THE ROADS AND TRANSPORT ALLIANCE







ACKNOWLEDGEMENTS



The Roads and Transport Alliance acknowledges the Traditional Owners and Custodians of the land and waterways. We pay respects to their Ancestors and Elders past, present and emerging. The Roads and Transport Alliance is committed to reconciliation amongst all Australians.

The Alliance acknowledges the assistance provided by the Department of Transport and Main Roads, the Local Government Association of Queensland and Regional Roads and Transport Groups in compiling this report.

Travelling by Gilimbaa

Translating and interpreting assistance



If you need an interpreter call the Translating and Interpreting Service (TIS

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JOINT FOREWORD



The Honourable
Mark Bailey MP
Minister for Transport
and Main Roads



Councillor
Mark Jamieson
President Local
Government Association
of Queensland

Local governments in Queensland have experienced a year of challenges and change. The ongoing impacts of COVID-19, combined with extreme weather events tested the resilience of all Queenslanders.

It is in this context that we present to you the 2021–22 Annual Progress Report of the Roads and Transport Alliance (the Alliance). The report highlights the outcomes of what is now a 20-year partnership between Queensland's state and local governments and demonstrates what is possible through collaboration, joint investment and long-term commitment to improve transport infrastructure.

The Queensland Government maintained its commitment, providing \$70 million through the Transport Infrastructure Development Scheme (TIDS). Under this matched funding arrangement, the 17 Regional Roads and Transport Groups (RRTGs) across Queensland delivered 235 projects, representing over a \$120 million investment in transport infrastructure in 2021–2022.

The report showcases many of these projects. While works were primarily on Queensland's 38,854 kilometre Local Roads of Regional Significance network, including works on heavy vehicle bypasses and key tourist routes, RRTGs also prioritised investment in active and safe school transport infrastructure. We

commend RRTGs for delivering projects for the benefit of all members of their communities.

We also acknowledge RRTGs for continuing to invest in the capability development of RRTG members, matching funding from the TIDS Statewide Development and Capability Fund to train and upskill workforces in various aspects of planning and program delivery. This report features some of those innovative initiatives.

We sincerely thank everybody who has participated in or contributed to the Alliance over the past 12 months, in particular the Chair of the Alliance Board Mr Neil Scales, the RRTG members including local government elected representatives and the Department of Transport and Main Roads Regional and District Directors, RRTG Technical Committees, Technical Coordinators and the Alliance Project Team.

Joint investment and regional collaboration are critical to the Alliance's success and are essential to the delivery of benefits for local communities across the state. The transport network continues to evolve as emerging technologies such as electric vehicle infrastructure, alternative fuels, connected vehicles and e-scooters continue to expand across the state. The foundations of the Alliance partnership will position state and local governments to continue to achieve great results in the years ahead.



MESSAGE FROM THE CHAIR





than the previous financial year. The training opportunities and other capability initiatives directly benefit technical teams, program management teams and on-the-ground construction crews. I commend those groups who have taken the time to share their learnings with other groups across the state.

In 2021 22 we extended a warm welcome to two more First Nations councils who accepted an invitation to participate in the Alliance. Cherbourg Aboriginal Shire Council joined the Wide Bay Burnett RRTG and Palm Island Aboriginal Shire Council joined the North Queensland RRTG. This brings the number of First Nations councils participating in the Alliance to seven and the total number of participating Queensland councils to 67. This is a fantastic achievement for a partnership arrangement that began 20 years ago.

I would like to thank all those who have made 2021 22 another successful year for the Alliance. This was made possible through the dedication of everyone working within the RRTG framework including local government and TMR representatives, technical coordinators and the Roads and Transport Alliance Project Team who attended 123 meetings during the year and who continue to support RRTGs across

Finally, thanks to the 17 RRTG Chairs who gave so much time and effort to lead their RRTGs to another successful year. I look forward to our continued partnership between state and local governments, working together to improve Queensland's roads and transport network.

WHO WE ARE AND WHAT WE DO

The Roads and Transport Alliance (Alliance) is a partnership between the Department of Transport and Main Roads (TMR) and Queensland local governments. Over the last 20 years, the Alliance has operated under a Memorandum of Agreement which affirms the commitment of both parties to work together to improve transport infrastructure in communities across Queensland (in order to):



MAXIMISE

the economic, social and environmental benefits of joint investments in the state's transport network.



FACILITATE

innovative and joint approaches to network planning, program development and resource sharing.



IMPROVE

road management and delivery capability through training, advanced technology and knowledge transfer.



OPTIMISE

safety for all road users.



MAXIMISE

the investment by all parties on the Queensland transport network.

WHO WE ARE AND WHAT WE DO

The Roads and Transport Alliance Model

Regional Roads and Transport Groups (RRTGs) are the foundation of the Alliance. There are 17 RRTGs across Queensland comprised of representatives from neighbouring local governments (or sometimes a single council) and a TMR District Office. The groups prioritise and deliver regional transport infrastructure improvements, through their member councils, for their respective communities. The RRTG model encourages collaboration and delivers benefits to councils through Joint Purchasing and Resource Sharing, and skills development and training. There are also the wider positive organisational and community returns that come from long-term intra-council relationships.

Roads and Transport Alliance Board

Senior TMR and LGAQ executives who set the strategic direction of the Alliance.

Roads and Transport Alliance Project Team (RTAPT)

TMR and LGAQ officers who implement Alliance strategies and initiatives, and provide support to RRTGs and the Alliance Board.

Regional Roads and Transport Group (RRTG)

Local government elected officials and TMR District Directors. Primarily a decision-making body that prioritises regional improvements for their community's transport infrastructure.

Technical Committee (TC)

Local government and TMR senior engineers and other relevant technical staff. Provide technical advice and recommendations to RRTGs.

The Roads and Transport Alliance Board

The Roads and Transport Alliance Board (the Board) sets the strategic direction for the Alliance and comprises of senior TMR and LGAQ executives. Board members for the period between July 2021 to June 2022 were:

TMR Mr Neil Scales (OBE), Director-General

Mr Les Dunn, General Manager (Program Delivery and Operations) (retired December 2021)

Ms Ann-Maree Knox, General Manager (Program Delivery and Operations) (from December 2021)

Mr Joshua Hannan, General Manager (Transport Strategy and Planning)

LGAQ Mr Greg Hallam, AM PSM, Chief Executive Officer (retired November 2021)

Ms Alison Smith, Chief Executive Officer

Mr Cory Heathwood, Head of Advocacy (from September 2021)

Mr Lau Chean-Piau, Manager Infrastructure Economics and Regional Development (until October 2021)

Transport and Infrastructure Development Scheme (TIDS)

The Alliance is supported by TIDS, which provides funding for regionally prioritised, local road and transport-related initiatives. The Board allocates TIDS funding to each RRTG for the development and delivery of projects across the shared road network. RRTGs allocate their TIDS funding to the highest priority road and transport projects in their region. TIDS funding is generally matched 50:50 (at a minimum) by RRTGs. In 2021–22, 235 projects were supported across Queensland through TIDS funding.

20

years of partnership between Queensland's state and local governments

Regional Roads and Transport Groups across Queensland

67

local councils participating as members of the Alliance 123

Regional Roads and Transport Group executive and technical meetings held



235

projects supported through the Roads and Transport Alliance Transport Infrastructure Development Scheme 36

capability initiatives funded through the Statewide Capability Development Fund

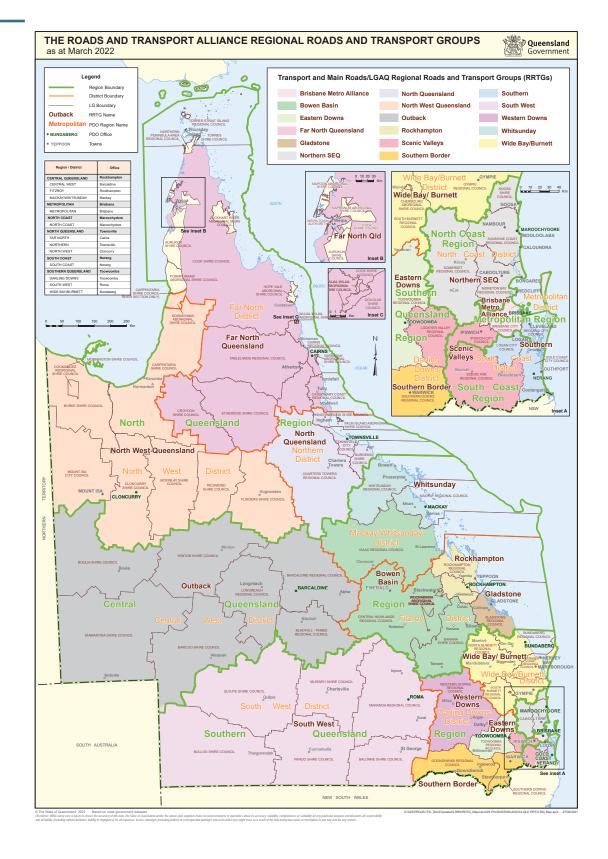
38,854 kilometres

length of jointly managed local roads of regional significance in Queensland



Queensland's 17 Regional Roads and Transport Groups

Queensland Regional Roads and Transport Groups



WHO WE ARE AND WHAT WE DO



South East Queensland Inset

Delivering in partnership

Transport Infrastructure Development Scheme projects

This year, 235 projects were administered through the TIDS program. Funding responsibilities for TIDS projects are shared between state and local governments. This section showcases a sample of the projects undertaken in the 2021–22 financial year.

Individual project stories have been submitted by the local governments that planned and delivered these projects. These completed project stories are presented using their own words and demonstrate the value that every council places in the funding that makes these projects possible. Stories have been provided by each of the 17 RRTGs and show the diversity of projects delivered; the different challenges faced by councils across the state; and the clear benefits and positive impacts these completed projects have on local communities.

The Roads and Transport Alliance recognises the cooperation between state and local agencies to ensure TIDS programs are developed and delivered by RRTGs to support communities across Queensland.



Barcaldine-Aramac Road



BOWEN BASIN RRTG

Bowen Basin RRTG

RRTG members

- Banana Shire Council
- Central Highlands Regional Council
- Isaac Regional Council
- Woorabinda Aboriginal Shire Council
- TMR Fitzroy and Mackay/ Whitsunday Districts

RRTG Chair

 Councillor Christine Rolfe, Central Highlands Regional Council

RRTG Deputy Chair

Councillor Colin Semple, Banana Shire Council

RRTG Technical Committee (TC) Chair

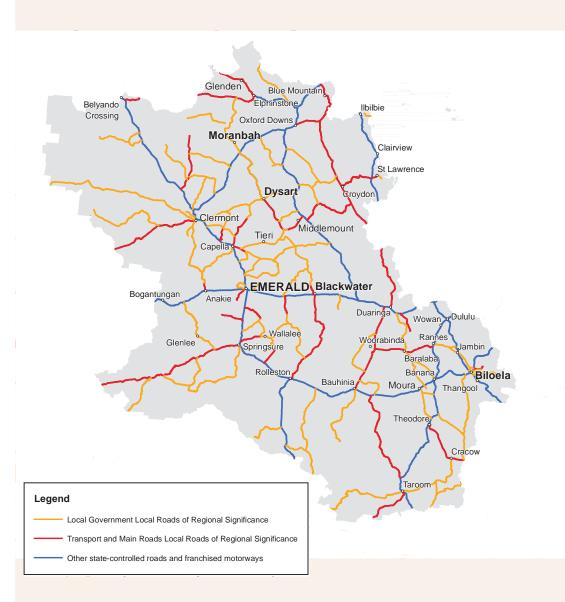
 Jason Hoolihan, Central Highlands Regional Council

Technical Coordinator

 Gerard Read, GWR Civil Engineering Management

9 PROJECTS

\$4,479_{TIDS}
ALLOCATION 2021–22
(\$'000)



\$4,532 Expenditure (\$'000)

BOWEN BASIN RRTG (continued)

Bowen Basin Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS

Local government	Project name	Expenditure \$'000
BANANA SHIRE	Deearne Road (Cockatoo), improve drainage, pave and seal	19
	Theodore - Moura Road, rehabilitate pavement	907
	Three Chain Road, rehabilitate and reseal	574
CENTRAL HIGHLANDS REGIONAL	Glenlee Road, pave and seal	1,172
	Mulcahys Road, pave and seal	226
	Bowen Basin RRTG, capability, development and technical coordination	57
ISAAC REGIONAL	Valkyrie Road (Nebo), pave, seal and drainage works	1,545
WOORABINDA ABORIGINAL SHIRE	Bore 3 Road, Blackboy Creek, upgrade culvert and approaches	6
	Dundoo Lane, contruct to sealed standard	26
TOTAL		4,532

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.

Note: In some cases, the project data has been manually adjusted to reflect claimed expenditure / program funding.

BOWEN BASIN RRTG Project Stories

Thoedore Moura Road

Road widening and safety improvements

Submitted by Allan Heit (Manager Infrastructure Technology and Technical Committee Representative, Banana Shire Council) and Gerard Read (Technical Coordinator), Bowen Basin RRTG.

Theodore Moura Road is an important council controlled LRRS forming part of the direct link between the major towns of Theodore and Moura, in the heart of the Banana Shire LGA. It is considered a major rural collector road with 500-1,000 vehicles using the road each day dependent on location, 10-15% of which are heavy vehicles. It is 41km long and a key north-south connector between the state-controlled Leichhardt and Dawson Highways. Theodore Moura Road services the agriculture (cotton, wheat, lucerne etc.), cattle grazing and timber industries and also provides access to the Anglo American Dawson Coal mining operations. Importantly it also serves as a school bus

Given its hierarchy the existing road is fully sealed, however Banana Shire Council through the Bowen Basin RRTG Roads & Transport Alliance TIDS works program embarked on a strategy of progressively upgrading the road, widening the existing seal which is narrow in locations and

undertaking general safety-orientated improvements. Several sections have been upgraded each year since 2015 and further sections are planned to be upgraded each year through to 2025–26.

The 2021–22 project covered a 3km section a few kilometres south of Moura (chainages 35.1 to 38.1) and its scope included:

- drainage repairs, upgrades and replacement
- vertical alignment and consequently sight distance improvements
- crest widenings and line marking
- increased pavement and seal width from 6m to 8m.

The project commenced in October 2021 and was essentially completed in May 2022 with construction undertaken internally by Banana Shire Council. The final project delivery cost was \$1.8 million+ of which \$907,000 was Roads & Transport Alliance TIDS funding.



Theodore Moura Road – before

BOWEN BASIN RRTG Project Stories (continued)



Theodore Moura Road - during



Theodore Moura Road – after

BOWEN BASIN RRTG Project Stories (continued)

Valkyrie Road Upgrade

Road widening and drainage improvements

Submitted by Sean Robinson (Manager Galilee & Bowen Basin Operations & Technical Committee Representative, Isaac Regional Council), & Gerard Read (Technical Coordinator), Bowen Basin RRTG.

In 2020, Isaac Regional Council developed a strategy to improve the road network in the Valkyrie community to meet the needs of present and future residents and businesses. The upgrade of Valkyrie Road was highlighted as one of the top priorities for community and council with its strategic link for local community users, the resources sector, background industries and tourism transport.

Valkyrie Road is a council-controlled LRRS east of Dysart which links to the statecontrolled Fitzroy Developmental Road at its northern end (and through to Mackay) and to the state-controlled Marlborough Sarina Road via Lotus Creek Road at its southern end (and through to Rockhampton). It is a rural collector road providing access for the agriculture, cattle grazing and resource sectors as well as serving the local bus operator. It is approximately 54km in length and sealed for majority of that length. Traffic volumes have grown, and this project has upgraded the resilience and standard of the road, improving the efficiency and safety of road users.

Roads and Transport Alliance TIDS funding of just over \$1.5 million in 2021-22 was invested sealing a 16km section of Valkyrie Road, located approximately 30km south east of the Fitzroy Developmental Road. The project was delivered to schedule by Isaac Regional Council's internal construction team under the direction of council's project management team of Glenn Spires (Project Manager) and Joel Kuczynski (Project Superintendent and Technical Committee representative). It commenced in November 2021 and was completed in May 2022. The project section was in poor condition prior to the project. Unsealed road pavement issues were prevalent and increasing,

due to substantial ground movement and compromised drainage – the road was prone to saturation during rainfall events in some locations, which increased safety concerns, particularly for the local bus operator. These combined factors meant maintenance work was required more frequently at increasing expense.

Project delivery was relatively straight forward. The formation was widened, the pavement was reconstructed and widened with an increased seal width. Approximately 25,000 tonnes of material was imported from a local quarry to correct the road surface with over \$700,000 being spent within the region. A 190mm overlay of high-quality road base was placed and a two-coat bitumen seal was applied to finish. Completion of this project has significantly improved safety and driver comfort for the various road users as well as contributing to better productivity for industry transport. It will also deliver some relief to the "stretched" Isaac Regional Council road maintenance budget.

The project involved:

- drainage upgrades
- pavement formation and widening to a typical rural cross-section (two-lane, two-way road)
- bitumen sealing
- formation of accesses.

BOWEN BASIN RRTG Project Stories (continued)



Valkyrie Road upgrade - during



Valkyrie Road upgrade - during

BRISBANE METRO ALLIANCE RRTG

Brisbane Metro Alliance RRTG

RRTG members

- Brisbane City Council
- TMR Metropolitan District

8 PROJECTS

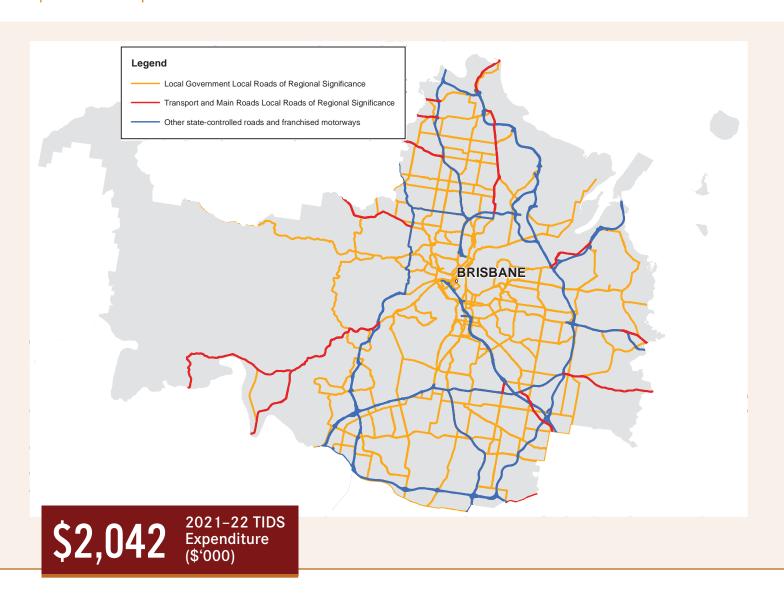
\$2,042 TIDS ALLOCATION 2021–22 (\$'000)

RRTG Chair

Councillor Andrew Wines, Brisbane City Council

RRTG Technical Committee Chair

Deborah Sketchley, Brisbane City Council



BRISBANE METRO ALLIANCE RRTG (continued)

Brisbane Metro Alliance Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS

Local government	Project name	Expenditure \$'000
BRISBANE CITY	Beatrice Street (Hawthorne), Lourdes Hill College, safety and accessibility enhancements	115
	Boundary Road and Skepper Street, upgrade intersection	814
	Edinburgh Castle Road and Colac Street, upgrade intersection	680
	Jenee Street (Jindalee), Jindalee State School, pedestrian safety and accessiblity enhancements	71
	Jephson Street and Sherwood Road (Toowong), upgrade intersection	130
	Kate Street (Newmarket), Newmarket State School, pedestrian safety and accessbility enhancements	40
	Moreton Bay College, safety and accessibility enhancements	142
	Pine Street (Runcorn), Runcorn State High School, pedestrian safety and accessibility enhancements	49
TOTAL		2,042

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.



Brisbane

BRISBANE METRO ALLIANCE RRTG Project Story

Safe School Travel Infrastructure – Jindalee State School

Intersection safety improvements

Brisbane City Council (council) undertook improvements at the intersection of Jenee Street and Wongaburra Street, adjacent to Jindalee State School, to improve traffic operations and enhance safety for all road users.

The enhancements were identified following a review of the school's Traffic Management Plan. This was developed using:

- a template supplied by council
- an assessment of traffic survey data and crash history
- evaluation of feedback obtained via a parent and student survey undertaken as part of council's Active School Travel program to identify gaps in the active transport network.

The review identified that many students cross at the intersection while actively travelling to and from school. Detailed investigations identified opportunities to enhance pedestrian access and crossing safety; improve driving paths and vehicle movements at the intersection; and enhance entry to the school's indented passenger loading facility on Wongaburra Street.

The operational and safety enhancements included:

Jenee St at Wongaburra St – before

- a splitter island with kerb build-outs on Jenee Street at Wongaburra Street, formalising driving paths, addressing concerns with corner cutting, and enhancing pedestrian safety
- installing a traffic island on Wongaburra Street to discourage unlawful right-turns to the school's passenger loading facility, removing vehicle conflicts and improving traffic flow
- improvements to kerb ramps and sections of footpath enhancing pedestrian access
- lighting upgrades, line marking, pavement works and turfing.

The project provides benefits to pedestrian access and safety for both the school and local community by making crossing at the intersection easier while encouraging students and pedestrians to cross at a designated location. The works also help promote a lower speed environment adjacent to the school.

Construction started in January 2022 and was completed in February 2022, with joint funding between the council and the Queensland Government through the TIDS program.



Jenee St at Wongaburra St - after

BRISBANE METRO ALLIANCE RRTG



Southbank Goodwill Bridge

EASTERN DOWNS RRTG

Eastern Downs RRTG

RRTG members

- Toowoomba Regional Council
- TMR Darling Downs District

11 PROJECTS \$2,728 TIDS ALLOCATION 2020–21 (\$'000)

RRTG Chair

Councillor Carol Taylor, Toowoomba Regional Council

RRTG Deputy Chair

Councillor Melissa Taylor, Toowoomba Regional Council

RRTG Technical Committee Chair

■ Eric Kraak, Toowoomba Regional Council

Technical Coordinator

■ Michael Burling, Toowoomba Regional Council



EASTERN DOWNS RRTG (continued)

Eastern Downs Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS

Local government	Project name	Expenditure \$'000
TOOWOOMBA REGIONAL	Blackbutt Crows Nest Road and Nukku Road intersection, improve safety	110
	Bowenville - Moola Road, bitumen reseal	250
	Bowenville - Moola Road, pavement widening and strengthening	466
	Dalby - Nungil Road, pavement rehabilitation	1
	Dalby - Nungil Road, widen and strengthen pavement	550
	Eastern Downs Regional Roads and Transport Group, technical capability development	35
	Greenmount - Nobby Road, pavement rehabilitation	127
	Greenmount Etonvale Road, pavement rehabilitation	192
	Jondaryan Evanslea Road, pavement rehabilitation	45
	Oakey Biddeston Road, pavement widening and strengthening	433
	Old Goombungee Road, pavement rehabilitation	520
TOTAL		2,728

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.



Toowoomba CBD

Roads and Transport Alliance Annual Progress Report 2021–22

EASTERN DOWNS RRTG Project Stories

Oakey Biddeston Stage 1 Upgrade

Widening road seal

The Oakey Biddeston Road Upgrade project was designed and constructed over the course of the 2021–22 financial year with further stages anticipated to be undertaken in future years.

This project stage entails an upgrade of a 1.760km (Ch 410 – 2170) segment of Oakey Biddeston Road from where it joins the Warrego Highway to Oakey Crosshill Road, which was completed in mid-2022.

This is a major project upgrading the 1.760km of existing seal width as narrow as 5.7m, to a two-lane sealed width of minimum 8.0m including a minimum 0.5m sealed shoulder each side. The upgrade works consist of drainage improvements which included the installation of one new 1200 x 450 Reinforced Concrete Box Culvert (RCBC) structure of 15.6m length at Ch1030. Several private property accesses were also reconstructed between the extents of the job. To improve safety for road users, a roadside guardrail was installed in various sections. This upgrade also included scour protection and abutment protection works at the approach and departure of Westbrook Creek bridge.

This project formed part of Toowoomba Regional Council's (TRC's) road network link strategy to improve heavy vehicle routes in the area. There are several large agricultural businesses in this locality, which generate heavy vehicle traffic, transporting feed and live cattle to and from feedlots. The project was developed to address narrow pavement widths, poor surface geometry and limited heavy vehicle capacity.

The total cost of the Oakey Biddeston Stage 1 Upgrade project was \$2,049,700. This project was subsidised from both TIDS funding and Heavy Vehicle Safety and Productivity Program (HVSPP) funding from the Australian Government.

Oakey Biddeston Stage 1 upgrade was managed through TRC's Infrastructure Services Group by Mike Brady (General Manager Infrastructure Services Group) and delivered by Eric Kraak (Executive Manager Construction and Maintenance), David Pascoe (Manager Construction and Maintenance Central), Lindsay Jobling (Principal Project Manager) Liam Falk (Project Manager) and Michael Burling (Principal Programs), with construction undertaken by Durack Civil Pty Ltd.



Batter protection under construction

EASTERN DOWNS RRTG Project Stories (continued)

Continued from previous page



Installation of high-strength synthethic material



Sealed portion of road (Primerseal) from Ch410 - Ch1245

EASTERN DOWNS RRTG Project Stories (continued)

Bowenville Moola Stage 2 Upgrade Widen seal and

improve drainage

The Bowenville Moola Road Upgrade projects are an ongoing, multi-year series of projects. Their aim is to increase the connectivity and safety of the regional transport network, especially for heavy vehicles, whose use of the network increases each year.

Stage 1 of the project has been recently completed. This stage entailed an upgrade of a 2.375km (Ch 11,075 – 13,450) segment of Bowenville Moola Road through to Dalby-Nungil Road, which was completed in June 2022.

This is a major project upgrading 2.375km of existing single lane road to a two-lane fully sealed 8.5m wide formation. The upgraded sealed road includes a 0.75m shoulder each side and improved drainage works. The new batters were treated with topsoil and grass seed to match existing conditions. The upgrade consists of various drainage improvements, including the extension of existing culverts to match new road formation width and embankment flood protection. Several private property accesses were reconstructed to match the road. Vegetation clearing and roadside hazard reduction works were also completed to improve driver safety.

This project formed part of Toowoomba Regional Council's road network link strategy to improve heavy vehicle routes in the area. There are several large agricultural businesses in this locality, which generate significant heavy vehicle traffic, transporting feed and livestock to and from feedlots. The project was developed to address narrow pavement widths, poor surface geometry and limited heavy vehicle capacity.

Stage 2 of the Bowenville Moola Road Upgrade project cost was \$2,326,000. This project was subsidised from both TIDS funding and HVSPP funding from the Australian Government.

The Bowenville Moola Road Stage 2 upgrade was managed through TRC's Infrastructure Services Group, led by Mike Brady (General Manager Infrastructure Services Group) and delivered by Eric Kraak (Executive Manager Construction and Maintenance), Suraj Dewage (Manager Construction and Maintenance North), Lindsay Jobling (Principal Project Manager) Liam Falk (Project Manager) and Michael Burling (Principal Programs), with construction undertaken by Brown Contractors.



Earthworks



Unbound pavement ready for seal

EASTERN DOWNS RRTG



Cecil Plains

FAR NORTH QUEENSLAND RRTG

Far North Queensland RRTG

RRTG members

- Cairns Regional Council
- Cassowary Coast Regional Council
- Cook Shire Council
- Croydon Shire Council
- Douglas Shire Council
- Etheridge Shire Council
- Mareeba Shire Council
- Tablelands Regional Council
- Wujal Wujal Aboriginal Shire Council
- Yarrabah Aboriginal Shire Council
- TMR Far North District

RRTG Chair

Councillor Peter Scott, Cook Shire Council

RRTG Deputy Chair

 Councillor Ross Andrews, Yarrabah Aboriginal Shire Council

RRTG Technical Committee (TC) Chair

 Justin Fisher, Cassowary Coast Regional Council

RRTG TC Deputy Chair

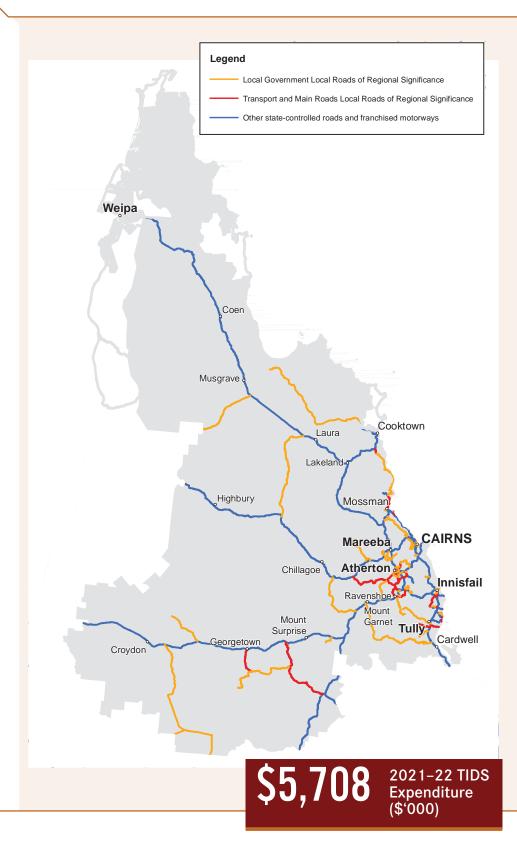
 Natasha Murray, Douglas Shire Council

Technical Coordinator

- Darlene Irvine, Far North Queensland Regional Organisation of Councils (FNQROC)
- Amanda Hancock FNQROC

37 PROJECTS

\$5,715 TIDS ALLOCATION 2021–22 (\$'000)



FAR NORTH QUEENSLAND RRTG (continued)

Far North Queensland Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS

Local government	Project name	Expenditure \$'000
CAIRNS REGIONAL	Kenny Street, construction of footpath and bikeway	60
	Lake Placid Road, rehabilitate pavement	323
CASSOWARY	Bingil Bay Road, replace culvert	75
COAST REGIONAL	East Feluga Road, improve drainage, 1050/culverts/wing walls/aprons	30
	East Feluga Road, improve drainage, 2x1500 pipes/head and wing walls/aprons	48
	Kennedy Creek Road, improve drainage and culvert works	50
	Pernase Road, improve drainage	19
	Spanos Road, culvert 5, improve drainage	27
	Spanos Road, culvert 7, improve drainage	24
	Tully Gorge Road, culvert 238, improve drainage	18
	Tully Gorge Road, culvert 242, improve drainage	24
	Tully Gorge Road, culvert 59, replace culvert	20
	Walter Lever Estate Road, culvert 1, improve drainage	4
	Walter Lever Estate Road, culvert 3, improve drainage	2
	Walter Lever Estate Road, culvert 5, improve drainage	3
	Walter Lever Estate Road, culvert 8, improve drainage	3
COOK SHIRE	Battlecamp Road, improve drainage	10
	Boundary Street, pave and seal	180
	Charlotte Street, apply asphalt resurfacing	153
	Garden Street, pave and seal	196
	Poison Creek Road, install guardrail	72
	Railway Avenue, construct to new sealed two lane standard	115
	Sherrin Esplanade, Cooktown, pave and seal	200
CROYDON SHIRE	Croydon - Richmond Road, pave and seal	395
DOUGLAS SHIRE	Garrick Street, improve drainage	85
ETHERIDGE SHIRE	North Head Road, pave and seal	1,066
	Strathmore Road (Section 2), construct to sealed standard	69

Continued on next page

FAR NORTH QUEENSLAND RRTG (continued)

Continued from previous page

Local government	Project name	Expenditure \$'000
MAREEBA SHIRE	Bower Road, widen and seal	507
	Euluma Creek Road, rehabilitate and widen (5.565 - 6.343km)	215
	Euluma Creek Road, rehabilitate and widen, sections 4.98 - 9.32km	227
	Springmount Road, rehabilitate and widen	355
TABLELANDS REGIONAL	Brooks Road, widen and seal	162
	Cashmere - Kirrama Road, upgrade bridge and approaches	334
	Lawson Street, widen and seal	120
	Sluice Creek Road, upgrade bridge and approaches	358
YARRABAH ABORIGINAL SHIRE	Far North Queensland Regional Roads and Transport Group, develop Yarrabah Transport Plan	18
DISTRICT - FAR NORTH	Far North Queensland Regional Roads and Transport Group, capability and development	143
TOTAL		5,708

RRTG Aboriginal and Torres Strait Islander TIDS 2021-22

Local government	Project name	Expenditure \$'000
WUJAL WUJAL ABORIGINAL SHIRE	Wujal Wujal Aboriginal Shire Council, transport related community works	29
YARRABAH ABORIGINAL SHIRE	Yarrabah Aboriginal Shire Council, transport related community works	47
TOTAL		76

Note: Some exclusions apply, including small overs and unders from the prior year which are immaterial.

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.

FAR NORTH QUEENSLAND RRTG Project Stories

Kenny Street Footpath Cement footpath

installation

Cairns Regional Council utilised TIDS funding in 2021–22 to complete construction of a new footpath on the southern side of Kenny Street, from Bunda Street to Dutton Street, in Portsmith.

The identification of a potential future pedestrian crossing for a missing link on northern side of Kenny Street, satisfactory to Queensland Rail, was also completed.

The project delivered:

- 210m length of concrete footpath on Kenny Street; generally 2.0m in width.
- 28m of kerb and channel renewal on Kenny Street and Dutton Street.
- Removal of two existing trees and the installation of 14 salt tolerant trees, sourced from council's Stratford nursery.

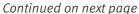
The project included design works for a pedestrian crossing of the rail line. This

was a missing pedestrian link on the northern side of Kenny Street, adjacent to Dutton Street. In undertaking this project council commenced a discussion with Queensland Rail to facilitate a future pedestrian crossing of the existing rail line on the northern end of Kenny Street. Having confirmed a suitable design, this can be further developed when additional funding is secured.

In terms of innovation, council incorporated an amended Far North Queensland Regional Organisation of Councils (FNQROC) footpath design to allow for improved street tree growth, whilst mitigating adverse impacts on infrastructure.

The project provided the following benefits:

Improving streetscape amenity to one of the gateways to Cairns. The project











Kenny Street footpath

FAR NORTH QUEENSLAND RRTG (continued)

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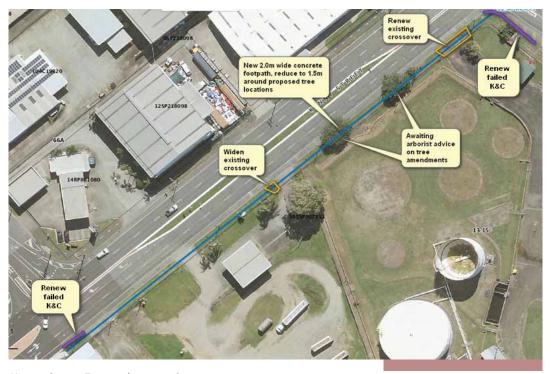
team liaised with appropriate internal staff regarding sourcing and installing appropriate landscaping.

- Facilitated additional footpath infrastructure to promote a healthy active community.
- Renewed failed kerb and channel at two locations.
- Incorporated alternative footpath design, allowing for installation of street trees on the narrow road verge.
- Confirmed a suitable pedestrian crossing arrangement, with Queensland Rail, for the missing pedestrian link on the northern side of Kenny Street, adjacent to Dutton Street.

On a local level, the operator of Tropic Fuels identified that their trucks had been traversing over a kerb inlet pit. The council facilitated the widening of an industrial crossover within their leased area to provide improved protection for this infrastructure. Positive feedback has also been received from other adjacent business operators.

Project Technical Committee Members:

- Helius Visser Executive Manager Infrastructure Planning
- Travis Mitchel Co-ordinator of Capital Works
- David Ryan Team Leader Projects
- Brett Parsons Construction Supervisor
- Peiter Taylor Council arborist
- Ryan Zirhul Council Nursery Manager.



Kenny Street Footpath - overview

FAR NORTH QUEENSLAND RRTG (continued)

Garden and Boundary Streets

Upgrade road to sealded standard

Cook Shire Council identified a shortfall of affordable residential properties in Cooktown due to recent growth and interest in the area. To address this critical issue and maximise the housing capacity in Cooktown, council took the initiative to subdivide the council owned land, mainly in frontage of Garden Street and Boundary Street. Accordingly, council upgraded the two roads from unformed roads to sealed roads in accordance with the FNQROC Development Manual. The upgrades included:

- clearing and grubbing
- subgrade preparation
- pavement construction
- bitumen sealing
- kerb and channels
- footpaths
- stormwater drainage system
- streetlights.

The upgrade works required significant involvement and close coordination with internal and external stakeholders as well as strong collaborative effort between project teams from various departments including planning and environment, external consultants and contractors, construction and project management. Wherever possible and feasible, council took the full opportunity to support the local businesses by engaging local resources (material, manpower, machinery).

The works also faced their fair share of challenges including:

- meeting requirements for permits from state government for critical fish passageway and protected flora
- inclement weather conditions
- unavailability of resources.



Subgrade praparstion, Garden Street



Unsuitable material replacement (Garden Street and Boundary Street Intersection)

FAR NORTH QUEENSLAND RRTG (continued)

Continued from previous page

These challenges imposed several unwanted delays on the project, however the project team worked cohesively and closely to implement initiatives such as amending the design to follow value engineering principles. Despite these challenges, the determination of council's competent leadership and the hard work of the project teams has ensured the upgrade works are on the path to successful completion through continuous progress. So far, all the major works including

roads, footpaths and drainage have been completed. Completion of the works is expected to not only help combat the lack of rental accommodation in Cooktown but also attract private investment in the residential housing industry to boost the economic growth of the town in general.



Pavement construction, Boundary Street



Pavement construction, Garden Street



Sealed Boundary Street, including footpath and ancilliary drainage



Sealed Garden Street, including footpath and ancilliary drainage

FAR NORTH QUEENSLAND RRTG



GLADSTONE RRTG

Gladstone RRTG

RRTG members

- Gladstone Regional Council
- TMR Fitzroy District

RRTG Chair

Councillor Kahn Goodluck, Gladstone Regional Council

RRTG Deputy Chair

 Councillor Darryl Branthwaite, Gladstone Regional Council

RRTG Technical Committee Chair

Mark Francis, Gladstone Regional Council

RRTG Technical Committee Deputy Chair

Frans Krause, Gladstone Regional Council

Technical Coordinator

Gerard Read, GWR Civil Engineering Management

2 PROJECTS \$1,038 TIDS ALLOCATION 2021–22 (\$'000)



GLADSTONE RRTG (continued)

Gladstone Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS

Local government	Project name	Expenditure \$'000
GLADSTONE REGIONAL	Toolooa Street (Gladstone Central), Derby Street to Agnes Street, rehabilitate pavement	288
	Toolooa Street (Gladstone Central), Walsh Street to Short Street, rehabilitate pavement	750
TOTAL		1,038

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.

GLADSTONE RRTG Project Story

Tooloola Street, Gladstone

Pavement and footpath renewal

Submitted by Brian Jurd (Manager Works Planning and Scheduling, Gladstone Regional Council) and Gerard Read (Technical Coordinator), Gladstone RRTG.

Gladstone RRTG delivered two projects throughout 2021–22 as part of its Roads and Transport Alliance TIDS program, including a section of pavement renewal on Toolooa Street, Gladstone (featured here) which was the major project, comprising approximately 75% of the program. Pavement rehabilitation works to improve safety along a second section of Toolooa Street (Derby Street to Agnes Street), was the other project undertaken.

Toolooa Street is an important LRRS road within Gladstone. The section of Toolooa Street between Walsh and Short Street is approximately 415m in length and is defined as an Urban 2 Lane Distributor under council's Road Hierarchy Policy. This section of Toolooa Street is an unseparated, dual lane, two-way carriageway with average daily traffic volumes that exceed 5,000 vehicles per

day. The western side of this section is largely residential, while the opposing eastern side of the street is predominantly commercial.

The Toolooa Street Pavement and Footpath Renewal project was initiated in 2020 due to the extent of deterioration of the existing pavement, footpath and kerb. In addition to the general deterioration expected during the life of an asset, tree intrusion had also contributed to the rate of deterioration. Pedestrian trip hazards had become prevalent in the area.

The scope of the works included:

- Replacement of existing footpaths and kerbs within the works area.
- Excavation of the existing top layers of road pavement, followed by replacement and sealing.



Gladstone-Toolooa Street - Revegetation

GLADSTONE RRTG Project Story (continued)

Continued from previous page

- Future proofing of the new pavement by installing cross street conduits (100mm diameter) to support future underground services without the need to trench through the pavement.
- Demolition and replacement of stormwater infrastructure in the section.

Construction began in September 2021 with an original intent to complete all works by end-December 2021. Extensive lead-times for some critical drainage items resulted in the project being planned and delivered as two separable portions of work; "Section 1" (Short/Young to Pier Street) and "Section 2" (Pier Street to Walsh Street), with Section 1 forecast for completion prior to Christmas 2021.

Section 1 works commenced mid-September 2021 and made use of the October long weekend (2-4 October 2021) to complete the profiling of the existing pavement. The existing crossfall was far steeper than current road design guidelines recommend, so this was remediated during the project via the lifting of the kerb to improve the crossfall. This resulted in the need to raise the footpath in some locations. The programming of this critical profiling work over a long weekend, reduced the impact to most local businesses in the works area, who were closed for business over this period. Additionally, benefits were noticeable with less work, school and general traffic in the area.

Section 1 works were largely completed by end-November 2021, with some minor finishing works continuing into December, prior to a four-week suspension of works over the Christmas period.

Section 2 works commenced on 11 January 2022 with the installation of a new section of stormwater pipe adjacent to the Walsh Street intersection. Section 2 works were largely completed by the end of March 2022, with only small sections of footpath

and revegetation works continuing from April–May 2022, as resources and suitable tree-stock became available.

Significant challenges overcome by the project team during the project included:

- Impacts to local residents and businesses – while some disruption to the community was unavoidable, the project team communicated effectively to minimise impacts to nearby residents, businesses, road users and pedestrians. This involved various methods of communicating ranging from extensive doorknocking to letterbox drops, electronic message boards, detour signage, Facebook posts and an email registry to receive weekly project updates. Traffic management and ensuring advance notice of disruptions were also critical to works delivery.
- Extensive wet weather in the early months of 2022 was mitigated by construction planning that prioritised drainage works early in the program.
- Impacts to delivery from COVID isolation was unavoidable but mitigated by being ready to continue with smaller sections of work that did not require such a large workforce or supervision.

The final project cost was approximately \$1.5 million with \$750,000 of Roads and Transport Alliance TIDS funding.



Gladstone-Toolooa Street - Section 1

GLADSTONE RRTG Project Story (continued)

Continued from previous page



Gladstone-Toolooa Street - Section 2 of works



Gladstone-Toolooa Street - view south of the full extent of works

GLADSTONE RRTG



Gladstone-Dan Powell Fairway buoy

NORTH QUEENSLAND RRTG

North Queensland RRTG

RRTG members

- Burdekin Shire Council
- Charters Towers Regional Council
- Hinchinbrook Shire Council Palm Island Aboriginal Shire Council
- Palm Island Aboriginal Shire Council
- Townsville City Council
- TMR Northern District

RRTG Chair

Councillor Kurt Rehbein, Townsville City Council

RRTG Deputy Chair

Councillor Frank Beveridge, Mayor, Charters Towers Regional Council

RRTG Technical Committee (TC) Chair

■ James Stewart, Hinchinbrook Shire Council

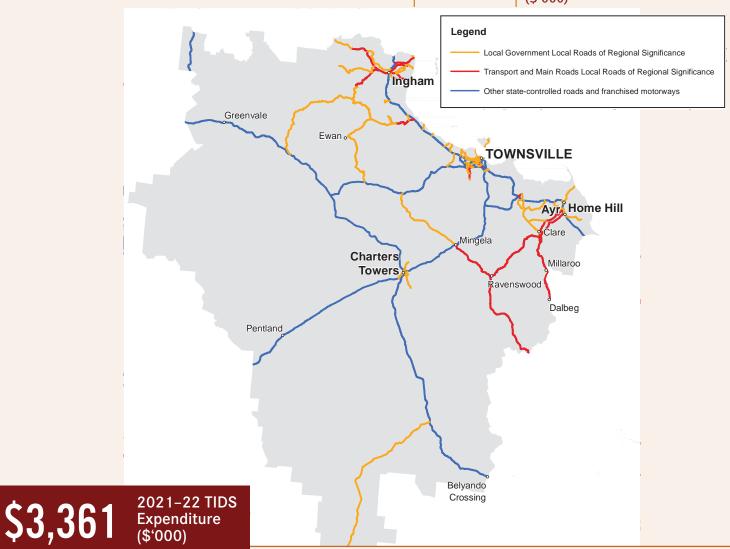
RRTG TC Deputy Chair

Kevin Byers, Burdekin Shire Council

Technical Coordinator

Gerard Read, GWR Civil Engineering Management

25 **PROJECTS** \$3,361 TIDS ALLOCATION 2021-22 (\$'000)



NORTH QUEENSLAND RRTG (continued)

North Queensland Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS

Local government	Project name	Expenditure \$'000
BURDEKIN SHIRE	Allen Road (Barratta), reconstruct pavement	150
	Beach Road, Thompson Road to Trent Road (Ayr), rehabilitate pavement	144
	School Road, Clare township to Barratta Road (Clare), widen pavement and improve drainage	205
CHARTERS TOWERS	Millchester Road, Harris Lane to Haldane Road, reconstruct pavement and asphalt overlay	495
REGIONAL	Victory Street, Millchester Road to York Street (Queenton), asphalt overlay and junction alignment	336
HINCHINBROOK	Cooks Lane (Ingham), various locations, pave and seal	84
SHIRE	Four Mile Road (Braemeadows), various locations, pave and seal and improve drainage	66
	Mount Fox Road (Upper Stone), various locations, rehabilitate pavement	83
	Patterson Parade (Hinchinbrook), widen pavement	130
	Tarakan Road, Hinchinbrook (Stage 2), widen pavement	66
	Wallaman Falls Road (Ingham), various locations, widen and seal	37
	Warrens Hill Road (Ingham), various locations, pave and seal	33
TOWNSVILLE CITY	Allambie Lane (Rasmussen), Miles Avenue and Rusmussen State School, right turn safety improvements	129
	Angus Smith Drive, Joseph Banks Drive to Parkinson Road and Klewaraa Boulevard, pavement rehabilitation	76
	Balgal Beach Road (Balgal Beach), rehabilitate pavement	26
	Bayswater Service Road, Pilkington Street to Wing Street, rehabilitate pavement	64
	Black River Road (Black River), pavement rehabilitation	50
	Duckworth Street, Ingham Road to Woolcock Street, rehabilitate pavement	80
	Hugh Street and Fulham Road (Pimlico), improve intersection	350
	North Queensland Regional Roads and Transport Group, capability and development	t 64
	North Shore Boulevard, Nexus Drive to Bruce Highway, pavement rehabilitation	30
	South Beck Drive, reseal pavement	35
	Townsville City, various intersections, upgrade traffic signals	116
	Townsville City, various locations, rehabilitate and overlay	423
	Townsville City, various locations, upgrade streetlighting to LED	90
TOTAL		3,361

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.

NORTH QUEENSLAND RRTG Project Story

North Queensland

North Queensland RRTG delivered a wide variety of project through its Roads and Transport Alliance TIDS works program. Burdekin Shire Council (three projects) and Hinchinbrook Shire Council (seven projects) largely delivered in the first half of the year with a focus on widening, rehabilitation, and drainage projects. Townsville City Council delivered 12 projects generally within the scope of road safety improvements and renewals. Unfortunately, delays due to design issues, material supply lags, external service provider works, and wet weather with its 2 major projects meant a major change to its Roads and Transport Alliance TIDS works program in the last quarter of the year. Fortunately, Townsville City Council invests significantly in its LRRS network outside the Roads and Transport Alliance TIDS works program each year, and consequently a number of these projects were brought on to the

program and delivered. Charters Towers Regional Council delivered two projects on Millchester Road within the town environs, one of which is featured here.

Staff from the North Queensland RRTG also attended Road Safety Audit, Safe System Assessments, and Cycling Infrastructure courses throughout 2021–22 which were subsidised through the Roads and Transport Alliance's Statewide Capability Development Fund.

Victory Street and Millchester Road

Intersection upgrade

Submitted by John Teague (Director, Infrastructure Services and Technical Committee representative) and Gerard Read (Technical Committee representative), North Queensland RRTG).

For those that are not familiar with Charters Towers, the town they call 'The World' was born to the sound of thunder and flashes of lightning. Hugh Mosman, George Clarke, John Fraser and horse boy Jupiter had been prospecting away to the south of what is now Charters Towers when their horses scattered during a fierce thunderstorm. It was while searching for the horses next morning that the first Towers gold was discovered. During the period 1872-1899 the place changed from a rough settlement with bark and calico buildings to a thriving city of some 25,000 inhabitants. All religions were strongly represented on the field and in 1890 the miners could quench their thirst in no less than 65 hotels registered on the field. Sports, music, and

the arts all had fantastic followings. It was said that everything you might desire could be had in the Towers. There was no reason to travel elsewhere for anything. This is why the town became known affectionately as 'The World'.

Charters Towers Regional Council has upgraded the intersection of Victory Street and Millchester Road in 2021–22, which council identified as a priority project given its importance as part of the heavy vehicle bypass. This is a critical piece of the road network for both the Flinders Highway and Gregory Developmental Road providing an alternative route for oversize over mass (OSOM) vehicles avoiding a low and narrow railway bridge in the centre of Charters Towers.

NORTH QUEENSLAND RRTG Project Stories (continued)

Continued from previous page

The Flinders Highway links Mount Isa through to Townsville and its port facilities which cater for large mining machinery and equipment, as well as live export for the cattle industry. The Gregory Developmental Road is part of the Inland Highway, a shorter alternative to the Bruce Highway providing north and south access through to Cairns.

The bypass is made up of four LRRS roads being New Queens Road, Enterprise Road, Millchester Road, and Victory Street. Council has completed design works for the two ends of the bypass upgrade which are both intersections with the Flinders Highway and will be the final upgrades to complete the route

The project was complicated due to Millchester Road being the entrance to the main street of Charters Towers (Gill Street). The Great Northern Railway (railway line linking Townsville to Mount Isa) crosses Millchester Road at Victory Street, and Sadds Lane intersected with Victory Street only 20 metres from Millchester Road. The project allows wider swept paths for OSOM vehicles and subsequently council has purchased and demolished the property at 2 Millchester Road to gain these wider turning paths. The project also required changes in

Sadds Lane – removing the intersection with Victory Street and constructing a cul-de-sac and widening the street up to Bluff Lane to allow for two-way traffic, as previously Sadds Lane was a narrow one-way street. The project also allows potential green space to be incorporated in future when final entry statement designs are completed.

Delivery highlights included:

- Purchase and demolition of a derelict private property.
- A mine drive (underground tunnel where ore deposit existed) which was found that required consultation with the Mines Department to ensure that the drive was deemed safe to fill in.
- Queensland Rail reconstruction of the road surface within the rail corridor in conjunction with the project.
- Extensive consultation with the residents of Sadds Lane who were impacted by the change from a one-way street to cul-desac arrangement.
- Redesign and upgrade of hand cast box culverts providing stormwater drainage.



Victory Street - Millchester Road - before



Victory Street - Millchester Road - during

NORTH QUEENSLAND RRTG Project Stories (continued)



Victory Street-Millchester Road - during



Victory Street-Millchester Road - after



Victory Street-Millchester Road - after

NORTH QUEENSLAND RRTG



Townsville and Magnetic Island

NORTH WEST QUEENSLAND RRTG

North West Queensland RRTG

RRTG members

- Burke Shire Council
- Carpentaria Shire Council
- Cloncurry Shire Council
- Doomadgee Aboriginal Shire Council
- Flinders Shire Council

- Kowanyama Aboriginal Shire Council
- McKinlay Shire Council
- Mount Isa City Council
- Richmond Shire Council
- TMR North West District

RRTG Chair

Councillor John Wharton, Richmond Shire
 Council

RRTG Deputy Chair

 Councillor Gregory Campbell, Cloncurry Shire Council

RRTG Technical Committee Chair

Michael Wanrooy, Carpentaria Shire Council

RRTG Technical Committee Deputy Chair

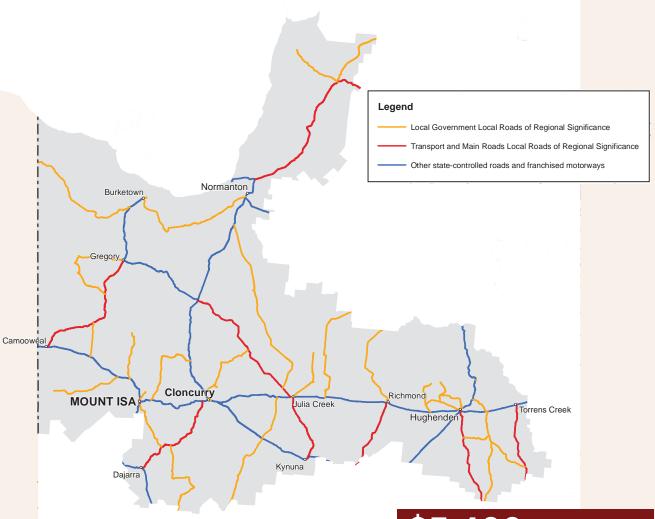
■ Hari Boppudi, Flinders Shire Council

Technical Coordinator

 Gerard Read, GWR Civil Engineering Management



\$3,493 TIDS ALLOCATION 2021–22 (\$'000)



\$5,493 2021-22 TIDS Expenditure (\$'000)

NORTH WEST QUEENSLAND RRTG (continued)

North West Queensland Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS

Local government	Project name	Expenditure \$'000
BURKE SHIRE	Floraville Road and Truganini Road, upgrade culverts	271
	Gregory - Lawn Hill Road, realign traffic lanes	227
	Sewer Treatment Plant access road (Burketown), pave and seal	288
CARPENTARIA SHIRE	Burke Developmental Road (Normanton - Dimbulah), install culverts	67
	Burketown Road (Section 2), construct to new sealed two lane standard	910
CLONCURRY SHIRE	Sir Hudson Fysh Drive, construct footpath	383
	Sir Hudson Fysh Drive, reconstruct and widen pavement	500
FLINDERS SHIRE	Flinders Shire, various locations, install or replace floodways	120
	Hughenden - Muttaburra Road, construct to a sealed standard	440
	Old Richmond Road, form and seal	325
MCKINLAY SHIRE	Burke Street (Julia Creek), upgrade kerb and channel	195
	Byrimine Road, construct to a sealed standard	255
	Gilliat - McKinlay Road, reseal	125
MOUNT ISA CITY	Riversleigh Road, form and improve drainage	385
RICHMOND SHIRE	Croydon - Richmond Road, rehabilitate and widen	515
	Croydon - Richmond Road, reseal	150
	North West Regional Roads and Transport Group, secretariat administration	137
	Richmond - Winton Road, replace culverts and floodways	200
TOTAL		5,493

NORTH WEST QUEENSLAND RRTG (continued)

RRTG Aboriginal and Torres Strait Islander TIDS 2021–22

Local government	Project name	Expenditure \$'000
DOOMADGEE ABORIGINAL SHIRE	Woologarang East Road, widen and reseal shoulder	168
	Old Cemetery Road, Doomadgee Road intersection, upgrade of unsealed road	114
KOWANYAMA ABORIGINAL SHIRE	Kowanyama Aboriginal Shire Council, transport related community works	236
	Topsy Road, (Kowanyama), barge access, formation and pavement upgrade	130
TOTAL		648

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.

Note: Some exclusions apply, including small overs and unders from the prior year which are immaterial.



Flinders River - Hughenden

NORTH WEST QUEENSLAND RRTG Project Stories

North West Queensland

North West Queensland RRTG continued in 2021–22 with its strategy of sealing connections between communities, mitigating outages due to flooding, and improving safety for road users through the delivery of its Roads and Transport Alliance TIDS works program. Wet weather events late in the financial year provided

some delivery challenges in completing projects. The escalation of input costs, which everyone experienced, also had a significant impact on the works program. A number of other projects were also delivered by member councils through the 2021–22 Aboriginal and Torres Strait Islander TIDS works program.

Magnificent Creek Overflow

Floodway upgrade

Submitted by Michael Wanrooy (Director of Engineering and Technical Committee Chair, Carpentaria Shire Council).

Kowanyama has a population of approximately 1,000 and Dunbar Kowanyama Road is the only affordable freight and vehicle access to service the community from Normanton or Cairns. The pavement is comprised mostly of local silty gravel materials, and good quality imported gravel in sections as funding becomes available.

Kowanyama means "place of many waters" where roads and watercourse crossings become impassable during the wet season. The flow in these crossings can increase rapidly, often without warning as a result of upstream rain events, creating dangerous situations that may catch the unwary road user by surprise.

All the Aboriginal and Torres Strait Islander



Crocodile swimming in Magnificent Creek Overflow, Mitchell River

TIDS funding received by Carpentaria Shire Council in recent years has been allocated to the raising of existing low-level floodways on Dunbar Kowanyama Road. It is mostly unsealed for the 100km connecting to Kowanyama. The road is unpassable for 3 to 6 months each year, predominantly due to annual flooding of the Mitchell River which effectively runs parallel to the road for its entire length.

Council received approved funding under the 2021–22 Aboriginal and Torres Strait Islander TIDS program to upgrade the Magnificent Creek Overflow crossing; incorporating reinforced concrete box culverts and a widened, 2-way raised concrete running surface to improve flood immunity and provide better access. The Magnificent Creek Overflow crossing is located 12km from Kowanyama and is locally known as Topsy Creek. This area is well known for the presence of large crocodiles.

The cultural heritage clearance was fast-tracked following a meeting with traditional owners and Kowanyama Aboriginal Shire Council representatives, including a site visit to the project location. Erscon Consulting Engineers were engaged to undertake the survey, design, and project management. Council's plan was to order the culvert units and deliver them to site in parallel with the tender process

NORTH WEST QUEENSLAND RRTG Project Stories (continued)



Magnificent Creek Overflow - during

for construction, and have the project completed by the end of November 2021 to beat the start of the monsoon season. A very long 2022 wet season was forecast meaning roads would likely be "out" until May, leaving minimal time to construct by 30 June 2022.

The contract negotiations were finalised and executed by the end of October 2021 and construction commenced the same day. By November there would be threats of rain around the area with weekly grey clouds forming and drizzle ever present. Despite the logistical challenges of isolation, camp setup requirements, tyranny of distance, high tropical humidity, reported sightings of large crocodiles within 30m of the site, rough roads and onsite concrete batching, the project was delivered successfully by mid-December 2021.

Carpentaria Shire Council, in partnership with TMR through the NWQRRTG, will continue to pursue and deliver important funding opportunities to promote road safety and improve access into Kowanyama.



Magnificent Creek Overflow - reinforcement

Continued on next page

NORTH WEST QUEENSLAND RRTG Project Stories (continued)



Magnificent Creek Overflow - completed



Magnificent Creek Overflow - taken after 2022 floods

NORTH WEST QUEENSLAND RRTG Project Stories (continued)

Richmond-Croydon Road

Road sealing

Submitted by Peter Bennett (Chief Executive Officer, Richmond Shire Council) and Gerard Read (Technical Coordinator), NWQRRTG.

2021–22 saw a continuation of sealing of the Richmond-Croydon Road for Richmond Shire Council. The Richmond-Croydon Road is a vital north-south LRRS connection linking the Flinders Highway and Gulf Developmental Road servicing the cattle, agricultural and tourism industries. The road is widely used by cattle road trains, and tourist traffic is increasing as an alternative route to the north.

Richmond Shire Council has strategically prioritised sealing and upgrading of the Richmond-Croydon Road for many years in line with one of the primary objectives for the North West Queensland RRTG; to seal key routes which connect the small towns and communities in the region. These routes are very important to the economic and social prosperity of this vast area. Roads & Transport Alliance TIDS funding combined with council revenue and other external funding sources have been allocated to this objective for more than 20 years. Being a relatively small rural council, Richmond Shire does not have a

large rates base to generate the capital to undertake all the desired works on its large network and relies heavily on the Roads & Transport Alliance TIDS program for its highest priority works.

Richmond Shire Council undertook a sealing project in 2021–22 on an existing unsealed section of Richmond-Croydon Road approximately 130km north or Richmond. Resealing was also undertaken on some sections. The project was completed in December 2021 and, as a result, approximately 3.8km of the road within the Richmond Shire LGA now remains unsealed. Further Roads & Transport Alliance TIDS funding has been allocated to seal this section in 2022–23 and this is expected to be undertaken before Christmas 2022 which will be a great achievement.



Richmond-Croydon Road - Before (Ch 126)

NORTH WEST QUEENSLAND RRTG Project Stories (continued)



Richmond-Croydon Road - after (Ch 126)



Richmond-Croydon Road - before (Ch 138)



Richmond-Croydon Road - after (Ch 138)

NORTHERN SEQ RRTG

Northern SEQ RRTG

RRTG members

- Moreton Bay Regional Council
- Noosa Shire Council
- Somerset Regional Council
- Sunshine Coast Council
- TMR North Coast District

RRTG Chair

- Former Chair, Councillor Joe Jurisevic, Noosa Regional Council
- Councillor Sean Choat, Somerset Regional Council

RRTG Technical Committee Chair

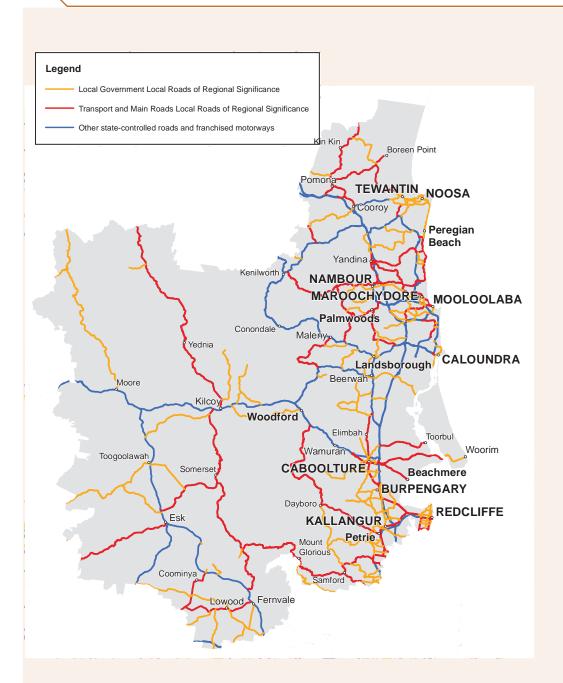
Craig Young, Somerset Regional Council

Technical Coordinator

Former TC, Warren Paulger, Consultant Engineer

18 **PROJECTS**

TIDS ALLOCATION 2021-22 (\$'000)



\$3,452 Expenditure (\$'000)

NORTHERN SEQ RRTG (continued)

Northern SEQ Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS

Local government	Project name	Expenditure \$'000
MORETON BAY REGIONAL	Beeville Road (Petrie), upgrade intersection	1,324
	Moreton Bay Regional Council, technical capability development	5
NOOSA SHIRE	David Low Way and Hill Street roundabout (Sunshine Beach), resurfacing	62
	Gympie Terrace (Noosaville), James Street to Williams Street, rehabilitate pavement	394
	Moorindil Street, George Street to Read Street (Tewantin), resurfacing	54
	Noosa Shire Council, technical capability development	11
SOMERSET	Cornhill Street, Coominya State School, construct footpaths	20
REGIONAL	Esk - Crows Nest Road, rehabilitate and widen	67
	Jennkinsons Road, Mount Kilcoy State School, construct footpaths	49
	Lowood Minden Road and Jensens Swamp Road (Tarampa), upgrade intersection	204
	Mahons Road, Patrick Estate State School, contruct footpaths	54
	Somerset Regional Council, technical capability development	5
SUNSHINE COAST	Kiamba Road, Image Flat Road to Wattle Road, widen and seal	842
REGIONAL	McGilchrist Road and Dales Road intersection (Stage 2), construct to sealed standard	100
	McGilchrist Road to Eudlo Creek (Stage 1), upgrade culvert	96
	School Road, Bli Bli State School, construct pathways	166
	Talara school precinct, various roads (Currimundi), improve pedestrian infrastructure	6
	Sunshine Coast Regional Council, technical capability development	3
TOTAL		3,452

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.

Note: Some exclusions apply, including small overs and unders from the prior year which are immaterial.

NORTHERN SEQ RRTG Project Story

Mahons Road -Patrick State School Footpath

School footpath installation

Somerset Regional Council worked with Patrick Estate State School and Coominya State School to deliver two projects that will result in a much safer school environment. With the works being undertaken during the school holidays, the students were welcomed back to school with improved parking areas, stormwater drainage and new pathways.

The works on Mahons Road outside the Patrick Estate State School included:

- new barrier kerb to aid school drop off and pick up, to provide additional safety for children
- improved vehicle crossing into

- school resulting in a reduction in speed to this area
- 100m of new pathway and 120m of stormwater pipe to replace the open swale.

Following the completion of the project, the school community has undertaken some additional landscaping works to the school ground.



Mahons Road - before



Mahons Road – after



Mahons Road – after

NORTHERN SEQ RRTG Project Story (continued)

Cornhill Street -Coominya State School Footpath

School footpath installation

This project included the construction of a 1.5m and 2.0m footpath along Cornhill Street and Main Street, Coominya.

Coominya State School works included the construction of 150m of pathway on two street frontages, providing a crucial link for active transport opportunities by linking with the existing pathway network. Other minor kerb and drainage works were also undertaken, including working with the school to drain an area of land that previously ponded during rain events.



Cornhill Street and Main Street intersection before



Cornhill Street after



Main Street after

OUTBACK RRTG

Outback RRTG

RRTG members

- Barcaldine Regional Council
- Barcoo Shire Council
- Blackall-Tambo Regional Council
- Boulia Shire Council
- Diamantina Shire Council
- Longreach Regional Council
- Winton Shire Council
- TMR Central West District

RRTG Chair

 Councillor Gavin Baskett, Winton Shire Council.

RRTG Deputy Chair

 Councillor Rick Britton, Boulia Shire Council

RRTG Technical Committee (TC) Chair

 Stuart Bourne, George Bourne and Associates Consulting Engineers

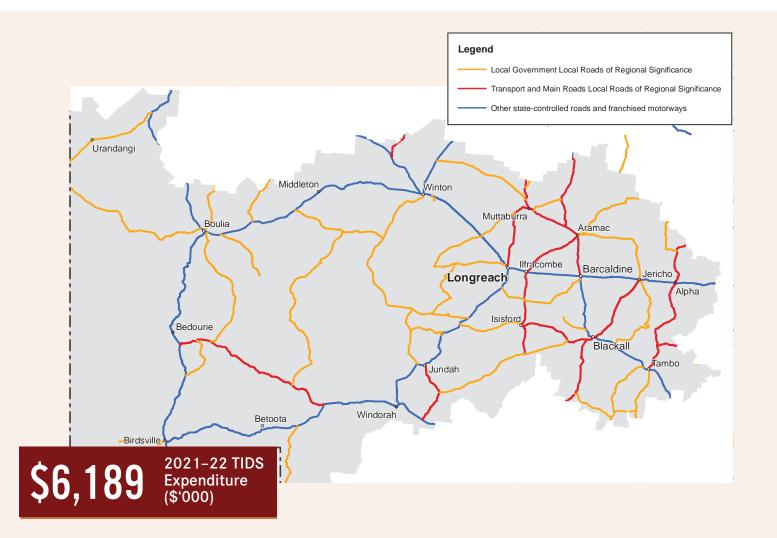
RRTG TC Deputy Chair

 Roger Naidoo, Longreach Regional Council

Technical Coordinator

 Jason Ricks, George Bourne and Associates Consulting Engineers

18 PROJECTS \$6,211 TIDS ALLOCATION 2021–22 (\$'000)



OUTBACK RRTG (continued)

Outback Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS

Local government	Project name	Expenditure \$'000
BARCALDINE REGIONAL	Landsborough Highway (Barcaldine - Longreach), Barcaldine Recreation Park access, construct slip lane	200
	Myall Street, Elm Street to Fir Street (Barcaldine), upgrade drainage	30
BARCOO SHIRE	Arrabury Road, gravel resheeting	150
	Diamantina Developmental Road (Windorah - Bedourie), pave and seal	526
	Maryborough Street (Windorah), Cecil Street to Victoria Street, form and improve drainage	34
BLACKALL TAMBO REGIONAL	Blackall - Jericho Road, widen and rehabilitate	820
	Scrubby Creek Road, install concrete floodway	200
BOULIA SHIRE	Boulia - Tobermorey Road (Donohue Highway), pave and seal contribution	1,048
DIAMANTINA SHIRE	Eyre Developmental Road (Bedourie - Birdsville), Cacoory Ruins, pave and seal	1,153
	Herbert Street (Bedourie), kerb and channel upgrade	50
LONGREACH REGIONAL	Cramsie - Muttaburra Road (Section 4), pave and seal	1,700
	Melton Road, install concrete floodway	50
	Pelican Street, Kingfisher Street to Emu Street (Longreach), upgrade drainage	29
	Stonehenge River Road, install concrete floodway	50
	Tocal Road, gravel resheeting	100
WINTON SHIRE	Oondooroo Street (Winton), install kerb and channel	50
	Vindex Street, Winton recreation grounds, install footpath	0
	Winton township, various roads, rehabilitate pavement	0
TOTAL		6,189

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.

Note: In some cases, the project data has been manually adjusted to reflect claimed expenditure / program funding.

OUTBACK RRTG (continued)

Collaboration of the Outback Regional Roads and Transport Group (ORRTG) to strategically allocate TIDS funding The ORRTG Strategic Group and Technical Committee have worked collaboratively to ensure TIDS funding is fairly and strategically allocated each financial year. The adoption and implementation of a Regional Route Hierarchy and Investment Priority map has provided the ORRTG with strategic direction for the Central West Region now and into the future.

The Regional Route Hierarchy map was adopted by all members in October 2018. The purpose of the hierarchy is to identify routes within the Central West Region that are of significance to all the ORRTG members. The ORRTG collaboratively agreed on a hierarchy which categorised the routes in order of importance. The ORRTG undertook a review of the Regional Route Hierarchy in August 2021 and readopted the map in November 2021.

The Investment Priority map was adopted by all members in October 2018. The ORRTG collectively agreed on the priority for investment. The Investment Priority map is used as a guide to strategically assist the ORRTG to allocate funding. The map is monitored and updated annually with new investment priorities being included in the map once current priorities are completed.

Such has been the success of the Regional Route Hierarchy and Investment Priority map that both the North West Queensland RRTG and South West Queensland RRTG have recently adopted this initiative,

producing similar maps. These have been combined with that of the ORRTG to form a Regional Route Hierarchy and Investment Priority map for the Western Queensland Alliance of Councils.

The ORRTG have created a prioritisation tool to ensure that the criteria and weightings of the tool align with the strategic approach of the ORRTG when prioritising the projects funded by TIDS. The prioritisation tool considers variables such as:

- all-weather access
- market access
- asset renewal
- safety
- traffic volume
- employment sustainability.

The ORRTG are appreciative of the support received by TIDS. Without this initiative, the ORRTG would not be able to upgrade and maintain routes within the Central West Region that are regionally important to all seven member councils of the ORRTG.

OUTBACK RRTG Project Stories

Bedourie - Birdsville (Carcoory South)

Pave and seal

Diamantina Shire Council (DSC) nominated the Carcoory pave and seal project for TIDS funding. This project was designed to improve flood mitigation at Gilmore Creek, re-align the existing road, improve drainage, and seal the 13.84km section of the Eyre Developmental Road.

The project included rehabilitation and seal of 13.84km of pavement and a slight road re-alignment. The project also required installation of three new culvert structures including an 8-cell culvert structure through Gilmore Creek, which provides a massive improvement in flood immunity over the previous at-grade floodway.

The benefits of the project have already been seen from a flood event that occurred during the construction process, which showed the new culvert structures handling flood waters in a manner that allowed the road to remain open when it would typically have been closed for several days.

The total cost of the project was \$6.6 million and was managed by Trevor Stewart (DSC Infrastructure Manager) with works being undertaken by DSC Construction staff.



Bedourie-Birdsville - works underway



Bedourie-Birdsville - culvert installation

OUTBACK RRTG Project Stories (continued)

Cramsie -Muttaburra Road

Pave and seal

TIDS funding has assisted Longreach Regional Council to pave and seal the final unsealed section of the Cramsie— Muttaburra Road.

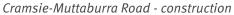
Works took place about 80km north of Longreach to seal almost 9km more of the road to a width of 6m. The road is part of a key link that connects central Queensland with both northern Queensland and southern parts of Australia. It also connects the communities of Longreach and Muttaburra, enabling access to essential goods and services, education and employment opportunities, and recreation facilities. This essential work will provide additional overtaking opportunities, improve safety, travel times and wet weather access.

The works were completed internally by Longreach Regional Council in partnership with local contractors. Local suppliers were also utilised, providing employment stability within the region. The Cramsie – Muttaburra Road opens key agricultural, freight and tourism routes whilst enhancing economic stimulus across the region. Due to the length of the project and its distance from either community, Longreach Regional Council hired an onsite camp to reduce travel times for the construction crew and maximise useful work hours on the project. Another innovation for the project is the use of locally fabricated culverts, utilising new manufacturing capacity within the region and further ensuring value for money while supporting local suppliers.











OUTBACK RRTG Project Stories (continued)

Windorah - Bedourie Road

Pave and seal

The Windorah-Bedourie Road project scope involved construction of a new 5.3km sealed section of the road, including numerous floodways.

The route is of regional significance when transporting cattle from western properties to the well-established cattle markets in the east. Additionally, the route is heavily utilised by tourists during April to September and for annual events such as the Birdsville Races. The project has contributed towards the completion of a continuous 170km long sealed pavement from the town of Windorah west towards the town of Bedourie.

This project involved upgrading 5.3km of

an existing unsealed pavement. The work included stabilization of new pavement at the floodways, provision of a new seal and installing new road signage.

The total project cost for the Windorah–Bedourie Road project was approximately \$2.7 million. This project was supported by both TIDS funding as well as funding from the Australian Government.

The Windorah – Bedourie Road, pave and seal project was managed by Greg Clark (Council Engineer) and Bill Pitman (Operational Works Manager) and delivered by Jason Beilby (Construction Supervisor) and Barcoo Shire Council's day labour workforce.











ROCKHAMPTON RRTG

Rockhampton RRTG

RRTG members

- Livingstone Shire Council
- Rockhampton Regional Council
- TMR Fitzroy District

RRTG Chair

 Councillor Andy Ireland, Mayor, Livingston Shire Council

RRTG Deputy Chair

Councillor Tony Williams,
 Rockhampton Regional Council

RRTG Technical Committee Chair

Michael Kriedemann, Livingstone Shire Coun

RRTG Technical Committee Deputy Chair

Martin Crow, Rockhampton Regional Council

Technical Coordinator

Pat Moore, Hartecs Group

3 PROJECTS

\$1,516 TIDS ALLOCATION 2021–22 (\$'000)



\$1,516

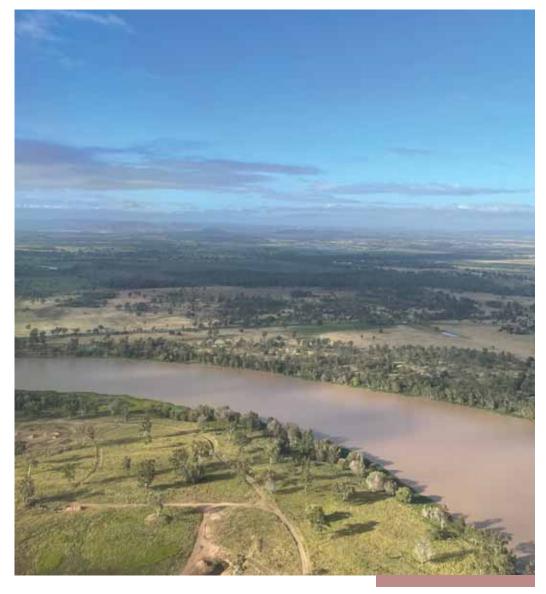
2020-21 TIDS Expenditure (\$'000)

ROCKHAMPTON RRTG (continued)

Rockhampton Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS

Local government	Project name	Expenditure \$'000
LIVINGSTONE SHIRE	Taranganba Road and Carige Boulevard, install signalised intersection	900
ROCKHAMPTON	Glenmore Road, various locations, widen pavement	578
REGIONAL	Rockhampton Regional Roads and Transport Group, technical co-ordination	38
TOTAL		1,516

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.



Fitzroy River - Rockhampton

ROCKHAMPTON RRTG Project Stories

Glenmore Road (Dooley Steet to Tung Yeen Street and Macalister Street to Haynes Street)

Pavement widening, strengthening and draining improvements Glenmore Road is an urban sub arterial road that links the Fitzroy Bridge and Bruce Highway with the Parkhurst Industrial Area. The 380m long section between Dooley Street and Tung Yeen Street and the 180m section between Macalister Street and Haynes Street are part of a designated B-Double route that runs through residential and industrial areas.

The current traffic volume along the road is approximately 9,500 vehicles per day with 9% being heavy vehicles. The existing pavement reached the end of its useful life and has been progressively rehabilitated over several years. These two sections were among the last requiring attention.

Pavement investigations revealed that the existing pavement thickness was very low, varying between 200mm to 400mm with poor subgrade conditions. Council considered several pavement configurations and adopted a full depth granular pavement 620mm thick. This option would also allow for future modification of the pavement (i.e. cement stabilization).

The reconstruction of the road was

delivered in-house by the Rockhampton Regional Council Civil Operations work crews. The Alliance TIDS funding was \$578,000 in 2021–22.

The scheduled works for this project included:

- pavement widening and strengthening
- installation of channelised right turn lanes
- new storm water drainage infrastructure and modification of the existing storm water drainage infrastructure
- installation of subsoil drainage
- new kerb and channel
- asphalt surfacing.

Construction of the project commenced in January 2022 and was successfully completed in June 2022, while still maintaining commercial and residential accesses. The works have greatly improved the ride quality and safety of these sections for all road users, especially for the ever-increasing volume of commercial traffic using this road.



Glenmore Road - subgrade and placement of subbase layer on geofabric

ROCKHAMPTON RRTG Project Stories (continued)



Glenmore Road - compacted subbase layer and new kerb and channel



Glenmore Road & Park Road intersection - completed

ROCKHAMPTON RRTG Project Stories (continued)

Taranganba Road Carige Boulevard Roundabout

Intersection upgrade

Taranganba Road is a major urban collector road, located approximately 2km south of the Yeppoon CBD, the largest township in the shire. This east-west transport link provides key connectivity between Tanby Road and the Scenic Highway, which is currently the only lateral transport linkage for approximately 13km between Yeppoon and Kinka. It also forms part of the Principal Cycle Network Plan (PCNP), connecting a large residential catchment to the Yeppoon CBD through Tanby Road and Scenic Highway PCNP corridors. The road provides the frontage to the largest primary school in the shire, namely Taranganba State School, and access to two childcare facilities and large residential catchments both north and south of Taranganba Road. In addition, Taranganba Road is envisaged to provide key connectivity to ongoing and future developments via Carige Boulevard.

The Taranganba Road - Carige Boulevard Roundabout project forms part of council's Taranganba Master Plan, aiming at improving the safety and operational efficiency within this key road corridor.

Carige Boulevard Roundabout project delivered several benefits, including:

- safer and efficient connectivity
 between existing and future residential
 developments south of Taranganba
 Road and the larger transport network
- improvement in traffic movements at the Taranganba State School frontage
- an integrated approach in delivering a safer and more efficient transport corridor along Taranganba Road
- capacity enhancement at the intersection to cater for future residential development expansion in the area
- provision of improved walking and cycling connectivity.

Livingstone Shire Council undertook the Taranganba Road - Carige Boulevard Roundabout project in the 2021–22 financial year. Works included pavement widening and reconstruction, road extension, kerb and channel, pedestrian crossing facilities, shared paths, stormwater upgrades and line marking.

The project included the following key components:

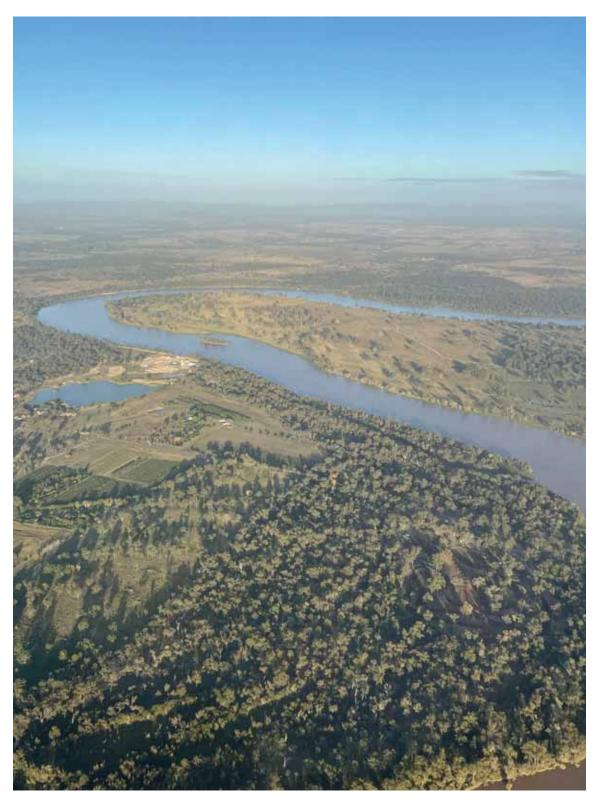
- conversion of the existing prioritycontrolled intersection into a roundabout
- a new linkage from the roundabout to Rodney Street
- shared path extensions and crossing facilities
- stormwater upgrades
- street lighting upgrades.

Total project cost was \$1.8 million with half being contributed by TIDS funding.



Rockhampton-Tarangba Road - construction

ROCKHAMPTON RRTG



Rockhampton Region

SCENIC VALLEYS RRTG

Scenic Valleys RRTG

RRTG members

- Ipswich City Council
- Lockyer Valley Regional Council
- Scenic Rim Regional Council
- TMR Metropolitan, Darling Downs and South Coast Districts

6 PROJECTS \$2,171 TIDS ALLOCATION 2021–22 (\$'000)

RRTG Chair

Councillor Virginia West, Scenic Rim Regional Council

RRTG Deputy Chair

Councillor Janice Holstein, Lockyer Valley

RRTG Technical Committee Chair

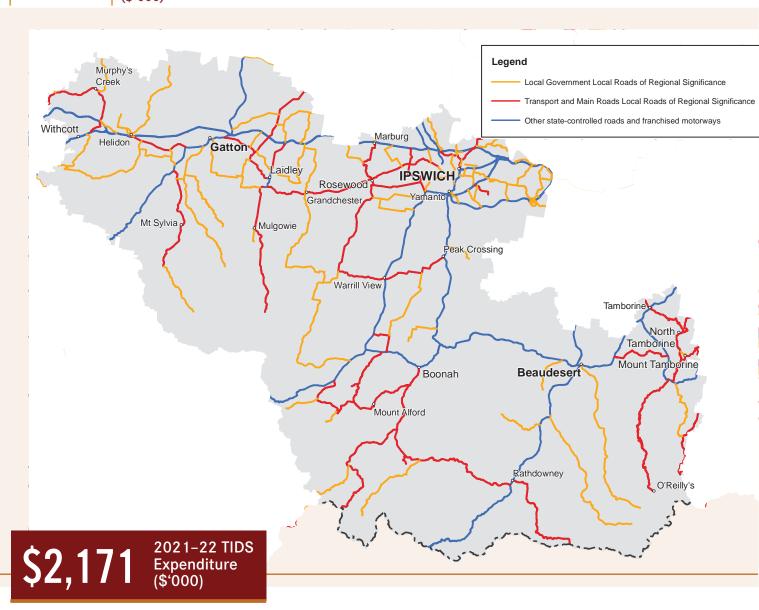
Chris Gray, Scenic Rim Regional Council

RRTG Technical Committee Deputy Chair

Wesley Davis, Lockyer Valley Regional Council

Technical Coordinator

Gerard Read, GWR Civil Engineering Management



SCENIC VALLEYS RRTG (continued)

Scenic Valleys Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS

Local government	Project name	Expenditure \$'000
IPSWICH CITY	Springfield Greenbank Arterial, Springfield Parkway to Eden Station Drive (Ipswich), duplicate two to four lanes	1,253
LOCKYER VALLEY REGIONAL	Gehrke Road (Regency Downs), widen pavement and improve safety	41
	Grantham Scrub Road (Grantham), rehabilitate and widen	115
	Safe Schools Project, various locations, improve parking and footpaths	1
SCENIC RIM REGIONAL	Kerry Road, rehabilitate pavement	705
	Scenic Valleys Regional Roads and Transport Group, capability development	54
TOTAL		2,171

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.

Note: Some exclusions apply, including small overs and unders from the prior year which are immaterial.



Ipswich

SCENIC VALLEYS RRTG Project Stories

Scenic Valleys

Two significant wet weather and flooding events early in 2022 wreaked havoc on Lockyer Valley Regional Council's capital works program delivery which resulted in the deferral of these two projects. Positive negotiation and collaboration within the Scenic Valleys RRTG meant Lockyer Valley has retained its Roads & Transport Alliance TIDS funding for projects in 2022–23 with Ipswich City Council accelerating its project funding from 2022–23 to 2021–22 to facilitate this change. It was a great example of an RRTG working together from a regional perspective.

Staff from the Scenic Valleys Regional Roads and Transport Group also attended Traffic Engineering Fundamentals, Flexible Pavement Design, and Extended Design Domain and Design Exceptions training courses throughout 2021–22 which were subsidised through the Roads & Transport Alliance's Statewide Capability Development Fund.

Springfield Greenbank Arterial Road and Springfield Parkway Upgrade

Road duplication

Submitted by Raees Rasool (Technical Services and Technical Committee Representative, Ipswich City Council) and Gerard Read (Technical Coordinator), Scenic Valleys RRTG.

Ipswich City Council is amidst the construction and delivery phase of Stage 1 of the Springfield Parkway upgrade (from Topaz Road to the Centenary Highway, Springfield) and Springfield Greenbank Arterial Road (from Springfield Parkway to Sinnathamby Boulevard).

Springfield Parkway is a key council controlled LRRS, linking Old Logan Road in the north to the Centenary Highway in the south. These roads also provide access to the Springfield Town Centre via Springfield Greenbank Arterial (SGA). The road functions as a sub-arterial link to the north of the SGA and as an arterial link to the south.

The City of Ipswich Transport Plan (iGO) has identified the need to upgrade and duplicate Springfield Parkway to four lanes between Old Logan Road and the Centenary Highway, to meet population growth in the area and the associated travel demands. The link is also identified as a principal cycle route within council's iGO Active Transport Action Plan and the TMR SEQ Principal Cycle Network Plan.

Key construction challenges included:

- coordinating works with Queensland Rail (QR) Park'n'Ride/Lions Stadium developments
- long construction period and managing milestones
- managing pedestrians safely through work zone from the new Park'n'Ride to Springfield Central Station
- maintaining access to residences, QR car park and Springfield Central Shopping/ Business Precinct
- minimising disruption to road users and school traffic and managing school pedestrians safely
- considerable service relocations with resulting disruptions to users for connections
- poor ground conditions being encountered with potential for additional costs and delays
- matching into existing roads neatly with upgrading to achieve a consistent standard.

SCENIC VALLEYS RRTG Project Stories (continued)

Stakeholder management was more of an inter-organisation challenge than localised and residential.

Key stakeholder management challenges included:

- the scale and prolonged impact of the project to motorists, two school communities and the Springfield Central Shopping/Business Precinct
- the interface with two other major projects in the area (Park'n'Ride/Lions Stadium)
- changed conditions for off-ramp from Centenary Highway/interface with Orion Shopping Centre entrance
- access to existing QR car park
- access changes for Escarpment residents

- traffic disruption will be significant and prolonged
- noise/dust/light spill changes.

This is council's largest road upgrade project. Due to its immense scale, the Springfield Greenbank Arterial Road and Springfield Parkway project has been staged into three sections.

Construction delivery has been staged over the next four years. Its total project value is in the vicinity of \$50 million.

Stage 1 – Old Logan Road to Topaz Road (Ch 0 – 550)

Stage 1 early works commenced in March 2021 with bulk earthworks and service relocations and civil works anticipated to be completed mid-2023.



Springfield Greenbank Arterial Road and Springfield Parkway - 3.6m culverts with lining

SCENIC VALLEYS RRTG Project Stories (continued)

Key features of Stage 1 are:

- three lane divided carriageway sub-arterial with sealed shoulders, widening to 4 lanes at the Topaz Road intersection, within a 30-40m wide road reserve
- roundabout at the intersection with Old Logan Road/Nev Smith Drive and at the intersection with Topaz Road/Bridgewater Drive
- left in/left out intersection at Commercial Drive
- access to existing retail and commercial developments, including a development that is currently under construction on the south east corner of the Old Logan Road roundabout
- an upgrade to the existing bus stop pair on Springfield Parkway, immediately east of the Topaz Road/Woodcrest Way intersection
- concrete pathways of varying widths for some sections; and
- average weekday traffic volume of approximately 15,000 vehicles.

Construction progress in 2021–22:

- structural bridge works are completed with only 20% of rock protection works remaining
- QUU water main works are 95% completed with tie-ins and live connections remaining
- good progress on services relocations Energex (100%), Telstra/Optus/NBN/TPG (85%) and APA (40%)
- civil drainage works commenced in March 2022 and are overlapping with service relocations and the completion of the early works package.

Stage 2 – Topaz Road to Springfield Greenbank Arterial (Ch 550 – 2250)

Stage 2 early works commenced mid-2022 with initial service relocations. Road construction is not scheduled to commence until 2024.

Key features of Stage 2 are:

 two lane undivided sub-arterial (typically 8.6m pavement), within a 35-42m wide road reserve

- roundabout at the intersection with Springfield College Drive/Bridgewater Road and at the intersection with Springfield Greenbank Arterial
- non-standard deflected 'T' intersection at Panorama Drive, with the existing kerb line opposite Panorama Drive constructed to integrate with a future roundabout
- no direct property access, except for the Hymba Yumba Community School, immediately north of Springfield Greenbank Arterial
- an upgrade to the existing bus stop pair on Springfield Parkway south west of the Panorama Drive intersection
- 2.0m concrete pathway within the southern/ eastern verge; and
- average weekday traffic volume of approximately 22,000 vehicles.



Springfield Greenbank Arterial Road and Springfield Parkway - APA Gas

SCENIC VALLEYS RRTG Project Stories (continued)

Continued from previous page

Stage 3 – Springfield Greenbank Arterial to Centenary Hwy (Ch 2250 – 2700)

Section 3 of the Springfield Greenbank Arterial will interface directly with the future Brisbane Lions Reserve stadium (a proposed 2032 Olympic Games venue), the Springfield Central train station, and the recently constructed multi-storey state government free Park'n'Ride carpark. Stage 3 civil works commenced mid-2022.

Key features of Stage 3 are:

a two-lane undivided arterial (typically

- 8.6m pavement), within a 4.2m wide road reserve.
- a roundabout at the intersection the Centenary Highway interchange
- a left in/left out intersection at Escarpment Drive
- an upgrade to the existing bus stop on Springfield Parkway north west of the Escarpment Drive intersection
- 2.0m concrete pathway within the eastern verge; and
- average weekday traffic volumes of approximately 18,000 vehicles.



Springfield Greenbank Arterial Road and Springfield Parkway - upgrade bridge beams



Springfield Greenbank Arterial Road and Springfield Parkway - bridge beams



Springfield Greenbank Arterial Road and Springfield Parkway - upgrade bridge rock protection



Springfield Greenbank Arterial Road and Springfield Parkway - bridge

SCENIC VALLEYS RRTG Project Stories (continued)

Kerry Road

Road widening, realignment and drainage upgrade Submitted by Vasu Pardeshi (Manager Capital Works and Asset Management and Technical Committee Representative), Scenic Rim Regional Council and Gerard Read (Technical Coordinator), Scenic Valleys RRTG.

Scenic Rim Regional Council continued with major upgrades to Kerry Road to enhance safety, productivity, flood immunity and resilience as part of the 2021–22 Roads and Transport Alliance TIDS works program. Kerry Road is a key council controlled LRRS connecting Beaudesert to a large number of cattle and residential properties, schools and tourist areas within the localities of Kerry and Darlington.

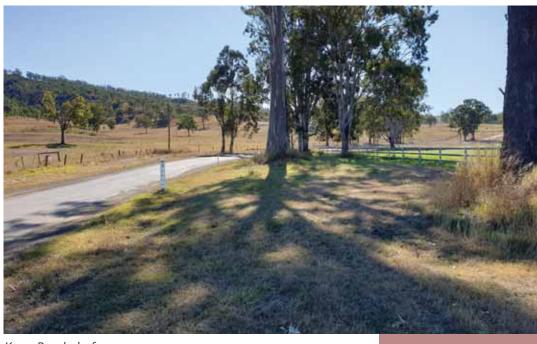
Kerry Road is approximately 35km in length, commencing just south of Beaudesert and extending to Darlington and the Southern Lamington area at council's boundary. Kerry Road is highlighted as an important rural link and multiple sections have been identified for upgrade works. As such, current and further forward funding through various grant programs will see three bridges and approximately 7.5km of road upgraded to current standards for the next 3 years. including 2021-22. These programs are also jointly funded by the Australian Government under the Bridges Renewal Program, Heavy Vehicle Safety and

Productivity Program and by Scenic Rim Regional Council.

Council prioritised a 700m section of Kerry Road for upgrade in 2021–22 north and south of Spring Creek. The Spring Creek Bridge was replaced with a new concrete bridge under the Bridges Renewal Program. This section had an average seal width of 3.5m, poor vertical and horizontal geometry limiting sight distance, and was quite low-lying in parts – they had poor cross drainage capacity resulting in access being impacted by regular flooding during relatively minor rain events.



Kerry Road - before



Kerry Road - before

SCENIC VALLEYS RRTG (continued)

Continued from previous page

The scope of the project included:

- realignment of the road to improve sight distance and approach geometry to the new bridge, including minor land acquisitions
- pavement reconstruction and strengthening, including major subgrade replacement works
- increased pavement width to 7.0m
- two coat bitumen seal
- major cross drainage upgrades and

replacements

safety advisory signage throughout the section.

Council engaged Queensland Bridge and Civil to complete the works with the project proceeding as planned (acknowledging wet weather impacts). The project commenced prior to December 2021 and was completed in May 2022. The final project cost was approximately \$2 million.



Kerry Road - after



Kerry Road - after

SOUTH WEST RRTG

South West RRTG

RRTG members

- Balonne Shire Council
- Bulloo Shire Council
- Maranoa Regional Council
- Murweh Shire Council
- Paroo Shire Council
- Quilpie Shire Council
- TMR South West District

18 PROJECTS \$6,646 TIDS ALLOCATION 2021–22 (\$'000)

RRTG Chair

Councillor Suzette Beresford, Mayor, Paroo Shire Council

RRTG Deputy Chair

Councillor Shaun Radnedge, Mayor, Murweh Shire Council

RRTG Technical Committee Chair

Cameron Hoffman, Maranoa Regional Council

RRTG Technical Committee Deputy Chair

■ Peter See, Quilpie Shire Council

Technical Coordinator

Stephen Hegedus, Shepherd Services



SOUTH WEST RRTG (continued)

South West Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS

Local Government	Project name	Expenditure \$'000
BALONNE SHIRE	Bollon - Dirranbandi Road, bitumen resealing	213
	Kooroon Road (St George), gravel resheeting	88
	Mitchell - Bollon Road, reseal bitumen	100
	Noondoo - Mungindi Road, bitumen resealing	281
	Talwood - Mungindi Road, bitumen resealing	219
	Whyenbah Road, resheet unsealed road	75
BULLOO SHIRE	Quilpie - Thargomindah Road (Thargomindah), various locations, construct to sealed standard	974
MARANOA REGIONAL	Ashmount Road, pavement rehabilitation	840
	Hoganthulla Road, resheet unsealed road	580
	Redford Road, pavement widening and gravel resheet	159
	South West Regional Roads and Transport Group, capability and technical support	138
	Yuleba to Mungallala, various locations, upgrade bus stops	55
MURWEH SHIRE	Khyber Road, pavement rehabilitation	675
	Killarney Road, widen and seal	300
PAROO SHIRE	Eulo - Toompine Road, widen and seal shoulders	94
	Humeburn Road, pavement rehabilitation	305
	Jobs Gate Road, rehabilitate pavement	576
QUILPIE SHIRE	Quilpie - Adavale Road, various locations, upgrade seal and floodways	975
TOTAL		6,646

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.

Note: The total contract cost for Quilpie's project on the state network includes a council contribution (not shown).

SOUTH WEST RRTG Project Stories

Quilpie-Adavale Road

Asphalt sealing of unsealed road

Quilpie Shire Council completed a total of 6.1km of road construction and sealing of the Quilpie-Adavale Road (road number 7101). This was the fourth project in a six-year plan to provide a fully sealed link between the towns of Adavale and Quilpie.

The council contributed \$275,000 of its own general funds to compliment the TIDS funding. It is anticipated that the road will be fully sealed by the end of the 2024 calendar year.



Quilpie-Adavale Road - reseal



Quilpie-Adavale Road - reseal



Quilpie-Adavale Road - reseal

SOUTH WEST RRTG Project Stories (continued)

Mitchell-Bollon Road

Gravel resheeting

Balonne Shire Council completed a total of 6.82km of gravel resheeting on the Mitchell-Bollon Road to provide all weather access and a connecting link between the towns of Mitchell and Bollon.

TIDS funding contributed 50% of the \$200,000 project, with the remaining \$100,000 funded from council's general fund.

Completed in early May 2022, the project applied 50mm gravel resheeting for 6.82km, as well as 100mm gravel

resheeting from flood damage works. This resulted in a total of 150mm gravel resheeting completed from chainages 192.1 to 198.92 of the Mitchell-Bollon Road.

The technical committee members involved in the project delivery were Project Manager Samuel Frumpui, Senior Supervisor Jason Parkes, Site Supervisor Justin Beckman, Site Engineer Raju Gurung and Safety Officer Bruce Bock.



Mitchell-Bollon Road



Mitchell-Bollon Road



SOUTH WEST RRTG Project Stories (continued)

Thargo-Quilpie RoadRoad construction and sealing

Bulloo Shire Council completed a total of 4.97km of road construction and sealing of the Thargo-Quilpie Road (road number 7003).

TIDS funding of approximately \$974,000 was forecast to seal 3km, however Bulloo Shire Council were fortunate enough to be able to utilise TMR Resheet Funding and

Road Maintenance Performance Contract maintenance to complete just under 5km of formation and seal.

With roughly 12km of gravel still to be sealed it is anticipated that the road will be fully sealed by the end of the 2026 calendar year.



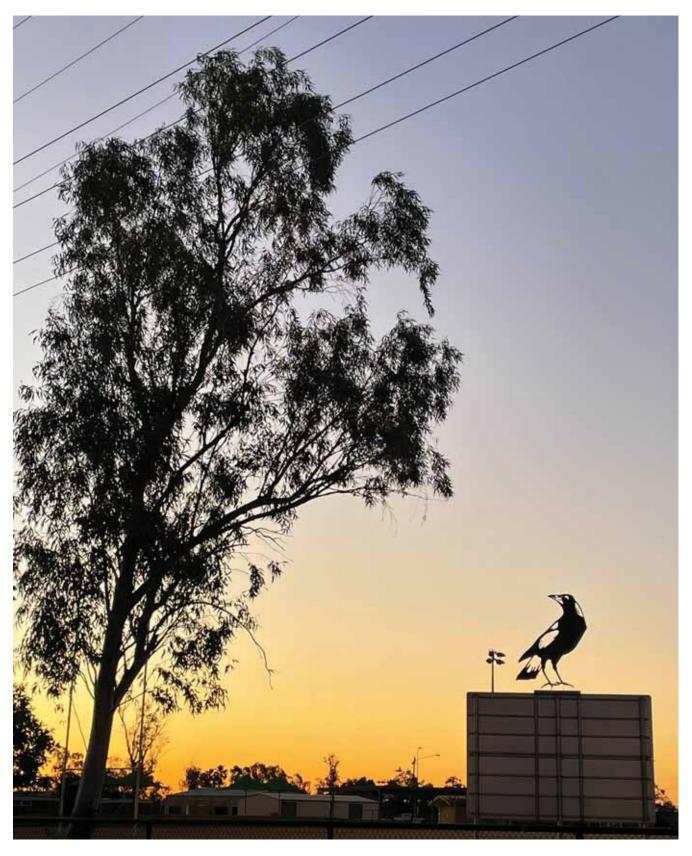






Thargo-Quilpie Road

SOUTH WEST RRTG



Quilpie Bowls Club

SOUTHERN RRTG

Southern RRTG

RRTG Members

- Gold Coast City Council
- Logan City Council
- Redland City Council
- TMR South Coast and Metropolitan Districts

6 PROJECTS

\$2,690 TIDS ALLOCATION 2021–22 (\$'000)

RRTG Chair

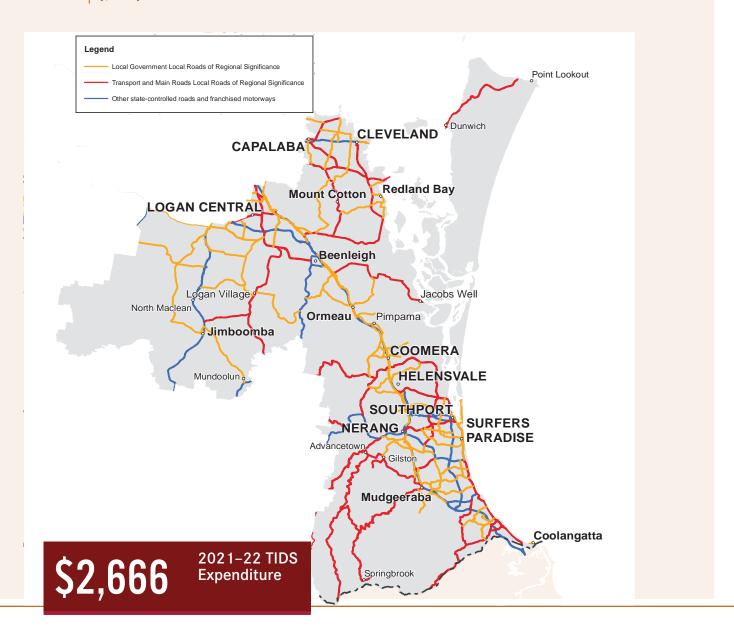
 Councillor Pauline Young, Gold Coast City Council

RRTG Technical Committee Chair

Nick Prasser, Gold Coast City Council

RRTG Technical Committee Deputy Chair

Mitch Bichel, Logan City Council



SOUTHERN RRTG (continued)

Southern Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS

Local Government	Project name	Expenditure \$'000
GOLD COAST CITY	Brooke Avenue (Southport), Southport State High School, shared path and pedestrian crossing	127
	Mirambeena Drive (Pimpama), Ormeau State School, construct shared path	174
	Wardoo Street (Southport), Southport - Nerang Road to Middleton Street, construct shared path	640
LOGAN CITY	Browns Plains Road and Scrubby Creek Road, upgrade intersection	874
REDLAND CITY	Mount Cotton Road (Capalaba), Degen Road to Broadwater Road, pavement rehabilitation and resurfacing	375
	Mount Cotton Road (Capalaba), Larbonya Crescent to Degen Road, pavement rehabilitation and resurfacing	475
TOTAL		2,666

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.

SOUTHERN RRTG Project Stories

Ormeau State School

Pedestrian and cyclist improvements

The City of Gold Coast utilised TIDS funding to construct 160m of shared path along Mirambeena Drive adjacent to Ormeau State School, Pimpama. Construction commenced in October 2021 and was completed in December 2021. Total project cost was approximately \$349,000 with

funding evenly split between TIDS and the City of Gold Coast.











SOUTHERN RRTG Project Stories (continued)

Brooke Avenue, Southport

Shared path and pedestrian crossing

The City of Gold Coast utilised TIDS funding to construct a shared path and pedestrian crossing facility on Brooke Avenue adjacent to Southport State High School.

The project cost was \$582,000.

Construction commenced in December 2021 and was completed in February 2022.







Brooke Avenue, Southport - completed

SOUTHERN RRTG Project Stories (continued)

Wardoo Street
Construction of
pedestrian and
cyclist shared path

The City of Gold Coast utilised TIDS funding to construct 475m of shared path on eastern the side of Wardoo Street from Binstead Drive to Middleton Street, Southport. Total project cost was approximately \$1.2 million with funding

evenly split between TIDS and the City of Gold Coast. Construction commenced in March 2021 with practical completion in June 2022.









Wardoo Street - completed

SOUTHERN RRTG



Southport - Aqua Street

SOUTHERN BORDER RRTG

Southern Border RRTG

RRTG Members

- Goondiwindi Regional Council
- Southern Downs Regional Council
- TMR Darling Downs District

16 PROJECTS \$2,199 TIDS ALLOCATION 2021–22 (\$'000)

RRTG Chair

 Councillor Andrew Gale, Southern Downs Regional Council

RRTG Technical Committee Chair

Gary Murphy, Southern Downs Regional Council

RRTG Technical Committee Deputy Chair

James Varughese, Southern Downs Regional Council



SOUTHERN BORDER RRTG (continued)

Southern Border Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS

Local Government	Project name	Expenditure \$'000
GOONDIWINDI REGIONAL	Barwon Highway (Talwood - Nindigully), North Talwood Road, North Gradna Road and Araluen Road intersections, safety works	25
	Daymar - Weengallon Road (Weengallon), construct to sealed standard	130
	Goodar Road (north of Goondiwindi), construct to sealed standard	85
	Goondiwindi Connection Road (Marshall Street), upgrade kerb and channel and landscaping design	24
	Kondar Road (Lundavra), rehabilitate floodway	52
	Various roads (Goondiwindi), reseal bitumen	184
	Yelarbon - Keetah Road (Stage 2), widen pavement	600
SOUTHERN DOWNS REGIONAL	Goomburra Road (Goomburra), rehabilitate and widen	15
	Jack Smith Gully Road (Stage 2), reshape, widen and seal	169
	King Street (Warwick), pavement resurfacing	60
	O'Deas Road, Warwick (Stage 2), drainage works	35
	Old Stanthorpe Road (Warwick), widen pavement	529
	Talgai West Road (Talgai), pavement rehabilitation and seal	103
	Wood Street, Lyons Street and Pratten Street (Warwick), pavement resurfacing	186
	Inverary Road, resheet unsealed road	0
	Inverramsay Road (Goomburra), rehabilitate and widen	4
TOTAL		2,199

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.

SOUTHERN BORDER RRTG Project Stories

Old Stanthorpe Road widening

Rehabilitation and widening of the existing 3m sealed road formation to 7m seald road (CH 10.25 to CH12.01) Starting design investigations in the early part of 2021, Southern Downs Regional Council embarked on a long-term project to upgrade Old Stanthorpe Road.

This 35km long road starts within the industrial area of Warwick and provides access to various sporting facilities, including motor racing at Morgan Park. It then winds through the picturesque areas of Wildash, Elbow Valley, Cherry Gully and finishes in the charming village of Dalveen.

Under council's road hierarchy, Old Stanthorpe Road is classified as a rural collector road and provides an alternative route should the New England Highway be temporarily unavailable. Old Stanthorpe Road supports the tourism, mining, agricultural, horticultural and poultry industries with a recent daily traffic count of 140 vehicles per day at the project location. Widening this well-utilised road will improve road safety and allow two vehicles to comfortably pass each other, without both vehicles needing to drop the passenger side wheels off the sealed surface to avoid a collision. The drainage

structure improvements and reduction of ongoing road shoulder maintenance are more positive outcomes – vital steps towards a sustainable future.

At the commencement of the project, it soon became clear that the existing shoulder material was unsuitable and needed to be removed and replaced. Heavy rainfall, with frequent follow-up rain events during this project's construction, presented many challenges, resulting in time and cost impacts.

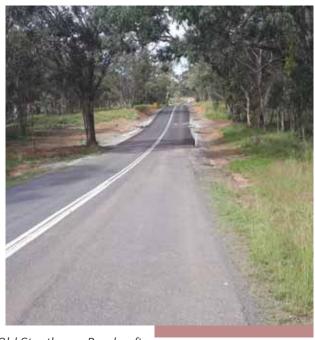
Southern Downs Regional Council has completed the 2021–22 scope of works and looks forward to progressing with the upgrade of the remaining sections of this local road of regional significance under the TIDS program. Total project cost was over \$1 million. The key benefits of this project have been the greatly improved road safety and drainage improvements. Technical Committee members involved with this project were Mike Holeszko and James Varughese.



Before



During works



Old Stanthorpe Road - after

SOUTHERN BORDER RRTG Project Stories (continued)

Jack Smith Gully Road rehabilitation

Rehabilitation and widening (CH 0.7 to CH 1.16km)

Jack Smith Gully Road lies within the valley plains of Freestone and Swan Creek localities that suffered from poor road geometry, with severe wheel rutting occurring due to the high volume of traffic (average of 260 vehicles per day, 22% of which are heavy vehicles) and the condition of the soil. The road provides service for the local agricultural area, including milk tankers and is also a school bus route.

As suggested by its name, this road runs adjacent to Jack Smith Gully, which collects stormwater from various minor tributaries near the western foothills of the Great Dividing Range. This presents engineering challenges as the natural soil includes silt build up and degraded organic material. This combination of soil types had resulted in unsuitable subgrade conditions, requiring removal and replacement of geofabric to stabilise the base of the road widening. In addition to the drainage improvements, adjustments to the road geometry were also of high importance during this project. Widening the sealed

pavement from 6.0m to 7.2m, with 1.2m wide shoulders, has also improved the quality and safety of this section of road.

Like many road projects throughout Queensland during 2021–22, this project was affected by wet weather, however damage was minimal and rectification works were undertaken immediately. Southern Downs Regional Council has completed the 2021–22 project scope of works and looks forward to progressing the upgrade of the remaining sections in the future under the TIDS program. Total project cost in 2021–2022 was approximately \$338,000. Key benefits from this project have been the significant road geometry improvements, along with drainage and stormwater structure upgrades.



Jack Smith Gully Road – before



Geometry improvements



Jack Smith Gully Road - geofabric

SOUTHERN BORDER RRTG Project Stories (continued)

Continued from previous page





Jack Smith Gully Road - drainage in action



Jack Smith Gully Road - completed

SOUTHERN BORDER RRTG



Warwick

WESTERN DOWNS RRTG

Western Downs RRTG

RRTG members

- Western Downs Regional Council
- TMR Darling Downs District

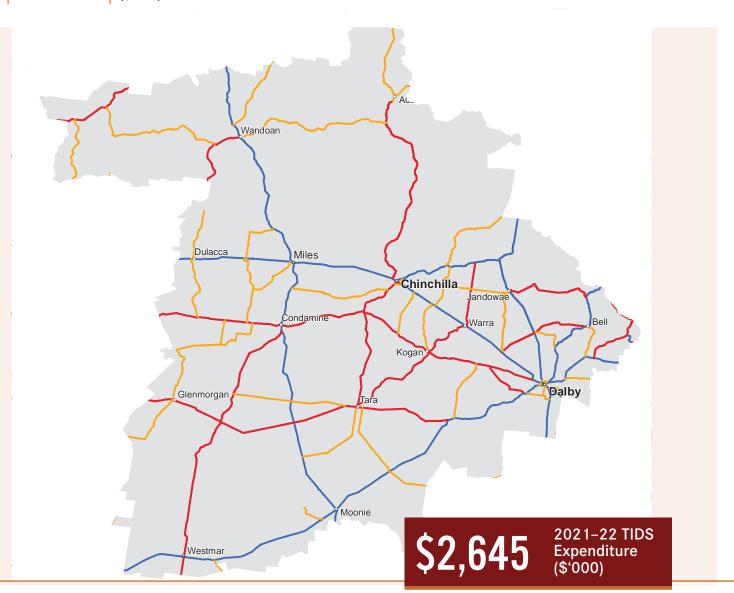
6 PROJECTS \$2,645 TIDS ALLOCATION 2021–22 (\$'000)

RRTG Chair

 Councillor George Moore, Western Downs Regional Council

RRTG Technical Committee Chair

Brianna Barnett, Western Downs Regional Council



WESTERN DOWNS RRTG (continued)

Western Downs Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS

Local Government	Project name	Expenditure \$'000
WESTERN DOWNS REGIONAL	Bunya Highway (Dalby - Kingaroy) and Jimbour Station Road, upgrade intersection	130
	Dulacca South Road (Dulacca), widen pavement	155
	Glasson Street, Chinchilla, upgrade parking lane	310
	Glenern Road (Glenmorgan), widen pavement	400
	Macalister - Bell Road (Macalister), rehabilitate pavement, overlay and seal	1,150
	Wilds Road (Dalby), upgrade to bitumen standard	500
TOTAL		2,645

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.

WESTERN DOWNS RRTG Project Stories

Wilds RoadRoad widening and upgrade

Wilds Road is situated approximately 5km from Dalby linking two state-controlled roads: the Moonie Highway and the Dalby - Cecil Plains Road.

Built on the Dalby floodplains, near the Condamine River, this area is renowned for highly productive farmland and poor road drainage. During flooding events these roads are often impacted by floodwater and result in road closures. This year alone has certainly seen its fair share of floods.

This multi-year project jointly funded through TIDS and Western Downs Regional Council (WDRC), has resulted in over 10.5km of road upgrade and reconstruction with drainage and floodway improvements. The project has been successfully delivered with an overall cost of approximately \$2.55 million including R2R funding of \$400,000.

The completion of this project has resulted in a significant upgrade to this transportation network link that supports the primary production, agricultural & commodity industries. This newly upgraded link provides a heavy vehicle

detour to reduce heavy vehicle traffic through the town of Dalby.

The Wilds Road upgrade project consisted of widening the existing gravel road to an upgraded 8m pavement width with a 7m wide double bitumen seal. Works included multiple floodway reconstruction, additional roadway drainage and cement stabilised pavements.

Acknowledging the high percentage of heavy vehicles that traffic this route - the project also incorporated intersection upgrades at both the Moonie Highway and the Dalby-Cecil Plains Roads to accommodate and improve access for these heavy vehicles.

With the Moonie Highway intersection close to the Condamine River a new concrete margin and cut off wall was installed along the edge of the slip lane on the eastern side of the road to mitigate the risk of any undermining during flood events.

The project was proudly designed, managed and delivered internally by WDRC's Infrastructure Services Division.



Wilds Road - before



Wilds Road - after

WESTERN DOWNS RRTG Project Stories (continued)

Glasson Street, Chinchilla (Chinchilla - Tara Road)

Road widening

The Glasson Street (also known as Chinchilla-Tara Road) road widening project / parking lane upgrade is a multi-year project which continues from a previous segment completed in 2020–21.

This year's project completes the final section (missing link) of this popular route.

Glasson street, Chinchilla is a state-controlled road (forming part of the Chinchilla - Tara Road) is a key route traveling east-west through Chinchilla. This road connects at the eastern end with the Warrego Highway and travels through the township of Chinchilla to connect with the intersection of the Chinchilla - Tara Road at the west.

The Chinchilla township has experienced significant growth over recent years and this project focusses on sealing the gravel shoulders within the town centre near businesses and residential areas to improve the amenity of the town, significantly reduce maintenance and damage to the unsealed shoulders, and to reduce dust complaints.

The project included the following:

 widening of the existing pavement from 9.5m to 12m (to include sealed parking lanes), including a full width bitumen seal

- installation of kerb and channel on the western side to improve drainage issues
- review and upgrade of culverts
- new stormwater gully pits and grates.

This project also included the upgrade of the Glasson St and Short St intersection to accommodate larger commercial vehicles following the intersections changes as part of the recently completed Warrego Highway Upgrade Project.

Major challenges included the area having minimal grade, but were overcome by an innovative design to ensure the effectiveness of the new kerb and channel whilst also being governed by the existing kerb and channel from the Warrego Highway and Short Street.

The project has provided all-weather accessible, reduced maintenance (and dust complaints) parking lanes to support travelling motorists and local businesses. This project was a welcome revitalisation at the entrance to the town of Chinchilla.

The project was designed, managed and delivered internally by WDRC Infrastructure Services Division.



Glasson Street - before

WESTERN DOWNS RRTG Project Stories (continued)



Glasson Street - nearing completion

WESTERN DOWNS RRTG



Brigalow town entry

WHITSUNDAY RRTG

Whitsunday RRTG

RRTG members

- Mackay Regional Council
- Whitsunday Regional Council
- TMR Mackay/Whitsunday District

3 PROJECTS \$1,803 TIDS ALLOCATION 2021–22 (\$'000)

RRTG Chair

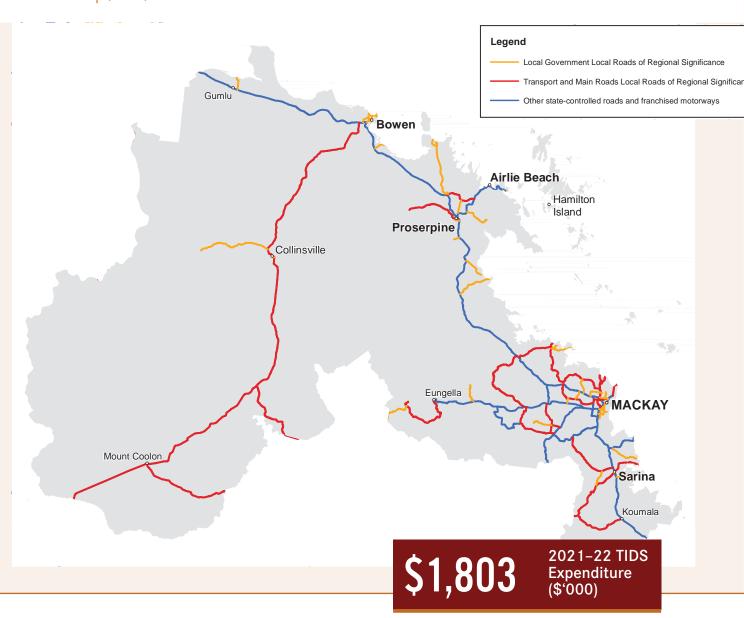
Councillor Andrew Wilcox, Whitsunday Regional Council

RRTG Technical Committee Chair

Jason Devitt, Mackay Regional Council

Technical Coordinator

- Graeme Hawes, Mackay Regional Council
- Stephen Hegedus, Shepherd Services



WHITSUNDAY RRTG (continued)

Whitsunday Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS

Local Government	Project name	Expenditure \$'000
MACKAY REGIONAL	Milton Street and Archibald Street (Mackay), construct roundabout and drainage	484
	Whitsunday Regional Roads and Transport Group, program development	19
WHITSUNDAY REGIONAL	Strathmore Road, Ted Cunningham Bridge, replace bridge	1.300
TOTAL		1,803

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.



Ted Cunningham Bridge

WHITSUNDAY RRTG Project Story

Ted Cunningham Bridge

Bridge renewal

Submitted by Michael Downing, Coordinator Capital Project Delivery, Whitsunday Regional Council.

Ted Cunningham Bridge is located on Strathmore Road on the Bowen River, approximately 36km west of Collinsville. The existing bridge had been identified as requiring renewal over five years ago. A successful application to round 5 of the Bridge Renewal Program has allowed Whitsunday Regional Council to put TIDS funding towards construction of a new structure.

The project required construction of a single lane, 126m long, 6-span bridge approximately 5 metres higher than the existing bridge. The bridge has been constructed with precast piers, headstocks and beams supported on steel lined 900mm cast-in-place piles socketed 1800mm into medium strength sandstone.

The project has been successfully delivered despite numerous delays due to covid, wet weather, material supply issues and market saturation. This was achieved with only minor impacts to road

users who were able to utilise the existing bridge during construction, due to the new bridge being built on a new alignment. Coordination with locals has helped to inform the height of the new bridge to ensure that typical wet weather closures will no longer be an issue. Only significant and prolonged rainfall in the catchment is projected to have the potential to put access at risk.

The key benefit of the project has been renewal of a poor condition bridge that provided the sole access to the state network for numerous cattle properties, various service providers and tourists travelling to or from the Bowen River Hotel and the Burdekin Dam. An additional benefit is the increased flood immunity that will significantly reduce time of closure of the road.

The total project cost was \$4.33 million.



Ted Cunningham Bridge - construction underway

WHITSUNDAY RRTG Project Story (continued)



Ted Cunningham Bridge - nearing completion



Ted Cunningham Bridge - completed

WIDE BAY BURNETT RRTG

Wide Bay Burnett RRTG

RRTG Members

- Bundaberg Regional Council
- Cherbourg Aboriginal Shire Council
- Fraser Coast Regional Council
- Gympie Regional Council
- North Burnett Regional Council
- South Burnett Regional Council
- TMR Wide Bay Burnett District

RRTG Chair

 Councillor Gavin Jones, Deputy Mayor, South Burnett Regional Council

RRTG Technical Committee Chair

(Acting) Allen Christensen, AT Consulting

31 PROJECTS \$6,746 TIDS ALLOCATION 2021–22 (\$'000)



WIDE BAY BURNETT RRTG (continued)

Wide Bay / Burnett Regional Roads and Transport Group Program Financial Detail 2021–22 Roads and Transport Alliance TIDS $\,$

Local Government	Project name	Expenditure \$'000		
BUNDABERG	Barolin Street, Thabeban State School, construct footpath and kerb ramps	23		
REGIONAL	Harts Road (Calavos), Elliott Heads Road to Riverview Road, widen pavement	56		
	Hughes Road (Bargara), upgrade floodway	962		
	Powers Street (Bundaberg West), Saint Patrick Catholic School, construct footpath and crossing facilities	78		
	Stewart Street, St Joseph's School (Childers), construct footpath			
	Thabeban Street (Norville), rehabilitate, widen and overlay	6		
FRASER COAST	Boundary Road and Robert Street intersection, install traffic signals	123		
REGIONAL	Dundowran Road, Nikenbah Dundowran Road to Pialba - Burrum Heads Road, rehabilitate and widen	662		
	Eatonvale Road, Donnelly Road to Rose Hill Road, rehabilitate pavement	175		
	Scrub Hill Road, Yarrilee Circuit, construct crossing and upgrade footpath	15		
	Searle Street, Aldridge State High School, construct footpath	30		
	Searle Street, Aldridge State High School, construct kerb and channelling	96		
	Teddington Road, linda Road East, rehabilitate and widen	263		
	Urraween Road and Boundary Road extension, Grevilla Street to Kawungan Way, construct to sealed standard	222		
	Urraween Road and Boundary Road extension, Maree Street to Grevilla Street, construct to a sealed standard	423		
GYMPIE REGIONAL	Mellor Street and Station Road, Chapple Street to Bent Street (Gympie), install traffic signals	35		
	Moore Street (Goomeri), Boonara Street to Maudsley Street, construct footpath	24		
	Old Maryborough Road (Gympie), Victory College, widen pavement	53		
	Rammutt Road, Figtree Road to Fritz Road (Chatsworth), widen pavement	270		
	Tandur Road, replace bridge	911		
	Yabba Creek Road (Imbil), Mary Valley State College, construct footpath	58		

Continued on next page

WIDE BAY BURNETT RRTG (continued)

Wide Bay / Burnett Regional Roads and Transport Group Program Financial Detail 2020–21 Roads and Transport Alliance TIDS

Continued from previous page

Local Government	Project name	Expenditure \$'000
NORTH BURNETT	Abercorn Road (Eidsvold), widen and overlay	731
REGIONAL	Coonambula Road (Mundubbera), reshape and seal	94
	Middle Boyne Road (Mundubbera), widen pavement	70
	North Burnett Regional Council, school zones safety review	135
SOUTH BURNETT	Drayton Street (Nanango), upgrade set down, parking and crossings facilities	25
REGIONAL	Kumbia Brooklands Road, widen and overlay	143
	Memerambi - Barkers Creek Road, construct new sealed road	371
	Oliver Bond Street (Kingaroy) sporting fields, upgrade carpark and pedestrian facilities	152
	South Burnett, reseal various roads	405
DISTRICT - WIDE BAY/BURNETT	Regional Roads and Transport Group secretariat program	100
TOTAL		6,746

Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.



Gayndah - Historical Museum

WIDE BAY BURNETT RRTG Project Stories

Teddington Road

Upgrade of Teddington Road (Lindah Road to 181 Teddington Road) Teddington Road is a rural arterial road and provides an important economic link for industry to transport sugar cane, pineapples, macadamia nuts and lychees to market. The road also provides access to the Maryborough water treatment plant and weir, which supplies the only reticulated water source to the city of Maryborough.

The road was identified for reconstruction as part of council's ongoing asset inspection program, showing signs of pavement failure and distress. As part of the works, an upgrade to the existing stormwater drainage was also identified as a priority, due to the increased water flow that is now generated following the completion of the RV Homebase development located on adjacent land.

Council received funding of \$263,370 through the RRTG's 2021–22 TIDS program, with additional funding programmed in the 2022-23 financial year.

The project provides for road reconstruction works of approximately 840m of roadway along Teddington Road, between Lindah Road and 181 Teddington Road.

The project includes:

- excavation and earthworks
- removal of existing substandard pavement
- placement of new pavement with additional subgrade treatment
- driveway culverts
- gravel driveways
- concrete driveway crossovers
- cross-road culverts
- asphalt surfacing

topdressing and turfing of disturbed areas.

The project's pavement design was based on falling weight deflectometer testing undertaken during a period of dry weather and did not identify any substantial subgrade issues. Unfortunately, once the ground was broken, the contractor encountered ground water and saturated subgrade conditions. Due to this finding, further geotechnical testing of the subgrade was undertaken with a dynamic cone penetrometer testing measuring the in-situ subgrade bearing capacity at a California Bearing Ratio (CBR) of 1.5 to a depth of approximately 1.9m below finished surface level.

It was ascertained that the change is insitu subgrade conditions was most likely due to the unseasonal heavy rain that has been sustained in the Fraser Coast Region in the past year. Poor subgrade conditions were exacerbated by the road flooding on two occasions during construction. To deal with the saturated subgrade that had been encountered, the contractor was directed to remove 500mm of subgrade and provide a rock drainage blanket overlayed with a cement treated base layer which failed to provide adequate support.

To solve the subgrade issues, the contractor was requested to excavate to approximately 800mm below subgrade level. Rock between 400mm and 700mm nominal size was then pushed into the subgrade to build a working platform on which a 500mm thick layer of crushed concrete subgrade replacement wrapped in geotextile was placed. Combigrid was placed on top of the crushed concrete prior to placement of 195mm of type 2.3 Subbase and 125mm of type 2.1 Base.

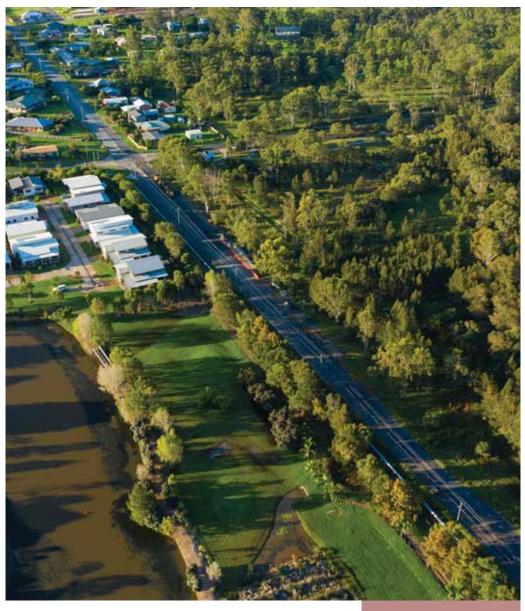
WIDE BAY BURNETT RRTG Project Stories (continued)

Continued from previous page

This unconventional subgrade treatment has proved successful with the sealing of this road now completed. Due to the success of this subgrade treatment, should council encounter this problem in other areas across our region, the lessons learnt from this project will be able to be utilised again.



Construction



Completion

WIDE BAY BURNETT RRTG Project Stories (continued)

Hughes RoadCulvert Upgrade

In November 2021 Bundaberg Regional Council completed a substantial project to upgrade a culvert on a major section of coastal road. Situated along Hughes Road in Bargara and across Moneys Creek, the original culvert often overflowed during heavy rain events, creating safety hazards for drivers and pedestrians. With the region experiencing a population boom and the section of road servicing more than 4000 vehicles every day, the culvert became a vital piece of infrastructure to upgrade.

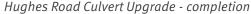
To improve flood immunity in the area, the existing pipe culvert structure was changed to box culverts. The inclusion of a 2.5 metre pathway and a left turn lane into Causeway Drive was also implemented. During the construction, council aimed to ensure that disruptions along the road

network were minimal and impacts were reduced wherever possible.

The project was undertaken from June to November 2021. Since the upgrade was completed, benefits to the community have included improved accessibility along the coastal strip during periods of heavy rainfall and safety improvements for pedestrians and cyclists. The cost of the culvert upgrade came to a total of \$1.95 million and was jointly funded by Bundaberg Regional Council and TIDS.

Hughes Road continues to be an important transport corridor, connecting different areas along the coastal strip, and is now even safer for those travelling its route during rain events. Improving the resilience of these corridors is a key action of council's Road Investment Strategy.



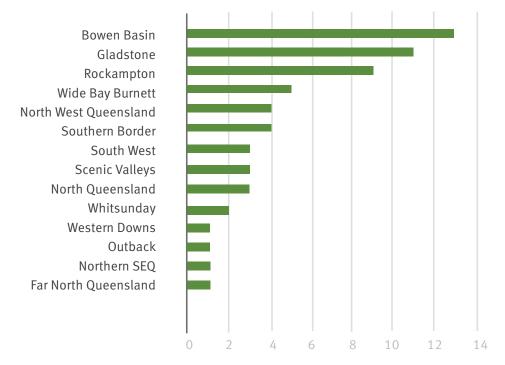




Each year funding is made available through the Statewide Capability Development Fund (SCDF), a \$600,000 sub-program of TIDS. The SCDF supports local governments to undertake projects and access training courses to build their local capacity and improve road and transport stewardship capabilities.

In 2021–22, SCDF funded 36 initiatives including training courses and two projects. Applications were received from 14 RRTGs (including multi-RRTG applications). The graph below shows the number of SCDF applications received throughout the year by RRTG. Note applications submitted jointly by RRTGs have been counted as separate applications for reporting purposes.

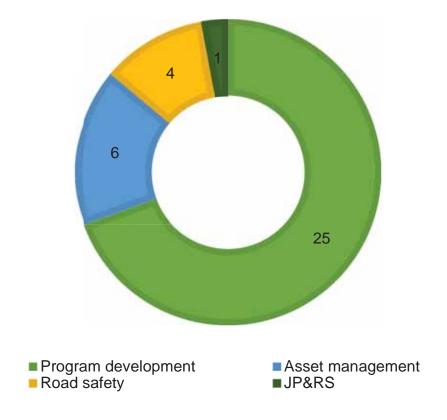
SCDF initiatives by RRTGs (includes joint RRTG applications)



Statewide Capability and Development Program

SCDF applications are required to align to the Alliance's 'core functions' of program development, asset management, road safety and joint purchasing and resource sharing (JP&RS). The chart below shows the breakdown of projects and training courses by core function.

Number of initiatives by Alliance core function



The table below shows the most popular training courses undertaken.

SCDF initiative
Project Name
Road Safety Auditor Training
Assessing Heavy Vehicle access to bridges
Best practice unsealed roads training
Flexible pavement design course
ICAM Basic Incident Cause Analysis Method investigator training
Managing risks on lower order roads training
Queensland Urban Drainage Manual workshop
Road and public space lighting workshop
Street design manual for practitioners workshop

The table below lists all the SCDF Projects and training courses undertaken in 2021-22. It is noted that some projects span multiple years.

Project Name	Description
RRTG initiatives	
Administration of construction contracts course	Wide Bay Burnett RRTG - for RRTG member staff to undertake the administration of construction contracts course provided by Contract Control International (CCI)
Best practice unsealed roads training	Bowen Basin RRTG - for RRTG member staff to undertake the best practice unsealed roads training delivered by Shepherd Services
	Gladstone RRTG - for RRTG member staff to undertake Shepherd Services' best practice unsealed roads training
	South West RRTG - for RRTG member staff to undertake the best practice unsealed roads training provided by Shepherd Services
Contract management courses	Whitsunday RRTG - for RRTG member staff to undertake two contract management courses provided CCI
Cycling infrastructure training	North Queensland RRTG - for RRTG member staff to undertake cycling infrastructure training (online) provided by Safe Systems Solutions
Extended design domain and design exceptions course	Scenic Valleys RRTG - for RRTG member staff to undertake the extended design domain and design exceptions course provided by TMR
Flexible pavement design course	Scenic Valleys RRTG - for RRTG member staff to undertake the flexible pavement design: unbound basic principles and practices course presented online by the Centre for Pavement Engineering Education (CPEE)
Regional skills development program	Bowen Basin RRTG - to support the group's Regional Skills Development Program initiative; this involves engaging three undergraduate civil engineering students on a three-year rotational basis over 2020-21 to 2022-23
Sprayed bitumen workshop	Wide Bay Burnett RRTG - for RRTG member staff to undertake the sprayed bitumen workshop provided by the Institute of Public Works Engineering Australasia Queensland (IPWEAQ)
Sprayed sealing field procedures course	Southern Border RRTG - for RRTG member staff to undertake the sprayed sealing field procedures course provided by the Australian Flexible Pavement Association (AfPA)
	Wide Bay Burnett RRTG - for RRTG member staff to undertake the sprayed sealing field fundamentals course provided by IPWEAQ / AfPA $$
Stabilisation fundamentals course	Wide Bay Burnett RRTG - for RRTG member staff to undertake the stabilisation fundamentals course provided by IPWEAQ / CPEE
Supervisors workshop	North West Queensland RRTG - for RRTG member staff to undertake IPWEAQ's supervisors workshop
	Outback RRTG - for RRTG member staff to undertake the supervisors workshop provided by IPWEAQ
Temporary traffic management workshop	South West RRTG - for RRTG member staff to undertake IPWEAQ's temporary traffic management workshop for managers, supervisors and project managers
Timble grade control equipment training	Southern Border RRTG - for RRTG member staff to undertake timble grade control equipment training provided by SITECH Solutions

Statewide Capability Development Fund

Continued from previous page

Project Name	Description
RRTG initiatives (continued)	
Traffic engineering fundamentals workshop	Scenic Valleys RRTG - for RRTG member staff to undertake the traffic management engineering fundamentals workshop provided by Safe Systems Solutions
Traffic management design workshop	Southern Border RRTG - for RRTG member staff to undertake Acquired Awareness' traffic management design workshop
Traffic management implementation training	North West Queensland RRTG - for RRTG member staff to undertake traffic management implementation training provided by Acquired Awareness
	North West Queensland RRTG - for RRTG member staff to undertake Acquired Awareness' traffic management implementation course a second time
Walking infrastructure masterclass training	Northern SEQ RRTG - for RRTG member staff to undertake TMR's walking infrastructure masterclass training course
Yarrabah Aboriginal Shire Council - Transport Network Plan	Far North Queensland RRTG, Yarrabah Aboriginal Shire Council - towards the development of a Transport Network Plan (TNP)
RRTG initiatives - joint applic	ations
Assessing heavy vehicle access to bridges workshop	Bowen Basin, Gladstone and Rockhampton RRTGs - for RRTG member staff to undertake IPWEAQ's assessing heavy vehicle access to bridges workshop
Flexible pavement design course	Bowen Basin and Rockhampton RRTGs - for RRTG member staff to undertake the flexible pavement design: unbound - basic principles & practices course provided by CPEE
Improved site quality training course	Rockhampton and Bowen Basin RRTGs - for RRTG member staff to undertake the improved site quality guided by sampling and testing training course provided by IPWEAQ
Incident cause analysis method lead investigator training	Bowen Basin and Gladstone RRTGs - for RRTG member staff to undertake the Incident Cause Analysis Method (ICAM) lead investigator training provided by Safety Wise
Incident cause analysis method basic investigator training	Bowen Basin, Gladstone and Rockhampton RRTGs - for RRTG member staff to undertake the ICAM basic investigator training provided by Safety Wise
Managing risk on lower order roads training	Bowen Basin, Gladstone and Rockhampton RRTGs - for RRTG member staff to undertake IPWEAQ's managing risk on lower order roads training
Native title and cultural heritage training	Rockhampton and Gladstone RRTGs - for RRTG member staff to undertake the native title and cultural heritage training provided by IPWEAQ
Queensland Urban Drainage Manual workshop	Bowen Basin, Gladstone and Rockhampton RRTGs - for RRTG member staff to undertake IPWEAQ's Queensland Urban Drainage Manual (QUDM) workshop
Research project - Using Al for sealed road maintenance management	This represents funding to undertake a research project into automated road asset condition assessment for maintenance management of sealed road networks over 2020-21 and 2021-22

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Statewide Capability Development Fund

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Project Name	Description				
RRTG initiatives - joint applications (continued)					
Road and public space lighting workshop	Bowen Basin, Gladstone and Rockhampton RRTGs - for RRTG member staff to undertake the Road and Public Space Lighting workshop delivered by CPEE				
Road safety auditor training	Bowen Basin, Gladstone, North Queensland and North West Queensland RRTGs - for RRTG member staff to undertake the road safety audit course provided by Safe Systems Solutions				
Safe system assessment training	Gladstone and North Queensland RRTGs - for RRTG member staff to undertake safe system assessment training provided by Safe Systems Solutions				
Street design manual training for practitioners workshop	Bowen Basin, Gladstone and Rockhampton RRTGs - for RRTG member staff to undertake IPWEAQ's street design manual training for practitioners workshop				

Improving RRTG and councils' capability

The Regional Skills
Development
Program - planning
for the long term
future of our regions

Submitted by Allan Heit (Banana Shire Council Technical Committee Representative), Tyronne Meredith (Central Highlands Regional Council Technical Committee Representative), Sean Robinson (Isaac Regional Council Technical Committee Representative), and Gerard Read (Technical Coordinator), Bowen Basin RRTG.

Bowen Basin RRTG's Regional Skills Development Program commenced in 2020-21 and continued in 2021-22 with funding support from the Roads and Transport Alliance's SCDF. The plan was to engage three undergraduate Civil Engineering students for three years during the main university holiday period annually at Christmas. The three students, initially second year students, would be placed with the participating councils (Banana Shire, Central Highlands Regional, Isaac Regional) and then rotate through the councils each of the three years, thereby giving each student experience with every council. It is intended the students may also be able to assist Woorabinda with engineering and works, where required, after one or two years in a short-term arrangement during the holiday period.

It is hoped and intended this rotational and longer-term program will be more attractive to students initially (which has been achieved) and lead to the full-time recruitment of the students to a graduate civil engineering position at the end of the program. Hence the maximum benefit is not likely to be realised for a few years, but once established it is hoped this benefit will then continue on a rolling basis.

Isaac Regional Council is the lead for the program and the recruitment aspect of it. A project team comprising representatives from each of the councils was formed to assess potential candidates. Applications were strong in terms of quality and quantity. These were shortlisted,

interviews undertaken, and the first round of placements determined. Unfortunately, the onset of Covid-19 significantly impacted the program plan in 2020–21. Snap border closures meant one student returned home to another state after one week of work, and subsequently gained an internship at another organisation in that state and left the program. Another student relocated to another state after his first placement and left the program.

Fortunately, the second round of the program in 2021–22 has realised some stability in the program. The three students engaged for 2021–22 were all undergraduates at Griffith University:

- Banana Shire Council Hayden Gorrie (early December 2021 to mid-March 2022)
- Central Highlands Regional Council
 Diego Buttinoni (January to March 2022)
- Isaac Regional Council Kusuma Permsook (mid-February to mid-April 2022).

Some comments from the students regarding their experience:

Banana (Hayden Gorrie)

"The Regional Skills Development Program is a great opportunity to shine a light on all the good qualities of small communities. I was reminded of these qualities during my time at Banana Shire and look forward to

Improving RRTG and councils' capability (continued)

Continued from previous page

spending more time rurally."

Isaac (Kusuma Permsook)

"I really enjoyed the time I spent at work in Moranbah, it's a great work environment and people in the Council are very kind. I have learned a lot of things that I wouldn't be able to learn in university. Many thanks to the Engineering and Infrastructure team and others that always helped and supported me. Thank you for allowing me to be part of the program."

Comments from the councils regarding the students:

Banana (Hayden Gorrie)

"Hayden's main duties included the Rainbow Street carpark concept design, Biloela and Taroom stormwater infrastructure audits, Taroom intersection give way concepts. Hayden also assisted in a lot of other tasks including road safety assessments, project community consultation, survey tasks, school bus route assessment and general office duties. Hayden was great to have in the Tech Services Team, he worked well with other team members and knew when to ask questions. Hayden made a positive contribution to the team's workload."

Central Highlands (Diego Buttinoni)

"Diego assisted with pave and seal works on Willies Creek Royles Road, asphalt resurfacing in Emerald town streets, construction of a bus stop at Emerald State High School and the rehabilitation of Wattle Street, Blackwater. Diego was a very passionate and enthusiastic employee."

Isaac (Kusuma Permsook)

"Kusuma worked across council road and transport operations including design management, road construction, contract administration, corridor application assessment and asset management. Kusuma fitted into the team well and quickly gained an understanding regarding the operation of local government. It will be great to see her career progress".

Whilst it has had its challenges and expected teething problems, the initiative will provide intended benefits and is an unequivocal demonstration of collaboration by the Bowen Basin RRTG.

Improving RRTG and councils' capability (continued)

Using Artificial Intelligence (AI) for Sealed Road Maintenance Management - A Roads and Transport Alliance Research Project In 2021 six RRTGs collaborated in a unique research project to investigate using Artificial Intelligence (AI) for sealed road maintenance management. The project was funded under the SCDF.

The core purpose of the project was to create an opportunity for regional and remote councils with large rural road networks to potentially influence advancements in AI. This ability would normally only be available to urban councils who have a greater ability to pay for investment in new technology with larger budgets and ratepayer bases. Whereas the regional and remote councils have the most to benefit from AI technology as they manage large road networks with a limited ratepayer base to fund road maintenance work.

Project Participants

The following six RRTGs participated in the project:

- Bowen Basin
- Southern Border
- South West
- Western Downs
- Whitsunday
- Wide Bay Burnett.

From the above RRTGs, the following working group was formed to drive and coordinate the project:

- Aaron Meehan, South Burnett Regional Council (Working Group Chair)
- Chris Whitaker, Banana Regional Council

- Luke Tanner, Goondiwindi Regional Council
- Cameron Hoffman, Maranoa Regional Council
- Sam Fitzgerald, Western Downs Regional Council
- John Gwydir, Whitsunday Regional Council
- Graeme Hawes, Mackay Regional Council
- Sam Murphy, Gympie Regional Council
- Carl Bacon, North Burnett Regional Council.

TMR demonstrated its support for the project with Susan Barlow, Principal Technical Advisor from the Roads and Transport Alliance Project Team joining the working group.

The working group engaged the services of Shepherd Services to deliver on the project outcomes. Accordingly, two members from Shepherd Services joined the working group: Darren Shepherd Partner/Director Asset Services and Brian Wood, Road Asset Condition Assessment System Manager.

Project Objectives

The purpose of the project was to conduct research into the current advancements in the use of AI and machine learning for the purposes of road maintenance management. The goal was then to use this knowledge to influence how the technology could be developed to achieve practical outcomes for regional and rural local governments with limited budgets and large rural road networks, as well as improved road safety for their communities.

Improving RRTG and councils' capability (continued)

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Project Methodology

The Research Group following these steps to complete the project:

- Step 1 Conduct a Research Review into the latest advancements of AI and machine learning.
- Step 2 Working Group Workshop One to share knowledge obtained from research review and collaborate to provide direction for AI proof of concept.
- Step 3 Conduct rural roads AI proof of concept utilising AI for identification of high priority safety defect data set.
- Step 4 Working Group Workshop Two to share knowledge obtained from AI proof of concept and collaborate on key recommendations.
- Step 5 Summary Report to be shared within the industry.

Project Learnings

The group identified the following potential advantages of a maintenance inspection program that uses camera technology and AI to automate the identification and condition assessment of road surface defects:

- Improved safety of road inspectors by eliminating the need for inspectors to stop on the roadway and leave the vehicle to photograph and inspect defects.
- Improved safety of road users through better road maintenance management.
- Improved return on investment from councils' road maintenance budget with accurate asset data informing targeted scheduled road maintenance programs to ensure that funding is spent when and where it is needed the most.

- Improved asset management through better quality information being used to develop maintenance programs based on an identified condition dataset.
- Improved efficiency of logging defects and developing maintenance programs, as using AI rather than staff will be quicker and more cost-effective.
- Improved accuracy using AI to identify and log defects, as this removes human error and subjectivity from the process.
- Improved responsiveness with councils having the ability to cost-effectively run their sealed roads regularly to produce prioritised maintenance programs quickly and efficiently.
- Improved decision making with the ability to build an accurate history of road asset condition data for network analysis. Over time councils will have a clear picture of the state of the network and determine if the level of service is improving or declining. This can assist in addressing councils' aging workforce challenges, specifically the loss of technical skills in regional and remote areas.

The following AI limitations were identified during the project:

- Al models are two dimensional.
 Accordingly, the Al model will be unable to determine depth of defects which is an important factor for defects such as rutting.
- To achieve consistent and reliable high precision results from an AI model for defect detection, a large number of images of each defect type is required to successfully train the AI model algorithm.

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Improving RRTG and councils' capability (continued)

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Project Recommendations

The working group identified the following future work to influence the development of AI and machine learning technology which would benefit regional and remote councils for sealed road maintenance management:

- The AI model needs to achieve greater than 90 per cent confidence level in detection of high priority safety hazards of potholes, edge break and shoving as first priority.
- Develop an exporting process of uploading identified defects into both maintenance management systems and mapping systems to assist with

maintenance planning.

- The Al model should have the ability to determine severity rating of defects.
- Automate the data exporting processes from the AI model into maintenance management systems.
- Focus on developing tools to practically use and visualise captured data as this is key to councils' meeting their safety duty of care responsibilities and achieving cost efficiencies.



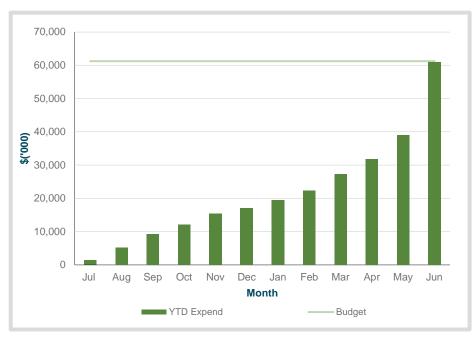
Roads and Transport Alliance AI Research Group - 2nd workshop in Cairns - October 2021

Roads and Transport Alliance TIDS 2021-22

The Roads and Transport Alliance TIDS program achieved 100 percent expenditure for the 2021–22 financial year. A summary of performance by RRTG is detailed below:

Regional Roads and Transport Group	No. of Projects	Allocation \$'000	2021–22 Budget \$'000	Expenditure \$'000	Budget Spent %
BOWEN BASIN	9	4,479	4,532	4,532	100 %
BRISBANE METRO ALLIANCE	8	2,042	2,042	2,042	100 %
EASTERN DOWNS	11	2,728	2,728	2,728	100 %
FAR NORTH QUEENSLAND	37	5,715	5,715	5,708	100 %
GLADSTONE	2	1,038	1,038	1,038	100 %
NORTH QUEENSLAND	25	3,361	3,361	3,361	100 %
NORTH WEST QUEENSLAND	18	5,493	5,493	5,493	100 %
NORTHERN SEQ	18	3,718	3,718	3,452	93%
OUTBACK	18	6,211	6,193	6,189	100 %
ROCKHAMPTON	3	1,516	1,516	1,516	100 %
SCENIC VALLEYS	6	2,171	2,171	2,171	100 %
SOUTH WEST	18	6,646	6,646	6,646	100 %
SOUTHERN	6	2,690	2,690	2,655	99 %
SOUTHERN BORDER	16	2,199	2,199	2,199	100 %
WESTERN DOWNS	6	2,645	2,645	2,645	100 %
WHITSUNDAY	3	1,803	1,803	1,803	100 %
WIDE BAY / BURNETT	31	6,746	6,746	6,746	100 %
TOTAL	235	61,200	61,234	60,934	100 %

Statewide Year to Date (YTD) Expenditure



- 1. The end of June 2022 expenditure includes accruals which may account for variances, and the final claims have been processed and paid from the start of next financial year.
- 2. Program budgets shown may vary slightly to the annual allocation due to programming adjustments / variations.
- 3. Some exclusions apply, including small overs/unders from the prior year which are immaterial.
- 4. Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.

Statewide TIDS Program

Below is a summary of the project types funded under the 2021-22 Roads and Transport Alliance TIDS program.

Infrastructure Type	Expenditure \$'000	% of Total
Roads Infrastructure, including Local Roads of Regional Significance Network Works on lower order state-controlled roads (TMR LRRS) or higher order local government-controlled roads	57,261	94%
Safe School Travel Infrastructure Works to improve the safety of children travelling to and from school	1,546	3%
Active Transport Infrastructure Works on cycling and pedestrian infrastructure	1,311	2%
Capability and Development RRTGs may allocate up to 2.5 per cent of funding for capability development and/or improvement purposes without having to be matched	816	1%
TOTAL	60,934	

RRTG Aboriginal and Torres Strait Islander TIDS 2021–22

A summary of performance by RRTG and Aboriginal Shire Council is detailed below.

Regional Roads and Transport Group	Aboriginal Shire Council (ASC)	Allocation \$'000	2021–22 Budget \$'000	Expenditure \$'000	Budget Spent %
BOWEN BASIN	Woorabinda ASC	53	-	-	-
FAR NORTH QUEENSLAND	Wujal Wujal ASC	29	29	29	100 %
FAR NORTH QUEENSLAND	Yarrabah ASC	47	47	47	100 %
NORTH WEST OHEENS! AND	Doomadgee ASC	197	297	282	95%
NORTH WEST QUEENSLAND	Kowanyama ASC	236	366	366	100 %
TOTAL		563	740	725	98%

^{1.} Program budgets shown may vary slightly to the annual allocation due to programming adjustments within the RRTG and/or additional funding from SCDF.

^{2.} Amounts shown are in \$1000's and are rounded. Totals are subject to rounding.

Statewide Capability Development Fund

The 2021–22 SCDF program is detailed below by RRTG.

RRTG	Project Name	Budget \$'000	Expend \$'000	Budget Spent %
BOWEN BASIN	Best practice unsealed roads training	9	9	100 %
	Regional skills development	29	29	100 %
BOWEN BASIN, GLADSTONE	Incident cause analysis method lead investigator training	3	3	100%
BOWEN BASIN, GLADSTONE, NORTH QUEENSLAND, NORTH WEST	Road safety auditor training	5	5	100%
BOWEN BASIN, GLADSTONE,	Assessing heavy vehicle access to bridges workshop	7	7	100 %
ROCKHAMPTON	Incident cause analysis method basic investigator training	9	9	100 %
	Managing risk on lower order roads training	10	10	100 %
	Queensland Urban Drainage Manual workshop	8	8	100 %
	Road and public space lighting workshop	14	14	100 %
	Street design manual training for practitioners workshop	9	9	100 %
BOWEN BASIN,	Flexible pavement design course	6	6	100 %
ROCKHAMPTON	Improved site quality training course	9	9	100 %
FAR NORTH QUEENSLAND	Yarrabah Aboriginal Shire Council - Transport Network Plan	35	35	100%
GLADSTONE	Best practice unsealed roads training	16	16	100%
GLADSTONE, NORTH QUEENSLAND	Safe system assessment training	5	5	100%
NORTH QUEENSLAND	Cycling infrastructure training	1	1	100 %
NORTH WEST	Supervisors workshop	11	11	100 %
QUEENSLAND	Traffic management implementation training	3	3	100 %
	Traffic management implementation training	6	6	100 %
NORTHERN SEQ	Walking infrastructure masterclass training	10	10	100 %
OUTBACK	Supervisors workshop	12	12	100 %
ROCKHAMPTON, GLADSTONE	Native title and cultural heritage training	12	12	100%
SCENIC VALLEYS	Extended design domain and design exceptions course	6	6	100 %
	Flexible pavement design course	5	5	100 %
	Traffic engineering fundamentals workshop	6	6	100 %
SOUTH WEST	Best practice unsealed roads training	17	17	100 %
	Temporary traffic management workshop	14	14	100 %

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RRTG	Project Name	Budget \$'000	Expend \$'000	Budget Spent %
SOUTH WEST, SOUTHERN BORDER, BOWEN BASIN, WHITSUNDAY, WESTERN DOWNS, WIDE BAY BURNETT	Research project: Using AI for road maintenance management	19	19	100 %
SOUTHERN BORDER	Sprayed sealing field procedures course	5	5	100 %
	Timble grade control equipment training	1	1	100 %
	Traffic management design workshop	1	1	100 %
WHITSUNDAY	Contract management courses	19	19	100 %
WIDE BAY BURNETT	Administration of construction contracts course	7	7	100 %
	Sprayed bitumen workshop	7	7	100 %
	Sprayed sealing field procedures workshop	13	13	100 %
	Stabilisation fundamentals course	12	12	100 %
	PROJECTS TOTAL	360	360	100 %

^{1.} Program budgets shown may vary slightly to the orginal funding due to variations.

 $^{{\}tt 2. Some \ exclusions \ apply, including \ the \ redistributed \ funding \ to \ Aboriginal \ Shire \ Council \ RRTG \ members \ within \ the \ larger \ TIDS \ program.}$

^{3.} Amounts shown are in the \$1000's and are rounded. Totals are subject to rounding.

NOTES	