Part 4. Local Government Infrastructure Plan

4.1 Preliminary

(1) This Local Government Infrastructure Plan (LGIP) has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009*.

(2) The purpose of the LGIP 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; and
- (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 (where applicable):
  - (i) water supply;
  - (ii) sewerage;
  - (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 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; and
- (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 the 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 2011 and the following projection years to accord with future Australian Bureau of Statistics census years:

(i) mid 2016;

(ii) mid 2021;

(iii) mid 2026; and

(iv) mid 2031.

(b) the LGIP development types in column 2 include the uses in column 3 of Table 4.1.

(c) the projection areas identified in Schedule 3 Local government infrastructure plan mapping and tables.

Table 4.1: 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	Attached dwelling	Dual occupancy Multiple dwelling Accommodation units Community residence Dwelling unit Home-based business Retirement facility Residential care facility Rooming accommodation Rural workers accommodation Short-term accommodation Special industry
	Detached dwelling	Dwelling house Caretakers accommodation Home-based business Rural workers accommodation
	Residential (temporary)	Relocatable home park Non-resident workforce
Non-residential development	Commercial	Agricultural supplies store Brothel Car wash Community care centre Function facility Funeral parlour Health care services Office Outdoor sales

COLUMN 1 LGIP DEVELOPMENT CATEGORY	COLUMN 2 LGIP DEVELOPMENT TYPE	COLUMN 3 USES
		Parking Station Sales office Service industry Service station Shopping Centre Showroom Theatre Veterinary services Warehouse
	Community purpose	Community use Cemetery Child care centre Club Community use Crematorium Educational establishment Emergency services Hospital Place of worship
	Industry	Extractive industry High impact industry Low impact industry Marine Industry Medium impact industry Renewable energy facility Research and technology industry Rural industry Wholesale nursery Winery
	Intensive Agriculture	Aquaculture Animal husbandry Animal keeping Aquaculture Cropping Intensive animal industry Intensive horticulture Stock sales yard
	Recreation	Indoor sport and recreation Major sport, recreation and entertainment facility Motorsport facility Nature-based tourism Outdoor sport and recreation Park
	Retail	Adult Store Bar Food and drink outlet

COLUMN 1 LGIP DEVELOPMENT CATEGORY	COLUMN 2 LGIP DEVELOPMENT TYPE	COLUMN 3 USES
		Hotel Nightclub entertainment facility Shop Shopping centre Showroom Garden Centre Hardware and trade supplies Market Nightclub entertainment facility
	Tourist facility	Nature-based tourism Resort complex Tourist attraction Tourist park
	Transport and storage depot	Air services Landing Port services Transport depot
	Utility	Substation Telecommunications facility Utility installation
	Other	Detention facility Environmental facility Outstation Permanent plantation Roadside stall

(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 4.2: Population and employment assumptions summary.

Table 4.2: Population and employment assumptions summary

COLUMN 1 DESCRIPTION	COLUMN 2 ASSUMPTIONS					
	2011	2016	2021	2026	2031	Ultimate Population
Population	13,146	14,124	14,592	15,378	16,254	28,453
Employment	5,992	6,495	6,729	7,133	7,586	12,741

(2) Detailed assumptions about growth for each projection area and LGIP development type category are identified in the tables in Schedule 3 Local government infrastructure plan mapping and tables:

(a) for population, Table 3.1: Existing and projected population

(b) for employment, Table 3.2: Existing and projected employees

4.2.2 Development

(f) The developable area is identified on Local Government Infrastructure Plan Maps LGIP–PIA 01 to LGIP–PIA-04.

(g) The planned density for future development is stated in Table 3.3 in Schedule 3—Local Government Infrastructure Plan mapping and tables.

(h) A summary of the assumptions about future residential and non-residential development for the planning scheme area is stated in Table 4.3: Residential dwellings and non-residential floor space assumptions summary.

Table 4.3: Residential dwellings and non-residential floor space assumptions summary

COLUMN 1 DESCRIPTION	COLUMN 2 ASSUMPTIONS						
		2011	2016	2021	2026	2031	Ultimate Population
Residential dwellings	No.	5,417	5,894	6,081	6,380	6,703	11,565
Non-residential floor space	(GFA m^2)	276,070	304,560	317,560	340,440	365,330	646,830

(i) 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:

(c) for residential development, Table 3.4

(d) or non-residential development, Table 3.5

4.2.3 Infrastructure demand

(1) The demand generation rate for a trunk infrastructure network is stated in Column 4 of Table 3.3 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:

(a) for the water supply network, Table 3.6

(b) for the sewerage network, Table 3.7

(c) for the stormwater network, Table 3.8

(d) for the transport network, Table 3.9

(e) for the parks and land for community facilities network, Table 3.10

4.3 Priority infrastructure area

(1) The priority infrastructure area identifies the area prioritised 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 maps LGIP–PIA-01 to LGIP–PIA-04.

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 trunk infrastructure networks are identified in the extrinsic material.

4.4.1 Water supply network desired standards of service

(1) The desired level of service for the water supply network is detailed in Table 4.4.1.1.

(2) The desired water supply network design criteria are contained in Table 4.4.1.1 (a).

(3) Council aims to provide a reticulated potable water supply to meet the demands of consumers and firefighting requirements.

Table 4.4.1.1: Water supply network desired standard of service

MEASURE	PLANNING CRITERIA	DESIGN CRITERIA
Reliability/continuity of supply	Design the water supply network in accordance with adopted standards to provide a reliable supply of potable water with minimal interruptions to service and minimise non-revenue water loss.	• Maranoa Planning Scheme 2017 • Capricorn Municipal Development Guidelines – Design and Construction Guidelines Water Supply Network • National Health and Medical Research Council (NHMRC) Australian drinking water guidelines • *The Water Supply (Safety and Reliability) Act 2008*
Adequacy of supply	All development is provided with a reliable water supply that is adequate for the intended use.	• Maranoa Planning Scheme 2017 • Capricorn Municipal Development Guidelines – Design and Construction Guidelines • *The Water Supply (Safety and Reliability) Act 2008*

MEASURE	PLANNING CRITERIA	DESIGN CRITERIA
Quality of supply	The environmental impacts of the water supply network are monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	National Health and Medical Research Council (NHMRC) Australian drinking water guidelines
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with applicable statutory requirements and community expectations.	• Maranoa Planning Scheme 2017 • *Environmental Protection Act 1994* • *Water Act 2000*
Pressure and leakage management	The water network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• Maranoa Planning Scheme 2017 • *Water Act 2000*
Infrastructure design/planning standards	The design of the water supply network will comply with established codes and standards.	• Maranoa Planning Scheme 2017 • Capricorn Municipal Development Guidelines – Design and Construction Guidelines

Table 4.4.1.1 (a): Water supply network design criteria

CRITERIA	PERFORMANCE MEASURE
Average day demand	650 litres per equivalent person per day
Minimum Network Pressure	20m
Maximum pressure	50m
Absolute maximum pressure	80m
Fire flow performance for Residential demand	15l/s for 2 hours duration, (3 stories or less)
Fire flow performance for Commercial demand	30l/s for four hours duration

4.4.2 Sewerage network desired standard of service

(1) The desired standards of service for the sewerage network are detailed in Table 4.4.2.1.

(2) The desired sewer supply network design criteria are contained in Table 4.4.2.1 (a).

(3) The reticulated sewer supply is to be designed to meet the demands of consumers and applicable environmental standards.

(4) The sewerage system is to be designed to transport sewerage from residential, commercial and industrial properties using gravity flow pipes and where this is not possible by pumping to the treatment plant.

Table 4.4.2.1: Sewer supply network desired standards of service

MEASURE	PLANNING CRITERIA	DESIGN CRITERIA
Reliability/continuity of supply	Design the sewer network in accordance with adopted standards to provide reliable sewerage collection, treatment and disposal.	• Maranoa Planning Scheme 2017 • Capricorn Municipal Development Guidelines – Sewerage Network Design and Construction Guidelines
Quality of treatment	All development is provided with a reliable and effective sewerage service that is adequate for the intended use.	• Maranoa Planning Scheme 2017 • Capricorn Municipal Development Guidelines – Sewerage Network Design and Construction Guidelines • *Environmental Protection Act 1994* • *Environmental Authority*
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with applicable statutory requirements and community expectations.	• Maranoa Planning Scheme 2017 • *Environmental Protection Act 1994* • Environmental Authority
Effluent reuse	Reuse effluent wherever practicable and in accordance with regulatory provisions and community expectations.	• *The Water Supply (Safety and Reliability) Act 2008* • *Environmental Protection Act 1994* • *Queensland Water Recycling Guidelines – December 2005* • Environmental Authority
Infrastructure design/planning standards	Design the sewerage network to comply with established codes and standards.	• Maranoa Planning Scheme 2017 • Capricorn Municipal Development Guidelines – Sewerage Network Design and Construction Guidelines • *The Water Supply (Safety and Reliability) Act 2008*

Table 4.4.2.1 (a): Sewer supply network desired standards of service

CRITERIA	PERFORMANCE MEASURE	
Average dry weather flow	200 litres per day per equivalent person	
PUMPING STATION AND RISING MAINS		
Minimum velocity	1.5m/s	
Maximum velocity	3.5m/s	
GRAVITY MAINS		
Minimum velocity	0.7m/s	
Maximum velocity	0.2m/s	
Minimum grade	**Sewer Size (mm)**	**Minimum Grade**
	150	1:150
	225	1:290
	300	1:420
	375	1:570

4.4.3 Stormwater drainage network desired standards of service

(1) The desired standards of service for the stormwater network service are contained in Table 4.4.3.1.

(2) The stormwater drainage system is to collect and convey stormwater through respective catchment areas while causing minimal damage to people or property.

Table 4.4.3.1: Stormwater network desired standards of service

MEASURE	PLANNING CRITERIA	DESIGN CRITERIA
Quantity	Collect and convey stormwater in natural and natural engineered channels, piped drainage network and overland flow paths to a lawful point of discharge, in a safe manner that protects life and property.	• Maranoa Planning Scheme 2017 • Capricorn Municipal Development Guidelines – Stormwater Drainage Design and Construction Guidelines • Queensland Urban Drainage Manual
Quality	Water quality is managed to protect environmental values and pose no health risk to the community.	• Maranoa Planning Scheme 2017 • Capricorn Municipal Development Guidelines – Stormwater Drainage Design and Construction Guidelines • State Planning Policy Guidelines State Interest

MEASURE	PLANNING CRITERIA	DESIGN CRITERIA
Environmental impacts	The environmental impacts of the stormwater network are minimised in accordance with applicable statutory requirements and community expectations.	• Maranoa Planning Scheme 2017 • *Environmental Protection Act 1994* • Capricorn Municipal Development Guidelines – Stormwater Drainage Design and Construction Guidelines
Infrastructure design/planning standards	The design of the stormwater network will comply with established codes and standards.	• Maranoa Planning Scheme 2017 • Capricorn Municipal Development Guidelines – Stormwater Drainage Design and Construction Guidelines

4.4.4 Transport network desired standards of service

(1) The transport network consists of roads and pedestrian and cycle networks.

(2) The desired standards of service are contained in Table 4.4.4.1.

Table 4.4.4.1: Transport network desired standards of service

MEASURE	PLANNING CRITERIA	DESIGN CRITERIA
Road network design/planning standards	The road network provides a functional urban and rural hierarchy that supports settlement patterns, commercial and economic activities and freight movement.	• Maranoa Planning Scheme 2017 • Maranoa Regional Council Registers of Roads and Road Policies • Capricorn Municipal Design Guidelines – Geometric Road Design
Cycleway and pathway design/planning standards	Cycleways and pathways provide a safe, attractive and convenient network that provides acceptable travel alternatives.	• Maranoa Planning Scheme 2017

4.4.5 Public parks and land for community facilities network

(1) The desired standard of service for the parks and land for community facilities are to:

(a) provide recreational and sporting parks in line with current and emerging community needs;

(b) provide a diverse range of activity opportunities and landscape settings to encourage healthy lifestyles and maximise opportunities for engagement in physical activity;

(c) provide safe, attractive places and equitable and convenient access to recreation, sport and open space infrastructure;

(d) ensure that sufficient land is identified and protected to meet the recreation and sporting needs of the future population;

(e) ensure spaces and facilities support the ongoing viability of community user groups and have the capacity to adapt to changing needs over time;

(f) protect, preserve and enhance natural habitat and environmental processes;

(g) protect and enhance the cultural and natural heritage and scenic/landscape amenity of the Maranoa Region; and

(h) contribute to the legibility and character of neighbourhoods.

Table 4.4.5.1: Rate of provision for parks and community land

MEASURE	RATE OF PROVISION (HA/1,000 PEOPLE)	
	ROMA, MITCHELL, INJUNE, SURAT, WALLUMBILLA AND YULEBA	ALL OTHER AREAS
Local recreation park	1.5	N/A
District recreation park	1.0	0.5
District and regional sports parks	1.0	0.4
Land for community facilities	0.1	
TOTAL	3.6	1.0

Table 4.4.5.2: Design criteria for parks

CHARACTERISTIC	RECREATION PARKLAND		SPORT PARKS	
HEIRARCHY	DISTRICT	REGIONAL	DISTRICT	REGIONAL
Accessibility standard (km)	2-2.5km 2.0ha useable area	Maranoa Regional Local Government Area	5-10km of residential areas	Located in, or on the edge of urban areas
Minimum usable size		5.0ha +	5.0ha +	5-10ha
Shape of land	Square to rectangular with a side ratio no greater than 2:1		Square or rectangular	
Maximum desired grade	1:20 for main use area, variable for the remainder		1:50 for all playing surfaces 1:10 for remainder	1:50 for all playing surfaces
Minimum desired flood immunity	Minimum 70% of total area above Q5; and Minimum 30% of total area above Q50; and Minimum 5% of total area above Q100	Minimum 90% of total area above Q5; and Minimum 40% of total area above Q50; and Minimum 10% of total area above Q100 with main activity area/s above Q100	Minimum 70% of total area above Q5; and Minimum 30% of total area above Q50; and Minimum 5% of total area above Q100	Minimum 90% of total area above Q5; and Minimum 40% of total area above Q50; and Minimum 10% of total area above Q100 Free of hazards. Fields and courts above Q50. Built facilities above Q100

CHARACTERISTIC	RECREATION PARKLAND		SPORT PARKS	
HEIRARCHY	DISTRICT	REGIONAL	DISTRICT	REGIONAL
Road frontage and visibility	50% of park perimeter to have direct road frontage, preferably on a collector road		25-50% of park perimeter to have direct road frontage on a collector road	
Linkage	Linkage to existing open space preferable		Sports parks clustered (preferable)	

Table 4.4.5.3: Standard embellishments for public parks

PARK ELEMENT	RECREATION PARKLAND		SPORT PARKS	
	LOCAL	DISTRICT	LOCAL	DISTRICT
Recreation activity areas (eg. Play spaces, fitness circuits, hit up walls, pathway networks, active youth facilities)	✓	✓	✓	✓
Fencing, bollards, lock rail	✓	✓	✓	✓
Playgrounds	✓	✓		
Landscaping	✓	✓	✓	Planted buffer areas adjacent to residential areas
Significant vegetation required for more natural settings	As identified by the relevant master plan	As identified by the relevant master plan.		
Irrigation	✓	✓	✓	✓
Feature paving / concrete stencilling		✓		
Lighting	✓	✓	✓	✓
Pedestrian pathway access network	✓	✓	✓	✓
Bike racks	✓	✓	✓	✓
Signage	✓	✓	✓	✓
Shade structures	✓	✓	✓	✓
Tap / bubbler	✓	✓	✓	✓
Bench seating	✓	✓	✓	✓
Barbeque	✓	✓		✓
Shelters / gazebo with tables and seating	✓	✓	✓	✓
Rubbish bins	✓	✓	✓	✓
Toilet	✓	✓	✓	✓
Internal roads		✓		✓
Car parking	✓	✓	✓	✓

PARK ELEMENT	RECREATION PARKLAND		SPORT PARKS	
	LOCAL	DISTRICT	LOCAL	DISTRICT
Bus pull-through	✓	✓	✓	✓
Bus parking		✓	✓	✓

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.

Table 4.5.1: Planning horizon for a trunk infrastructure network

COLUMN 1 TRUNK INFRASTRUCTURE NETWORK	VOLUME 2 PLANNING HORIZON
Water supply	2031
Sewerage	2031
Stormwater	2031
Transport	2031
Parks and land for community facilities	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-W-01 to LGIP-W-12

(b) Local Government Infrastructure Plan Map LGIP-S-01 to LGIP-S-06

(c) Local Government Infrastructure Plan Map LGIP-SW-01 to LGIP-SW-03

(d) Local Government Infrastructure Plan Map LGIP-T-01 to LGIP-T-10

(e) Local Government Infrastructure Plan Map LGIP-PC-01 to LGIP-PC-06

(2) The State infrastructure forming part of the transport trunk infrastructure network has been identified using the 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 on the Maranoa Regional Council website at: www.maranoa.qld.gov.au

(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 3.2.1

(b) for the sewerage network Table 3.2.2

(c) for the stormwater network Table 3.2.3

(d) for the transport network Table 3.2.4

(e) for the parks and land for community facilities network Table 3.2.5

4.6 List of 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.*

COLUMN 1 TITLE OF DOCUMENT	COLUMN 2 DATE	COLUMN 3 AUTHOR
Local Government Infrastructure Plan Planning Assumptions	June 2018	Maranoa Regional Council
Local Government Infrastructure Plan Sewer Assumptions	June 2018	Maranoa Regional Council
Local Government Infrastructure Plan Water Assumptions	June 2018	Maranoa Regional Council
Local Government Infrastructure Plan Stormwater Assumptions	June 2018	Maranoa Regional Council
Local Government Infrastructure Plan Transport Assumptions	June 2018	Maranoa Regional Council
Local Government Infrastructure Plan Public Parks and Community Land Assumptions	June 2018	Maranoa Regional Council
Capricorn Municipal Design Guidelines Sewerage Network D12 Design and Construction Guidelines	January 2017	
Capricorn Municipal Design Guidelines Water Supply Network D11 Design and Construction Guideline	January 2017	
Capricorn Municipal Design Guidelines Stormwater Drainage Design D5 Design Guidelines	January 2017	
Capricorn Municipal Design Guidelines Geometric Road Design D1 Design Guidelines	January 2017	

Note: The Capricorn Municipal Design Guidelines can be viewed at: www.cmdg.com.au

Schedule 3: Local Government Infrastructure Plan mapping and tables

Table 3.1: Existing and projected population

COLUMN 1 PROJECTION AREA	COLUMN 2 LGIP DEVELOPMENT TYPE	COLUMN 3 EXISTING PROJECTED POPULATION					
		2011	2013	2021	2023	2031	ULTIMATE
Roma	Detached	6216	7033	7423	8090	8820	10 920
	Multiple	690	783	825	900	980	1,214
	Total	6906	7816	8248	8990	9800	12 134
Mitchell	Detached	820	844	850	859	867	4506
	Multiple	91	93	94	95	96	502
	Total	911	937	944	954	963	5008
Injune	Detached	358	367	369	373	377	545
	Multiple	40	40	41	41	41	61
	Total	398	407	410	414	418	606
Surat	Detached	384	381	375	374	374	1,253
	Multiple	42	42	41	41	41	138
	Total	426	423	416	415	415	1,391
Inside PIA (total)		8641	9583	10 018	10 773	11 596	19 139
Outside PIA	Detached dwellings	4458	4492	4525	4556	4608	9181
	Multiple	47	49	49	49	49	133
	Total	4505	4541	4574	4605	4657	9314
Total Population		13 146	14 124	14 592	15 378	16 254	28 453

Table 3.2: Existing and projected employees

COLUMN 1 PROJECTION AREA	COLUMN 2 LGIP DEVELOPMENT TYPE	COLUMN 3 EXISTING PROJECTED POPULATION					
		2011	2013	2021	2023	2031	ULTIMATE
Roma	Industry	1398	1584	1672	1823	1987	2460
	Commercial Purposes (office, personal services)	1466	1666	1758	1916	2089	2586
	Community purpose/Education	321	365	386	420	458	567
	Retail	286	325	343	374	407	504
	Other	106	124	130	142	155	192
	TOTAL	3577	4064	4289	4675	5096	6309
Injune	Industry	120	123	123	124	125	179
	Commercial Purposes (office, personal services)	59	60	61	61	62	89
	Community purpose/Education	18	19	19	20	20	28
	Retail	6	6	6	6	6	9
	Other	8	8	8	8	8	16
	TOTAL	211	216	217	219	221	321
		2011	2013	2021	2023	2031	ULTIMATE
Mitchel	Industry	212	215	217	219	221	1,151
	Commercial Purposes (office, personal services)	106	107	108	109	110	552
	Community purpose/ Education	46	47	48	48	49	253
	Retail	42	43	43	44	44	230
	Other	19	19	18	19	19	117
	TOTAL	425	431	434	439	443	2303
Surat	Industry	102	100	98	98	98	331
	Commercial Purposes (office, personal services)	60	55	55	55	55	193
	Community purpose/Education	24	22	22	22	22	75
	Retail	3	3	3	3	3	12.5
	Other	4	4	4	4	4	13.5
	TOTAL	193	190	186	186	186	625
Inside PIA (total)		4406	4901	5126	5519	5946	9558
Outside PIA (total)	Rural/Other	1586	1594	1603	1614	1640	3183
Total Employment		5992	6495	6729	7133	7586	12 741

Table 3.3: 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								
All catchments	Residential		10	30	26	90	3.6	0.60
	Medium-density residential		20	60	52	180	3.6	0.80
	Low-density residential		2.5	7.5	6.5	22.5	3.6	0.15
Non – residential development								
All catchments	Industry	90		56	73.06	450		0.9
	Commercial purpose (office, personal service)	90		75	350	900		0.9
	Retail	90		75	350	2,227.5		0.9

Table 3.4: Existing and projected residential dwellings

COLUMN 1 PROJECTION AREA	COLUMN 2 LGIP DEVELOPMENT TYPE	COLUMN 3 EXISTING PROJECTED RESIDENTIAL DWELLINGS					
		2011	2016	2021	2026	2031	ULTIMATE
Roma	Detached	2316	2705	2855	3111	3392	4200
	Multiple	257	301	317	346	377	466
	Total	2573	3006	3172	3457	3769	4666
Mitchell	Detached	412	415	415	415	415	1,959
	Multiple	46	50	50	50	50	217
	Total	458	465	465	465	465	2,176
Injune	Detached	185	205	205	205	205	237
	Multiple	20	20	20	20	20	26
	Total	205	225	225	225	225	263
Surat	Detached	213	213	214	214	214	544
	Multiple	18	18	18	18	18	60
	Total	231	231	232	232	232	604
Total inside PIA		3467	3927	4094	4379	4691	7709
Total outside PIA		1950	1812	1987	2001	2012	3856
Total Dwellings (of whole region)		5417	5894	6081	6380	6703	11 565

Table 3.5: Existing and projected non-residential floor space

COLUMN 1 PROJECTION AREA	COLUMN 2 LGIP DEVELOPMENT TYPE	COLUMN 3 EXISTING AND PROJECTED NON-RESIDENTIAL FLOOR SPACE (M2 GFA)					
		2011	2016	2021	2026	2031	ULTIMATE
Roma	Industry	139 500	158 400	167 200	182 300	198 700	246 000
	Commercial Purposes (office, personal services)	43 980	49 980	52 740	57 480	62 670	77 580
	Community purpose/Education	16 050	18 250	19 300	21 000	22 900	28 350
	Retail	8 580	9 750	10 290	11 220	12 210	15 120
	Total	208 110	236 380	249 530	272 000	296 480	367 050
Mitchell	Industry	21 200	21 500	21 700	21 900	22 100	115 100
	Commercial Purposes (office, personal services)	3180	3210	3240	3270	3300	16 560
	Community purpose/Education	2300	2350	2400	2400	2450	12 650
	Retail	1260	1290	1290	1320	1320	6900
	Total	27 940	28 350	28 630	28 890	29 170	151 210
Injune	Industry	12 000	12 300	12 300	12 400	12 500	17 900
	Commercial Purposes (office, personal services)	1 770	1800	1830	1830	1860	2670
	Community purpose/Education	900	950	950	1000	1000	1400
	Retail	180	180	180	180	180	270
	Total	14 850	15 230	15 260	15 410	15 540	22 240
Surat	Industry	10 200	10 000	9 800	9 800	9 800	33 100
	Commercial Purposes (office, personal services)	1800	1740	1710	1710	1710	5790
	Community purpose/Education	1150	1100	1100	1100	1100	3750
	Retail	90	90	90	90	90	2,250
	Total	13 240	12 930	12 700	12 700	12 700	44 890
Total inside PIA		264 140	292 890	306 120	329 000	353 890	585 390
Total outside PIA		11 930	11 670	11 440	11 440	11 440	61 440
Total Employment (GFA)		276 070	304 560	317 560	340 440	365 330	646 830

Table 3.6: Existing and projected demand for the water supply network

COLUMN 1 SERVICE CATCHMENT	COLUMN 2 EXISTING AND PROJECT DEMAND (EP)				
	2016	2021	2026	2031	ULTIMATE
Roma	12 052.4	12 657.6	13 687.6	14 808.4	18 047.8
Mitchell	2118.8	2124.4	2125.75	2125.75	8198.3
Injune	1540.53	1541.48	1541.68	1541.68	1715.78
Surat	1338.14	1338.12	1338.12	1338.12	1996.8
Wallumbilla	596.41	603.89	603.89	603.89	1522.4
Yuleba	360.86	465.10	465.10	465.10	2073.14
Amby	150	150	150	150	330
Mungallala	174	174	174	174	183
Jackson	120	120	120	120	201
Muckadilla	93	93	93	93	96

Table 3.7: Existing and projected demand for the sewerage network

COLUMN 1 SERVICE CATCHMENT	COLUMN 2 EXISTING AND PROJECT DEMAND (EP)				
	2016	2021	2026	2031	ULTIMATE
Roma	12 094.92	12 784.53	13 934.82	15 170.8	18 790.10
Mitchell	1671.75	1680.45	1683.38	1685.21	7 998.2
Injune	850.12	850.56	851.95	851.34	1056
Surat	856.12	860.88	860.88	860.88	2256.6
Amby	130	130	130	130	286
Mungallala	148	148	148	148	158

Table 3.8: Existing and projected demand for the stormwater network

COLUMN 1 SERVICE CATCHMENT	COLUMN 2 EXISTING AND PROJECT DEMAND (IMP HA)				
	2016	2021	2026	2031	ULTIMATE
Roma	116.06	122.5	133.51	145.96	180.52
Mitchell	17.19	17.23	17.25	17.25	98.27
Injune	8.37	8.38	8.38	8.38	10.15

Table 3.9: Existing and projected demand for the transport network

COLUMN 1 SERVICE CATCHMENT	COLUMN 2 EXISTING AND PROJECT DEMAND (VPD)				
	2016	2021	2026	2031	ULTIMATE
Roma	45 790.1	48 332	52 670	57 418	71 085
Mitchell	6332.3	6356.7	6375.7	6398.7	31 036.7
Injune	3020.5	3023.5	3040.5	3047.5	3828.3
Surat	2978.3	2966.3	2966.3	2966.3	8923.9
Wallumbilla	1766.9	1786.9	1786.9	1786.9	6652.3
Yuleba	1319.3	1315.3	1315.3	1315.3	7573.8
Amby	450	450	450	450	990
Mungallala	513	513	513	513	549
Jackson	207	207	207	207	594
Muckadilla	225	225	225	225	1386

Table 3.10: Existing and projected demand for the parks and land for community facilities network

COLUMN 1 SERVICE CATCHMENT	NETWORK ELEMENT	COLUMN 2 EXISTING AND PROJECTED DEMAND (HA)				
		2016	2021	2026	2031	ULTIMATE
Roma	Local recreation park	1.5	1.5	1.5	1.5	1.5
	District recreation park	1	1	1	1	1
	Local and district sports park	1	1	1	1	1
Mitchell	Local recreation park	1.5	1.5	1.5	1.5	1.5
	District recreation park	1	1	1	1	1
	Local and district sports park	1	1	1	1	1
Injune	Local recreation park	1.5	1.5	1.5	1.5	1.5
	District recreation park	1	1	1	1	1
	Local and district sports park	1	1	1	1	1
Surat	Local recreation park	1.5	1.5	1.5	1.5	1.5
	District recreation park	1	1	1	1	1
	Local and district sports park	1	1	1	1	1
Wallumbilla	Local recreation park	1.5	1.5	1.5	1.5	1.5
	District recreation park	1	1	1	1	1
	Local and district sports park	1	1	1	1	1
Yuleba	Local recreation park	1.5	1.5	1.5	1.5	1.5
	District recreation park	1	1	1	1	1
	Local and district sports park	1	1	1	1	1
COMMUNITY FACILITIES						
All Catchments	Community facilities	1.4	1.4	1.5	1.6	2.85

SC3.2: Schedule of Works

Table 3.2.1: Water supply network schedule of works

MAP REFERENCE	PROPOSED INFRASTRUCTURE	ESTIMATED TIMING	VALUE (INCLUDING COSTS AND CONTINGENCY)
W-01	New northern bore, reservoir, and booster system	2017/18	$950 000
W-02	Delivery main northern bore to Northern Road (1470m)	2017/18	$650 000
W-03	Delivery main northern bore Alexander Avenue to Miscamble Street	2017/18	$130 000
W-04	Upgrade main Northern Road to Alexander Ave (310m)	2017/18	$150 000
W-05	Alexander Ave connection 150mm	2017/18	$85 000
W-06	Bore 12 reservoir & booster	2018/19	$400 000
W-07	Bore 17 to Currey St reservoirs (1260m)	2019/20	$600 000
W-08	Miscamble Street (West) augmentation	2019/20	$845 000
W-09	Bore 2 reservoir & booster	2020/21	$450 000
W-10	Arthur St (South) augmentation	2020/21	$450 000
W-11	Currey St (North) augmentation	2021/22	$250 000
W-12	Timbury St, Cottell St to Duke St augmentation	2021/22	$250 000
W-13	Bore 9 reservoir booster	2022/23	$360 000
W-14	Bore 6	2022/23	$400 000
W-15	Purchase land for Campbells Park Reservoir	2025/26	$150 000
W-16	McGrath 5ML reservoir and booster	2025/26	$3 500 000
W-17	Campbells Park Reservoir	2025/26	$4 100 000
Total			$13 720 000

Table 3.2.2: Sewerage network schedule of works

MAP REFERENCE	PROPOSED INFRASTRUCTURE	ESTIMATED TIMING	VALUE (INCLUDING COSTS AND CONTINGENCY)
S-01	Roma – Major Street – Sewer main diversion – Gregory Street	2017/18	$920 180
S-02	Roma – Major Street – Sewer main diversion	2017/18	$200 000
S-03	Roma – STP Anaerobic Ponds	2021/22	$1 445 000
S-04	Roma – STP-12000EP development application and planning	2018/19	$200 000
S-05	Roma – STP Maturation Pond 1	2025/26	$850 000
Total			$3 615 180

Table 3.2.3: Stormwater network schedule of works

MAP REFERENCE	PROPOSED INFRASTRUCTURE	ESTIMATED TIMING	VALUE (INCLUDING COSTS AND CONTINGENCY)
SW-01	Western Levee	2018	$300 000
SW-02	Eastern Diversion Channel	2018	$300 000
SW-03	Long Drain Works (A)	2020	$1 961 638
SW-04	Railway Dam Widening	2019	$66 000
SW-05	Extended Eastern Diversion Channel	2026	$190 421
SW-06	Winchester Street	2020	$97 500
SW-07	Extended Eastern Diversion Channel	2019	$1 491 630
SW-08	Extended Eastern Diversion Channel	2020	$1 491 630
SW-09	Long Drain Works (B)	2021	$1 019 750
SW-10	Long Drain Works (B)	2022	$1 019 750
SW-11	Long Drain Works (B)	2023	$1 019 750
SW-12	Western Diversion Channel	2024	$701 034
SW-13	Long Drain Works (B)	2024	$1 019 750
SW-14	Western Diversion Channel	2025	$701 034
SW-15	Station Street Stormwater Line	2025	$620 000
SW-16	Railway Drainage Works	2025	$745 000
SW-17	CBD Pipe Drainage Upgrade	2025	$586 667
SW-18	Western Diversion Channel	2026	$701 034
SW-19	Mayne Street / Station Street drainage	2026	$2 078 722
SW-20	Station Street Stormwater Line	2026	$620 000

MAP REFERENCE	PROPOSED INFRASTRUCTURE	ESTIMATED TIMING	VALUE (INCLUDING COSTS AND CONTINGENCY)
SW-21	Charles Street Drainage Remediation	2026	$62 500
SW-22	CBD Pipe Drainage Upgrade	2026	$586 667
SW-23	Mayne St / Station St drainage	2027	$2,078 722
SW-24	CBD Pipe Drainage Upgrade	2027	$586 666.5
Total			$20 045 866

Table 3.2.4: Transport network schedule of works

MAP REFERENCE	PROPOSED INFRASTRUCTURE	ESTIMATED TIMING	VALUE (INCLUDING COSTS AND CONTINGENCY)
T-01	Roma – Duke Street South (Roma Southern Road) widen seal and provide kerb and channel	2017/18	$186 500
T-02	Roma – Duke Street South (Roma Southern Road) widen seal and provide kerb and channel	2018/19	$749 998
T-03	Wallumbilla – East Street – Widen seal and provide kerb and channel	2019/20	$445 000
T-04	Wallumbilla – Russell Street – Widen seal and provide kerb and channel	2019/20	$455 000
Total			$1 836 498

Table 3.2.5: Parks and community facilities schedule of works

MAP REFERENCE	PROPOSED INFRASTRUCTURE	ESTIMATED TIMING	VALUE (INCLUDING COSTS AND CONTINGENCY)
PC-01	Regional sporting facility – Netball Courts – Bassett Park	2017/18	$425 000
PC-02	Regional sporting facility - Roma Touch Association Lighting	2017/18	$20 000
PC-03	Mitchell – Development of community facility/park, including demolition of the existing building	2017/18	$157 500
PC-04	Regional sporting facility – Surat – Racecourse upgrade, including demolition of jockey rooms	2017/18	$30 000
Total			$632 500

SC3.2.3: Local government infrastructure plan maps

(a) Local Government Infrastructure Plan Map LGIP – Priority infrastructure area and projection areas map

- (i) LGIP-PIA index
- (ii) LGIP-PIA-01
- (iii) LGIP-PIA-02
- (iv) LGIP–-PIA-03
- (v) LGIP-PIA-04

(b) Local Government Infrastructure Plan Map LGIP Plan for trunk water supply infrastructure;

- (i) LGIP-Water index
- (ii) LGIP-W-01
- (iii) LGIP-W-02
- (iv) LGIP-W-03
- (v) LGIP-W-04
- (vi) LGIP-W-05
- (vii) LGIP-W-06
- (viii) LGIP-W-07
- (ix) LGIP-W-08
- (x) LGIP-W-09
- (xi) LGIP-W-10
- (xii) LGIP-W-11
- (xiii) LGIP-W-12

(c) Local Government Infrastructure Plan Map LGIP Plan for trunk sewerage infrastructure;

- (i) LGIP-Sewer-Index
- (ii) LGIP-S-01
- (iii) LGIP-S-02
- (iv) LGIP-S-03
- (v) LGIP-S-04
- (vi) LGIP-S-05
- (vii) LGIP-S-06

(d) Local Government Infrastructure Plan Map LGIP Plan for trunk stormwater infrastructure

- (i) LGIP-Stormwater Index
- (ii) LGIP-SW-01
- (iii) LGIP-SW-02
- (iv) LGIP-SW-03

(e) Local Government Infrastructure Plan Map LGIP Plan for trunk transport infrastructure

(i) LGIP-Transport Index

(ii) LGIP-T-01

(iii) LGIP-T-02

(iv) LGIP-T-03

(v) LGIP-T-04

(vi) LGIP-T-05

(vii) LGIP-T-06

(viii) LGIP-T-07

(ix) LGIP-T-08

(x) LGIP-T-09

(xi) LGIP-T-10

(f) Local Government Infrastructure Plan Map LGIP parks and land for community facilities infrastructure

(i) LGIP-Parks Index

(ii) LGIP-PC-01

(iii) LGIP-PC-02

(iv) LGIP- PC-03

(v) LGIP- PC-04

(vi) LGIP-PC-05

(vii) LGIP-PC-06