

Part 4 Local government infrastructure plan

4.1 Preliminary

- (1) This local government infrastructure plan has been prepared in accordance with the requirements of the [Planning Act 2016](#).
- (2) The purpose of the local government infrastructure plan is to:
 - (a) integrate infrastructure planning with the land use planning identified in the planning scheme;
 - (b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure;
 - (c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning;
 - (d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner; and
 - (e) provide a basis for the imposition of conditions about infrastructure on development approvals.
- (3) The local government infrastructure plan:
 - (a) states in Section 4.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network;
 - (b) identifies in Section 4.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2041;
 - (c) states in Section 4.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance;
 - (d) identifies in Section 4.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
 - (i) water supply;
 - (ii) sewerage;
 - (iii) roads;
 - (iv) pathways and cycleways; and
 - (v) public parks.
 - (e) provides a list of supporting documents that assist in the interpretation of the local government infrastructure plan in the Editor's note - Extrinsic material at the end of Section 4.5.2.

4.2 Planning assumptions

- (1) The planning assumptions state the assumptions about:
 - (a) population and employment growth; and
 - (b) the type, scale, location and timing of development including the demand for each trunk infrastructure network.
- (2) The planning assumptions together with the desired standards of service form 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 2021 and the following projection years to accord with future Australian Bureau of Statistics census years:
 - (i) mid 2026;
 - (ii) mid 2031;
 - (iii) mid 2036;
 - (iv) mid 2041; and
 - (v) ultimate
 - (b) the LGIP development types in column 2 that include the uses in column 3 of Table 4.2.1.
 - (c) the projection areas identified Local Government Infrastructure Plan Map in Schedule 3 - Local government infrastructure plan mapping and tables, SC3.3.1 - Reporting areas map.
- (4) Details of the methodology used to prepare the planning assumptions are stated in the extrinsic material.

Table 4.2.1-Relationship between LGIP development categories, development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Single Dwelling (urban)	Dwelling house (urban)
	Single Dwelling (rural residential)	Dwelling house (rural residential)
	Single Dwelling (rural)	Dwelling house (rural)
	Multiple Dwelling	Dual occupancy Multiple dwelling
	Other Dwelling	Caretaker's accommodation Community residence Dwelling unit Relocatable home park Residential care facility Retirement facility
Non-residential development	Retail	Adult store Agricultural supplies store Bar Bulk landscape supplies Food and drink outlet Garden centre Hardware and trade supplies Market Outdoor sales Roadside stall Service station Shop Shopping centre Showroom Wholesale nursery

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
	Services	Animal keeping Car wash Cemetery Childcare centre Club Community care centre Community use Crematorium Detention facility Educational establishment Environmental facility Function facility Funeral parlour Health care services Home based business Hospital Hotel Indoor sport and recreation Major sport, recreation and entertainment facility Motor sport facility Nature-based tourism Nightclub entertainment facility Outdoor sport and recreation Outstation Park Party house Place of worship Resort complex Rooming accommodation Rural workers' accommodation Service industry Short-term accommodation Theatre Tourist attraction Tourist park Workforce accommodation
	Professional	Emergency services Office Sales office Veterinary services

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
	Industry	Air services Battery storage facility High impact industry Landing Low impact industry Marine industry Medium impact industry Parking station Port service Research and technology industry Rural industry Special industry Telecommunications facility Transport depot Warehouse Winery

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
	Other	Animal husbandry Aquaculture Cropping Extractive industry Intensive animal husbandry Intensive horticulture Major electricity infrastructure Permanent plantation Renewable energy facility Substation Utility installation

4.2.1 Population and employment growth

- (1) A summary of the assumptions about population and employment growth for the planning scheme area is stated in Table 4.2.1.1-Population and employment assumptions summary.

Table 4.2.1.1-Population and employment assumptions summary

Column 1	Column 2					
Description	Assumptions					
	2021	2026	2031	2036	2041	Ultimate
Population	195,351	210,005	218,832	230,824	244,983	352,390
Employment	85,397	90,708	96,384	102,236	108,068	134,040

- (2) Detailed assumptions about growth for each projection area and LGIP development type category are identified in the following tables in Schedule 3 Local government infrastructure plan mapping and tables:
- (a) for residential development:
- Table SC3.1.1 - Existing and projected population; and
 - Table SC3.1.3 - Existing and projected residential dwellings
- (b) For non-residential development:
- Table SC3.1.2 - Existing and projected employment;
 - Table SC3.1.4 - Existing and projected non-residential floorspace (m2 GFA): and
 - Table SC3.1.5 - Existing and projected education enrolments

Editor's note—More detailed projections by growth model zone areas are available in the extrinsic material.

4.2.2 Development

- (1) The developable area is identified on Local Government Infrastructure Plan Map SC3.3.2 - Developable area map in Schedule 3—Local government infrastructure plan mapping and tables.

The developable area is represented by zones relating to urban uses not affected by the following constraints:

- Flood hazard
 - Landslide hazard
 - Environment and Conservation
- (2) The planned density for future development is stated in Table SC3.1.6a and Table SC3.1.6b in Schedule 3 - Local government infrastructure plan mapping and tables.
- (3) A summary of the assumptions about future residential and non-residential development for the planning scheme area is stated in Table 4.2.2.1 - Residential dwelling and non-residential floor space assumption summary.

Table 4.2.2.1-Residential dwelling and non-residential floor space assumption summary

Column 1		Column 2					
Description		Assumptions					
		2021	2026	2031	2036	2041	Ultimate
Residential Dwellings	Single	62,536	65,475	69,740	74,763	79,598	105,149
	Multiple dwelling	14,734	14,795	15,022	15,586	16,449	29,910
	Other	502	533	578	635	692	4,085
	Total	77,772	80,803	85,339	90,984	96,739	139,144
Non-residential floor space (m ² GFA)	Retail	674,362	717,834	760,694	806,921	852,788	1,073,535
	Services	1,085,547	1,154,832	1,218,308	1,279,792	1,338,074	1,579,166
	Professional	457,812	480,135	511,258	540,673	569,023	709,387
	Industrial	1,637,455	1,729,043	1,838,565	1,972,674	2,121,064	2,703,644
	Other	61,844	73,069	84,779	97,964	111,643	183,497
	Total	3,917,021	4,154,912	4,413,605	4,698,024	4,992,591	6,249,230

Table 4.2.2.2-Education assumptions summary

Column 1		Column 2					
Description		Assumptions					
		2021	2026	2031	2036	2041	Ultimate
Education enrolments	Pre-primary	19,194	18,859	19,171	20,179	21,279	26,493
	Secondary	15,015	14,753	14,997	15,786	16,646	20,725
	Tertiary	13,810	14,349	14,707	15,236	15,821	19,389
	Total	48,019	47,961	48,875	51,200	53,746	66,608

Editor's note—Student enrolments are also a critical aspect of infrastructure planning, so their assumptions and projections have been made in addition, and supplementary to, the statutory requirements of the LGIP.

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

Editor's note—More detailed projections by growth model zone areas are available in the extrinsic material. Projections are based on the Townsville Growth Model (May 2026).

4.2.3 Infrastructure demand

- (1) The demand generation rate for a trunk infrastructure network is stated in Column 4 of Table SC3.1.3a and Table SC3.1.3b, Schedule 3, Local government infrastructure plan mapping and tables.
- (2) A summary of the projected infrastructure demand for each service catchment is stated in:
- for water supply network, Table SC3.1.7
 - for sewerage network, Table SC3.1.8
 - for transport network, Table SC3.1.9
 - for pathways and cycleways, Table SC3.1.10
 - for public parks, Table SC3.1.11

Editor's note—More detailed projections by growth model zone areas are available in the extrinsic material. Projections are based on the Townsville Growth Model.

4.3 Priority infrastructure area

- (1) The priority infrastructure area identifies the area prioritised for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2041.
- (2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map SC3.3.4 –Priority infrastructure area map in Schedule 3 - Local government infrastructure plan mapping and tables.

4.4 Desired standards of service

- (1) This section states the key standards of performance for a trunk infrastructure network:
 - (a) Water supply
 - (b) Sewerage
 - (c) Roads
 - (d) Pathways and cycleways, and
 - (e) Public parks.

Note: Stormwater quality and quantity networks are not included in this local government infrastructure plan.

- (2) Design standards for trunk infrastructure networks are identified in the extrinsic material and planning scheme policies.

4.4.1 Water supply network

Key, specific desired standards of service for the water supply network are to:

- (1) Ensure drinking water complies with the [National Health and Medical Research Council \(NHMRC\) Australian drinking water guidelines](#) for colour, turbidity and microbiology.
- (2) Collect, transfer, store, treat and distribute potable water from source to consumers in accordance with the Water Act 2000.
- (3) Ensure water systems meet the requirements of the Water Supply (Safety and Reliability) Act 2008.
- (4) Provide a cost-effective network that minimises non-revenue water loss.
- (5) Design the water supply network in accordance with council's standards identified in the planning scheme:
 - (a) Townsville City Plan, Schedule 6 - Planning scheme policies, SC6.4 - Development manual planning scheme policy, and
 - (b) Cairns Townsville Mackay Water Alliance Design and Construction Code.

4.4.2 Sewerage network

Key, specific desired standards of service for the sewerage network are to:

- (1) Provide a reliable network that collects, stores, transports, treats and disposes sewage from premises in accordance with the Water Act 2000.
- (2) Ensure the sewerage systems meet the requirements of the Water Supply (Safety and Reliability) Act 2008, and all other relevant state and federal government legislation and permits.
- (3) Design the water supply network in accordance with council's standards identified in the planning scheme:
 - (a) Townsville City Plan, Schedule 6 - Planning scheme policies, SC6.4 -Development manual planning scheme policy, and
 - (b) Cairns Townsville Mackay Water Alliance Design and Construction Code.

4.4.3 Roads network

Key, specific desired standards of service for the road network are to:

- (1) Provide a functional, safe, efficient and cost-effective road hierarchy that distributes traffic throughout the local government area supporting settlement patterns, commercial and economic activities, and freight movement.
- (2) Design trunk road infrastructure networks in accordance with the Townsville City Plan, Schedule 6 - Planning scheme policies, SC6.4 - Development manual planning scheme policy.
- (3) Provide a network with:
 - (a) maximum road volume to capacity ratios as set out in Table 4.4.3.1, and
 - (b) maximum degree of saturation for intersections as set out in Table 4.4.3.2.

Table 4.4.3.1 - Maximum volume to capacity ratios for the road network

Infrastructure item	Maximum volume to capacity ratio by land use	
	Residential	Non-residential
Arterial	0.9 (LoS D)	0.7 (LoS C)
Sub-arterial	0.9 (LoS D)	0.7 (LoS C)
Major collector	0.9 (LoS D)	0.7 (LoS C)
Arterial (state-controlled)	0.95 (LoS E)	0.95 (LoS E)

Table 4.4.3.2 - Maximum degree of saturation for road intersections

Road network item	Maximum degree of saturation
Traffic signals	0.9 (55 second avg. delay)
Roundabout	0.85 (35 second avg. delay)
Priority controlled	0.8 (35 second avg. delay)
Traffic signals (state-controlled)	0.9 (55 second avg. delay)

4.4.4 Pathways and cycleways network

Key, specific desired standards of service for the pathways and cycleway network (also known as the Active Transport Network) are to:

- (1) Provide a functional, safe, efficient and cost-effective pedestrian and cyclist distribution network that links residential areas, major activity nodes and public transport interchanges, reflecting desire lines to key destinations thereby supporting and encouraging walking and cycling as acceptable travel alternatives.
- (2) Design pathways and cycleways trunk infrastructure networks as identified in the Townsville City Plan, Schedule 6 - Planning scheme policies, SC6.4 - Development manual planning scheme policy.
- (3) Provide networks with:
 - a) Pathway level of service as set out in Table 4.4.4.1,
 - b) Cycleway levels of service as set out in Table 4.4.4.2,
 - c) Pathway width by demand as set out in Table 4.4.4.3,

Table 4.4.4.1— Pathway Level of Service

LOS	Pathway Facilities Description
A	Shared use pathway ≥ 2.5m wide with no crossings
B	Shared use pathway ≥ 2.5m wide on both sides of road
C	Shared use pathway ≥ 2.5m on one side and pedestrian pathway ≥ 1.5m on the other
D	Shared use pathway ≥ 2.5m on one side, or pedestrian pathways ≥ 1.5m on both sides
E	Pedestrian pathway ≥ 1.5m on one side only

F	Demand exists but no pathway provided
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Table 4.4.4.2— Cycleway network level of service

LoS	Description
A	Off-road cycleway $\geq 3.0\text{m}$ or on-road $\geq 2.5\text{m}$ with separator
B	On-road cycleway 1.8m-2.2m with separator
C	On-road cycleway 1.2m-1.5m
D	Narrow cycleway $< 1.2\text{m}$
E	No marked cycleway
F	Demand exists but no cycleway provided

Table 4.4.4.3— Pathway width by demand

Movements per day	Pathway width
0-50	1.5m
50-250	2.5m shared path
250-500	3.0m shared path
500-1000	4.0m shared path
1000-1750	Separate pedestrian and cycle facilities
>1750	Separate pedestrian and cycle facilities

4.4.5 Public parks network

Key, specific desired standards of service for public park and land for community facilities are:

- (1) Provide an accessible network of appropriately embellished public recreation and sporting parks, and opportunities for co-located community facilities to meet the needs of residents and visitors.
- (2) Design public parks trunk infrastructure networks as identified in the Townsville City Plan, Schedule 6 - Planning scheme policies, SC6.4 - Development manual planning scheme policy.
- (3) Provide trunk parks at the rate of provision identified in Table 4.4.5.1, accessibility standards outlined in Table 4.4.5.2 and land characteristics as outlined in Table 4.4.5.3

Table 4.4.5.1 - Park provision

Infrastructure	Rate of provision (m ² /ERP)	
	District	Regional
Recreation parks	4	6
Sports parks	8	4

Table 4.4.5.2 - Park access

Infrastructure	Accessibility standard (km)	
	District	Regional
Recreation parks	2	25
Sports parks	6	25

Table 4.4.5.3 - Land characteristics

Infrastructure	Recreation parks		Sports parks	
	District	Regional	District	Regional
Minimum usable size (ha)	2	6	10	50
Shape of land	Preferred square or rectangular aspect ratio no greater than 2:1		To maximise area available for playing fields, a square or rectangle is most efficient	
Minimum desired flood immunity	20% of total area to be above Q50, 10% to be above Q100	50% of total area to be above Q50, 20% to be above Q100	Free of hazards. Fields and courts above Q50. Built facilities above Q100	
Maximum desired grade	Average grade of 1:14 for 50% of site		1:80 for all playing surfaces. Laser levelling to a maximum gradient of 1:100	
Road frontage and visibility	50% of park perimeter to have direct road frontage, preferably on a collector road		Approximately 25-50% of the park perimeter to have direct road frontage	

Table 4.4.5.4 - Standard facilities/embellishments for trunk public parks

Embellishment type	Recreation parks		Sport parks	
	District	Regional	District	Regional
Playground	✓	✓		
Half-basketball court	✓	✓		
Re-bound wall	✓	✓		
Skate facility	✓	✓		
Exercise equipment	✓	✓		
Fencing - bollards or log and rail to prohibit car access	✓	✓	✓	✓
Shade trees clustered near activity areas	✓	✓	✓	✓
Turf	✓	✓	✓	✓
Landscaped garden beds	✓	✓	✓	✓
Irrigation	✓	✓	✓	✓
Lighting	✓	✓	✓	✓
Internal pathways and paving	✓	✓	✓	✓
Bicycle racks	✓	✓	✓	✓
Signage	✓	✓	✓	✓
Shade structures	✓	✓	✓	✓
Tap/bubbler	✓	✓	✓	✓
Bench seating	✓	✓	✓	✓
Electric barbeque	✓	✓		
Picnic shelters	✓	✓	✓	✓
Bins	✓	✓	✓	✓
Dog off-leash areas	✓	✓		
Toilets	✓	✓	✓	✓
Internal roads and car parking		✓	✓	✓
Clubhouse			✓	✓
Spectator facilities			✓	✓
Sports fields			✓	✓
Sports courts			✓	✓

4.5 Plans for trunk infrastructure

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

4.5.1 Plans for trunk infrastructure maps

- (1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3-Local government infrastructure plan mapping and tables:
 - (a) SC3.3.5 - Plans for trunk water supply infrastructure;
 - (b) SC3.3.6 - Plans for trunk sewerage infrastructure;
 - (c) SC3.3.7 - Plans for trunk roads infrastructure;
 - (d) SC3.3.8 - Plan for trunk pathways and cycleways infrastructure;
 - (e) SC3.3.9 - Plan for trunk public parks infrastructure.
- (2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.5.2 Schedules of works

- (1) Details of the existing and future trunk infrastructure networks are identified in the electronic Excel schedule of works model which can be viewed here: [\(link XXX\)](#).
- (2) The future trunk infrastructure, derived from the SOW model, is summarised in the following tables:
 - (a) for the water supply network, Table SC3.1.7
 - (b) for the sewerage network, Table SC3.1.8
 - (c) for the road network, Table SC3.1.9
 - (d) for the pathway and cycleway network, Table SC3.1.10
 - (e) for the public parks network, Table SC3.1.11

4.5.3 Editor’s note — Extrinsic material

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

List of extrinsic material

Column 1 Title of document	Column 2 Date	Column 3 Author
Extrinsic Material Report: Planning Assumptions	July 2026	Townsville City Council
Extrinsic Material Report: Priority Infrastructure Area	July 2026	Townsville City Council
Extrinsic Material Report: Trunk Infrastructure Desired Standards of Service (DSS) & Demand Rates	July 2026	Townsville City Council
Extrinsic Material Report: Financial Methodologies	July 2026	Townsville City Council
Extrinsic Material: Road Network Planning Report	August 2025	Townsville City Council
Extrinsic Material Report: Public Parks Trunk Infrastructure Network	July 2026	Townsville City Council