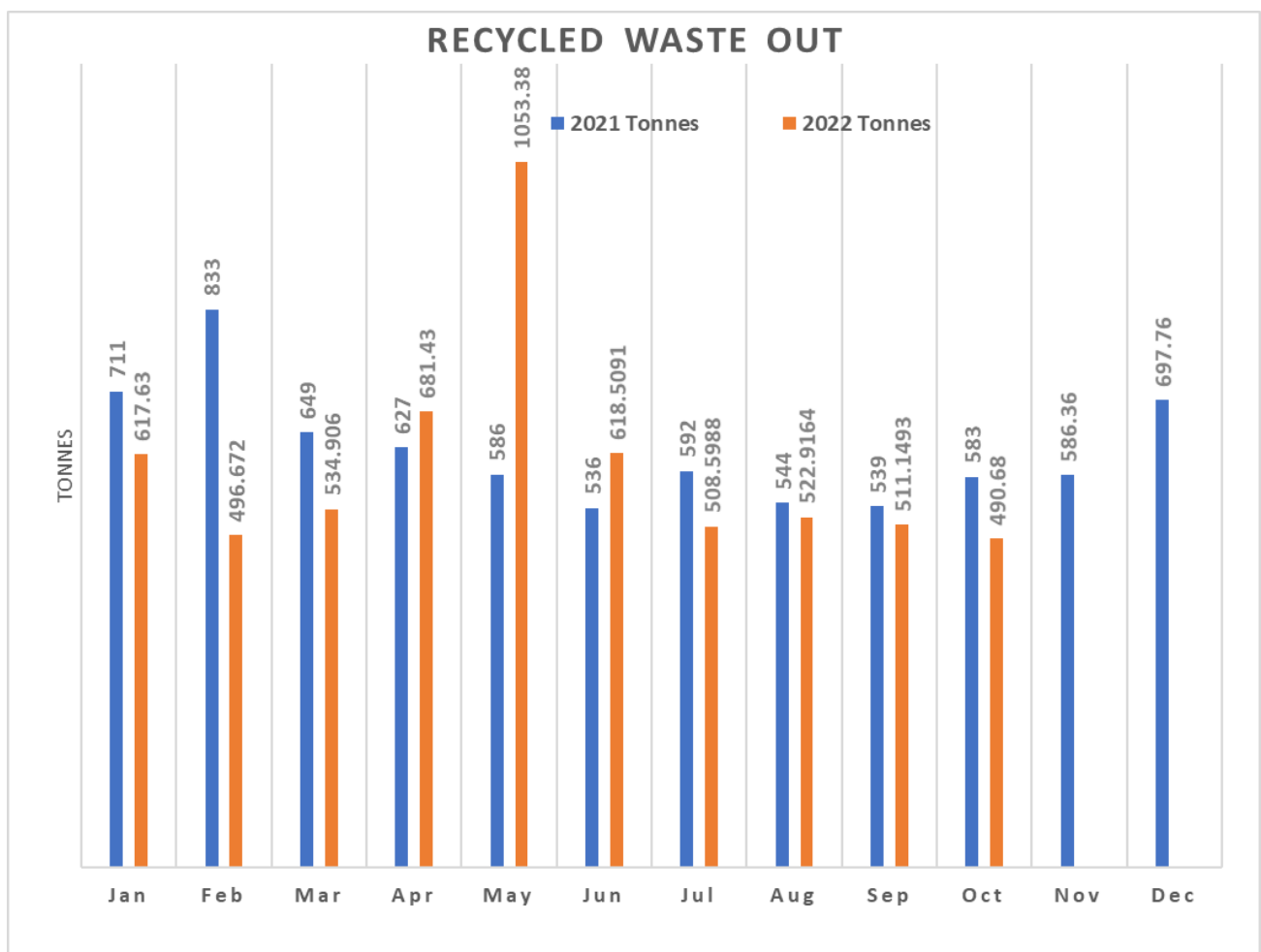
EnviroCom Australia have completed the characterisation waste audit sampling and observations from the waste coming in from transfer stations, depot, and Rankin Street Office. Final report has been received where it shows we need to further the education campaign to the community and improve recycling options at the depot and office.

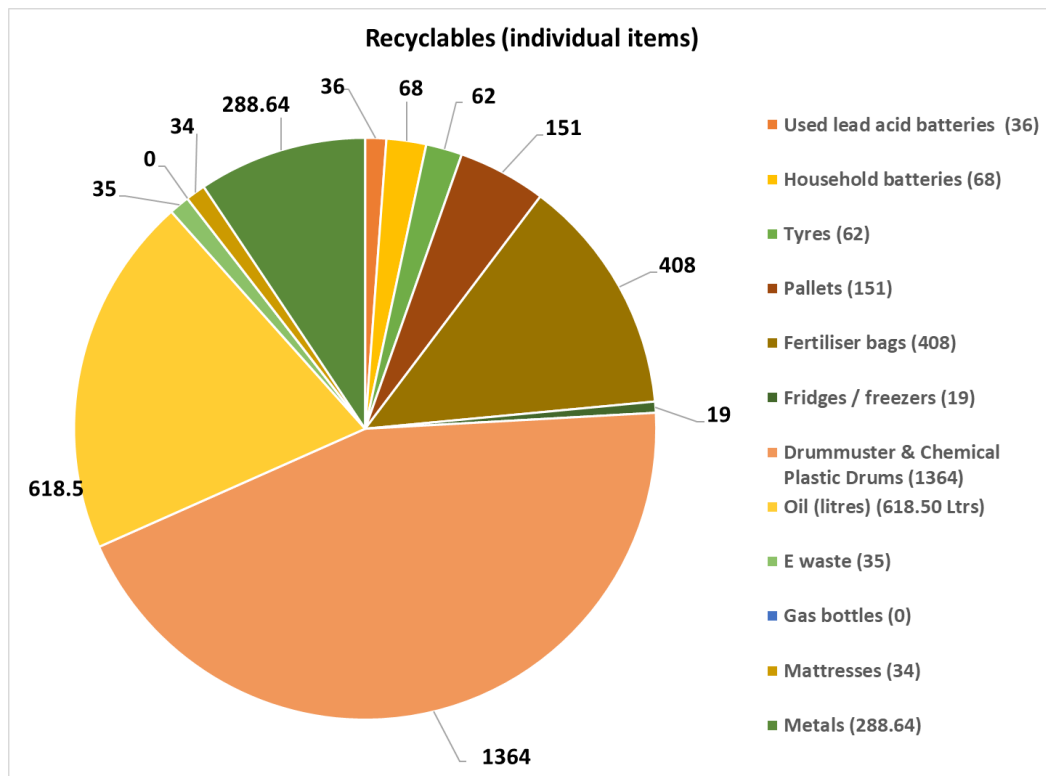
Council’s contractor is continuing to experience issues with the IWeigh tablets at certain sites and anticipate most of this has been rectified although issues are still being experienced at some sites due to poor mobile reception.

Dallas Control Station Tags have been issued to contractors and internal staff that use the Kuranda Transfer Station after hours or on days it is not open; this will record the waste coming in and leaving the site, but yet not fully functioning.

Recycling

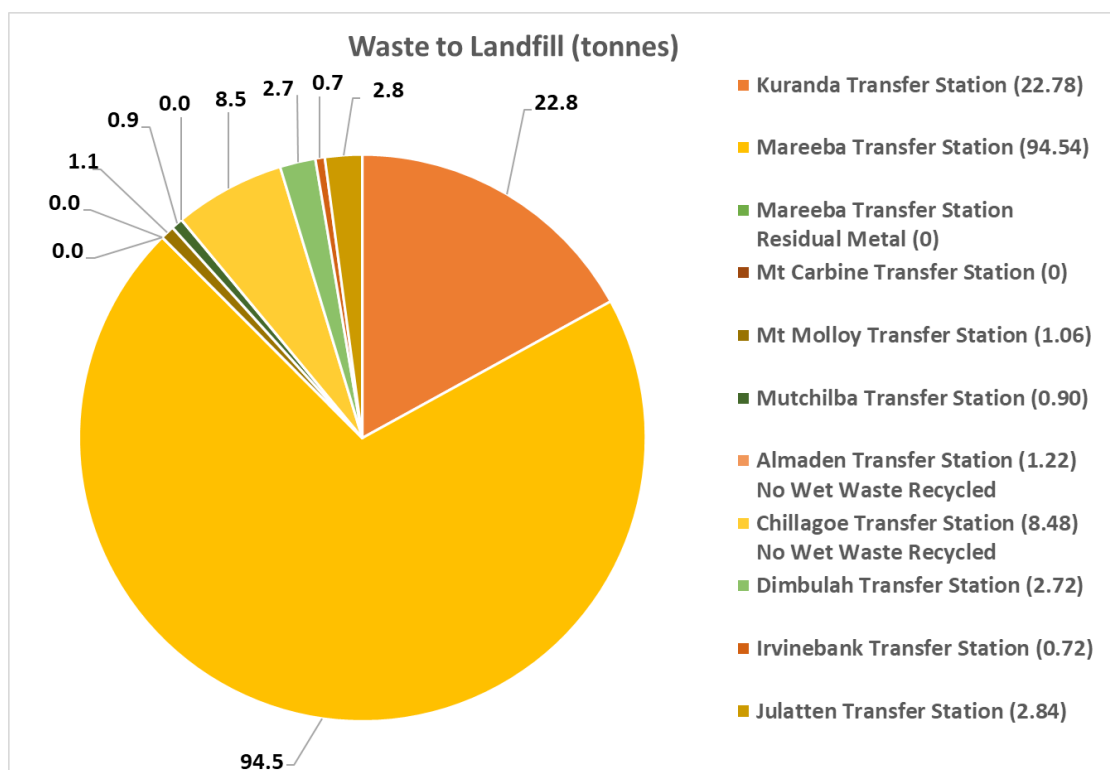
Waste material collected at each of the waste transfer stations are either deposited directly to the Springmount Waste Facility, recycled, or transported to the Veolia Advanced Resource Recovery Facility (ARRF) in Cairns for processing.





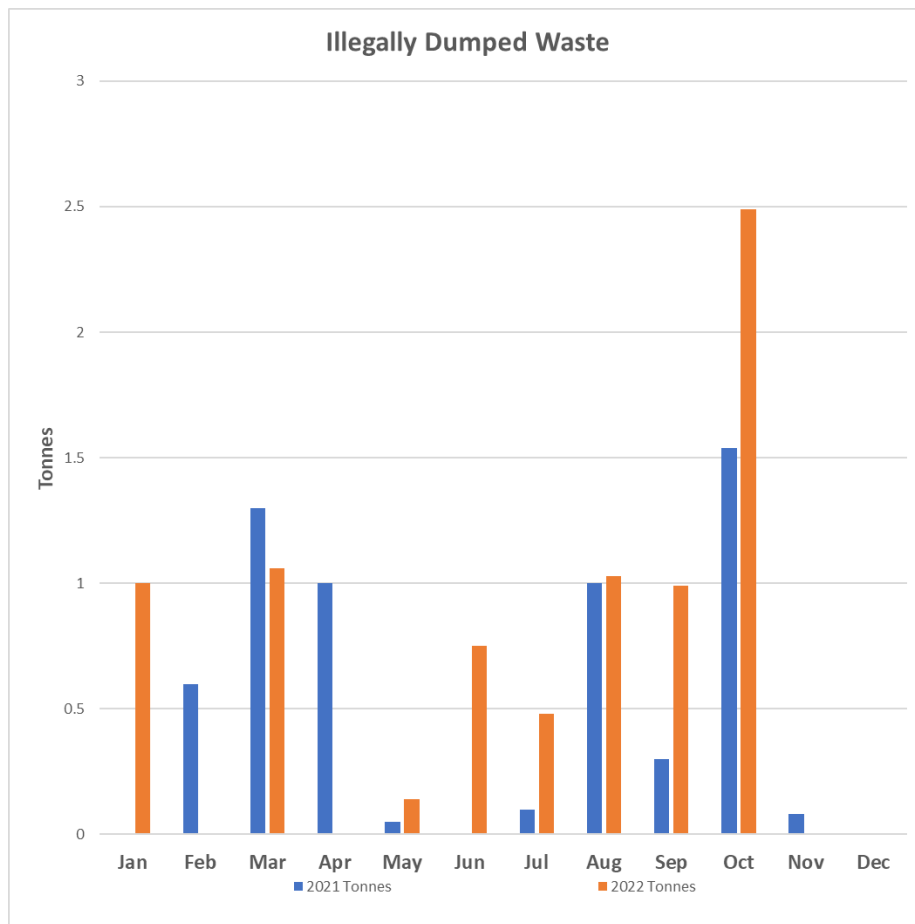
Waste to Transfer Stations

Transfer Station dry waste is transported off site to the Springmount Waste Facility and for the month of October 134 tonnes was landfilled.



Illegally Dumped Waste

There were 2.49 tonnes of illegally dumped waste recorded through Waste Transfer Stations during the month of October.

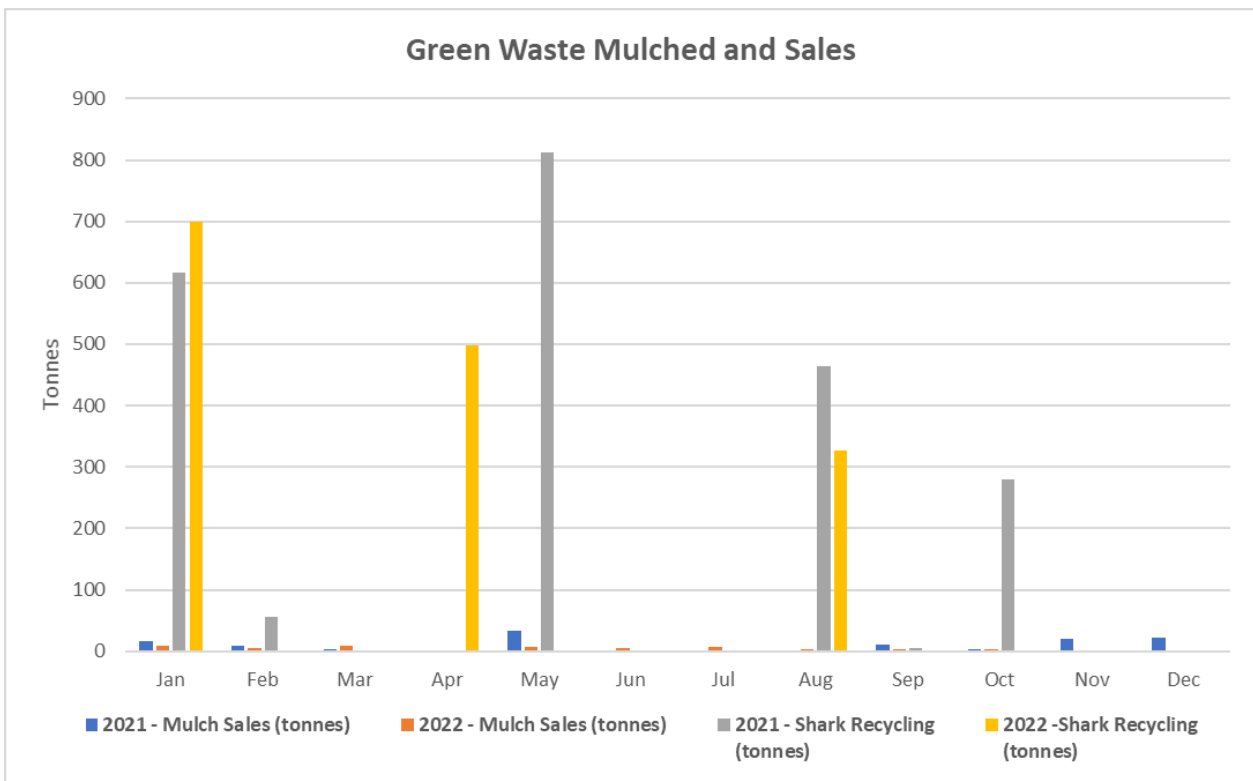
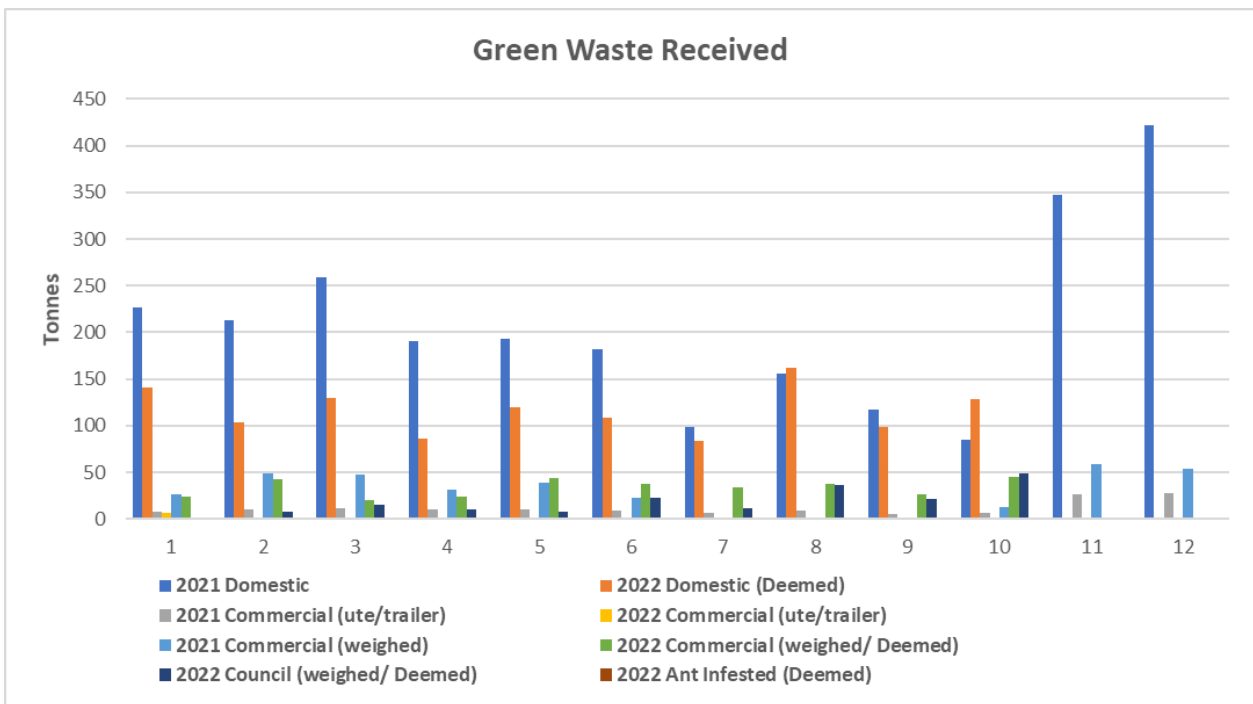


Green Waste

Council received a total of 221.8 tonnes of green waste in the month of October. No mulching occurred in October. Kuranda recorded 1.3 tonnes of Electric Ant contaminated green waste in October.

Free Green Domestic Waste days are now four (4) times a year instead of the three (3). The next scheduled Free Green Domestic Waste days will occur in early December.

Council’s contractor will be onsite to mulch the green waste at Mareeba and Kuranda Transfer Station prior to the Free Green Waste event to ensure space for the community to dispose.



RISK IMPLICATIONS

Environmental

Council holds an Environmental Authority issued under the *Environmental Protection Act 1994* to operate landfill facilities.

LEGAL/COMPLIANCE/POLICY IMPLICATIONS

Nil

FINANCIAL AND RESOURCE IMPLICATIONS***Capital***

Nil

Operating

Nil

LINK TO CORPORATE PLAN

Financial Sustainability: A council that continuously operates in a cost-effective manner while managing council's assets and reserves to ensure a sustainable future.

Transport and Council Infrastructure: The provision of quality services and infrastructure for our growing community that is planned and managed using sound asset management principles.

Economy and Environment: A resilient economy that promotes and supports the shire's natural assets and local industry and encourages investment while preserving and future proofing for generations to come.

Governance: Sound decision making based on effective frameworks and clear strategic direction to achieve regulatory compliance while delivering affordable levels of identified services within the Shire.

IMPLEMENTATION/COMMUNICATION

Nil

9.5 INFRASTRUCTURE SERVICES, WORKS SECTION ACTIVITY REPORT - OCTOBER 2022**Date Prepared:** 6 November 2022**Author:** Manager Works**Attachments:** Nil**EXECUTIVE SUMMARY**

The purpose of this report is to summarise Council's Transport Infrastructure, Parks and Gardens and Land Protection operational activities undertaken by Infrastructure Services during the month of October 2022.

RECOMMENDATION

That Council receives the Infrastructure Services, Works Progress Report for the month of October 2022.

BACKGROUND**Transport Infrastructure**Road Maintenance Activities

Unsealed roads graded in October were as follows;

Road Name	Location	Road Name	Location
Wright Road	Koah	Little Road	Kuranda
Tapiola Road	Koah	Boyles Road	Kuranda
Streil Road	Koah	Jeffery Road	Kuranda
Popovic Road	Koah	Big Sands	Kuranda
Copland Road	Koah	Railway Street	Kuranda
Clohesy Road	Koah	Kauri Street	Kuranda
Koah Road	Koah	Crothers Road	Kuranda
Speewah Road	Speewah	McCorry Road	Kuranda
Harper Road	Speewah	Oak Forest Road	Kuranda
Douglas Track	Speewah	Jeffery Rd	Kuranda
Hoey Road	Speewah	Austin Road	Kuranda
Stoney Creek Road	Speewah	Armstrong Road	Kuranda
Thornborough - Kingsborough Road	Thornborough	Braund Road	Dimbulah

Other maintenance activities during the month of October include:

- Kuranda / Speewah / Koah
 - Tree trimming
 - Herbicide spraying
 - Road furniture replacement

- Mt Molloy / Julatten Area
 - Tree trimming
 - Road edge repair
 - Mt Carbine town slashing and mowing

- Mareeba Area
 - Bitumen patching
 - Road edge repair
 - Road furniture replacement

Customer Requests

During the month of October, the Works Group received 91 Customer Requests (CRs) with 138 resolved (resolved requests include those received prior to October 2022). The table below shows the number of requests lodged per Works Section for the month.

Month	Roads	Parks and Gardens	Pest Management
October	63	19	9

At the time of reporting, the Works Group had 76 open requests.

Bridges and Major Culverts

In October, the bridge crew completed the construction of the Davies Creek bridge on Kanervo Road to upgrade the existing timber superstructure to a concrete superstructure. For the previous four (4) months, minimal inspection and routine maintenance works were carried out on Council bridges and major culverts (emergency excepted) whilst the upgrade took place. Inspections and routine maintenance will recommence in November.

TMR Routine Maintenance Performance Contract (RMPC)

- Burke Developmental Road
 - Medium formation grading continued between the Lynd River and the Carpentaria Shire boundary
 - Medium formation grading was completed on the section of unsealed road between Almaden and Chillagoe that is under Mareeba Shire Council's stewardship.
 - Traffic control for two (2) truck roll overs, one (1) west of Chillagoe and one (1) between Chillagoe and Almaden

- Herberton - Petford Road
 - Maintenance grading has commenced starting at the Petford end and heading towards Watsonville.

- Kennedy Highway
 - Bitumen patching

- Mossman - Mt Molloy Road
 - Traffic control for a single vehicle accident

- Mulligan Highway

- A crew attended a large individual tree fire at Rifle Creek Rest Area that required the services of professional tree loppers using an EWP to extinguish the fire and fell the tree. A termite nest at the base of the tree was set on fire.



Rifle Creek Rest Area

Parks and Open Spaces

During October, Parks and Open Spaces crews conducted garden and hedge maintenance in the Mareeba CBD, Cedric Davies Hub, Mareeba Industrial Park, Mary Andrews Park and Bicentennial Lakes. A program to gradually remove stumps from parks and open spaces continued with stump removal and stump grinding at Centenary Park and Borzi Park.

Other points of note for the Parks and Gardens Section during October were:

- Three (3) burials - Mareeba Cemetery
- One (1) burial - Chillagoe Cemetery
- Irrigation auditing and repair
- Sporting field maintenance and presentation
- Mow and brush cut irrigated open spaces

Land Protection

Staaten River Asset Protection: Council's Land Protection staff, Biosecurity Queensland officers and property owners undertook the annual survey and removal of Bellyache bush on the Mitchell River and Lynd River flats that borders onto the Staaten River catchment and Staaten River National Park. Officers report no Bellyache or Parkinsonia were found in the containment zone.

Multi species weed removal on Emu creek and upper Walsh River catchment: Work has continued along Emu Creek in the Wash River catchment targeting two (2) *Jatropha* species and Rubber Vine. A large reduction in pest plants has been observed this year.

Parthinium Weed: Monthly inspections were carried out on all 12 sites. The relevant landholders are complying with their biosecurity obligation.

Wild Dogs: Coordinated baiting has been carried out on seven (7) properties on the Walsh, Lynd and Mitchell River catchments totalling 297,100 ha of land. Several landholders were also advised on trapping methods and shooting options.

Salvinia: Salvinia is a native of South America and was first reported in Queensland in 1953. It is now found in isolated water bodies from northern Queensland to the New South Wales border, and west to Mount Isa. Many salvinia infestations can be traced back to plants discarded by aquarium owners. Generally, salvinia prefers slowly moving streams, or still water ponds with high nutrient levels and water temperatures around 20–30°C.

As a result of CSIRO research, *Cyrtobagous salviniae* (salvinia weevil) has been extensively released. In Queensland, salvinia weevil is the main form of biological control of salvinia. The salvinia weevil is 2–3 mm long and dark brown to black. It is most effective when air temperatures are 27–35°C and plant nitrogen levels are high.

Salvinia weevil has been collected and stored in a water trough for release into waterways with high salvinia levels that are suitable for weevils to work.



Salvinia weevil

FINANCIAL AND RESOURCE IMPLICATIONS***Operating***

All operational works are funded by the section specific 2022/23 maintenance budgets.

LINK TO CORPORATE PLAN

Financial Sustainability: A council that continuously operates in a cost-effective manner while managing council's assets and reserves to ensure a sustainable future.

Transport and Council Infrastructure: The provision of quality services and infrastructure for our growing community that is planned and managed using sound asset management principles.

Economy and Environment: A resilient economy that promotes and supports the shire's natural assets and local industry and encourages investment while preserving and future proofing for generations to come.

IMPLEMENTATION/COMMUNICATION

Nil