Part 1 Local government infrastructure plan

1.1 Preliminary

(1) This local government infrastructure plan has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009*.

(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 1.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network
- (b) identifies in Section 1.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2031.
- (c) states in Section 1.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance
- (d) identifies in Section 1.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) transport
  - (iv) 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 Section 1.5.3 – Extrinsic material.

1.2 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 of 2016 and the following projection years to accord with future Australian Bureau of Statistics census years:
  - (i) 2021
  - (ii) 2026
  - (iii) 2031
- (b) the LGIP development types in column 2 that include the uses in column 3 of **Table 1.1**; and
- (c) the projection areas identified on Local Government Infrastructure Plan Map LGIP-PIA-001 Priority infrastructure area and projection areas in Schedule 1-Local government infrastructure plan mapping and tables.

Table 1.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 **LGIP development category**	**Column 2** **LGIP development type**	**Column 3** **Defined Uses**
Residential development	Attached dwelling	Accommodation building Bed and breakfast premises Dual occupancy Dwelling unit Home host accommodation Multiple dwelling Retirement village Workers' accommodation

DRAFT

Table 1.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Defined Uses
	Detached dwelling	Caretaker's residence Detached house or house
Non-residential development	Commercial	Commercial premises Hotel Professional office Tourist facility
	Community purpose	Child care centre Community purpose Educational establishment Indoor or outdoor recreation or entertainment Mortuary Place of worship Public utility – other
	Industry	Bulk store Extractive industry High impact industry Industry Low impact industry Medium impact industry Noxious industry Storage facility or warehouse Transport terminal Vehicle depot
	Other	Agriculture Airport Animal husbandry or grazing Cattery or kennel Intensive animal husbandry or horticulture Public utility - operational Stock saleyards
	Retail	Catering or food premises Landscape supplies Plant nursery Retail/commercial complex Service station Shop Showroom or vehicle showroom

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

1.2.1 Population and employment growth

(1) A summary of the assumptions about population and employment growth for the planning scheme area is stated in **Table 1.2** – Population and employment assumptions summary.

Table 1.2—Population and employment assumptions summary

Column 1	Column 2 - Assumptions				
Description	Base date 2016	2021	2026	2031	Ultimate
Population	15,243	15,519	15,807	16,064	22,777
Employment	6,602	6,721	6,846	6,957	72,379

(2) Detailed assumptions about growth for each projection area and LGIP development type category are identified in the following tables in Schedule 1 Local government infrastructure plan mapping and tables:

DRAFT

(a) for population, **Table SC 1.1.1**—Existing and projected population
(b) for employment, **Table SC 1.1.2** – Existing and projected employees.

1.2.2 Development

(1) The developable area is identified on Local Government Priority Infrastructure Area Map LGIP-PIA-001 in Schedule 1—Local government infrastructure plan mapping and tables.
(2) The planned density for future development is stated in **Table SC 1.1.5** in Schedule 1—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 1.3**-Residentail dwellings and non-residential floor space assumptions summary.

Table 1.3—Residential dwellings and non-residential floor space assumptions summary

Column 1 Description	Column 2 - Assumptions				
	Base date 2016	2021	2026	2031	Ultimate
Residential dwellings	6,716	6,867	7,023	7,164	8335
Non-residential floor space (m^2 GFA)	386,082	393,071	400,342	406,833	1,092,053

(4) Detailed assumptions about future development for each projection area and LGIP development type are identified in the following tables in Schedule 1 Local government infrastructure plan mapping and tables:
(a) for residential development , **Table SC 1.1.3** – Existing and projected residential dwellings; and
(b) for non-residential development, **Table SC 1.1.4** Existing and projected non-residential floor space.

1.3 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 2026.
(2) The priority infrastructure area is identified on the Local Government Priority Infrastructure Area Map LGIP-PIA-001 included in Schedule 1 Local government infrastructure plan mapping and tables—

1.4 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.

1.4.1 Water supply network desired standard of service

Table 1.4.1—Water supply network desired standard of service

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.	• *WSA 03-2011 Water Supply Code of Australia*—Water Services Association of Australia • Customer service standards • Standards in planning scheme Development design code • Capricorn Municipal Design Guidelines (CMDG)
Adequacy of supply	All development receives a water supply that is adequate for the intended use.	• Water Services Association of Australia codes • IPWEA standards • Customer service standards • Standards in planning scheme Development design code • Capricorn Municipal Design Guidelines (CMDG)
Quality of supply	A uniform water quality is in accordance with recognised standards that safeguards community health and is free from objectionable taste and	• *Australian Drinking Water Guidelines 2011*—National Health and Medical Research Council • *Drinking water quality management plan 2012*—Banana Shire Council

DRAFT

Table 1.4.1—Water supply network desired standard of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
	odour.	
Environmental impacts	The water supply network minimises its environmental impacts in accordance with community expectations.	• Compliance with the requirements of: o the *Environmental Protection Act 1994* and associated Environmental Protection Policies; and o the *Water Act 2000*
Pressure and leakage management	Monitoring and management of the water supply network maintains the reliability and adequacy of supply and minimises environmental impacts.	• *Water Act 2000 System leakage management plan*
Infrastructure design / planning standards	Infrastructure design / planning standards	• *WSA 03–2002 Water Supply Code of Australia*—Water Services Association of Australia • *Australian Drinking Water Guidelines 2011*—National Health and Medical Research Council • *Planning Guidelines for Water Supply and Sewerage 2010*—Department of Energy and Water Supply • Standards in planning scheme Infrastructure works code • Capricorn Municipal Design Guidelines (CMDG)

1.4.2 Sewerage network desired standard of service

Table 1.4.2 —Sewerage network desired standard of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability	All development has access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Standards in planning scheme Infrastructure works code • CMDG • Customer service standards
Quality of treatment	The sewerage network ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• *Queensland Water Quality Guidelines 2009* —Department of Environment and Resource Management • Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies
Environmental impacts	The sewerage network minimises its environmental impacts in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies
Effluent re-use	The reuse of effluent occurs wherever possible.	• *Guidelines for Sewerage Systems: Use of Reclaimed Water —February 2000*—Agriculture and Resource Management Council of Australia and New Zealand and Australian and New Zealand Environment and Conservation Council • *Water quality guidelines for recycled water schemes November 2008*—Department of Energy and Water Supply.

DRAFT

Table 1.4.2 —Sewerage network desired standard of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Infrastructure design /planning standards	Design of the sewerage network complies with established codes and standards.	• *Planning Guidelines for Water Supply and Sewerage 2010*—Department of Energy and Water Supply. • *WSA 02—2002 Sewerage Code of Australia*— Water Services Association of Australia • *WSA 04—2005 Sewage Pumping Station Code of Australia*—Water Services Association of Australia • Standards in planning scheme Development design code • CMDG

1.4.3 Transport network desired standard of service

Table 1.4.3 -Transport network desired standard of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
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. Design of the road system complies with established codes and standards.	• Standards in planning scheme Development design code • CMDG • *RPDM—DTMR Road Planning and Design Manual (2nd Edition* Australian Standards AUSTROADS guides *Complete Streets: Guidelines for urban street design*—IPWEAQ
Cycleway and pathway design/planning standards	Cycleways and pathways provide a safe and convenient network that encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	Standards in planning scheme Development design code CMDG Australian Standards *Guide to Road Design – Part 6A: Pedestrian and Cyclist Paths*— .AUSTROADS *Complete Streets: Guidelines for urban street design*—IPWEAQ

1.4.4 Public parks and land for community facilities network desired standard of service

Table 1.4.4—Public parks and land for community facilities desired standard of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Functional network	A network of parks and land for community facilities provides for a range of recreational and sporting activities and the development of community facilities.	• Parks and land for community facilities are provided at a local and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and sporting activities and provides for development of community facilities.
Accessibility	The location of public parks and land for community facilities allows adequate pedestrian, cycle and vehicle	Accessibility standards are identified in Table 1.4.5 – Accessibility standard

DRAFT

Table 1.4.4—Public parks and land for community facilities desired standard of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
	access.	
Land quality / suitability Minimum size Maximum grade Flood immunity	The standard of public parks and land for community facilities supports a range of recreational, sporting, health–promoting activities and services. 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 and land for community facilities provision is identified in Table 1.4.6 – Rate of land provision • The size of public park and land for community facilities is identified in Table 1.4.7 - Size. • The maximum gradient for public park and land for community facilities is identified in Table 1.4.8 – Maximum desired grade. • The minimum flood immunity for public park and land for community facilities is identified in Table 1.4.9- Minimum desired flood immunity.
Facilities / embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• Standard embellishments for each type of park are identified in Table 1.4.10 – Standard facilities/embellishments
Infrastructure design / performance standards	The network of parks maximises opportunities to co-locate recreational parks and community facilities in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Standards in planning scheme Development design code • CMDG • Australian Standards

Table 1.4.5–Accessibility standard

Infrastructure type	Accessibility standard (km)		
	Local	District	Local government - wide
Recreation park	0.8	50	100
Sport park	100	100	150
Land for community facilities	60	60	150

Table 1.4.6–Rate of land provision

Infrastructure type	Rate of provision (ha/1000 people)		
	Local	District	Local government - wide
Recreation park	0.4	0.5	1.4
Sport park		1.5	0.8
Land for community facilities		0.1	0.1

Table 1.4.7–Size

Infrastructure type	Minimum size (ha)		
	Local	District	Local government - wide
Recreation park	0.4	2	2
Sport park	1.5	1.5	1.5
Land for community facilities	0.2	0.2	0.2

DRAFT

Table 1.4.8–Maximum desired grade

Infrastructure type	Maximum desired grade (%)		
	Local	District	Local government - wide
Recreation park	20	20	20
Sport park	100% of area – 0	100% of area – 0	100% of area – 0
Land for community facilities	80% of area <5	80% of area <5	80% of area <5

Table 1.4.9–Minimum desired flood immunity

Infrastructure type	Minimum flood immunity (% of total area)								
	Local			District			Local government - wide		
	Flood immunity (% AEP)								
	20	2	1	20	2	1	20	2	1
Recreation park	100	10		100	10		100	10	
Sport park				100		Buildings		100	Buildings
Land for community facilities						100			100

Table 1.4.10—Standard facilities / embellishments

Embellishment type	Recreation parks			Sport parks	
	Local	District	Local government–wide	District	Local government–wide
Internal roads			✓		✓
Parking		✓	✓	✓	✓
Fencing/bollards		✓	✓	✓	✓
Lighting			✓		✓
Toilet		✓	✓	✓	✓
Paths (pedestrian/cycle)		✓	✓	✓	✓
Seating	✓	✓	✓	✓	✓
Shade structures		✓	✓	✓	✓
Covered seating and table			✓		✓
Tap/bubbler	✓	✓	✓	✓	✓
BBQ		✓	✓		✓
Bins	✓	✓	✓	✓	✓
Landscaping (including earthworks, irrigation and revegetation)			✓		✓
Signage	✓	✓	✓	✓	✓
Activity areas	✓		✓		✓

1.5 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.

1.5.1 Plans for trunk infrastructure maps

(1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 1—Local government infrastructure plan mapping and tables:

DRAFT

Table 1.5.1—Plans for trunk infrastructure

Map number	Map title
LGIP-PFTI-001	Banana Shire – Public Parks and Community Land
LGIP-PFTI-002	Banana Shire – Sewerage
LGIP-PFTI-003	Banana Shire – Transport
LGIP-PFTI-004	Banana Shire – Water Supply

(2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

1.5.2 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 Council's website.
(2) The future trunk infrastructure is identified in the following tables in Schedule 1 Local government infrastructure plan mapping and tables—
  (a) for the water supply network, **Table SC 1.2.1**;
  (b) for the sewerage network, **Table SC 1.2.2**;
  (c) for the transport network, **Table SC 1.2.3**; and
  (d) for the parks and land for community facilities network, **Table SC 1.2.4**.

1.5.3 Extrinsic material

(1) 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*.

Table 1.5.2—Standard facilities / embellishments

Title of document	Date	Author
Baralaba Water Supply Planning Report	January 2007	Cardno
Baralaba WTP Planning Report	May 2010	City Water Technology
Baralaba WTP Treatment Options Report	December 2011	City Water Technology
Biloela Water Supply Planning Report	June 2006	Sinclair Knight Merz
Biloela WTP Planning Report	July 2009	City Water Technology
East Biloela Sewerage Planning Report, BSC		Banana Shire Council
Biloela WTP Planning Report Supplement – Impact of Supply of Town Water to Biloela Meatworks on WTP Upgrade Requirements	July 2009	City Water Technology
Biloela STP Review and Planning Report	April 2008	Cardno
Investigation into Sewer Overflows – Malakoff St Area, Biloela	February 2015	M1 Consulting
Banana Shire Council Valley View_09 Infrastructure Agreement 1998	1998	Banana Shire Council
Water Supply Planning Report Moura and Banana	January 2007	Cardno
Moura WTP Planning Report	June 2010	City Water Technology
Moura Recycled Water Use Options	September 2009	Wide Bay Water Corporation
Taroom Sewerage Planning Report	July 2009	Cardno
Theodore WTP Report	July 2010	City Water Technology
Theodore Sewage Treatment and Effluent Disposal Planning Report	September 2008	Cardno
Park Development Strategy 2014 – 2019		

DRAFT

Schedule 1 – Local government infrastructure plan mapping and tables

SC1.1 Planning assumption tables

Table SC1.1.1—Existing and projected population

Column 1 Projection area	Column 2 LGIP development type	Column 3 Existing and projected population				
		2016	2021	2026	2031	Ultimate development
Banana	Single dwelling	149	149	149	149	521
	Multiple dwelling	0	0	0	0	0
	Other	0	0	0	0	0
	Total	**149**	**149**	**149**	**149**	521
Baralaba	Single dwelling	248	248	248	248	1,532
	Multiple dwelling	0	0	0	0	0
	Other	30	30	30	30	30
	Total	**278**	**278**	**278**	**278**	1,562
Biloela	Single dwelling	5,837	6,017	6,197	6,359	6,448
	Multiple dwelling	377	385	393	402	1,993
	Other	76	78	84	86	906
	Total	**6,290**	**6,480**	**6,674**	**6,847**	9,347
Moura	Single dwelling	1,705	1,758	1,813	1,862	1,934
	Multiple dwelling	78	80	80	80	605
	Other	25	26	26	27	76
	Total	**1,808**	**1,864**	**1,919**	**1,969**	2,615
Taroom	Single dwelling	577	595	613	629	2,531
	Multiple dwelling	24	24	25	25	302
	Other	14	15	15	16	16
	Total	**615**	**634**	**653**	**670**	2,849

DRAFT

Table SC1.1.1—Existing and projected population						
Column 1 Projection area	**Column 2 LGIP development type**	**Column 3 Existing and projected population**				
		2016	**2021**	**2026**	**2031**	**Ultimate development**
Thangool	Single dwelling	298	298	298	298	511
	Multiple dwelling	6	6	6	6	11
	Other	3	3	3	3	3
	Total	**307**	**307**	**307**	**307**	**525**
Theodore	Single dwelling	428	433	448	460	888
	Multiple dwelling	29	29	29	29	30
	Other	19	20	20	20	20
	Total	**476**	**482**	**497**	**509**	**938**
Inside priority infrastructure area (total	Single dwelling	9,242	9,498	9,766	10,005	14,366
	Multiple dwelling	514	524	533	542	2,941
	Other	167	172	178	182	1,050
	Total	**9,923**	**10,194**	**10,477**	**10,729**	**18,357**
Outside priority infrastructure area (total)	Single dwelling	5,193	5,198	5.203	5,208	5,208
	Multiple dwelling	4	4	4	4	4
	Other	123	123	123	123	123
	Total	**5,320**	**5,325**	**5,330**	**5,335**	**5,335**
Banana Shire	Single dwelling	14,435	14,696	14,969	15,213	19,574
	Multiple dwelling	518	528	537	546	2,945
	Other	290	295	301	305	1,173
	Total	**15,243**	**15,519**	**15,807**	**16,064**	**23,692**

DRAFT

Table SC1.1.2—Existing and projected employees

Column 1 Projection area	Column 2 LGIP development type	Column 3 Existing and projected employees				
		2016	2021	2026	2031	Ultimate development
Banana	Retail	7	7	7	7	154
	Commercial	23	23	23	23	804
	Industry	13	13	13	13	12
	Community	6	6	6	6	6
	Other	2	2	2	2	2
	Total	**51**	**51**	**51**	**51**	978
Baralaba	Retail	13	13	13	13	52
	Commercial	42	42	42	42	466
	Industry	23	23	23	23	22
	Community	11	11	11	11	11
	Other	4	4	4	4	4
	Total	**92**	**92**	**92**	**92**	555
Biloela	Retail	289	298	307	315	1,455
	Commercial	950	978	1,008	1,034	7,281
	Industry	516	531	547	561	4,297
	Community	245	253	260	267	242
	Other	94	97	100	103	92
	Total	**2,094**	**2,157**	**2,212**	**2,280**	**13,367**
Moura	Retail	89	91	94	96	303
	Commercial	287	296	305	313	1,766
	Industry	155	160	165	169	830
	Community	74	76	79	81	73
	Other	29	30	31	32	28
	Total	**634**	**653**	**674**	**691**	**3,001**
Taroom	Retail	28	29	30	31	256
	Commercial	92	95	98	101	2,651
	Industry	50	51	53	54	1,595
	Community	25	25	26	27	24
	Other	9	10	10	10	9
	Total	**204**	**210**	**217**	**223**	**4,535**
Thangool	Retail	14	14	14	14	34
	Commercial	46	46	46	46	303
	Industry	25	25	25	25	25
	Community	12	12	12	12	12
	Other	5	5	5	5	5
	Total	**102**	**102**	**102**	**102**	**379**

DRAFT

Table SC1.1.2—Existing and projected employees						
Column 1 Projection area	**Column 2 LGIP development type**	**Column 3 Existing and projected employees**				
		2016	**2021**	**2026**	**2031**	**Ultimate development**
Theodore	Retail	22	23	23	24	95
	Commercial	72	73	75	77	842
	Industry	39	39	40	41	38
	Community	19	19	20	20	19
	Other	7	7	7	8	7
	Total	**159**	**161**	**165**	**170**	**1,001**
Inside priority infrastructure area (total	Retail	462	475	488	500	2,349
	Commercial	1,512	1,553	1,597	1,636	14,113
	Industry	821	842	866	886	6,819
	Community	392	402	414	424	387
	Other	150	155	159	164	147
	Total	**3,337**	**3,427**	**3,524**	**3,610**	**23,815**
Outside priority infrastructure area (total)	Retail	26	22	18	14	151
	Commercial	58	45	31	19	817
	Industry	337	337	335	335	44,582
	Community	35	33	29	26	43
	Other	2,807	2,856	2,908	2,952	2,781
	Total	**3,263**	**3,293**	**3,321**	**3,346**	**48,374**
Banana Shire	Retail	488	497	506	514	2,500
	Commercial	1,570	1,598	1,628	1,655	14,930
	Industry	1,158	1,179	1,201	1,221	51,391
	Community	427	435	443	450	430
	Other	2,957	3,011	3,067	3,116	3,128
	Total	**6,600**	**6,720**	**6,845**	**6,956**	**72,379**

DRAFT

Table SC1.1.3—Existing and projected residential dwellings

Column 1 Projection area	Column 2 LGIP development type	Column 3 Existing and projected dwellings				
		2016	2021	2026	2031	Ultimate development
Banana	Single dwelling	82	82	82	82	288
	Multiple dwelling	0	0	0	0	0
	Other	0	0	0	0	0
	Total	**82**	**82**	**82**	**82**	**288**
Baralaba	Single dwelling	108	108	108	108	667
	Multiple dwelling	0	0	0	0	0
	Other	20	20	20	20	20
	Total	**128**	**128**	**128**	**128**	**687**
Biloela	Single dwelling	2,162	2,229	2,295	2,355	2,388
	Multiple dwelling	222	226	231	236	1,172
	Other	51	52	56	57	604
	Total	**2,435**	**2,507**	**2,582**	**2,648**	**4,164**
Moura	Single dwelling	775	799	824	846	879
	Multiple dwelling	65	67	67	67	504
	Other	19	20	20	21	58
	Total	**859**	**886**	**911**	**934**	**1,441**
Taroom	Single dwelling	304	313	323	331	1,332
	Multiple dwelling	16	16	17	17	201
	Other	10	11	11	11	11
	Total	**330**	**340**	**351**	**359**	**1,544**
Thangool	Single dwelling	115	115	115	115	197
	Multiple dwelling	5	5	5	5	8
	Other	0	0	0	0	0
	Total	**120**	**120**	**120**	**120**	**205**

DRAFT

Table SC1.1.3—Existing and projected residential dwellings						
Column 1 Projection area	**Column 2 LGIP development type**	**Column 3 Existing and projected dwellings**				
		2016	**2021**	**2026**	**2031**	**Ultimate development**
Theodore	Single dwelling	195	197	204	209	404
	Multiple dwelling	22	22	22	22	23
	Other	16	17	17	17	17
	Total	**233**	**236**	**243**	**248**	**444**
Inside priority infrastructure area (total	Single dwelling	3,741	3,843	3,951	4,046	6,155
	Multiple dwelling	330	336	342	347	1,908
	Other	116	120	124	126	710
	Total	**4,187**	**4,299**	**4,417**	**4,519**	**8,773**
Outside priority infrastructure area (total)	Single dwelling	2,274	2,280	2,286	2,293	2,112
	Multiple dwelling	40	41	42	43	43
	Other	65	64	64	65	65
	Total	**2,379**	**2,385**	**2,392**	**2,401**	**2,220**
Banana Shire	Single dwelling	6,015	6,123	6,237	6,339	8,267
	Multiple dwelling	370	377	384	390	1,951
	Other	181	184	188	191	775
	Total	**6,566**	**6,684**	**6,809**	**6,920**	**10,993**

DRAFT

Table SC1.1.4—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 (m^2 GFA)				
		2016	2021	2026	2031	Ultimate development
Banana	Retail	166	166	166	166	3,648
	Commercial	451	451	451	451	15,753
	Industry	1,388	1,388	1,388	1,388	1,388
	Community	0	0	0	0	0
	Other	0	0	0	0	0
	Total	**2,005**	**2,005**	**2,005**	**2,005**	**20,789**
Baralaba	Retail	315	315	315	315	1,256
	Commercial	836	836	836	836	9,277
	Industry	2,537	2,537	2,537	2,537	2,537
	Community	0	0	0	0	0
	Other	0	0	0	0	0
	Total	**3,688**	**3,688**	**3,688**	**3,688**	**13,170**
Biloela	Retail	7,225	7,450	7,675	7,875	36,418
	Commercial	19,000	19,560	20,160	20,680	145,672
	Industry	56,708	58,357	60,115	61,654	472,244
	Community	0	0	0	0	0
	Other	0	0	0	0	0
	Total	**82,933**	**85,367**	**87,950**	**90,209**	**654,334**
Moura	Retail	2,234	2,284	2,359	2,410	7,592
	Commercial	5,740	5,920	6,100	6,260	35,269
	Industry	17,066	17,616	18,167	18,607	91,338
	Community	0	0	0	0	0
	Other	0	0	0	0	0
	Total	**25,040**	**25,820**	**26,626**	**27,277**	**134,199**
Taroom	Retail	706	731	756	781	6,449
	Commercial	1,849	1,910	1,970	2,030	53,260
	Industry	5,545	5,656	5,878	5,989	176,967
	Community	0	0	0	0	0
	Other	0	0	0	0	0
	Total	**8,100**	**8,297**	**8,604**	**8,800**	**236,676**
Thangool	Retail	357	357	357	357	872
	Commercial	925	925	925	925	6,106
	Industry	2,755	2,755	2,755	2,755	2,769
	Community	0	0	0		0
	Other	0	0	0		0
	Total	**4,037**	**4,037**	**4,037**	**4,037**	**9,747**

DRAFT

Table SC1.1.4—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 (m^2 GFA)				
		2016	2021	2026	2031	Ultimate development
Theodore	Retail	548	573	573	598	2,368
	Commercial	1,440	1,460	1,500	1,540	16,827
	Industry	4,329	4,329	4,440	4,551	4,551
	Community	0	0	0	0	0
	Other	0	0	0	0	0
	Total	**6,317**	**6,362**	**6,513**	**6,689**	**23,746**
Inside priority infrastructure area (total	Retail	11,551	11,876	12,201	12,502	58,603
	Commercial	30,241	31,062	31,942	32,722	282,164
	Industry	90,328	92,638	95,280	97,481	751,794
	Community	0	0	0	0	0
	Other	0	0	0	0	0
	Total	**132,120**	**135,576**	**139,423**	**142,705**	**1,092,661**
Outside priority infrastructure area (total)	Retail	649	649	649	649	3,897
	Commercial	1,159	1,159	1,159	1,159	16,436
	Industry	37,052	37,052	37,172	37,289	4,901,216
	Community	8,540	8,540	8,540	8,540	9,000
	Other	206,990	210,569	213,927	217,038	218,960
	Total	**254,390**	**257,969**	**261,447**	**264,675**	**5,149,409**
Banana Shire	Retail	12,200	12,525	12,850	13,151	62,500
	Commercial	31,400	32,221	33,101	33,881	298,600
	Industry	127,380	129,690	132,452	134,770	5,653,010
	Community	8,540	8,540	8,540	8,540	9,000
	Other	206,990	210,569	213,927	217,038	218,960
	Total	**386,510**	**393,545**	**400,870**	**407,380**	**6,242,070**

DRAFT

Table SC 1.1.5 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 (EP/ha)**	**Sewerage (EP/ha)**	**Transport (vpd/ha)**	**Parks and community facilities (ha/1,000 persons)**
Residential							
Town – Residential Precinct	Detached dwelling		13	32.5	27.3	130	0.5
Town – Residential Accommodation Precinct	Detached dwelling		15	37.5	31.5		0.5
	Attached dwelling - Dual occupancy		20	50	42		0.5
	Attached dwelling - Other		40	100	84		0.5
Town – Tourism Precinct	Dwelling House		15	37.5	31.5		0.5
	Attached dwelling		40	100	84		0.5
Urban	Dwelling House		13	32.5	27.3		0.5
	Attached dwelling		40	100	84		0.5
Rural Residential	Attached dwelling (urban water service)		2	5	4.2	20	0.5
	Attached dwelling (less than urban water service)		1				0.5
Village	Detached dwelling		11	27.5	23.1		0.5
Rural	Detached dwelling		0.0005				0.5
Non-Residential							
Commercial Zone or Precinct	Commercial	0.8		13.7	25		
	Retail	0.6		13.7	25		
Central Business Area	Commercial	0.8		13.7	25		
	Retail	0.6		13.7	25		
	Community purpose	0.8		10.3	19		
Town – Highway Precinct	Retail	0.6		13.7	25		
Town - Community Precinct	Community purpose	0.8		10.3	19		
Industry Zone, Precinct or Area	Industry	0.6		10.3	19		

DRAFT

Table SC 1.1.6—Existing and projected demand for the water supply network					
Column 1 Service catchment	**Column 2 Existing and projected demand (EP)**				
	2016	**2021**	**2026**	**2031**	**Ultimate development**
Biloela	6,245	6,251	6,218	6,210	9,725
Thangool	309	309	308	310	350
Moura/Banana	1,914	1,916	1,906	1,913	5,088
Baralaba	272	272	270	270	1,340
Theodore	473	473	470	470	1,371
Taroom	609	610	607	610	3,614
Wowan	324	324	322	322	322
Goovigen	172	172	171	171	171
Total	**10,318**	**10,327**	**10,272**	**10,276**	**21,981**

Table SC 1.1.7—Existing and projected demand for the sewerage network					
Column 1 Service catchment	**Column 2 Existing and projected demand (EP)**				
	2016	**2021**	**2026**	**2031**	**Ultimate development**
Biloela	6,245	6,251	6,218	6,210	9,500
Moura	1,771	1,773	1,763	1,770	4,846
Theodore	473	473	470	470	797
Taroom	609	610	607	610	3,264
Total	**9,098**	**9,107**	**9,058**	**9,060**	**18,407**

Table SC 1.1.8—Existing and projected demand for the transport network					
Column 1 Service catchment	**Column 2 Existing and projected demand (vpd)**				
	2016	**2021**	**2026**	**2031**	**Ultimate development**
Entire Council Area	65,180	65,970	66,570	67,350	108,040
Valley View Upgrade	4,800	5,800	7,000	8,020	18,409
Total	**69,980**	**71,770**	**73,570**	**75,370**	**126,449**

DRAFT

Table SC 1.1.9—Existing and projected demand for the parks and land for community facilities network					
Column 1 **Service catchment**	**Column 2** **Existing and projected demand (pop.)**				
	2016	**2021**	**2026**	**2031**	**Ultimate development**
Banana	143	143	143	143	521
Baralaba	272	272	270	270	1,562
Biloela	6,145	6,151	6,118	6,110	8,495
Moura	1,771	1,773	1,763	1,760	2,615
Taroom	609	610	607	605	2,847
Theodore	473	473	470	470	938
Thangool	309	309	308	305	524
Wowan	324	324	322	320	320
Goovigen	172	172	171	170	170
Total inside PIA	**25,662**	**26,209**	**26,777**	**27,283**	**17,992**

DRAFT

SC1.2 Schedules of works

Table SC 1.2.1—Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Est. timing	Column 4 Est. cost[1]
WM-001	Mains - Reticulation ; Hutton St	2015	$ 86,278
WM-002	Mains - Reticulation ; Leichhardt Hwy (incl Boring)	2015	$ 26,006
WM-003	Mains - Reticulation ; North St	2018	$234,345
WM-004	Mains - Rising ; New Feed (Dedicated) into Res	2017	$138,885
WM-005	Mains - Reticulation ; The Boulevarde	2018	$39,603
WM-006	Mains - Reticulation ; Eidsvold-Theodore Rd	2019	$113,572
WM-007	Mains - Rising ; New feed to Res from WTP	2015	$493,500
WM-008	Mains - Reticulation ; Dawson St	2015	$74,958
WM-009	Mains - Reticulation ; Wooroonah Rd (As per Cockatoo Coal Report)	2015	$180,205
WM-010	Mains - Reticulation ; Mimosa St	2016	$111,672
WM-011	Mains - Reticulation ; Mimosa St	2015	$38,244
WM-012	Main - Raw ; Augment Raw Water Main to WTP	2016	$3,784,574
WM-013	Mains - Rising ; Augment Feed from WTP to network	2017	$161,663
WM-014	Mains - Reticulation ; Washpool St Trunk	2015	$177,982
WM-015	Mains - Reticulation ; Eleventh Avenue	2014	$44,669
WM-016	Mains - Reticulation ; Dunn/Quarrie Rd Link	2015	$106,777
WM-017	Mains - Reticulation ; Dawson Highway - Zone Capacity	2021	$ 95,243
WM-018	Mains - Reticulation ; Melton St Trunk Connection	2018	$422,686
WM-019	Mains - Reticulation ; Kroombit St - Low Level Trunk Main	2016	$529,200
WM-020	Mains - Reticulation ; Callide St Trunk	2016	$382,068
WM-021	Mains - Reticulation ; Dunn St Linkage	2017	$138,774
WM-022	Mains - Reticulation ; Miller St	2016	$69,314
WM-023	Mains - Reticulation ; Yaldwyn St	2016	$434,145
WM-024	Mains - Reticulation ; Upgrade feed past school	2017	$ 88,697
WM-025	Mains - Reticulation ; Barrett St - Low Level	2022	$44,057
WM-026	Main - Raw ; Augment feed from Bores to Res	2018	$719,610
WM-027	Mains - Reticulation ; Link New Res into Network	2015	$64,914
WM-028	Mains - Reticulation ; Remove existing link between Retic and Rising Main	2015	$9,310
WM-029	Mains - Rising ; Convert existing main into dedicated rising main	2015	$10,750
WM-030	Mains - Reticulation ; Ramsey St	2015	$73,122
WM-031	Mains - Reticulation ; Convert Main to Dedicated Reticulation Main	2015	$140,738
WM-032	Mains - Reticulation ; Upgrade Stanley St	2023	$146,174
WM-033	Mains - Reticulation ; Upgrade Feed to Airport/School	2021	$137,465
WM-034	Mains - Reticulation ; Barrett St - High Levels	2022	$145,832
WM-035	Mains - Reticulation ; Dawson Highway - Zoning capacity	2020	$125,682
WF-001	Treatment Plant - Replaced Water Treatment Plant, including Pump Staton	2016	$538,575
WF-002	Storage - Banana Reservoir (2 x 0.75Ml)	2015	$2,687,500
WF-003	Pump Station - Pump Upgrades (Banana Res)	2016	$32,250
WF-004	Treatment Plant - Biloela Plant Automation	2016	$2,365,000
WF-005	Treatment Plant - Moura WTP Augmentation	2015	$2,365,000
WF-006	Pump Station - Moura Raw Water Pumps	2019	$215,000
WF-007	Pump Station - Theodore New River Pumps (See CWW Report)	2016	$10,750
WF-008	Treatment Plant - Theodore New Chlorine & Lime Dosing (See CWW Repo	2022	$172,500
WF-009	Dosing Equipment - Thangool Chlorine Dosing (Solar Operated)	2017	$107,500
WF-010	Storage - Goovigen 2 x 200kL Reservoir	2016	$860,000

[1] Table 1.2.1 Column 4 The establishment cost is expressed in current cost terms as at the base date.

DRAFT

Table SC 1.2.1—Water supply network schedule of works			
Column 1 Map reference	**Column 2 Trunk infrastructure**	**Column 3 Est. timing**	**Column 4 Est. cost[1]**
WF-011	Dosing Equipment - Wowan Chlorine	2019	$215,000
WF-012	Treatment Plant - Theodore Automation	2019	$537,500
WF-013	Treatment Plant - Taroom Iron Removal	2018	$161,250
TOTAL			**$19,686,696**

DRAFT

Table SC 1.2.2—Sewerage network schedule of works			
Column 1 Map reference	**Column 2 Trunk infrastructure**	**Column 3 Est. timing**	**Column 4 Est. cost[2]**
Passive Assets			
SM-001	Main - Rising ; PS#1 to Wolsey St	2015	$207,397
SM-002	Main - Gravity ; Hutton St to Highway	2015	$85,030
SM-003	Main - Gravity ; New Gravity line (divert Netley St PS)	2016	$368,463
SM-004	Main - Gravity ; Divert Cooinda PS	2017	$103,097
SM-005	Main - Rising ; Rising Main to discharge to 84 Kroombit St	2019	$526,139
SM-006	Main - Gravity ; Trunk Main Serve Big Box	2023	$709,620
Active Assets			
SF-001	New STP ; Theodore STP	2015	$1,806,000
SF-002	Augment PS #1 ; Biloela SPS#1	2016	$499,875
SF-003	Remove PS #2 ; Biloela SPS#2	2016	$53,750
SF-004	Recycled Water Study ; Theodore	2016	$107,500
SF-005	Filtration - Tertiary ; Biloela	2016	$1,128,750
SF-006	Augment PS1 ; Taroom SPS#1	2017	$345,000
SF-007	Upgrades (Cardno Report) ; Taroom STP	2017	$287,500
SF-008	Remove PS #5 ; Biloela SPSP#5	2017	$57,500
SF-009	Disinfection Upgrade ; Biloela STP	2017	$138,000
SF-010	New PS to Service Development ; Biloela "Big Box"	2018	$345,000
SF-011	Increase Storage Capacity ; Biloela STP	2018	$115,000
SF-012	Recycled Water Options - Class A+ ; Biloela STP	2019	$345,000
SF-013	Humus Tank Return (Cardno Report) ; Biloela STP	2018	$276,000
SF-014	Screening /Inlet (Cardno Report) ; Biloela STP	2013	$376,250
SF-015	Sludge Management (Cardno Report) ; Biloela STP	2029	$300,000
SF-016	Recycled Water Options ; Moura STO	2019	$172,500
SF-017	Microwave SCADA Linkage ; Communications and Control	2018	$235,750
SF-018	Recycled Water Options ; Theodore STP	2021	$172,500
TOTAL			**$8,761,622**

Table SC 1.2.3—Transport network schedule of works			
Column 1 Map reference	**Column 2 Trunk infrastructure**	**Column 3 Est. timing**	**Column 4 Est. cost[3]**
TL-001	Valley View Drive and Roundabouts	2012	$272,597.80
TOTAL			**$272,597.80**

DRAFT

[2] Table 1.2.2 Column 4 The establishment cost is expressed in current cost terms as at the base date.
[3] Table 1.2.3 Column 4 The establishment cost is expressed in current cost terms as at the base date.

Table SC 1.2.4— Parks and Land for Community Infrastructure network schedule of works			
Column 1 Map reference	**Column 2 Trunk infrastructure**	**Column 3 Est. timing**	**Column 4 Est. cost[4]**
NP01	Metropolitan Recreation Park - Biloela(Lions Park)	2013	$529,975
NP06	District Recreation Park - Biloela(Melton Park)	2013	$505,250
NP07	District Recreation Park - Biloela(Bicentennial Park)	2020	$24,725
NP02	Local Recreation Park - Biloela(Coorada St Park)	2014	$17,738
NP11	District Recreation Park - Banana(Opportunity Park)	2020	$333,500
NP09	Metropolitan Recreation Park - Moura(Lions Park)	2019	$453,100
NP10	Local Recreation Park - Moura(Engle Park)	2024	$79,200
NP14	District Recreation Park - Theodore(Neville Hewitt (Bullring) Park)	2016	$183,825
NP21	District Recreation Park - Thangool (Thangool Memorial Park)	2013	$192,425
NP08	District Recreation Park - Moura(Rotary Park)	2020	$88,550
NP13	District Recreation Park - Theodore(Junction Park)	2026	$433,200
NP15	Local Recreation Park - Theodore(Rotary Park)	2014	$226,825
NP18	District Recreation Park - Taroom(Lions Park)	2024	$153,600
NP17	District Recreation Park - Taroom(Leichhardt Park)	2015	$258,000
NP05	District Recreation Park - Biloela(Malcolm Husbands Agility Park)	2017	$46,000
NP04	District Recreation Park - Biloela(Jim Hooper Park)	2023	$181,200
NP03	Local Recreation Park - Biloela(Tom Dawson Park)	2020	$144,900
NS03	Metropolitan Sporting Park - Moura(Moura Sporting Reserve)	2013	$33,325
NS04	District Sporting Park - Theodore(Theodore Sporting Reserve)	2012	$77,400
NS01	District Sporting Park - Biloela(Biloela Swimming Pool)	2012	$17,200
NS02	Metropolitan Sporting Park - Biloela(Magavalis Sporting Reserve)	2013	$612,750
NP22	District Recreation Park - Goovigen(Goovigen Park)	2025	$204,000
NP12	District Recreation Park - Baralaba(Baralaba Park)	2015	$290,250
TOTAL			**$5,086,938**

DRAFT

[4] Table 1.2.4 Column 4 The establishment cost is expressed in current cost terms as at the base date.

SC1.3 Local government infrastructure plan maps

Local Government Infrastructure Plan Map **LGIP-PIA-001 Priority infrastructure area and projection areas maps**

Local Government Infrastructure Plan Map **LGIP-PFTI-001 Plans for trunk parks and land for community facilities infrastructure**

Local Government Infrastructure Plan Map **LGIP-PFTI-002 Plans for trunk sewerage infrastructure**

Local Government Infrastructure Plan Map **LGIP-PFTI-003 Plans for trunk transport infrastructure**

Local Government Infrastructure Plan Map **LGIP-PFTI-004 Plans for trunk water supply infrastructure**

DRAFT