

Part 8 Local Government Infrastructure Plan

8.1 Preliminary

- (1) This Local Government Infrastructure Plan (LGIP) has been prepared in accordance with the requirements of the *Planning Act 2016*.
- (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;
 - (e) provide a basis for the imposition of conditions about infrastructure on development approvals;
- (3) The LGIP:
 - (a) states in Section 8.2 the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network;
 - (b) identifies in Section 8.3 the prioritised area to accommodate urban growth up to 2031;
 - (c) states in Section 8.4 for each trunk infrastructure network the desired standard of performance;
 - (d) identifies in Section 8.5 the existing and future trunk infrastructure for the following networks:
 - (i) parks and land for community facilities;
 - (ii) sewerage;
 - (iii) transport;
 - (iv) water supply;
 - (e) provides a list of supporting documents that assist in the interpretation of the LGIP in Section 8.5.3 – Extrinsic material;

8.2 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 8.2.1;
 - (c) the projection areas identified on LGIP Map LGIP-PIA-001 Priority infrastructure area and projection areas in Schedule 2;
- (4) Details of the methodology used to prepare the planning assumptions are stated in the extrinsic material.

Table 8.2.1 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	Detached dwelling	Caretaker's accommodation Dwelling house Home-based business
	Attached dwelling	Community residence

Table 8.2.1 Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Defined Uses
		Dual occupancy Dwelling unit Multiple dwelling Relocatable home park Residential care facility Retirement facility Rooming accommodation Rural workers' accommodation
Non-residential development	Commercial	Car wash Club Function facility Funeral parlour Health care service Hotel Nature-based tourism Office Parking station Sales office Service industry Theatre Tourist park Veterinary services
	Community purpose	Cemetery Child care centre Community care centre Community use Educational establishment Emergency services Hospital Indoor sport and recreation Outdoor sport and recreation Park Place of worship
	Industry	Bulk landscape supplies Extractive industry High impact industry Low impact industry Medium impact industry Rural industry Special industry Transport depot Warehouse
	Other	Air service Animal husbandry Animal keeping Aquaculture Cropping Environmental facility Intensive animal industry Intensive horticulture Major electricity infrastructure Motor sport facility Permanent plantation Renewable energy facility Roadside stall Substation

Table 8.2.1 Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Defined Uses
		Telecommunications facility Utility installation Wholesale nursery Winery
	Retail	Agriculture supplies store Food and drink outlet Garden centre Hardware and trade supplies Market Outdoor sales Service station Shop Shopping centre Showroom

8.2.1 Population and employment growth

- (1) A summary of the assumptions about population and employment growth for the planning scheme area is stated in **Table 8.2.2** – Population and employment assumptions summary.
- (2) Detailed assumptions about growth for each projection area and LGIP development type category are identified in the following tables in Schedule 2:
 - (a) for population, **Table SC2.2.1**—Existing and projected population;
 - (b) for employment, **Table SC2.2.2** – Existing and projected employees;

Table 8.2.2 Population and employment assumptions summary

Column 1 Description	Column 2 - Assumptions				
	Base date 2016	2021	2026	2031	Ultimate
Population	15,243	15,519	15,807	16,064	23,692
Employment	6,602	6,721	6,846	6,957	72,379

8.2.2 Development

- (1) The developable area is identified on Local Government Priority Infrastructure Area Map LGIP-PIA-001 in Schedule 2.
- (2) The planned density for future development is stated in **Table SC2.2.5** in Schedule 2—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 8.2.3**-Residential dwellings and non-residential floor space assumptions summary.

Table 8.2.3 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	10,993
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 2:
 - (a) for residential development, **Table SC2.2.3** – Existing and projected residential dwellings;
 - (b) for non-residential development, **Table SC2.2.4** Existing and projected non-residential floor space;

8.3 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 2.

8.4 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.

8.4.1 Water supply network desired standard of service

Table 8.4.1 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.	<ul style="list-style-type: none"> • <i>WSA 03-2011 Water Supply Code of Australia</i>—Water Services Association of Australia • Customer service standards • Standards in Development Design Code • Capricorn Municipal Design Guidelines (CMDG)
Adequacy of supply	All development receives a water supply that is adequate for the intended use.	<ul style="list-style-type: none"> • Water Services Association of Australia codes • IPWEA standards • Customer service standards • Standards in 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 odour.	<ul style="list-style-type: none"> • <i>Australian Drinking Water Guidelines 2011</i>—National Health and Medical Research Council • <i>Drinking water quality management plan 2012</i>—Banana Shire Council
Environmental impacts	The water supply network minimises its environmental impacts in accordance with community expectations.	<ul style="list-style-type: none"> • Compliance with the requirements of: <ul style="list-style-type: none"> ○ the <i>Environmental Protection Act 1994</i> and associated Environmental Protection Policies; and ○ the <i>Water Act 2000</i>
Pressure and leakage management	Monitoring and management of the water supply network maintains the reliability and adequacy of supply and minimises environmental impacts.	<ul style="list-style-type: none"> • <i>Water Act 2000 System leakage management plan</i>
Infrastructure design / planning standards	Infrastructure design / planning standards	<ul style="list-style-type: none"> • <i>WSA 03–2002 Water Supply Code of Australia</i>—Water Services Association of Australia • <i>Australian Drinking Water Guidelines 2011</i>—National Health and Medical Research Council • <i>Planning Guidelines for Water Supply and Sewerage 2010</i>—Department of Energy and Water Supply • Standards in Development Design Code • Capricorn Municipal Design Guidelines (CMDG)

8.4.2 Sewerage network desired standard of service

Table 8.4.2 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.	<ul style="list-style-type: none"> Standards in Development Design 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.	<ul style="list-style-type: none"> <i>Queensland Water Quality Guidelines 2009</i>—Department of Environment and Resource Management Compliance with the requirements of the <i>Environmental Protection Act 1994</i> and associated Environmental Protection Policies
Environmental impacts	The sewerage network minimises its environmental impacts in accordance with community expectations.	<ul style="list-style-type: none"> Compliance with the requirements of the <i>Environmental Protection Act 1994</i> and associated Environmental Protection Policies
Effluent re-use	The reuse of effluent occurs wherever possible.	<ul style="list-style-type: none"> <i>Guidelines for Sewerage Systems: Use of Reclaimed Water</i>—February 2000—Agriculture and Resource Management Council of Australia and New Zealand and Australian and New Zealand Environment and Conservation Council <i>Water quality guidelines for recycled water schemes November 2008</i>—Department of Energy and Water Supply.
Infrastructure design /planning standards	Design of the sewerage network complies with established codes and standards.	<ul style="list-style-type: none"> <i>Planning Guidelines for Water Supply and Sewerage 2010</i>—Department of Energy and Water Supply. <i>WSA 02—2002 Sewerage Code of Australia</i>—Water Services Association of Australia <i>WSA 04—2005 Sewage Pumping Station Code of Australia</i>—Water Services Association of Australia Standards in Development Design Code CMDG

8.4.3 Transport network desired standard of service

Table 8.4.3 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.	<ul style="list-style-type: none"> Standards in 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.	<ul style="list-style-type: none"> Standards in 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

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

Table 8.4.4 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.	<ul style="list-style-type: none"> 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 access.	Accessibility standards are identified in Table 8.4.5 – Accessibility standard
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.	<ul style="list-style-type: none"> The rate of public park and land for community facilities provision is identified in Table 8.4.6 – Rate of land provision The size of public park and land for community facilities is identified in Table 8.4.7 - Size. The maximum gradient for public park and land for community facilities is identified in Table 8.4.8 – Maximum desired grade. The minimum flood immunity for public park and land for community facilities is identified in Table 8.4.9- Minimum desired flood immunity.
Facilities / embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	<ul style="list-style-type: none"> Standard embellishments for each type of park are identified in Table 8.4.10 – Standard facilities/embellishments

Table 8.4.4 Public parks and land for community facilities desired standard of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
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.	<ul style="list-style-type: none"> Standards in planning scheme Development design code CMDG Australian Standards

Table 8.4.5 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 8.4.6 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 8.4.7 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

Table 8.4.8 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 8.4.9 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 8.4.10 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	✓		✓		✓

8.5 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.

8.5.1 Plans for trunk infrastructure maps

- (1) The existing and future trunk infrastructure networks are shown in Schedule 2.

Table 8.5.1 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.

8.5.2 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 2:
 - (a) for the water supply network, **Table SC2.3.1**;
 - (b) for the sewerage network, **Table SC2.3.2**;
 - (c) for the transport network, **Table SC2.3.3**; and
 - (d) for the parks and land for community facilities network, **Table SC2.3.4**.

8.5.3 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 8.5.2 List of extrinsic material

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		Banana Shire Council
LGIP Assumption Report	March 2018	Srtaegic AM Pty Ltd