Mareeba Shire Council Local Government Infrastructure Plan

Mareeba Shire Council

Local Government Infrastructure Plan

IH133800-0000-NW-RPT-0006 | 3

16 June 2018

PWK04311

Mareeba Shire Council Local Government Infrastructure Plan

Project No:	IH133800
Document Title:	Local Government Infrastructure Plan
Document No.:	IH133800-0000-NW-RPT-0006
Revision:	3
Date:	16 June 2018
Client Name:	Mareeba Shire Council
Client No:	PWK04311
Project Manager:	Paul Dennis
Author:	Paul Dennis
File Name:	J:\IE\Projects\05_Northern\IH133800\02 Documents\Final July 2018\IH133800-0000-NW-RPT-0006_LGIP_Rev4ap.docx

Jacobs Group (Australia) Pty Limited
ABN 37 001 024 095
2 James Street
PO Box 1062
Cairns QLD 4870 Australia
T +61 7 4031 4599
F +61 7 4031 3967
www.jacobs.com

© Copyright 2018 Jacobs Group (Australia) Pty Limited. The concepts and information contained in this document are the property of Jacobs. Use or copying of this document in whole or in part without the written permission of Jacobs constitutes an infringement of copyright.

Limitation: This document has been prepared on behalf of, and for the exclusive use of Jacobs' client, and is subject to, and issued in accordance with, the provisions of the contract between Jacobs and the client. Jacobs accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this document by any third party.

Document history and status

Revision	Date	Description	By	Review	Approved
A	29/03/2018	Draft Document	KLM	PSD	
0	18/04/2018	Updated to incorporate updated schedules, DSS	AP	PSD	
1	18/04/2018	Updated with Revised SOW and MSC Comments	AP	PSD	
2	25/05/2018	Updated with Revised SOW and to include review comments	AP	PSD	
3	14/06/2018	Updated to included review comments	AP	PSD	
4	03/07/2018	Updated to address review comments	AP	PSD	

Contents

4. Local government infrastructure plan 1
4.1 Preliminary 1
4.2 Planning assumptions 1
4.2.1 Population and employment growth 4
4.2.2 Development 4
4.2.3 Infrastructure demand 5
4.3 Priority infrastructure area 6
4.4 Desired standards of service 6
4.4.1 Water supply network 6
4.4.2 Stormwater Network 9
4.4.3 Transport Network 10
4.4.4 Public parks and land for community facilities network 12
4.5 Plans for trunk infrastructure 16
4.5.1 Plans for trunk infrastructure maps 16
4.5.2 Schedules of works 16

Schedule 3 Local Government Infrastructure Plan Mapping and Tables

4. Local government infrastructure plan

4.1 Preliminary

1) This local government infrastructure plan for the Mareeba Shire Council has been prepared in accordance with the requirements of the *Planning Act 2016*.

2) The purpose of the local government infrastructure plan is to:

   a) integrate infrastructure planning with the land use planning identified in the planning scheme

   b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure

   c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning

   d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner.

   e) provide a basis for the imposition of conditions about infrastructure on development approvals.

3) The local government infrastructure plan:

   a) states in Section 4.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network

   b) identifies in Section 4.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2031

   c) states in Section 4.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance

   d) identifies in Section 4.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:

      i. water supply

      ii. wastewater

      iii. stormwater

      iv. transport

      v. Public parks and land for community facilities

   e) provides a list of supporting documents that assist in the interpretation of the local government infrastructure plan in the Editor's note – Extrinsic material at the end of Section 4

4.2 Planning assumptions

1) The planning assumptions state the assumptions about:

   a) population and employment growth

   b) the type, scale, location and timing of development including the demand for each trunk infrastructure network

2) The planning assumptions together with the desired standards of service form a basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

3) The planning assumptions have been prepared for:

   a) the base date 2016 and the following projection years to accord with future Australian Bureau of Statistics census years:

i. mid 2021

ii. mid 2026

iii. mid 2031

b) the LGIP development types in column 2 that include the uses in column 3 of Table 1.

c) the projection areas identified on Local Government Infrastructure Plan Map LGIP PIA Index Map in Schedule 3—Local government infrastructure plan mapping and tables.

Table 1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 **LGIP development category**	**Column 2** **LGIP development type**	**Column 3** **Uses**
Residential development	Single dwelling	Caretakers Accommodation Dwelling House Dwelling Unit
	Multiple dwelling	Dual Occupancy Multiple Dwelling Relocatable Home Park Retirement Facility
	Other Dwelling	Community Residence Hostel Hotel Non-resident Workforce Accommodation Residential Care Facility Short-term Accommodation Resort Complex Retirement Facility
Non-residential development	Retail	Adult Store Market Roadside Stall Service Station Shop Shopping Centre
	Commercial	Agricultural Supplies Store Bar Brothel Bulk Landscaping Supplies Car Wash Food and Drink Outlet Function Facility Funeral Parlour Garden Centre Hardware and Trade Supplies Home Based Business

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
		Indoor Sport & Recreation Sales Office Showroom Theatre Tourist Attraction Tourist Park Veterinary Services Warehouse Wholesale Nursery Winery
	Industrial	Aquaculture Extractive Industry High Impact Industry Intensive Animal Husbandry Intensive Horticulture Low Impact Industry Marine Industry Medium Impact Industry Special Industry Research and Technology Industry Rural Industry Service Industry Transport Depot
	Community Purposes	Parking Station Cemetery Child Care Centre Community Residence Community Use Crematorium Educational Establishment Emergency Services Health Care Services Hospital Major Sport, Recreation and Entertainment Facility Place of Worship Telecommunications Facility
	Other	Air Services Animal Husbandry Animal Keeping Cropping Detention Facility

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
		Environment Facility Landing Major Electricity Infrastructure Motor Sport Facility Nature-based Tourism Outstation Park Permanent Plantation Port Services Renewable Energy Facility Substation Utility Installation

4) Details of the methodology used to prepare the planning assumptions are stated in the extrinsic material.

4.2.1 Population and employment growth

1) A summary of the assumptions about population and employment growth for the planning scheme area is stated in Table 2—Population and employment assumptions summary.

Table 2—Population and employment assumptions summary – Planning Scheme Area

Column 1 Description	Column 2 Assumptions				
	Base date (2016)	2021	2026	2031	Ultimate Development
Population	21,557	22,605	23,562	24,522	28,441
Employment	9,812	8,695	9,064	9,433	10,657

2) Detailed assumptions about growth for each projection area and LGIP development type category are identified in the following tables in Schedule 3 Local Government Infrastructure Plan Mapping and Tables:

   a) for population, Table SC3. 1

   b) for employment, Table SC3. 2

   Ultimate residential development capacity is provided within the LGIP and supporting documents. While it is acknowledged there is, in some cases, surplus land within the smaller localities to service development beyond 2031, planning for infrastructure to service these localities is likely to be uneconomic given the relatively low rate of new urban development within areas of the Shire outside of Mareeba township.

4.2.2 Development

1) The developable area is land within the PIA represented in zones relating to urban uses not affected by the following site constraints:

   a) 1% AEP flood inundation

b) nature conservation overlay

c) catchment protection overlays

d) any resumption plans

and is identified in Table SC3.3 in Schedule 3 Local government infrastructure plan mapping and tables.

2) The planned density for future development is stated in Table SC3.3 in Schedule 3—Local government infrastructure plan mapping and tables.

3) A summary of the assumptions about future residential and non-residential development for the planning scheme area is stated in Table 3—Residential dwellings and non-residential floor space assumptions summary.

Table 3—Residential dwellings and non-residential floor space assumptions summary

Column 1 Description		Column 2 Assumptions			
	Base date (2016)	2021	2026	2031	Ultimate Development
Residential dwellings	4,835	5,560	5,996	6,466	8,363
Non-residential floor space (m² GFA)	208,152	216,068	225,188	234,350	301,300

4) Detailed assumptions about future development for each projection area and LGIP development type are identified in the following tables in Schedule 3 Local government infrastructure plan mapping and tables:

a) for residential development, Table SC3. 1

b) for non-residential development, Table SC3. 2

4.2.3 Infrastructure demand

1) The demand generation rate for each of the trunk infrastructure networks is stated in Table SC3.3 in Schedule 3 Local government infrastructure plan mapping and tables.

2) A summary of the projected infrastructure demand for each service catchment is stated in Schedule 3, as follows:

a) For the water supply network, Table SC3. 6

b) for the sewerage network, Table SC3. 7

c) for the stormwater network, Table SC3. 8

d) for the transport network, Table SC3. 9

e) for the parks and land for community facilities network, Table SC3. 10

4.3 Priority infrastructure area

1) The priority infrastructure area identifies the area prioritized for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2031.

2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map LGIP-PIA-001 to LGIP -PIA-007.

4.4 Desired standards of service

1) This section states the key standards of performance for a trunk infrastructure network.

2) Details of the standard of service for a trunk infrastructure networks are identified in the extrinsic material.

4.4.1 Water supply network

Table 4 : Desired Standard of Service (DSS) for the Water Supply network

Measure	Planning Criteria (qualitative standards)	Design Criteria (quantitative standards)
Reliability / Continuity of Supply	All development receives a reliable supply of potable water, with minimal interruptions to their service.	• Mareeba Shire Council Water and Wastewater Customer Service Standard • All sections of the reticulation network shall receive a residual pressure of at least 22 m during the 'maximum hour' demand and the system should be capable of supplying water for six (6) consecutive 'maximum hours'. • The system should have sufficient capacity to refill all reservoirs from empty to full within 5 days of continuous operation during 'average day' demand conditions. • Each reservoir in the system should have a net positive inflow, and should be capable of continuous operation during 'mean day maximum month' demand conditions. • FNQROC Development Manual, as amended. ➢ Wet Tropics Management Plan 1998.
Adequacy of Supply	All development is provided with a water supply which is adequate for the intended use. Minimum static pressure (meters head) and/or flow (liters/second) at connection.	• Water Supply Code of Australia – Water Services Association of Australia as amended by Council. • Planning Guidelines of Water Supply and Sewerage –

Measure	Planning Criteria (qualitative standards)	Design Criteria (quantitative standards)
		Department of Energy and Water Supply. • The reticulation system should be capable of providing simultaneously a fire fighting flow of 30 L/s for 4 hours in commercial areas and 15 L/s for 2 hours in residential areas. • During fire fighting demands the residual pressure at any point in the reticulation network should not drop below 12 m. • The Average Daily consumption and peaking factors for the design of Water Supply Schemes shall be as follows: ➢ Average Daily Consumption (AD) 500 litre/person/day ➢ Mean Day Maximum Month (MDMM) 1.50 x AD ➢ Peak Day (PD) 2.25 x AD ➢ Peak Hour (PH) 1/12 x PD • The maximum head in the reticulation system should be limited to below 60 m.
Quality of Supply	• Provide a uniform water quality in accordance with recognised standards which safeguards community health and is free from objectionable taste and odour.	• National Health and Medical Research Council Australian Drinking Water Guidelines 2011 Version 3.4
Environmental Impacts	Provide water supply infrastructure that: • Minimises energy use. • Minimises greenhouse gas emissions. • Complies with Environmental Management Strategies and Plans. Provides for system operation and monitoring in accordance with recognized standards.	• Compliance with all environmental licenses and environmental management plans under the *Water Act 2000* and the *Environmental Protection Act 1994.* • Water Supply Code of Australia – Water Services Association of Australia as amended by Council. • Planning Guidelines of Water Supply and Sewerage – Department of Energy and Water Supply. • FNQROC Development Manual, as amended. • Wet Tropics Management Plan 1998.

Measure	Planning Criteria (qualitative standards)	Design Criteria (quantitative standards)
Pressure and Leakage Management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimize environmental impacts.	• Mareeba Shire Council Water and Wastewater Customer Service Standard. • System Leakage Management Plan *(Chapter 3, Part 3, Division 1A Water Act 2000).* • A.S.C. System Loss Management Plan.
Infrastructure Design / Planning Standards	Design of the water supply network will comply with established codes and standards.	• Water Services Association of Australia – WSA 03 – 2011 – Water Supply Code of Australia • Australian Drinking Water Guidelines – National Health and Medical Research Council • Planning Guidelines for Water Supply and Sewerage – Department of Natural Resources and Water • FNQROC Development Manual, as amended.

Sewerage network

Table 5 : Desired Standard of Service (DSS) for the Sewerage network

Measure	Planning Criteria (qualitative standards)	Design Criteria (quantitative standards)
Reliability	All lots have access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Mareeba Shire Council Water and Wastewater Customer Service Standard. • The "Average Dry Weather Flow" (ADWF) shall be limited to 275 L / EP / day. • The design flow adopted shall be limited to (4 x ADWF). • The sewer capacity at design flow should not exceed 0.75 x diameter of sewer. • FNQROC Development Manual, as amended.
Quality of Treatment	Ensures the health of the community, and the safe and appropriate level of treatment and disposal of treated effluent.	• Compliance with all environmental licenses and environmental management plans under the *Water Act 2000* and the *Environmental Protection (Water) Policy 1997*. • Queensland *Water Quality* Guidelines 2006 – Environmental Protection Agency. • National Water Quality Guidelines – National Water Quality Management Strategy.

Measure	Planning Criteria (qualitative standards)	Design Criteria (quantitative standards)
Environmental Impacts	The environmental impacts of the sewerage network are minimized in accordance with community expectations.	• Compliance with all environmental licenses and environmental management plans under the *Water Act 2000* and the *Environmental Protection (Water) Policy 1997* • Mareeba Shire Council Water and Wastewater Customer Service Standard.
Inflow / Infiltration	Ensure infiltration and inflow in the sewerage collection and transportation system remains within industry acceptable limits.	• Compliance with all environmental licenses and environmental management plans under the *Water Act 2000* and the *Environmental Protection (Water) Policy 1997*
Effluent Re-use	Reuse effluent wherever possible.	• Compliance with all environmental licenses and environmental management plans under the *Water Act 2000* and the *Environmental Protection (Water) Policy 1997* • *Guidelines for Sewerage Systems – Reclaimed Water – February 2000* • *Queensland Water quality guidelines for recycled water schemes - November 2008*
Infrastructure Design / Planning Standards	Design of the sewerage network will comply with established codes and standards.	• Section D7 Sewerage System Design Guidelines of the Development Manual Planning Scheme Policy. • Department of Natural Resources Planning Guidelines for Water Supply and Sewerage. • Water Services Association of Australia – WSA – 02 – 2014 – Sewerage Code of Australia • Water Services Association of Australia – WSA – 04 – 2005 – Sewerage Pumping Station Code of Australia. • FNQROC Development Manual, as amended.

4.4.2 Stormwater Network

Table 6 Desired Standard of Service (DSS) for Stormwater Network

Measure	Planning Criteria (qualitative standards)	Design Criteria (quantitative standards)
Quantity	Collect and convey the design storm event in natural and engineered channels, a piped drainage network and system of overland flow paths to a lawful point of discharge in a safe manner that minimises the	▪ Department of Natural Resources and Water – *Queensland Urban Drainage Manual* ▪ FNQROC Development Manual, ▪ Australian Rainfall and Runoff – *A Guide to Flood Estimation*, ▪ Brisbane City Council - *Natural Channel Design Guidelines*.

Measure	Planning Criteria (qualitative standards)	Design Criteria (quantitative standards)
	inundation of habitable rooms and protects life.	
Quality	The water quality of urban catchments and waterways are managed to protect and enhance environmental values and pose no health risk to the community, and water quality of urban catchments and waterways consider provision of sufficient space in waterway corridors to accommodate wetlands and stormwater quality improvement devices.	▪ Provide sufficient space in waterway corridors to accommodate wetlands and stormwater quality improvement devices. ▪ Design cross road structures to provide the appropriate level of flood immunity. ▪ Queensland Water Quality Guidelines 2006 – Environmental Protection Agency ▪ Queensland Waterway Guideline ▪ National Water Quality Guidelines – National Water Quality Management Strategy ▪ Fisheries Act 1994 and Fisheries Regulation 2008. ▪ Fish Habitat Guideline FHG 003 – Fisheries Guidelines for Fish Habitat Buffer Zones
Environmental Impacts	Adopt water sensitive urban design practices and on site water quality management to achieve EPA water quality objectives	▪ Environmental Protection Agency requirements (section 42 Environmental Protection (Water) Policy 1997) ▪ Fisheries Act 1994. ▪ Queensland Waterway Guideline ▪ Employ water sensitive urban design criteria to maximise on-site quantity and quality treatment and limit discharges off site. ▪ Employ (NO net-worsening) criteria on all new development or redevelopment site.
Infrastructure Design / Planning Standards	Design of the stormwater network will comply with established codes and standards	▪ FNQROC Development Design Standards - *Design Guidelines set out in Sections D4 and D5 of FNQROC Development Manual*. ▪ Department of Natural Resources and Water - *Queensland Urban Drainage Manual*. ▪ Australian Rainfall and Runoff – *A Guide to Flood Estimation*, and ▪ Brisbane City Council - *Natural Channel Design Guidelines* requirements.

4.4.3 Transport Network

Table 7 Desired Standard of Service (DSS) for Transport Network

Measure	Planning Criteria (qualitative standards)	Design Criteria (quantitative standards)
Road Network Design / Planning Standards	The road network provides a functional urban and rural hierarchy and freight routes which support	▪ FNQROC Development Manual ▪ *Road Planning and Design Manual* - Department of Transport and Main Roads ▪ Australian Standards

Measure	Planning Criteria (qualitative standards)	Design Criteria (quantitative standards)
	settlement patterns and commercial and economic activities. Design of the road system will comply with established codes and standards	▪ AUSTROADS guidelines
Public Transport Design / **Planning Standards**	New urban development is designed to achieve safe walking distance to existing or potential bus stops or existing or proposed demand-responsive public transport routes.	▪ Design accords with the Performance Criteria set by Department of Transport and Main Roads ▪ AUSTROADS guides for road-based public transport and high occupancy vehicles
Cycle ways and Pathways **Design / Planning Standards**	Cycleways and pathways provide a safe and convenient network which encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	▪ Australian Standards ▪ 'AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths' ▪ Queensland Cycle Strategy 2011-2021 ▪ 'Complete Streets'

4.4.4 Public parks and land for community facilities network

Table 8 Desired Standards of Service Open Space and Community Facilities Network

Measure	Planning Criteria (qualitative standards)	Design Criteria (quantitative standards)
Functional Network	A network of parks and community land is established to provide for the full range of recreational and sporting activities and pursuits.	• Parks and Community Land is provided at a Local, District and LGA Wide Level • Parks and community land addresses the needs of both recreation and sport. • Nature conservation is also provided for but not part of the charging regime.
Accessibility	Public parks will be located to ensure adequate pedestrian, cycle and vehicle access.	• Accessibility criteria are identified in Table 9.
Land Quality/ Suitability • Area / 1000 persons • Minimum size • Maximum grade • Flood immunity	Public parks will be provided to a standard which supports a diverse range of recreational, sporting and health promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope and has an acceptable level of flood immunity.	• The rate of public park provision is identified in Table 10. • The size for public parks is identified in Table 11. • The maximum gradient for public parks is identified in Table 12. • The minimum flood immunity for public parks is identified in Table 13.
Embellishments	Public parks contain a range of embellishments to complement the type and use of the park.	• Standard embellishments for each type of park are identified in Table 14.
Infrastructure Design / Performance Standards	Maximise opportunities to co-locate recreational parks in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Australian Standards; • FNQROC Development Manual
Accessibility	Public parks will be located to ensure adequate pedestrian, cycle and vehicle access.	• Accessibility criteria are identified in Table 9

Table 9 : Accessibility standard

Infrastructure Type	Accessibility Standard		
	Local (non trunk)	**District**	**Area of Planning Scheme**
Recreation park	Park or node1 within 500 m safe walking distance.	Park or node within 2 - 5 km.	Park/precinct based on specific feature or location – serves whole of planning scheme area.
Sport park	No formal provision	Sporting Park within 5-10 km of residential and village areas.	1-3 Parks serves whole of area for regional competition or is base for competition within area.

Table 10 : Rate of land provision

Infrastructure Type	Rate of provision (Ha/1000 people)		
	Local (non—trunk)	**District**	**Area of Planning Scheme**
Recreation park	1.5 Ha	1.0 Ha	0.5 Ha
Sport park	N/A	1.0 Ha	0.4 Ha
Community Facilities	N/A	N/A	0.1

Table 11 : Size of parks and community land

Infrastructure Type	Size (Ha)		
	Local (non trunk)	**District**	**Area of Planning Scheme**
Recreation park	*1.5 Ha (2.0 Ha if a node)*	2 Ha usable area	More than 5 Ha
Sport park	*No formal provision*	5 Ha minimum	5-10 Ha
Community Facilities		*As required*	*As required*

Table 12 : Maximum desired grade

Infrastructure Type	Maximum Gradient		
	Local (non trunk)	**District**	**Area of Planning Scheme**
Recreation park	1:20 for main use area 1:6 for remainder	1:20 for main use area, variable for remainder	1:20 for use areas Variable for remainder
Sport park	N/A	1:50 for field and court areas 1:10 for remainder	1:50 for all playing surfaces

[1] Node is an area within a higher level park or within other open space (e.g. a waterway corridor) that is developed for play and picnic use.

Infrastructure Type	Maximum Gradient		
	Local (non trunk)	District	Area of Planning Scheme
Community Facilities	N/A	N/A	

Table 13 : Minimum desired flood immunity for parks

Infrastructure Type	Minimum flood immunity (%)								
	Local			District			Area of Planning Scheme		
Flood immunity	>20% AEP	>2% AEP	>1% AEP	>20% AEP	>2% AEP	>1% AEP	>20% AEP	>2% AEP	>1% AEP
Recreation park	25%	50%	50%	0%	90%	10%	50%	40%	10%
Sport park	N/A	N/A	N/A	0%	90%	10%	50%	40%	10%
Community Facilities	N/A	N/A	N/A	N/A	N/A	N/A	0	10%	90%

Table 14 : Standard facilities/embellishments for parks

Embellishment type	Recreation parks			Sport parks	
	Local (non trunk)	District	Area of Planning Scheme	District	Area of Planning Scheme
Internal roads	N/A	N/A			N/A
Parking	On street	On street	Off street or dedicated on street parking, possibly in several locations	Off street parking provided as central hubs to facilities	Off street parking provided as central hubs to facilities
Fencing/bollards	Not required	Bollards to prevent car access	Range of fencing, boundary definition styles as appropriate to location	Bollards to prevent car access	Fencing and bollards to control access to site as well as limiting internal traffic access to fields and facilities.
Lighting	Safety lighting provided by street lights	For car park, toilets, youth space and picnic area	For car park, toilets, youth space and picnic area	For car park, toilets, security lighting for buildings. Field lighting responsibility	For car park, toilets, security lighting for buildings. Field lighting responsibility

Embellishment type	Recreation parks			Sport parks	
	Local (non trunk)	District	Area of Planning Scheme	District	Area of Planning Scheme
Toilet	Generally, not provided	Usually provided	Provided	Provided if not being provided as part of club facilities	Provided if not being provided as part of club facilities
Paths (pedestrian/cycle)	On footpath and providing access to boundary	Paths and links to park and within park	Internal links to facilities	Bikeway links to park. Internal links to facilities	Internal links to facilities
Shade structures	Shade from trees or structures provided for play areas and picnic node	Built shade for play and picnic facilities if insufficient natural shade	Shade for picnic facilities and all use nodes. Combination of natural and built.	Perimeter shade from appropriate tree species.	Perimeter shade from appropriate tree species.
Seating, tables and BBQ	1-2 tables 2+ seats BBQ's normally not provided	2+ sheltered tables 4+ seats BBQ's usually provided	Multiple picnic nodes, BBQ's and shelters provided	Not provided except as recreation nodes. 2-4 perimeter seats	Not provided except as recreation nodes. 2 perimeter seats per field
Taps/irrigation	1-2 drinking taps / fountains	2+ drinking fountains for picnic areas. Taps near active recreation areas.	In ground irrigation for landscaped areas. Drinking fountains and taps provided at picnic and active nodes.	Taps located on built facilities and near fields.	In ground irrigation for fields. Taps located on built facilities and 1 per field
Bins	Provided	Provided	Provided	Provided	Provided
Landscaping (including earthworks, irrigation and revegetation)	Ornamental plantings. Shade species. Buffer plantings with other nodes.	Enhancement plantings and shade plantings along with screening and buffers.	Significant works including plantings, features and public art.	Planted buffer areas adjacent to residential areas. Screening / buffer plantings for recreation nodes.	Planted buffer areas adjacent to residential areas. Screening / buffer plantings for recreation nodes.
Playgrounds	1 play event provided	Larger playground multiple play	Large playgrounds and possibly	Not provided except as part of recreation node.	Not provided except as part of recreation node.

Embellishment type	Recreation parks			Sport parks	
	Local (non trunk)	District	Area of Planning Scheme	District	Area of Planning Scheme
		events provided.	multiple locations.		
Youth active and informal facilities		Youth active facilities provided - court, bike tracks, youth space etc.	Youth active facilities provided -court, bike tracks, youth space etc.	Not provided except as public access to sporting fields	Not provided except as public access to sporting fields or as dedicated facility (e.g. skate park)

4.5 Plans for trunk infrastructure

1) The plans for trunk infrastructure identify the trunk infrastructure networks intended to service the existing and assumed future urban development at the desired standard of service up to 2031.

4.5.1 Plans for trunk infrastructure maps

1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3—Local government infrastructure plan mapping and tables:
   a) Local Government Infrastructure Plan Map LGIP-WAT-001 to LGIP -WAT-006 Plan for trunk water supply infrastructure
   b) Local Government Infrastructure Plan Map LGIP-SEW-001 to LGIP -SEW-007 —Plan for trunk sewerage infrastructure
   c) Local Government Infrastructure Plan Map LGIP-STW-001 to LGIP -STW-006 —Plan for trunk stormwater infrastructure
   d) Local Government Infrastructure Plan Map LGIP-TPT-001 to LGIP -TPT-006 —Plan for trunk transport infrastructure
   e) Local Government Infrastructure Plan Map LGIP-PCF-001 to LGIP -PCF-006 —Plan for trunk parks and land for community facilities infrastructure
2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.5.2 Schedules of works

1) Details of the existing and future trunk infrastructure networks are identified in the electronic Excel schedule of works model which can be viewed here: https://websync.msc.qld.gov.au/public_documents/files/530/Schedule%20of%20Works.xlsm
2) The future trunk infrastructure is identified in the following tables in Schedule 3—Local government infrastructure plan mapping and tables:
   a) for the water supply network, Table SC3. 11
   b) for the sewerage network, Table SC3. 12
   c) for the stormwater network, Table SC3. 13

d) for the transport network, Table SC3.14

e) for the parks and land for community facilities network, Table SC3. 15

Editors note – Extrinsic material

The below table identifies the documents that assist in the interpretation of the local government infrastructure plan and are extrinsic material under the *Statutory Instruments Act 1992*.

List of extrinsic material

1) Table 4.5.2.1: List of extrinsic material

Column 1 Title of document	Column 2 Date	Column 3 Author
Background Information for the Water Supply & Wastewater Networks for the Mareeba Shire Council Local Government Infrastructure Plan	March 2017	MSC
Background Information for the Planning Assumptions for the Mareeba Shire Council Local Government Infrastructure Plan	March 2017	MSC
Background Information for the Transport Network for the Mareeba Shire Council Local Government Infrastructure Plan	March 2017	MSC
Background Information for the Stormwater Drainage Network for the Mareeba Shire Council Local Government Infrastructure Plan	March 2017	MSC
Background information for the Open Space and Land for Community Facilities Network for the Mareeba Shire Council Local Government Infrastructure Plan	March 2017	MSC

Schedule 3 Local Government Infrastructure Plan Mapping and Tables

SC3.1 Planning assumption tables

Table SC3. 1 Existing and Projected Population

	Existing and projected population			
PIA Projection Area	**2016**	**2021**	**2026**	**2031**
CHILLAGOE	188	195	203	212
DIMBULAH	372	386	402	419
KURANDA	1,906	1,978	2,062	2,146
MAREEBA	8,902	9,241	9,631	10,022
Total PIA	**11,368**	**11,801**	**12,299**	**12,798**
Total outside PIA	10,189	10,804	11,263	11,724
Total for area of Planning Scheme	**21,557**	**22,605**	**23,562**	**24,522**

Table SC3. 2 Existing and Projected Employees

PIA Projection Area	LGIP Employment Category	Existing and projected persons in employment by PIA projection area (persons)			
		2016	2021	2026	2031
CHILLAGOE	Retail	12	12	13	13
	Industry and Construction	-	-	-	-
	Office	9	10	10	10
	Community	15	15	16	16
	Rural, Mining and Other*	22	23	24	25
DIMBULAH	Retail	20	21	22	23
	Industry and Construction	19	20	21	21
	Office	4	4	4	5
	Community	48	50	52	54
	Rural, Mining and Other*	36	37	39	41
KURANDA	Retail	196	203	212	221
	Industry and Construction	162	168	175	182
	Office	141	147	153	159
	Community	336	348	363	378
	Rural, Mining and Other*	98	102	106	110
MAREEBA	Retail	894	928	967	1,007
	Industry and Construction	762	791	825	858
	Office	345	358	373	389
	Community	1,312	1,361	1,419	1,477
	Rural, Mining and Other*	1,031	1,070	1,115	1,160
Total PIA		5,462	5,669	5,909	6,149

* Rural Mining and Other employment assumed to be outside of PIA

Table SC3.3a Planned density and demand generation rate for a trunk infrastructure network

Column 1 Area classification	Column 2 LGIP development type	Column 3 Planned density		Column 4 Demand generation rate for a trunk infrastructure network				
		Non-residential plot ratio	Residential density (dwellings/ dev ha)	Water supply network (EP/dev ha)	Sewerage network (EP/dev ha)	Transport network (vpd/dev ha)	Parks and land for community facilities network (ha/1000 persons)	Stormwater network (imp ha/dev ha)
Residential development								
Rural Residential	4000 m^2 Precinct	N/A	2.1	4.7	N/A	18.9	N/A	No Worsening
Rural Residential	1 ha Precinct	N/A	1.0	2.1		9.45		
Rural Residential	2 ha Precinct	N/A	0.5	1.05		4.75		
Emerging Community		N/A	7.5	Demand Rates consistent with Low density residential (sewered) or in accordance with approved Structure Plan				
Low density residential	All Sewered Precincts	N/A	7.5	15.75	15.75	71	15.75	0.5
Low density residential	All Unsewered Precincts	N/A	6.0	15.75	N/A	71	15.75	0.5
Medium density residential	All Sewered Precincts	N/A	22	46.2	46.2	82	46.2	0.5
Non-residential development and mixed development**								
Centre*	All Precincts	0.6240	80	277	277	624	N/A	0.9
Industry	Trades & Services	0.5200	N/A	47	47	260	N/A	0.8
Industry	General	0.5200	N/A	47	47	260	N/A	0.8
Industry	Heavy	0.5200	N/A	47	47	260	N/A	0.8
Community Facilities	Community Activities	0.4500	N/A	31.7	31.7	180	N/A	No Worsening
Recreation & Open Space	Sport & Recreation Activities	0.1000	N/A	N/A	N/A	N/A	N/A	No Worsening
Conservation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Worsening

** Demand determined for non residential activities within the centre zone. Use of this zone for residential uses at the maximum allowable density will result in reduced demands for infrastructure.*

*** Mixed development is development that includes residential development and non-residential development.*

Table SC3.3b Demand Generation Rates for Reconfiguring of a Lot and Material Change of Use Applications, or carrying out Building Work

Planning scheme area identification & land use				Assumed demand generation rates				
				Water supply units of demand	Sewerage units of demand	Transport units of demand	Stormwater units of demand	Public parks and land for community facilities units of demand
Use	**Zone**	**Planning scheme use type**	**Use intensity**	**Demand Ratio**	**Demand Ratio**	**Trips /day**	**Impervious area / ha**	**Demand Ratio**
Residential uses	**Low density residential**	**Detached house and lot**	**Detached house and lot**	1.0	1.0	9	5000m^2	1.0
	Medium density residential	**1 bed unit**	**1 bed unit**	0.5	0.6	5	6000m^2	0.5
		2 bed unit	**2 bed unit**	0.7	0.8	7	6000m^2	0.7
		3 bed or more	**3 bed or more**	1.0	1.0	9	6000m^2	1.0
		1 bed unit	**1 bed unit**	0.5	0.6	5	6000m^2	0.5
		2 bed unit	**2 bed unit**	0.7	0.8	7	6000m^2	0.7
		3 bed or more	**3 bed or more**	1.0	1.0	9	6000m^2	1.0
		1 bed unit	**1 bed unit**	0.5	0.6	5	6000m^2	0.5
		2 bed unit	**2 bed unit**	0.7	0.8	7	6000m^2	0.7
		3 bed or more	**3 bed or more**	1.0	1.0	9	6000m^2	1.0
Industrial uses	**100m^2 use area**			0.03	0.03	5	8000m^2	0.03
Retail uses	**100m^2 use area**			1.0	1.0	10	8500m^2	1.0
Commercial uses	**100m^2 use area**			1.0	1.0	10	9500m^2	1.0

Table SC3. 4 Existing and projected residential dwellings

Projection area	LGIP development type	Existing and projected residential dwellings				
		2016	2021	2026	2031	PIA Ultimate Development *(Locality Ultimate Development in brackets)*
Chillagoe	Single Dwelling	79	89	99	109	117 (152)
	Multiple Dwelling					
	Other	20	20	19	19	
	Total	99	109	118	128	
Dimbulah	Single Dwelling	196	203	209	216	328 (358)
	Multiple Dwelling	6	7	8	9	
	Other	30	30	29	29	
	Total	232	239	247	254	
Kuranda	Single Dwelling	751	787	822	858	350 (1345)
	Multiple Dwelling	18	39	59	80	
	Other	128	130	132	134	
	Total	897	955	1,014	1,072	
Mareeba	Single Dwelling	3,238	3,595	3,952	4,309	4,805 (6,593)
	Multiple Dwelling	386	278	170	62	
	Other	70	72	73	75	
	Total	3,694	3,945	4,195	4,446	
Outside priority infrastructure area (total)	Single Dwelling	4,245	5,049	5,441	5,862	N/A
	Multiple Dwelling	-	-	-	-	
	Other	-	-	-	-	
	Total	4,245	5,049	5,441	5,862	
Mareeba Shire	Single Dwelling	8,509	9,723	10,523	11,354	N/A
	Multiple Dwelling	410	324	237	151	
	Other	248	252	253	257	
	Total	9,167	10,297	11,015	11,762	

Table SC3. 5 Existing and projected non-residential floor space

PIA locality	LGIP Employment Category	GFA per person	Existing and projected employment GFA by PIA Locality (m²)				Ultimate Development
			2016	2021	2026	2031	
CHILLAGOE	Retail	20	237	246	256	268	1,208
	Industry and Construction	110	-	-	-	-	-
	Office	25	231	239	249	260	495
	Community	50	725	752	783	818	818
	Total		**1,194**	**1,238**	**1,289**	**1,346**	**2,521**
DIMBULAH	Retail	20	400	415	432	451	2,029
	Industry and Construction	110	2,091	2,170	2,259	2,355	2,095
	Office	25	100	104	108	113	831
	Community	50	2,401	2,491	2,595	2,704	2,704
	Total		**4,992**	**5,180**	**5,395**	**5,623**	**7,659**
KURANDA	Retail	20	3,921	4,069	4,242	4,415	8,600
	Industry and Construction	110	*17,786 (1,778)*	*18,458 (1,846)*	*19,242 (1,924)*	*20,025 (2,003)*	*1,047*
	Office	25	3,537	3,671	3,826	3,982	3,522
	Community	50	16,775	17,409	18,148	18,888	18,888
	Total		**26,011**	**26,995**	**28,140**	**29,288**	**32,057**
MAREEBA	Retail	20	17,884	18,565	19,349	20,134	38,163
	Industry and Construction	110	83,867	87,061	90,735	94,419	131,445
	Office	25	8,628	8,957	9,335	9,714	15,629
	Community	50	65,575	68,073	70,945	73,826	73,826
	Total		**175,955**	**182,656**	**190,365**	**198,093**	**259,063**
Total PIA			**208,152**	**216,068**	**225,188**	**234,350**	**301,300**

Table SC3. 6 Existing and projected demand for the water supply network

Column 1 PIA projection area/ Service Catchment	Column 2 Water supply network demand (EP)			
	2016	2021	2026	2031
CHILLAGOE	193	201	209	217
DIMBULAH	379	393	409	426
KURANDA	1,991	2,066	2,154	2,242
MAREEBA	9,212	9,562	9,967	10,371
Total PIA	13,790	14,242	14,764	15,287

Table SC3. 7 Existing and projected demand for the sewerage network

Column 1 PIA projection area/ Service Catchment	Column 2 Sewerage network demand (EP)			
	2016	2021	2026	2031
CHILLAGOE	193	201	209	217
DIMBULAH	379	393	409	426
KURANDA	1,991	2,066	2,154	2,242
MAREEBA	9,212	9,562	9,967	10,371

Table SC3. 8 Existing and Projected Demand for the Stormwater Network

Column 1 Service Catchment	Column 2 Existing and projected stormwater network demand (Impervious Hectare)			
	2016	2021	2026	2031
Chillagoe	6.64	7.18	7.85	8.58
Dimbulah	15.75	14.29	15.63	17.17
Kuranda	55.03	63.77	68.67	73.89
Mareeba	305.82	354.88	382.08	411.12

Table SC3. 9 Existing and Projected Demand for the Transport Network (vehicles per day)

Column 1 Service Catchment	Column 2 Transport Network Demand (trips per day)			
	2016	2021	2026	2031
Chillagoe	967	1,042	1,135	1,238
Dimbulah	2,348	2,159	2,350	2,568
Kuranda	9,452	10,709	11,459	12,253
Mareeba	42,849	48,690	52,120	55,758

Table SC3. 10 Existing and Projected demand for the community facilities network

Column 1 PIA projection area/ Service Catchment	Column 2 Community Facilities Demand (EP)			
	2016	2021	2026	2031
Chillagoe	188	195	203	212
Dimbulah	372	386	402	419
Kuranda	1,906	1,978	2,062	2,146
Mareeba	8,902	9,241	9,631	10,022
Total PIA	**11,368**	**11,801**	**12,299**	**12,798**

SC3.2 Schedules of works

Table SC3. 11 Water Supply network schedule of works

Map reference	Trunk infrastructure	Estimated timing	Establishment cost
WAT - 01	Seary Road, Mareeba. Metered Water Standpipe Access Upgrade.	2019	$100,000
WAT - 02	Design and install clear water pump set, Dimbulah Water Treatment Plant. Subject to options analysis.	2019	$60,000
WAT - 03	Chillagoe Water Treatment Plant. Install generator.	2019	$50,000
WAT - 04	Rankin Street, Mareeba. Water Main Replacement (Uncommitted: subject to obtaining grant funding).	2019	$1,250,000
WAT - 05	Replace existing reservoirs in Chillagoe with new 500KL prefabricated steel reservoir (Uncommitted: subject to obtaining grant funding).	2019	$800,000
WAT - 06	Mareeba Water Treatment Plant. Replace Alum Dosing System with Aluminium Chloride Hydrate (ACH) flocculant.	2019	$80,000
WAT - 07	Mareeba Reticulation Depot Shed Replacement.	2019	$100,000
WAT - 08	Upgrade Mareeba town water booster station, including water main upgrades.	2020	$3,900,000
WAT - 09	New Mareeba Spare Transfer Holding Lagoon Pump.	2020	$12,000
WAT - 10	Kuranda Water Treatment Plant new 500KL storage tank.	2020	$820,000
WAT - 11	Upgrade Mareeba Water Treatment Plant High Lift Pumps.	2020	$1,050,000
WAT - 12	Mareeba WTP Backwash Water Treatment Project	2020	$170,000
WAT - 13	Mareeba Backwash Recycle Water Pump new spare.	2020	$12,000
WAT - 14	Replace Kuranda Water Treatment Plant Generator.	2020	$180,000
WAT - 15	Kuranda Water Treatment Plant Clear Water Pump Station Staged Pumps Renewal	2020	$210,000
WAT - 16	Mareeba WTP Clearwater Reservoir Roof Refurbishment	2020	$600,000

Map reference	Trunk infrastructure	Estimated timing	Establishment cost
WAT - 17	Chillagoe Town bore 2 pump station renewal	2020	$25,000
WAT - 18	Chillagoe Town bore 1 pump station renewal	2020	$25,000
WAT - 19	Mareeba Water Treatment Plant - Construct concrete flow meter pits (Upgrade).	2021	$30,000
WAT - 20	Third Kuranda Myola Road Reservoir.	2022	$1,200,000
WAT - 21	Wylandra Water Booster Pump Station/Extra Variable Speed Drive.	2021	$60,000
WAT - 22	Mareeba WTP Security Fence.	2021	$40,000
		Total	**$10,774,000.00**

Table SC3. 12 Sewerage network schedule of works

Map reference	Trunk infrastructure	Estimated timing	Establishment cost
SEW - 01	Upgrade Barang St Pump Station (Subject to grant funding)	2019	$900,000.00
SEW – 02A	Kuranda Pump Station, New standby generator (Honey House) (Upgrade)	2019	$40,000.00
SEW – 02B	Kuranda Pump Station, New standby generator (Myola 4) (Upgrade)	2019	$40,000.00
SEW – 03A	Mareeba Pump Station, New standby generator (Palm Close)	2019	$40,000.00
SEW – 03B	Mareeba Pump Station, New standby generator (Ceola Drive)	2019	$40,000.00
SEW – 04A	Kuranda Pump Station, New standby generator (Upgrade) (Kullaroo)	2020	$20,000.00
SEW – 04B	Kuranda Pump Station, New standby generator (Upgrade) (Arara)	2020	$20,000.00
SEW – 05A	Mareeba Pump Station, New standby generator (Industrial)	2020	$20,000.00
SEW – 05B	Mareeba Pump Station, New standby generator (Yarrabee)	2020	$20,000.00
SEW – 06A	Kuranda Pump Station, New standby generator (Upgrade) (Thoree,)	2021	$20,000.00
SEW – 06B	Kuranda Pump Station, New standby generator (Upgrade) (Myola 3)	2021	$20,000.00
SEW – 07A	Mareeba Pump Station, New standby generator (Amaroo)	2021	$20,000.00

Map reference	Trunk infrastructure	Estimated timing	Establishment cost
SEW – 07B	Mareeba Pump Station, New standby generator (Godwin)	2021	$20,000.00
SEW – 08A	Mareeba Pump Station, New standby generator (The Edge)	2022	$20,000.00
SEW – 08B	Mareeba Pump Station, New standby generator (Prestige Gdns)	2022	$20,000.00
SEW – 09A	Kuranda Pump Station, New standby generators (Upgrade) (Railway)	2023	$20,000.00
SEW – 09B	Kuranda Pump Station, New standby generator (Upgrade) (Barron Falls Rd.)	2023	$20,000.00
SEW – 10A	Mareeba Pump Station, New standby generator (River Gdns)	2023	$20,000.00
SEW – 10B	Mareeba Pump Station, New standby generator (Lifestyle Resort.)	2023	$20,000.00
		Total	**$1,340,000.00**

Table SC3. 13 Stormwater Network Schedule of Works

Map Ref	Trunk infrastructure	Estimated timing	Establishment cost
SW-01	Vaughan Street, Mareeba. Drainage Improvement.	2027	$220,000.00
SW-04	Atherton Street, Mareeba. Drainage Improvement.	2025	$500,000.00
SW-05	Tower Street, Chillagoe. Drainage improvement.	2028	$250,000.00
SW-06	Tilse St, Mareeba	2028	$700,000
SW-07	Ray Rd, Mareeba	2026	$1,500,000
SW-08	CBD drainage, Mareeba	2025	$2,500,000
SW-09	Hoolahan Dr (Emerald End Rd), Mareeba	2023	$250,000
SW-10	Amaroo drainage, Mareeba	2020	$600,000
SW-11	Sunset Park Drainage, Mareeba	2022	$250,000
SW-12	Mareeba Industrial Precinct drainage, Mareeba	2028	$600,000
SW-13	Ceola Estate drainage, Mareeba	2024	$600,000
SW-14	McIver Rd, Mareeba	2026	$500,000
SW-15	Marinelli drainage, Mareeba	2028	$500,000

Map Ref	Trunk infrastructure	Estimated timing	Establishment cost
SW-16	Costin St (Basalt Gully) culvert	2028	$400,000
SW-17	Reynolds St (Basalt Gully) culvert	2028	$400,000
SW-18	Rankin St (Basalt Gully) culvert	2028	$400,000
SW-19	Keeble St (Basalt Gully) culvert	2028	$400,000
SW-20	Blacks Road drainage, Mareeba	2026	$500,000
		TOTAL	**$11,070,000**

Table SC3.14 Transport network schedule of works

Ref	Trunk infrastructure	Estimated timing	Establishment cost
TPT-03	Barang Street/Rob Veivers Drive, Kuranda. Upgrade of intersection to include Channelised right turn pocket.	2026	$90,000.00
TPT-04	Chewko Road, Mareeba. Widen and Seal to 8.5m.	2022	$280,000.00
TPT-08	Bowers Street, Mareeba. Rehabilitate pavement both lanes Asphalt overlay.	2020	$570,000.00
TPT-10	Moorong Street, Kuranda. Reconfigure Car Park.	2020	$50,000.00
TPT-11	Barang Street, Kuranda. Widen and upgrade to collector street standard.	2020	$390,000.00
TPT-13	Raleigh Street, Dimbulah. Carpark Improvement	2020	$165,000.00
TPT-14	Black Mountain Road. Widen seal to 6.5m. Ch. 0.5 - 1.1.	2020	$225,000
TPT-15	McGrath Road. Rehabilitate Pavement and Reseal to m. Ch. 0.014 - 0.835.	2021	$520,000
TPT-16	Chewko Road. Rehabilitate Pavement, widen and seal to 8.5m. Ch. 0.4 - 1.	2021	$300,000
TPT-17	Herberton Street/Constance Street intersection upgrade.	2027	$1,800,000
TPT-18	McIver Road. Construct new kerb and channel. Ch. 0 - 0.22.	2028	$150,000
TPT-19	Myola Road. Intersection of Kuranda Heights Road onto Myola Road (near Water tank). Ch. 0.16 - 0.18.	2028	$60,000
TPT-20	Rankin Street/Walsh Street. Rankin Street/Walsh Street Intersection Upgrade.	2020	$1,200,000
TPT-21	Walsh Street. Walsh Street / Coles and Target Accesses upgrade.	2020	$400,000
TPT-22	Ceola Drive/Anzac Avenue intersection	2021	$1,000,000
TPT-23	Barron Falls Road. Rehabilitate, widen to 6.5m seal width and intersection upgrade with Mason Road to 6.5m. Ch. 1.2 - 2.6.	2023	$400,000

Ref	Trunk infrastructure	Estimated timing	Establishment cost
TPT-24	Mason Road. Reprofile road due to drainage issues. Ch. 0.2 - 0.6.	2021	$70,000
TPT-25	Hastie Road Upgrade, Mareeba	2020	$700,000
TPT-26	Railway Avenue Car Park, Mareeba	2019	$280,000
TPT-27	McIver Road – Ray Road Upgrade, Mareeba	2023	$450,000
TPT-28	Malone Road widening, Mareeba	2022	$800,000
TPT-29	Hastie Rd – Emerald End Rd intersection upgrade	2025	$450,000
TPT-30	Railway Avenue Car Park Stage 2	2026	$250,000
	TOTAL		$11,150,000

Table SC3. 15 Community Facilities Schedule of Works

c	Column 1 **Trunk infrastructure**	Column 2 **Estimated timing**	Column 3 **Establishment cost**
CF-01	Bicentennial Lakes, Mareeba. Vegetation Management Program.	2018	$250,000
CF-02	Mary Andrews Carpark, Mareeba. Seal carpark with asphalt.	2018	$120,000
CF-03	Davies Park and Firth Park, Mareeba. Aerating and Top Dressing.	2019	$52,000
CF-04	Centenary Park, Mareeba. Renew playground equipment.	2019	$8,000
CF-05	Anzac Park, Mareeba. Renew irrigation.	2018	$8,000
CF-06	Kuranda CBD. Renew irrigation and planting.	2018	$40,000
CF-07	Railway Park, Dimbulah. Renew soft fall.	2018	$60,000
CF-08	Sunbird Park, Mareeba. Irrigation Upgrade - Stage Two.	2020	$20,000
CF-09	Sunbird Park, Mareeba. Replace soft fall around exercise equipment - Stage Three.	2020	$20,000
CF-10	Seed funding for Bi-Centennial Lakes, Mareeba priority project/s.	2020	$100,000
CF-11	*Not used*		
CF-12	Kuranda Esplanade. Renew concrete furniture.	2018	$7,000
CF-14	Bicentennial Lakes, Mareeba. Install trash rack & fencing."	2019	$12,000
CF-15	Gregory Terrace Park, Kuranda. Renew soft fall.	2021	$30,000
CF-16	Bicentennial Lakes, Mareeba. Water Reconfiguration Program.	2022	$1,050,000
CF-17	Bartley Park, Kuranda. New park seating and picnic facilities.	2023	$12,000
CF-18	Centenary Park, Mareeba. Replace existing half sail & install shade sail on wheelchair swing.	2023	$12,000
	TOTAL		**$1,801,000.00**