Part 4 Local government infrastructure plan

The Local Government Infrastructure Plan for Goondiwindi Regional Council is currently under preparation and will be adopted and commenced prior to the expiration of the current Priority Infrastructure Plans (PIPs) on 30 June 2018.

The current PIPs for the former local government areas of Goondiwindi, Inglewood and Waggamba will remain in force and provide the basis for infrastructure charging until the adoption and commencement of the Local Government Infrastructure Plan.

4.1 Goondiwindi Priority Infrastructure Plan

4.1.1 Introduction

This priority infrastructure plan has been prepared in accordance with the requirements of the *Integrated Planning Act 1997*, pursuant to Section 779 of the *Sustainable Planning Act 2009*.

4.1.2 Purpose

(1) The purpose of the priority infrastructure plan is:
- (a) to integrate and coordinate land use planning and infrastructure planning;
- (b) to ensure that trunk infrastructure is planned and provided in an efficient and orderly manner;
- (c) to establish an infrastructure funding framework that is equitable and accountable.

4.1.3 Structure of Priority Infrastructure Plan

(1) The priority infrastructure plan:
- (a) identifies in Section 4.2 (application of priority infrastructure plan) how the priority infrastructure plan will be applied to development;
- (b) states in Section 4.3 (planning assumptions) the projections of future urban growth and the assumptions of demand for each trunk infrastructure network, which have informed the preparation of the priority infrastructure plan;
- (c) identifies in Section 4.4 (priority infrastructure area) the area which will accommodate future urban growth;
- (d) states in Section 4.5 (desired standards of service) for each network of development infrastructure the desired standard of performance;
- (e) identifies in Section 4.6 (plans for trunk infrastructure) the existing and planned trunk infrastructure for the following networks:
  - (i) water supply;
  - (ii) sewerage;
  - (iii) storm water;
  - (iv) transport;
  - (v) public parks and land for community facilities.

4.2 Application of the Priority Infrastructure Plan

4.2.1 Applying the Priority Infrastructure Plan to Development

(1) The priority infrastructure plan states the basis for:
- (a) the imposition of a condition on development requiring:
  - (i) the supply of necessary trunk infrastructure;
  - (ii) the payment of additional trunk infrastructure costs.
- (b) the imposition by a state infrastructure provider of a condition:
  - (i) about protecting or maintaining the safety or efficiency of the provider's infrastructure network ; or
  - (ii) for additional infrastructure costs; or
  - (iii) about protecting or maintaining the safety and efficiency of public passenger transport .

4.2.2 Supply of Necessary Trunk Infrastructure

(1) A condition may be imposed for the supply of necessary trunk infrastructure where:
- (a) existing trunk infrastructure necessary to service the premises is not adequate and trunk infrastructure adequate to service the premises is identified in the priority infrastructure plan; or
- (b) trunk infrastructure to service the premises is necessary, but is not yet available and is identified in the priority infrastructure plan; or
- (c) trunk infrastructure identified in the priority infrastructure plan is located on the premises.

4.2.3 Payment of Additional Trunk Infrastructure Costs

(1) A condition may be imposed requiring the payment of additional infrastructure costs where:
- (a) the development:
  - (i) is inconsistent with the assumptions set out in Section 4.3; or
  - (ii) is located completely or partly outside the priority infrastructure area.

4.2.3.1 Test for Inconsistency with Assumptions for Development Inside the PIA

(1) Development is inconsistent with the assumptions if:
- (a) the type of development was not anticipated to occur in that location based on the planning scheme land uses; or
- (b) the development results in the total number of dwellings forecasted for the relevant priority infrastructure area (PIA) locality being exceeded in Table 4.3.1; or
- (c) the development results in the total amount of non-residential Gross Floor Area (GFA) forecasted for the relevant planning infrastructure area (PIA) locality being exceeded in Table 4.3.2; or
- (d) the timing of development is such that trunk infrastructure to service the premises is to be supplied earlier than anticipated in the priority infrastructure plan.

4.3 Planning Assumptions

4.3.1 Purpose

(1) The planning assumptions summarised in Tables 4.3.1 and 4.3.2 outline the projections of residential and non-residential development for the area to which the priority infrastructure plan applies.

(2) The assumptions have been developed in accordance with the land use planning provisions of the planning scheme and the anticipated growth in population and employment within the area to which the PIP applies. They form a logical basis for the planning of the networks.

(3) Further detailed background information concerning the planning assumptions is referenced in Section 4.7 (extrinsic material).

4.3.2 Population and Housing Projections

Table 4.3.1 Population and Housing Projections

Area	Dwelling Type	Existing and Projected Population (persons)				Average Occupancy Rate (persons /dwelling)	Existing and Projected Dwellings			
		2006	2011	2016	2021		2006	2011	2016	2021
Inside PIA - Goondiwindi Town	Single Dwelling	3,944	4,117	4,273	4,423	2.38	1,656	1,729	1,794	1,857
	Multiple Dwelling	934	975	1,012	1,048	1.93	483	504	523	542
	Other*	153	159	165	171	2.43	63	66	68	71
	Total	*5,031*	*5,252*	*5,450*	*5,643*	2.28	2,202	*2,299*	*2,386*	*2,470*
Outside PIA	Single Dwelling	0	0	0	0	2.38	0	0	0	0
	Multiple Dwelling	0	0	0	0	1.93	0	0	0	0
	Other*	0	0	0	0	2.43	0	0	0	0
	Total	*0*	*0*	*0*	*0*	2.28	*0*	*0*	*0*	*0*
Total Planning Scheme Area	Single Dwelling	3,944	4,117	4,273	4,423	2.38	1,656	1,729	1,794	1,857
	Multiple Dwelling	934	975	1,012	1,048	1.93	483	504	523	542
	Other*	153	159	165	171	2.43	63	66	68	71
	Total	*5,031*	*5,252*	*5,450*	*5,643*	2.28	2,202	*2,299*	*2,386*	*2,470*

** Refers to dwellings such as aged care units and retirement units*

Note: The PIP-RIGS calculator output (supplied by DIP)is based on the Urban Centre of Goondiwindi as defined by population density in Census Collection Districts (CDs) in 2006. These CDs include all of Goondiwindi Town and extends into Waggamba Shire.

The Planning Information and Forcasting Unit (PIFU) Office of Economic Statistical Research (OESR) Queensland Treasury supplied the following 2006 Estimated Residential Population (ERP) for:

- *Goondiwindi Town Centre of 6003; and*
- *Goondiwindi Town LGA of 5031.*

Therefore a PIP-RIGS calculator output based on the 2006 ERP for Goondiwindi Town LGA has been produced.

4.3.3 Employment and Non-residential Floor Space Projections

Table 4.3.2 Employment and Non-residential Floor Space Projections

Area	Land Use and Development Type	Employment (employees)				Average Floor Space Conversion Rate (m2 GFA / employee)	Floor Space (m^2 GFA)			
		2006	2011	2016	2021		2006	2011	2016	2021
Inside PIA *	Commercial	871	909	943	977	20	17,416	18,181	18,868	19,533
	Retail	439	458	476	492	25	10,975	11,457	11,889	12,309
	Industry	347	362	376	389	110	38,134	39,809	41,313	42,770
	Community	169	177	183	190	NA	NA	NA	NA	NA
	Other*	595	621	644	667	NA	NA	NA	NA	NA
	Total	*2,421*	*2,527*	*2,622*	*2,715*	*NA*	*66,525*	*69,446*	*72,070*	*74,612*
Outside PIA	Commercial	0	0	0	0	20	0	0	0	0
	Retail	0	0	0	0	25	0	0	0	0
	Industry	0	0	0	0	110	0	0	0	0
	Community	0	0	0	0	NA	NA	NA	NA	NA
	Other*	0	0	0	0	NA	NA	NA	NA	NA
	Total	*0*	*0*	*0*	*0*	*NA*	*0*	*0*	*0*	*0*
Total	Commercial	871	909	943	977	20	17,416	18,181	18,868	19,533
	Retail	439	458	476	492	25	10,975	11,457	11,889	12,309

Planning Scheme Area	Industry	347	362	376	389	110	38,134	39,809	41,313	42,770
	Community	169	177	183	190	NA	NA	NA	NA	NA
	Other*	595	621	644	667	NA	NA	NA	NA	NA
	Total	*2,421*	*2,527*	*2,622*	*2,715*	*NA*	*66,525*	*69,446*	*72,070*	*74,612*

• Other includes footloose and rural employment

Note: The PIP-RIGS calculator output (supplied by DIP)is based on the Urban Centre of Goondiwindi as defined by population density in Census Collection Districts (CDs) in 2006. These CDs include all of Goondiwindi Town and extends into Waggamba Shire.

The Planning Information and Forcasting Unit (PIFU) Office of Economic Statistical Research (OESR) Queensland Treasury supplied the following 2006

Estimated Residential Population (ERP) for:

- *Goondiwindi Town Centre of 6003; and*
- *Goondiwindi Town LGA of 5031.*

Therefore a PIP-RIGS calculator output based on the 2006 ERP for Goondiwindi Town LGA has been produced.

4.4 Priority Infrastructure Area

4.4.1 Purpose

(1) The priority infrastructure area (PIA) identifies the area where council plans to provide trunk infrastructure for urban development up to 2020.
(2) The PIA is the area where suitable and adequate development infrastructure exists, or where it can be provided most efficiently.

4.4.2 The Priority Infrastructure Area

4.4.2.1 Determination of the PIA

(1) The PIA is determined by the extent of the existing infrastructure networks.
(2) The boundary of the PIA is the area serviced by both the reticulated water supply system and the reticulated sewerage system.

4.4.2.2 PIA Map

(1) The PIA is shown on the following maps:
    (a) Map Ref: 19PIA1 - Priority Infrastructure Area - Town of Goondiwindi

4.5 Desired Standards of Service

4.5.1 Water Supply Desired Standards 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.	• Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The *Australian Drinking Water Guidelines* developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000)*
Infrastructure design / planning standards	Design of the water supply network will comply with established codes and standards.	• *Water Supply Code of Australia*- Water Services Association of Australia- WSA 03-2002 • The *Australian Drinking Water Guidelines* developed by the National Health and Medical Research Council • *Planning Guidelines for Water Supply and Sewerage*- Department of Natural Resources and Water (NRW)

4.5.2 Sewerage Network Desired Standards 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.	• Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • *Queensland Water Quality Guidelines* 2006-Environmental Protection Agency (where local guidelines do not exist) • *National Water Quality Guidelines-National Water Quality Management Strategy* (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• *Guidelines for Sewerage Systems: Reclaimed Water -February 2000* • *Queensland Water Recycling Guidelines-December 2005*
Infrastructure design / planning standards	Design of the sewerage network will comply with established codes and standards.	• *Planning Guidelines for Water Supply and* Sewerage-NRW • *Sewerage Code of Australia*- Water Services Association of Australia-WSA 02-2002 • *Sewerage Pumping Station Code of Australia-Water* Services Association of Australia-WSA 04-2005

4.5.3 Stormwater Network Desired Standards of Service

Measure	Planning Criteria (Qualitative Standards)	Design Criteria (Quantitative Standards)
Quantity	Collect and convey stom,water in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge, in a safe manner that minimises the inundation of habitable rooms and protects life.	• *Queensland Urban Drainage Manual-NRW*
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • *Queensland Water Quality Guidelines 2006-* Environmental Protection Agency (EPA) (where local guidelines do not exist) • *National Water Quality Guidelines-National* Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives .	• Section 42 Environmental Protection [Water] Policy 1997
Infrastructure design / planning standards	Design of the stormwater network will comply with established codes and standards .	• *Queensland Urban Drainage Manua/-N RW* • Natural Channel Design Guidelines

Part 4

4.5.4 Transport Network Desired Standards of Service

Measure	Planning Criteria (Qualitative Standards)	Design Criteria (Quantitative Standards)
Road network design *f* 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 will comply with established codes and standards.	• *Road Planning and Design Manual* developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design *I* planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand- responsive public transport routes.	• Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road-based public transport and high- occupancy vehicles
Cycleway and pathway design *I* planning standards	Cycle ways 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.	• Australian Standards • *AUSTROADS Guide to Traffic Engineering Practice- Part* 14 (Chapter 10) • *Queensland Streets Manual*

4.5.5 Public Parks and land for Community Facilities Network Desired Standards of Service

Measure	Planning Criteria (Qualitative Standards)	Design Criteria (Quantitative Standards)
Functional network	A network of parks and community land is established to provide for the full range of recreational and sporting activities and pursuits.	• Parks and community land is provided at a local, district and LGA-wide level • Parks and community land addresses the needs of both recreation and sport
Accessibility	Public parks will be located to ensure adequate pedestrian, cycle and vehicle access.	• No quantitative standards are prescribed
Land quality / suitability Area / 1000 persons Minimum size Maximum grade Flood immunity	Public parks will be provided to a standard that supports a diverse range of recreational, sporting and health-promoting activities to meet community expectations . This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• No quantitative standards are prescribed
Facilities / embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• No quantitative standards are prescribed
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks in proximity to other community infrastructure , transport hubs and valued environmental and cultural assets.	• Australian Standards

4.6 Plans for Trunk Infrastructure

4.6.1 Purpose

(1) The plans for trunk infrastructure (PFTI) identify the existing and proposed trunk infrastructure networks intended to service urban development.

4.6.2 Trunk Infrastructure Systems and Items

(1) Table 4.6.1 defines the trunk infrastructure networks, systems and items covered by the priority infrastructure plan.

Table 4.6.1 Trunk Infrastructure Networks, Systems and Items

Network	System	Elements
Water Supply	Bulk supply	• Water treatment and recycling facilities • Water sources including dams, bores, desalination facilities • Pump stations • Telemetry systems
	Distribution	• Reservoirs and other storage facilities • Pump Station • Trunk mains and associated fittings • Fire fighting devices • Telemetry systems
	Reticulation	• Pump stations • Trunk mains and associated fittings • Manholes • Telemetry systems
	Sewerage treatment	• Sewerage treatment facility • Sewer release systems • Telemetry systems
Storm Water	Quantity	• Piped drainage (including pipes, box culverts, manholes, inlets and outlets) • Detention and retention facilities • Overland flow paths/channels (natural and constructed) • Bank stabilisation, erosion protection and revegetation
	Quality	• Nil
Transport	Local government and state controlled	• Arterial, sub-arterial and major collector roads including associated intersections, local road drainage, kerb and channel, swales, culverts, bridges, roundabouts, traffic lights, lighting, signage, on- road cycle lanes, pathways basic verge revegetation including shade trees, turf and local drainage within the road reserve
	Public transport	• Bus stops, signs and shelters
	Off-road pathways	• Cycleways and pedestrian pathways not within the road reserve, including associated culverts, bridges, lighting, directional and information signage and surface marking
Public Parks.	Public parks	• Land, works and embellishments for local, district and local government-wide

		parks • Parks for formal and informal recreation and sporting purposes • Park embellishments including public amenities, shade structures , playgrounds including soft fall and safety fencing, bollards, dog off- • leash areas, retaining walls, access roads and on-site car parks, footpaths and cycle ways, lighting, drink bubblers and taps, picnic tables, line marking, turf and irrigation (of sporting fields), barbeques, skate bowl, boat ramps and fishing platforms built by council and open to the public, sporting facilities including goal posts, soccer nets, netball posts, half-courts and basic spectator seating, bike racks, signage and provision of services (e.g. water , power) • Land contributed in lieu of payment of infrastructure charges
	Land for community facilities	• Land and basic works associated with the clearing of land and connection to services • Land only for community facilities which allow public access, not restricted by membership, for purposes such as youth centres , senior citizens centre I meeting halls, council chambers, neighbourhood centres, meeting halls libraries, performing arts centres, museums art galleries, community centres and swimming pools

4.6.3 Plans for Trunk Infrastructure

(1) Plans identifying the existing and future trunk infrastructure for each infrastructure network are shown on the following maps:

(a) Water Supply:
  (i) Map Ref: 19WAT1 - Trunk Infrastructure Water Supply - Town of Goondiwindi
(b) Sewerage:
  (ii) Map Ref: 19SEW1 - Trunk Infrastructure Sewerage - Town of Goondiwindi
(c) Storm Water:
  (iii) Map Ref: 19STW1 - Trunk Infrastructure Storm Water - Town of Goondiwindi
(d) Transport :
  (iv) Map Ref: 19RDS1 - Trunk Infrastructure Transport - Town of Goondiwindi
(e) Public Parks and Land for Community Facilities:
  (v) Map Ref: 19PKS1 - Trunk Infrastructure Public Parks and Land for Community Facilities - Town of Goondiwindi

4.6.4 Schedule of Works

(1) Tables 4.6.2 to 4.6.4 provide details of future trunk infrastructure for each network

Table 4.6.2 Schedule of Works Water Supply Network

Map Ref	Item ID	Trunk Infrastructure Asset Description	Estimated year of Completion	Estimated Cost ($)
		New booster pump - Old Cunningham Highway	2012	$250,000
		Telemetry upgrades various locations Stage 1	2012	$13,333
		Telemetry upgrades various locations Stage2	2014	$13,333
		Bore as George Street WTP	2015	$250,000
		Upgrade Riddle Street booster pump station	2016	$150,000
		Telemetry upgrades various locations Stage3	2016	$13,333
		Telemetry upgrades various locations Stage4	2018	$13,333
Total estimated cost				**$703,332**

Table 4.6.3 Schedule of Works Sewerage Network

Map Ref	Item ID	Trunk Infrastructure Asset Description	Estimated year of Completion	Estimated Cost ($)
		PS1 upgrade (balance of staged construction)	2012	$140,000
		Telemetry upgrades various locations Stage 1	2012	$13,333
		New rising main discharging to 225 dia trunk main in Herbert Street	2013	$90,000
		STP upgrade Stage 1	2013	$5,000,000
		PS4 upgrade	2013	$70,000
		New rising main - Herbert Street	2013	$100,000
		STP upgrade Stage 2	2014	$5,000,000
		Waste water reuse scheme Stage 1	2014	$1,000,000
		PS5 upgrade	2014	$100,000
		Divert PS10 to Lamberth Road trunk main	2014	$10,000
		Telemetry upgrades various locations Stage 2	2014	$13,333
		STP upgrade Stage 3	2015	$7,000,000
		Waste water reuse scheme Stage 2	2015	$1,000,000
		Telemetry upgrades various locations Stage 3	2016	$13,333
		PS6 upgrade		$60,000
		Telemetry upgrades various locations Stage 4	2018	$13,333
Total estimated cost				**$19,623,332**

Table 4.6.4 Schedule of Works Transport Network

Map Ref	Item ID	Trunk Infrastructure Asset Description	Estimated year of Completion	Estimated Cost ($)
		Lamberth Road footpath / bilkeway extension	2012	$165,000
		Lamberth Road widen / extend pavement and seal	2012	$550,000
		Old Cunningham Highway AC and pavement improvements	2012	$150,000
		Lagoon Street crossing at cultural	2013	$75,000

Map Ref	Item ID	Trunk Infrastructure Asset Description	Estimated year of Completion	Estimated Cost ($)
		centre		
		Frideswide Street footbridge at Serpentine Creek	2014	$50,000
		McLean Street AC and pavement improvements	2014	$120,000
		Herbert Street Brisbane to George additional funds for rehab/upgrade	2016	$275,000
		Sandhurst Street pavement widening Moffat Street to McLean Street	2016	$200,000
		Frideswide Street bikeway George Street to Marshall Street	2017	$125,000
		Moffat Street McDougall Street at rail overpass	2017	$35,000
		Lamberth Road traffic calming various locations	2020	$75,000
Total estimated cost				**$1,820,000**

4.7 Extrinsic Material

(1) The extrinsic material provides detailed background information relevant to the preparation of this priority infrastructure plan. Copies of this material are available for inspection and I or purchase.

(a) PIP-RICS calculator version 10

4.8 Plans for Trunk Infrastructure Maps

Table 4.8.1 Priority Infrastructure Area Plans

Map Ref	Drawing Title
19PIA1	Priority Infrastructure Area – Town of Goondiwindi

Table 4.8.2 Existing Trunk Infrastructure and Service Catchment Plans

Map Ref	Drawing Title	
19WAT1	Trunk Infrastructure Water Supply	Town of Goondiwindi
19SEW1	Trunk Infrastructure Sewerage	Town of Goondiwindi
19STW1	Trunk Infrastructure Stormwater	Town of Goondiwindi
19RDS1	Trunk Infrastructure Transport	Town of Goondiwindi
19PKS1	Trunk Infrastructure Public Parks, and Land for Community Facilities	Town of Goondiwindi

4.9 Inglewood Priority Infrastructure Plan

4.9.1 Introduction

This priority infrastructure plan has been prepared in accordance with the requirements of the *Integrated Planning Act 1997*, pursuant to Section 779 of the *Sustainable Planning Act 2009*.

4.9.2 Purpose

(2) The purpose of the priority infrastructure plan is:
- (a) to integrate and coordinate land use planning and infrastructure planning;
- (b) to ensure that trunk infrastructure is planned and provided in an efficient and orderly manner;
- (c) to establish an infrastructure funding framework that is equitable and accountable.

4.9.3 Structure of Priority Infrastructure Plan

(1) The priority infrastructure plan:
- (a) identifies in Section 4.10 (application of priority infrastructure plan) how the priority infrastructure plan will be applied to development;
- (b) states in Section 4.11 (planning assumptions) the projections of future urban growth and the assumptions of demand for each trunk infrastructure network, which have informed the preparation of the priority infrastructure plan;
- (c) identifies in Section 4.12 (priority infrastructure area) the area which will accommodate future urban growth;
- (d) states in Section 4.13 (desired standards of service) for each network of development infrastructure the desired standard of performance;
- (e) identifies in Section 4.14 (plans for trunk infrastructure) the existing and planned trunk infrastructure for the following networks:
  - (i) water supply;
  - (ii) sewerage;
  - (iii) transport;
  - (iv) public parks and land for community facilities.

4.10 Application of the Priority Infrastructure Plan

4.10.1 Applying the Priority Infrastructure Plan to Development

(1) The priority infrastructure plan states the basis for:
- (a) the imposition of a condition on development requiring:
  - (i) the supply of necessary trunk infrastructure;
  - (ii) the payment of additional trunk infrastructure costs.
- (b) the imposition by a state infrastructure provider of a condition:
  - (i) about protecting or maintaining the safety or efficiency of the provider's infrastructure network ; or
  - (ii) for additional infrastructure costs; or
  - (iii) about protecting or maintaining the safety and efficiency of public passenger transport .

4.10.2 Supply of Necessary Trunk Infrastructure

(1) A condition may be imposed for the supply of necessary trunk infrastructure where:
- (a) existing trunk infrastructure necessary to service the premises is not adequate and trunk infrastructure adequate to service the premises is identified in the priority infrastructure plan; or
- (b) trunk infrastructure to service the premises is necessary, but is not yet available and is identified in the priority infrastructure plan; or
- (c) trunk infrastructure identified in the priority infrastructure plan is located on the premises.

4.10.3 Payment of Additional Trunk Infrastructure Costs

(1) A condition may be imposed requiring the payment of additional infrastructure costs where:
- (a) the development:
  - (i) is inconsistent with the assumptions set out in Section 4.11; or
  - (ii) is located completely or partly outside the priority infrastructure area.

4.10.3.1 Test for Inconsistency with Assumptions for Development Inside the PIA

(1) Development is inconsistent with the assumptions if:
- (a) the type of development was not anticipated to occur in that location based on the planning scheme land uses; or
- (b) the development results in the total number of dwellings forecasted for the relevant priority infrastructure area (PIA) locality being exceeded in Table 4.11.1; or
- (c) the development results in the total amount of non-residential Gross Floor Area (GFA) forecasted for the relevant planning infrastructure area (PIA) locality being exceeded in Table 4.11.2; or
- (d) the timing of development is such that trunk infrastructure to service the premises is to be supplied earlier than anticipated in the priority infrastructure plan.

4.11 Planning Assumptions

4.11.1 Purpose

(1) The planning assumptions summarised in Tables 4.11.1 and 4.11.2 outline the projections of residential and non-residential development for the area to which the priority infrastructure plan applies.

(2) The assumptions have been developed in accordance with the land use planning provisions of the planning scheme and the anticipated growth in population and employment within the area to which the PIP applies. They form a logical basis for the planning of the networks.

(3) Further detailed background information concerning the planning assumptions is referenced in Section 4.15 (extrinsic material).

4.11.2 Population and Housing Projections

Table 4.11.1 Population and Housing Projections

Area	Dwelling Type	Existing and Projected Population (persons)				Average Occupancy Rate (persons/dwelling)	Existing and Projected Dwellings			
		2006	2011	2016	2021		2006	2011	2016	2021
Inside PIA – Inglewood (L)	Single Dwelling	805	811	815	819	1.91	421	424	426	428
	Multiple Dwelling	17	17	17	17	1.03	16	16	16	17
	Other*	33	34	34	34	1.59	21	21	21	21
	Total	*856*	*861*	*866*	*870*	*1.87*	*458*	*461*	*463*	*466*
Inside PIA – Texas (L)	Single Dwelling	693	698	701	705	1.91	362	365	366	368
	Multiple Dwelling	14	15	15	15	1.03	14	14	14	14
	Other*	29	29	29	29	1.59	18	18	18	18
	Total	*736*	*741*	*745*	*749*	*1.87*	*394*	*397*	*399*	*401*
Outside PIA	Single Dwelling	1,016	1,023	1,028	1,034	1.91	531	535	537	540
	Multiple Dwelling	21	21	21	22	1.03	21	21	21	21
	Other*	42	42	43	43	1.59	27	27	27	27
	Total	*1,080*	*1,087*	*1,092*	*1,098*	*1.87*	*578*	*582*	*585*	*588*
Total Planning Scheme Area	Single Dwelling	2,515	2,532	2,545	2,558	1.91	1,314	1,323	1,329	1,337
	Multiple Dwelling	52	53	53	53	1.03	51	51	51	52
	Other*	104	105	105	106	1.59	66	66	66	67
	Total	*2,672*	*2,689*	*2,703*	*2,718*	*1.87*	*1,431*	*1,440*	*1,447*	*1,455*

** Refers to dwellings such as aged care units and retirement units*

4.11.3 Employment and Non-residential Floor Space Projections

Table 4.11.2 Employment and Non-residential Floor Space Projections

Area	Land Use and Development Type	Employment (employees)				Average Floor Space Conversion Rate (m2 GFA / employee)	Floor Space (m^2 GFA)			
		2006	2011	2016	2021		2006	2011	2016	2021
Inside PIA – Inglewood (L)	Commercial	141	142	142	143	20	2,815	2,833	2,848	2,863
	Retail	46	46	47	47	25	1,152	1,159	1,165	1,172
	Industry	62	62	62	63	110	6,795	6,839	6,874	6,911
	Community	35	36	36	36	NA	NA	NA	NA	NA
	Other*	0	0	0	0	NA	NA	NA	NA	NA
	Total	*284*	*286*	*287*	*289*	*NA*	*10,761*	*10,832*	*10,887*	*10,946*
Inside PIA – Texas (L)	Commercial	121	122	123	123	20	2,423	2,439	2,452	2,465
	Retail	40	40	40	40	25	992	998	1,003	1,009
	Industry	53	54	54	54	110	5,849	5,887	5,917	5,949
	Community	31	31	31	31	NA	NA	NA	NA	NA
	Other*	0	0	0	0	NA	NA	NA	NA	NA
	Total	*245*	*246*	*247*	*249*	*NA*	*9,264*	*9,324*	*9,372*	*9,423*
Outside PIA	Commercial	0	0	0	0	20	0	0	0	0
	Retail	0	0	0	0	25	0	0	0	0
	Industry	0	0	0	0	110	0	0	0	0
	Community	0	0	0	0	NA	NA	NA	NA	NA
	Other*	417	420	422	425	NA	NA	NA	NA	NA
	Total	*417*	*420*	*422*	*425*	*NA*	*0*	*0*	*0*	*0*

Total Planning Scheme Area	Commercial	262	264	265	266	20	5,238	5,273	5,299	5,328
	Retail	86	86	87	87	25	2,143	2,157	2,168	2, 180
	Industry	115	116	116	117	110	12,643	12,726	12,791	12,860
	Community	66	66	67	67	NA	NA	NA	NA	NA
	Other*	417	420	422	425	NA	NA	NA	NA	NA
	Total	*946*	*952*	*957*	*962*	*NA*	*20,025*	*20,156*	*20,259*	*20,369*

** Other includes footloose and rural employment*

4.12 Priority Infrastructure Area

4.12.1 Purpose

(1) The priority infrastructure area (PIA) identifies the area where council plans to provide trunk infrastructure for urban development up to 2020.
(2) The PIA is the area where suitable and adequate development infrastructure exists, or where it can be provided most efficiently.

4.12.2 The Priority Infrastructure Area

4.12.2.1 Determination of the PIA

(1) The PIA is determined by the extent of the existing infrastructure networks.
(2) The boundary of the PIA is the area serviced by both the reticulated water supply system and the reticulated sewerage system.

4.12.2.2 PIA Map

(2) The PIA is shown on the following maps:
  (a) Map Ref: 29PIA1 - Priority Infrastructure Area - Town of Inglewood
  (b) Map Ref. 29PIA2 – Priority Infrastructure Area – Town of Texas

4.13 Desired Standards of Service

4.13.1 Water Supply Networks Desired Standards 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.	• Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The *Australian Drinking Water Guidelines* developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000)*
Infrastructure design / planning standards	Design of the water supply network will comply with established codes and standards.	• *Water Supply Code of Australia*- Water Services Association of Australia-WSA 03-2002 • The *Australian Drinking Water Guidelines* developed by the National Health and Medical Research Council • *Planning Guidelines for Water Supply and Sewerage*- Department of Natural Resources and Water (NRW)

4.13.2 Sewerage Network Desired Standards 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.	• Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • *Queensland Water Quality Guidelines* 2006-Environmental Protection Agency (where local guidelines do not exist) • *National Water Quality Guidelines-National Water Quality Management Strategy* (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• *Guidelines for Sewerage Systems: Reclaimed Water -February 2000* • *Queensland Water Recycling Guidelines-December 2005*
Infrastructure design / planning standards	Design of the sewerage network will comply with established codes and standards .	• *Planning Guidelines for Water Supply and* Sewerage-NRW • *Sewerage Code of Australia*- Water Services Association of Australia-WSA 02-2002 • *Sewerage Pumping Station Code of Australia-Water* Services Association of Australia-WSA 04-2005

4.13.3 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 will comply with established codes and standards.	• *Road Planning and Design Manual* developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design / planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road- based public transport and high-occupancy vehicles
Cycleway and pathway design / planning standards	Cycle ways 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.	• Australian Standards • *AUSTROADS Guide to Traffic Engineering Practice-Part* 14 (Chapter 10) • *Queensland Streets Manual*

4.13.4 Public Parks and Land for Community Facilities Network Desired Standard of Service

Measure	Planning Criteria (Qualitative Standards)	Design Criteria (Quantitative Standards)
Functional network	A network of parks and community land is established to provide for the full range of recreational and sporting activities and pursuits.	• Parks and community land is provided at a local, district and LGA-wide level • Parks and community land addresses the needs of both recreation and sport
Accessibility	Public parks will be located to ensure adequate pedestrian, cycle and vehicle access.	• No quantitative standards are prescribed
Land quality / suitability Area / 1000 persons Minimum size Maximum grade Flood immunity	Public parks will be provided to a standard that supports a diverse range of recreational, sporting and health- promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• No quantitative standards are prescribed
Facilities / embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• No quantitative standards are prescribed
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Australian Standards

4.14 Plans for Trunk Infrastructure

4.14.1 Purpose

(1) The plans for trunk infrastructure (PFTI) identify the existing and proposed trunk infrastructure networks intended to service urban development.

4.14.2 Trunk Infrastructure Networks, Systems and Items

(1) Table 4.14.1 defines the trunk infrastructure networks, systems and items covered by the priority infrastructure plan.

Table 4.14.1 Trunk Infrastructure Networks, Systems and Items

Network	System	Elements
Water Supply	Bulk supply	• Water treatment and recycling facilities • Water sources including dams, bores, desalination facilities • Pump stations • Telemetry systems
	Distribution	• Reservoirs and other storage facilities • Pump Station • Trunk mains and associated fittings • Fire fighting devices • Telemetry systems
Sewerage	Reticulation	• Pump stations • Trunk mains and associated fittings • Manholes • Telemetry systems
	Sewerage treatment	• Sewerage treatment facility • Sewer release systems • Telemetry systems
Transport	Local government and state controlled	• Arterial, sub-arterial and major collector roads including associated intersections, local road drainage, kerb and channel, swales, culverts, bridges, roundabouts, traffic lights, lighting, signage, on- road cycle lanes, pathways basic verge revegetation including shade trees, turf and local drainage within the road reserve
	Public transport	• Bus stops, signs and shelters
	Off-road pathways	• Cycleways and pedestrian pathways not within the road reserve, including associated culverts, bridges, lighting, directional and information signage and surface marking
Public Parks.	Public parks	• Land, works and embellishments for local, district and local government-wide parks • Parks for formal and informal recreation and sporting purposes • Park embellishments including public amenities, shade structures, playgrounds including soft fall and safety fencing, bollards, dog off- leash areas, retaining walls, access roads and on-site car parks, footpaths and cycle ways, lighting, drink bubblers and taps,

		picnic tables, line marking, turf and irrigation (of sporting fields), barbeques, skate bowl, boat ramps and fishing platforms built by council and open to the public, sporting facilities including goal posts, soccer nets, netball posts, half-courts and basic spectator seating, bike racks, signage and provision of services (e.g. water, power) • Land contributed in lieu of payment of infrastructure charges
	Land for community facilities	• Land and basic works associated with the clearing of land and connection to services • Land only for community facilities which allow public access, not restricted by membership, for purposes such as youth centres, senior citizens centre I meeting halls, council chambers, neighbourhood centres, meeting halls libraries, performing arts centres, museums art galleries, community centres and swimming pools

4.14.3 Plans for Trunk Infrastructure

(1) Plans identifying the existing and future trunk infrastructure for each infrastructure network are shown on the following maps:

(a) Water Supply:
  (i) Map Ref: 29WAT1 - Trunk Infrastructure Water Supply - Town of Inglewood
  (ii) Map Ref. 29WAT2 – Trunk Infrastructure Water Supply – Town of Texas
(b) Sewerage:
  (i) Map Ref: 29SEW1 - Trunk Infrastructure Sewerage - Town of Inglewood
  (ii) Map Ref: 29SEW2 - Trunk Infrastructure Sewerage - Town of Texas
(c) Transport :
  (i) Map Ref: 29RDS1 - Trunk Infrastructure Transport – Local Government Area Inglewood Shire
  (ii) Map Ref: 29RDS2 - Trunk Infrastructure Transport – Town of Inglewood
  (iii) Map Ref: 29RDS3 - Trunk Infrastructure Transport – Town of Texas
(d) Public Parks and Land for Community Facilities:
  (i) Map Ref: 29PKS1 - Trunk Infrastructure Public Parks and Land for Community Facilities – Local Government Area Inglewood Shire
  (ii) Map Ref: 29PKS2 - Trunk Infrastructure Public Parks and Land for Community Facilities – Town of Inglewood
  (iii) Map Ref: 29PKS3 - Trunk Infrastructure Public Parks and Land for Community Facilities – Town of Texas

4.14.4 Schedule of Works

(1) Tables 4.14.2 to 4.14.4 provide details of future trunk infrastructure for each network.

Table 4.14.2 Schedule of Works Water Supply Network

Map Ref	Item ID	Trunk Infrastructure Asset Description	Estimated year of Completion	Estimated Cost ($)
		New booster pump - Old Cunningham Highway	2012	$250,000
		Telemetry upgrades various locations Stage 1	2012	$13,333
		Telemetry upgrades various locations Stage2	2014	$13,333
		Duplicate clarifier Texas	2015	$250,000
		Upgrade pressure filter Inglewood	2016	$150,000
		Telemetry upgrades various locations Stage3	2016	$13,333
		Telemetry upgrades various locations Stage4	2018	$13,333
Total Estimated Cost				**$353,332**

Table 4.14.3 Schedule of Works Sewerage Network

Map Ref	Item ID	Trunk Infrastructure Asset Description	Estimated year of Completion	Estimated Cost ($)
		Telemetry upgrades various locations Stage 1	2012	$13,333
		Telemetry upgrades various locations Stage 2	2014	$13,333
		Telemetry upgrades various locations Stage 3	2016	$13,333
		Telemetry upgrades various locations Stage 4	2018	$13,333
Total Estimated Cost				**$53,332**

Table 4.14.4 Schedule of Works Transport Network

Map Ref	Item ID	Trunk Infrastructure Asset Description	Estimated year of Completion	Estimated Cost ($)
		Brook Street widen / extend sealed pavement	2014	$220,000
		Riverton Road widen / extend pavement and seal Stage 1	2014	$175,000
		Riverton Road widen / extend pavement and seal Stage2	2015	$200,000
Total Estimated Cost				**$595,000**

4.15 Extrinsic Material

(1) The extrinsic material provides detailed background information relevant to the preparation of this priority infrastructure plan. Copies of this material are available for inspection and I or purchase.

(a) PIP-RICS calculator version 10

4.16 Plans for Trunk Infrastructure Maps

Table 4.16.1 Priority Infrastructure Area Plans

Map Ref	Drawing Title
29PIA1	Priority Infrastructure Area – Town of Inglewood
29PIA2	Priority Infrastructure Area – Town of Texas

Table 4.16.2 Existing Trunk Infrastructure and Service Catchment Plans

Map Ref	Drawing Title	
29WAT1	Trunk Infrastructure Water Supply	Town of Goondiwindi
29WAT2	Trunk Infrastructure Water Supply	Town of Texas
29SEW1	Trunk Infrastructure Sewerage	Town of Goondiwindi
29SEW2	Trunk Infrastructure Sewerage	Town of Texas
29RDS1	Trunk Infrastructure Transport	Local Government Area Inglewood Shire
29RDS2	Trunk Infrastructure Transport	Town of Goondiwindi
29RDS3	Trunk Infrastructure Transport	Town of Texas
29PKS1	Trunk Infrastructure Public Parks, and Land for Community Facilities	Local Government Area Inglewood Shire
29PKS2	Trunk Infrastructure Public Parks, and Land for Community Facilities	Town of Goondiwindi
29PKS3	Trunk Infrastructure Public Parks, and Land for Community Facilities	Town of Texas

4.17 Waggamba Priority Infrastructure Plan

4.17.1 Introduction

(1) This priority infrastructure plan has been prepared in accordance with the requirements of the *Integrated Planning Act 1997*, pursuant to Section 779 of the *Sustainable Planning Act 2009*.

4.17.2 Purpose

(1) The purpose of the priority infrastructure plan is:
- (a) to integrate and coordinate land use planning and infrastructure planning;
- (b) to ensure that trunk infrastructure is planned and provided in an efficient and orderly manner;
- (c) to establish an infrastructure funding framework that is equitable and accountable.

4.17.3 Structure of Priority Infrastructure Plan

(1) The priority infrastructure plan:
- (a) identifies in Section 4.18 (application of priority infrastructure plan) how the priority infrastructure plan will be applied to development;
- (b) states in Section 4.19 (planning assumptions) the projections of future urban growth and the assumptions of demand for each trunk infrastructure network, which have informed the preparation of the priority infrastructure plan;
- (c) identifies in Section 4.20 (priority infrastructure area) the area which will accommodate future urban growth;
- (d) states in Section 4.21 (desired standards of service) for each network of development infrastructure the desired standard of performance;
- (e) identifies in Section 4.22 (plans for trunk infrastructure) the existing and planned trunk infrastructure for the following networks:
  - (i) water supply;
  - (ii) sewerage;
  - (iii) stormwater
  - (iv) transport;
  - (v) public parks and land for community facilities.

4.18 Application of the Priority Infrastructure Plan

4.18.1 Applying the Priority Infrastructure Plan to Development

(1) The priority infrastructure plan states the basis for:
- (a) the imposition of a condition on development requiring:
  - (i) the supply of necessary trunk infrastructure;
  - (ii) the payment of additional trunk infrastructure costs.
- (b) the imposition by a state infrastructure provider of a condition:
  - (i) about protecting or maintaining the safety or efficiency of the provider's infrastructure network ; or
  - (ii) for additional infrastructure costs; or
  - (iii) about protecting or maintaining the safety and efficiency of public passenger transport .

4.18.2 Supply of Necessary Trunk Infrastructure

(1) A condition may be imposed for the supply of necessary trunk infrastructure where:
- (a) existing trunk infrastructure necessary to service the premises is not adequate and trunk infrastructure adequate to service the premises is identified in the priority infrastructure plan; or
- (b) trunk infrastructure to service the premises is necessary, but is not yet available and is identified in the priority infrastructure plan; or
- (c) trunk infrastructure identified in the priority infrastructure plan is located on the premises.

4.18.3 Payment of Additional Trunk Infrastructure Costs

(1) A condition may be imposed requiring the payment of additional infrastructure costs where:
- (a) the development:
  - (i) is inconsistent with the assumptions set out in Section 4.19; or
  - (ii) is located completely or partly outside the priority infrastructure area.

4.18.3.1 Test for Inconsistency with Assumptions for Development Inside the PIA

(1) Development is inconsistent with the assumptions if:
- (a) the type of development was not anticipated to occur in that location based on the planning scheme land uses; or
- (b) the development results in the total number of dwellings forecasted for the relevant priority infrastructure area (PIA) locality being exceeded in Table 4.19.1; or
- (c) the development results in the total amount of non-residential Gross Floor Area (GFA) forecasted for the relevant planning infrastructure area (PIA) locality being exceeded in Table 4.19.2; or
- (d) the timing of development is such that trunk infrastructure to service the premises is to be supplied earlier than anticipated in the priority infrastructure plan.

4.19 Planning Assumptions

4.19.1 Purpose

(1) The planning assumptions summarised in Tables 4.19.1 and 4.19.2 outline the projections of residential and non-residential development for the area to which the priority infrastructure plan applies.

(2) The assumptions have been developed in accordance with the land use planning provisions of the planning scheme and the anticipated growth in population and employment within the area to which the PIP applies. They form a logical basis for the planning of the networks.

(3) Further detailed background information concerning the planning assumptions is referenced in Section 4.23 (extrinsic material).

4.19.2 Population and Housing Projections

Table 4.19.1 Population and Housing Projections

Area	Dwelling Type	Existing and Projected Population (persons)				Average Occupancy Rate (persons / dwelling)	Existing and Projected Dwellings			
		2006	2011	2016	2021		2006	2011	2016	2021
Inside PIA – Goondiwindi Environs	Single Dwelling	1,741	1,815	1,894	1,972	2.33	748	779	813	847
	Multiple Dwelling	45	47	49	51	2.00	22	23	24	25
	Other*	91	94	99	103	1.55	58	61	64	66
	Total	1,876	1,956	2,041	2,126	2.26	828	864	901	939
Inside PIA - Yelarbon	Single Dwelling	187	195	204	212	2.33	80	84	88	91
	Multiple Dwelling	5	5	5	5	2.00	2	3	3	3
	Other*	10	10	11	11	1.55	6	7	7	7
	Total	202	211	220	229	2.26	89	93	97	101
Inside PIA - Talwood	Single Dwelling	84	88	92	96	2.33	36	38	39	41
	Multiple Dwelling	2	2	2	2	2.00	1	1	1	1
	Other*	4	5	5	5	1.55	3	3	3	3
	Total	91	95	99	103	2.26	40	42	44	46
Inside PIA - Toobeah	Single Dwelling	48	50	52	55	2.33	21	22	23	23
	Multiple Dwelling	1	1	1	1	2.00	1	1	1	1
	Other*	3	3	3	3	1.55	2	2	2	2
	Total	52	54	57	59	2.26	23	24	25	26
Inside PIA - Bungunya	Single Dwelling	61	64	67	69	2.33	26	27	29	30
	Multiple Dwelling	2	2	2	2	2.00	1	1	1	1
	Other*	3	3	3	4	1.55	2	2	2	2

	Total	*66*	*69*	*72*	*75*	*2.26*	*29*	*30*	*32*	*33*
Outside PIA	Single Dwelling	699	729	760	792	2.33	300	313	326	340
	Multiple Dwelling	18	19	19	20	2.00	9	9	10	10
	Other*	36	38	40	41	1.55	23	24	26	27
	Total	*753*	*785*	*819*	*853*	*2.26*	*332*	*347*	*362*	*377*
Total Planning Scheme Area	Single Dwelling	2,821	2,941	3,069	3,196	2.33	1,211	1,263	1,318	1,373
	Multiple Dwelling	72	75	79	82	2.00	36	38	39	41
	Other*	147	153	160	166	1.55	95	99	103	107
	Total	*3,040*	*3,170*	*3,307*	*3,444*	*2.26*	*1,342*	*1,400*	*1,460*	*1,521*

** Refers to dwellings such as aged care units and retirement units*

Note: The PIP-RIGS calculator output (supplied by DIP)is based on the Urban Centre of Goondiwindi as defined by population density in Census Collection Districts (CDs) in 2006. These CDs include all of Goondiwindi Town and extends into Waggamba Shire.

The Planning Information and Forcasting Unit (PIFU) Office of Economic Statistical Research (OESR) Queensland Treasury supplied the following 2006 Estimated Residential Population (ERP) for:

- *Goondiwindi Town Centre of 6003; and*
- *Goondiwindi Town LGA of 5031.*

Therefore a PIP-RIGS calculator output based on the 2006 ERP for Goondiwindi Town LGA has been produced.

4.19.3 Employment and Non-residential Floor Space Projections

Table 4.19.2 Employment and Non-residential Floor Space Projections

Area	Dwelling Type	Existing and Projected Population (persons)				Average Occupancy Rate (persons / dwelling)	Existing and Projected Dwellings			
		2006	2011	2016	2021		2006	2011	2016	2021
Inside PIA – Goondiwindi Environs	Commercial	32	33	35	36	20	635	662	691	720
	Retail	21	22	23	24	25	529	552	576	600
	Industry	62	65	67	70	110	6,809	7,100	7,409	7,715
	Community	31	32	34	35	NA	NA	NA	NA	NA
	Other*	0	0	0	0	NA	NA	NA	NA	NA
	Total	146	152	159	165	NA	7,974	8,314	8,676	9,035
Inside PIA - Yelarbon	Commercial	3	4	4	4	20	68	71	74	78
	Retail	2	2	2	3	25	57	59	62	65
	Industry	7	7	7	8	110	733	764	798	831
	Community	3	3	4	4	NA	NA	NA	NA	NA
	Other*	0	0	0	0	NA	NA	NA	NA	NA
	Total	16	16	17	18	NA	859	895	934	973
Inside PIA - Talwood	Commercial	2	2	2	2	20	31	32	34	35
	Retail	1	1	1	1	25	26	27	28	29
	Industry	3	3	3	3	110	330	344	359	374
	Community	2	2	2	2	NA	NA	NA	NA	NA
	Other*	0	0	0	0	NA	NA	NA	NA	NA
	Total	7	7	8	8	NA	387	403	421	438
Inside PIA - Toobeah	Commercial	1	1	1	1	20	18	18	19	20
	Retail	1	1	1	1	25	15	15	16	17
	Industry	2	2	2	2	110	189	197	205	214
	Community	1	1	1	1	NA	NA	NA	NA	NA

	Other*	0	0	0	0	NA	NA	NA	NA	NA
	Total	4	4	4	5	NA	221	230	240	250
Inside PIA - Bungunya	Commercial	1	1	1	1	20	22	23	24	25
	Retail	1	1	1	1	25	19	19	20	21
	Industry	2	2	2	2	110	240	250	261	271
	Community	1	1	1	1	NA	NA	NA	NA	NA
	Other*	0	0	0	0	NA	NA	NA	NA	NA
	Total	5	5	6	6	NA	281	293	305	318
Outside PIA	Commercial	0	0	0	0	20	0	0	0	0
	Retail	0	0	0	0	25	0	0	0	0
	Industry	0	0	0	0	110	0	0	0	0
	Community	0	0	0	0	NA	NA	NA	NA	NA
	Other*	676	705	736	766	NA	NA	NA	NA	NA
	Total	676	705	736	766	NA	0	0	0	0
Total Planning Scheme Area	Commercial	39	40	42	44	20	775	808	843	878
	Retail	26	27	28	29	25	645	673	702	731
	Industry	75	79	82	86	110	8,301	8,655	9,032	9,406
	Community	38	39	41	43	NA	NA	NA	NA	NA
	Other*	676	705	736	766	NA	NA	NA	NA	NA
	Total	854	890	929	968	NA	9,721	10,136	10,577	11,015

** Other includes foo Uoose and rural employment*

Note: The PIP-RICS calculator output (supplied by DIP)is based on the Urban Centre of Goondiwindi as defined by population density in Census Collection Districts (CDs) in 2006. These CDs include all of Goondiwindi Town and extends into Waggamba Shire.

The Planning Information and Forcasting Unit (PIFU) Office of Economic Statistical Research (OESR) Queensland Treasury supplied the following 2006 Estimated Residential Population (ERP) for:

- *Goondiwindi Town Centre of 6003; and*
- *Goondiwindi Town LGA of 5031.*

Therefore a PIP-RICS calculator output based on the 2006 ERP for Goondiwindi Town LGA has been produced .

4.20 Priority Infrastructure Area

4.20.1 Purpose

(1) The priority infrastructure area (PIA) identifies the area where council plans to provide trunk infrastructure for urban development up to 2020.
(2) The PIA is the area where suitable and adequate development infrastructure exists, or where it can be provided most efficiently.

4.20.2 The Priority Infrastructure Area

4.20.2.1 Determination of the PIA

(1) The PIA is determined by the extent of the existing infrastructure networks.
(2) The boundary of the PIA is the area serviced by both the reticulated water supply system and the reticulated sewerage system.
(3) Where there is no reticulated sewerage system, the boundary of the PIA is the area serviced by the reticulated water supply system.

4.20.2.2 PIA Map

(1) The PIA is shown on the following maps:
   (a) Map Ref: 20PIA1 - Priority Infrastructure Area – Goondiwindi Environs
   (b) Map Ref. 20PIA2 – Priority Infrastructure Area – Towns of Yelarbon and Talwood
   (c) Map Ref. 20PIA3 – Priority Infrastructure Area – Towns of Toobeah and Bungunya and Bendidee Area

4.21 Desired Standards of Service

4.21.1 Water Supply Networks Desired Standards 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.	• Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The *Australian Drinking Water Guidelines* developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000)*
Infrastructure design / planning standards	Design of the water supply network will comply with established codes and standards.	• *Water Supply Code of Australia*- Water Services Association of Australia-WSA 03-2002 • The *Australian Drinking Water Guidelines* developed by the National Health and Medical Research Council • *Planning Guidelines for Water Supply and Sewerage*- Department of Natural Resources and Water (NRW)

4.21.2 Sewerage Network Desired Standards 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.	• Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • *Queensland Water Quality Guidelines* 2006-Environmental Protection Agency (where local guidelines do not exist) • *National Water Quality Guidelines-National Water Quality Management Strategy* (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• *Guidelines for Sewerage Systems: Reclaimed Water -February 2000* • *Queensland Water Recycling Guidelines-December 2005*
Infrastructure design / planning standards	Design of the sewerage network will comply with established codes and standards .	• *Planning Guidelines for Water Supply and* Sewerage-NRW • *Sewerage Code of Australia*- Water Services Association of Australia-WSA 02-2002 • *Sewerage Pumping Station Code of Australia-Water* Services Association of Australia-WSA 04-2005

4.21.3 Stormwater Network Desired Standards of Service

Measure	Planning Criteria (Qualitative Standards)	Design Criteria (Quantitative Standards)
Quantity	Collect and convey stom,water in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge , in a safe manner that minimises the inundation of habitable rooms and protects life.	• *Queensland Urban Drainage* Manual—NRW
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • *Queensland Water Quality Guidelines 2006*- Environmental Protection Agency (EPA) (where local guidelines do not exist) • *National Water Quality Guidelines-National* Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives.	• Section 42 Environmental Protection [Water] Policy 1997
Infrastructure design / planning standards	Design of the stormwater network will comply with established codes and standards.	• *Queensland Urban Drainage* Manual—NRW • Natural Channel Design Guidelines

4.21.4 Transport Network Desired Standards 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 will comply with established codes and standards.	• *Road Planning and Design Manual* developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design / planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road- based public transport and high-occupancy vehicles
Cycleway and pathway design / planning standards	Cycle ways 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.	• Australian Standards • *AUSTROADS Guide to Traffic Engineering Practice-Part* 14 (Chapter 10) • *Queensland Streets Manual*

4.21.5 Public Parks and Land for Community Facilities Network Desired Standards of Service

Measure	Planning Criteria (Qualitative Standards)	Design Criteria (Quantitative Standards)
Functional network	A network of parks and community land is established to provide for the full range of recreational and sporting activities and pursuits.	• Parks and community land is provided at a local, district and LGA-wide level • Parks and community land addresses the needs of both recreation and sport
Accessibility	Public parks will be located to ensure adequate pedestrian, cycle and vehicle access.	• No quantitative standards are prescribed
Land quality / suitability Area / 1000 persons Minimum size Maximum grade Flood immunity	Public parks will be provided to a standard that supports a diverse range of recreational, sporting and health- promoting activities to meet community expectations . This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity .	• No quantitative standards are prescribed
Facilities / embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• No quantitative standards are prescribed
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks in proximity to other community infrastructure , transport hubs and valued environmental and cultural assets.	• Australian Standards

4.22 Plans for Trunk Infrastructure

4.22.1 Purpose

(1) The plans for trunk infrastructure (PFTI) identify the existing and proposed trunk infrastructure networks intended to service urban development.

4.22.2 Trunk Infrastructure Networks, Systems and Items

(1) Table 4.22.1 defines the trunk infrastructure networks, systems and items covered by the priority infrastructure plan.

Table 4.22.1 Trunk Infrastructure Networks, Systems and Items

Network	System	Elements
Water Supply	Bulk supply	• Water treatment and recycling facilities • Water sources including dams, bores, desalination facilities • Pump stations • Telemetry systems
	Distribution	• Reservoirs and other storage facilities • Pump Station • Trunk mains and associated fittings • Fire fighting devices • Telemetry systems
Sewerage	Reticulation	• Pump stations • Trunk mains and associated fittings • Manholes • Telemetry systems
	Sewerage treatment	• Sewerage treatment facility • Sewer release systems • Telemetry systems
Stormwater	Quantity	• Piped drainage (including pipes, box culverts, manholes, inlets and outlets) • Detention and retention facilities • Overland flow paths/channels (natural and constructed) • Bank stabilisation, erosion protection and revegetation
	Quality	• Nil
Transport	Local government and state controlled	• Arterial, intersections, local road drainage, kerb and channel, swales, culverts, bridges, roundabouts, traffic lights, lighting, signage, on- road cycle lanes, pathways basic verge revegetation including shade trees, turf and local drainage within the road reserve
	Public transport	• Bus stops, signs and shelters
	Off-road pathways	• Cycleways and pedestrian pathways not within the road reserve, including associated culverts, bridges, lighting, directional and information signage and surface marking
Public Parks.	Public parks	• Land, works and embellishments for local, district and local government-wide parks

		• Parks for formal and informal recreation and sporting purposes • Park embellishments including public amenities, shade structures, playgrounds including soft fall and safety fencing, bollards, dog off- leash areas, retaining walls, access roads and on-site car parks, footpaths and cycle ways, lighting, drink bubblers and taps, picnic tables, line marking, turf and irrigation (of sporting fields), barbeques, skate bowl, boat ramps and fishing platforms built by council and open to the public, sporting facilities including goal posts, soccer nets, netball posts, half-courts and basic spectator seating, bike racks, signage and provision of services (e.g. water, power) • Land contributed in lieu of payment of infrastructure charges
	Land for community facilities	• Land and basic works associated with the clearing of land and connection to services • Land only for community facilities which allow public access, not restricted by membership, for purposes such as youth centres, senior citizens centre I meeting halls, council chambers, neighbourhood centres, meeting halls libraries, performing arts centres, museums art galleries, community centres and swimming pools

4.22.3 Plans for Trunk Infrastructure

(1) Plans identifying the existing and future trunk infrastructure for each infrastructure network are shown on the following maps:

(a) Water Supply:
- (i) Map Ref: 20WAT1 - Trunk Infrastructure Water Supply – Goondiwindi Environs
- (ii) Map Ref. 20WAT2 – Trunk Infrastructure Water Supply – Towns of Yelarbon and Talwood
- (iii) Map Ref. 20WAT3 – Trunk Infrastructure Water Supply – Towns of Toobeah and Bungunya and Bendidee Area

(b) Sewerage:
- (i) Map Ref: 20SEW1 - Trunk Infrastructure Sewerage - Goondiwindi Environs
- (ii) Map Ref: 20SEW2 - Trunk Infrastructure Sewerage - Towns of Yelarbon and Talwood

(c) Stormwater
- (i) Map Ref: 20STW1 - Trunk Infrastructure Water Supply – Goondiwindi Environs
- (ii) Map Ref. 20STW2 – Trunk Infrastructure Water Supply – Towns of Yelarbon and Talwood
- (iii) Map Ref. 20STW3 – Trunk Infrastructure Water Supply – Towns of Toobeah and Bungunya and Bendidee Area

(d) Transport :

(i) Map Ref: 20RDS1 - Trunk Infrastructure Transport – Local Government Area Waggamba Shire
(ii) Map Ref: 20RDS2 - Trunk Infrastructure Transport – Goondiwindi Environs
(iii) Map Ref: 20RDS3 - Trunk Infrastructure Transport – Towns of Yelarbon and Talwood
(iv) Map Ref. 20RDS4 – Trunk Infrastructure Transport - Towns of Toobeah and Bungunya and Bendidee Area

(e) Public Parks and Land for Community Facilities:
(i) Map Ref: 20PKS1 - Trunk Infrastructure Public Parks and Land for Community Facilities – Local Government Area Waggamba Shire
(ii) Map Ref: 20PKS2 - Trunk Infrastructure Public Parks and Land for Community Facilities – Goondiwindi Environs
(iii) Map Ref: 20PKS3 - Trunk Infrastructure Public Parks and Land for Community Facilities – Towns of Yelarbon and Talwood
(iv) Map Ref: 20PKS3 - Trunk Infrastructure Public Parks and Land for Community Facilities – Towns of Toobeah and Bungunya and Bendidee Area

4.22.4 Schedule of Works

(1) Tables 4.22.2 to 4.22.4 provide details of future trunk infrastructure for each network.

Table 4.22.2 Schedule of Works Water Supply Network

Map Ref	Item ID	Trunk Infrastructure Asset Description	Estimated year of Completion	Estimated Cost ($)
		Telemetry upgrades various locations Stage 1	2012	$13,333
		Telemetry upgrades various locations Stage2	2014	$13,333
		Telemetry upgrades various locations Stage3	2016	$13,333
		Telemetry upgrades various locations Stage4	2018	$13 ,333
Total Estimated Cost				**$53,332**

Table 4.22.3 Schedule of Works Sewerage Network

Map Ref	Item ID	Trunk Infrastructure Asset Description	Estimated year of Completion	Estimated Cost ($)
		Telemetry upgrades various locations Stage 1	2012	$13,333
		Telemetry upgrades various locations Stage 2	2014	$13,333
		Telemetry upgrades various locations Stage 3	2016	$13,333
		Telemetry upgrades various locations Stage 4	2018	$13,333
Total Estimated Cost				**$53,332**

Table 4.22.4 Schedule of Works Transport Network

Map Ref	Item ID	Trunk Infrastructure Asset Description	Estimated year of Completion	Estimated Cost ($)
		Kioma Road widen extend pavement & seal Stage 1 (00 – 5km)	2012	$500,000
		Minnel Road upgrade Yarrilwanna Creek crossing part	2012	$120,000
		Kioma Road widen extend	2013	$500,000

		pavement & seal Stage 2 (5 – 10km)		
		Minnel Road upgrade Yarrilwanna Creek crossing part	2013	$450,000
		Talwood Mungindi Road widen / extend sealed pavement Stage 1	2013	$350,000
		Kioma Road widen extend pavement & seal Stage 3 (10 – 15km)	2014	$500,000
		Kioma Road widen extend pavement & seal Stage 4 (15 – 21.4km)	2015	$650,000
		Talwood Mungindi Road widen / extend sealed pavement Stage2	2015	$400,000
		Polo Road widen pavement & seal 3.0km - 3.9km	2017	$200,000
		Talwood Mungindi Road widen / extend sealed pavement Stage3	2017	$400,000
		Hungerford Street widen / extend sealed pavement	2018	$300,000
		Kioma Road widen extend pavement & seal Stage 5 (53.2 – 48km)	2018	$500,000
		Kioma Road widen extend pavement & seal Stage 6 (48 – 43km)	2019	$500,000
		Polo Road widen / extend pavement & seal 2.7km – 3.0km	2019	$80,000
		Talwood Mungindi Road widen / extend sealed pavement Stage4	2019	$400,000
		Kioma Road widen extend pavement & seal Stage 7 (43 – 38km)	2020	$500,000
Total Estimated Cost				**$6,350,000**

4.23 Extrinsic Material

(1) The extrinsic material provides detailed background information relevant to the preparation of this priority infrastructure plan. Copies of this material are available for inspection and/or purchase.
   (a) PIP-RICS calculator version 10

4.24 Plans for Trunk Infrastructure Maps

Table 4.24.1 Priority Infrastructure Area Plans

Map Ref	Drawing Title
20PIA1	Priority Infrastructure Area – Goondiwindi Environs
20PIA2	Priority Infrastructure Area – Towns of Yelarbon and Talwood
20PIA3	Priority Infrastructure Area – Towns of Toobeah and Bungunya and Bendidee Area

Table 4.24.2 Existing Trunk Infrastructure and Service Catchment Plans

Map Ref	Drawing Title	
20WAT1	Trunk Infrastructure Water Supply	Goondiwindi Environs
20WAT2	Trunk Infrastructure Water Supply	Towns of Yelarbon and Talwood
20WAT3	Trunk Infrastructure Water Supply	Towns of Toobeah and Bungunya and Bendidee Area
20SEW1	Trunk Infrastructure Sewerage	Goondiwindi Environs
20SEW2	Trunk Infrastructure Sewerage	Towns of Yelarbon and Talwood
20STW1	Trunk Infrastructure Stormwater	Goondiwindi Environs
20STW2	Trunk Infrastructure Stormwater	Towns of Yelarbon and Talwood
20STW3	Trunk Infrastructure Stormwater	Towns of Toobeah and Bungunya and Bendidee Area
20RDS1	Trunk Infrastructure Transport	Local Government Area Waggamba Shire
20RDS2	Trunk Infrastructure Transport	Goondiwindi Environs
20RDS3	Trunk Infrastructure Transport	Towns of Yelarbon and Talwood
20RDS4	Trunk Infrastructure Transport	Towns of Toobeah and Bungunya and Bendidee Area
20PKS1	Trunk Infrastructure Public Parks, and Land for Community Facilities	Local Government Area Waggamba Shire
20PKS2	Trunk Infrastructure Public Parks, and Land for Community Facilities	Goondiwindi Environs
20PKS3	Trunk Infrastructure Public Parks, and Land for Community Facilities	Towns of Yelarbon and Talwood
20PKS3	Trunk Infrastructure Public Parks, and Land for Community Facilities	Towns of Toobeah and Bungunya and Bendidee Area