Part 7 Local Government Infrastructure Plan

7.1 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
- (e) provide a basis for the imposition of conditions about infrastructure on development approvals.

(3) The local government infrastructure plan:
- (a) states in section 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 3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2036.
- (c) states in section 4 (desired standards of service), for each trunk infrastructure network, the desired standard of performance
- (d) identifies in section 5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) stormwater
  - (iv) transport
  - (v) parks and land for community facilities.
- (e) provides a list of supporting documents that assists in the interpretation of the local government infrastructure plan in the Editor's note – Extrinsic material.

7.2 Planning Assumptions

(1) The planning assumptions state the assumptions about:
- (a) population and employment growth
- (b) the type, scale, location and timing of development, including the demand for each trunk infrastructure network.

(2) The planning assumptions, together with the desired standards of service, form the basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

(3) The planning assumptions have been prepared for:
- (a) the base date 2016 and the following projection years:
  - (i) mid 2021;
  - (ii) mid 2026;
  - (iii) mid 2031;
  - (iv) mid 2036.
- (b) the LGIP development types in column 2 that include the uses in column 3 of Table 7.2.
- (c) the projection areas identified on Local Government Infrastructure Plan Maps PIA-01 and PIA-02 in Schedule 3—Local government infrastructure plan mapping and tables.

Table 7.2 – Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Attached dwelling	Community Residence Dual Occupancy Multiple Dwelling Nature Based Tourism Non-Resident Workforce Accommodation Relocatable Home Park Residential Care Facility Resort Complex Retirement Facility Rooming Accommodation Rural Worker's Accommodation Short-Term Accommodation Tourist Park
	Detached dwelling	Caretaker's Accommodation Dwelling House Dwelling Unit Party House
Non-residential development	Commercial	Car Wash Office Sales Office Service Station
	Community purpose	Cemetery Child Care Centre Club Community Care Centre Community Use Educational Establishment Emergency Services Funeral Parlour Health Care Service Hospital Place of Worship Park
	Industry	Low-Impact Industry Intensive Animal Industry High-Impact Industry Marine Industry Medium Impact Industry Research and Technology Industry Rural Industry Service Industry Special Industry

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
		Transport Depot
	Retail	Adult Store Agricultural Supplies Store Bar Bulk Landscape Supplies Food and Drink Outlet Garden Centre Hardware and Trade Supplies Nightclub Entertainment Facility Shop Shopping Centre Showroom
	Other	Air Service Animal Husbandry Animal Keeping Aquaculture Brothel Crematorium Cropping Detention Facility Environment Facility Extractive Industry Function Facility Home Based Business Hotel Indoor Sport and Recreation Intensive Horticulture Landing Major Electricity Infrastructure Major Sport, Recreation and Entertainment Facility Market Motor Sport Facility Outdoor Sales Outdoor Sport and Recreation Outstation Parking Station Permanent Plantation Port Service Renewable Energy Facility Roadside Stall Substation Telecommunications Facility Theatre

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
		Tourist Attraction Utility Installation Veterinary Service Warehouse Wholesale Nursery Winery

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

7.2.1. Population and Employment Growth

(1) A summary of the assumptions about population and employment growth for the planning scheme area is stated in **Table 7.2.1.**

Table 7.2.1 – Population and Employment Assumptions Summary

Column 1 Description	Column 2 Assumptions					
	Base date 2016	2021	2026	2031	2036	Ultimate development
Population	3,983	4,099	4,234	4,373	4,521	11,348
Employment	1,642	1,692	1,749	1,808	1,872	11,300

(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 population, **Table SC3.1.1**;
(b) for employment, **Table SC3.1.2**.

7.2.2. Development

(1) The developable area is identified on Local Government Infrastructure Plan Map PIA-01 and PIA-02 in Schedule 3 – Local government infrastructure plan mapping and tables.

Editor's note – Detail on how the developable area has been calculated is provided in the extrinsic material.

(2) The planned density for future development is stated in Column 3 of **Table SC3.1.3** 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 7.2.2**.

Table 7.2.2 – Residential dwellings and non-residential floor space assumptions summary

Column 1 Description	Column 2 Assumptions					
	Base date (2016)	2021	2026	2031	2036	Ultimate development
Residential dwellings	1,280	1,341	1,386	1,432	1,481	3,689
Non-residential floor space (m^2 GFA)	83,701	86,116	88,845	91,815	94,900	391,560

(4) Detailed assumptions about future development for each projection area and LGIP development type are identified in the following tables in Schedule 3 Local government infrastructure plan mapping and tables:
- (a) for residential development, **Table SC3.1.4**.
- (b) for non-residential development, **Table SC3.1.5**.

7.2.3. Infrastructure Demand

(1) The demand generation rate for a trunk infrastructure network is stated in Column 4 of **Table 3.1.3** in Schedule 3 Local government infrastructure plan mapping and tables.

(2) A summary of the projected infrastructure demand for each service catchment is stated in the following tables contained within Schedule 3 Local government infrastructure plan mapping and tables:
- (a) for the water supply network, Table SC3.1.6.
- (b) for the sewerage network, Table SC3.1.7.
- (c) for the stormwater network, Table SC3.1.8.
- (d) for the transport network, Table SC3.1.9.
- (e) for the parks and land for community facilities network, Table SC3.1.10.

7.3 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 2036.

(2) The priority infrastructure area is identified on Local Government Infrastructure Plan Maps PIA-01 and PIA-02.

7.4 Desired Standards of Service (DSS)

(1) This section states the key standards of performance for a trunk infrastructure network.

(2) Design standards for trunk infrastructure networks are identified in the 'Design and Construction Standard' column in **Table 7.4.1**, **Table 7.4.2**, **Table 7.4.3**, **Table 7.4.4** and **Table 7.4.5**.

7.4.1. Water Supply Network

Table 7.4.1 – Water Supply Network Desired Standards of Service

Desired Goal	Planning Standard	Design and Construction Standard	Community Outcome
Reliable Water Supply Network	• Department of Energy and water Supply "Planning Guidelines for Water Supply and Sewerage - Chapter 1-11: March 2014 (as amended); • Plan the network so that water supply infrastructure that provides service to each premise in the defined service catchment. • Network planning should ensure pressures are maintained through a series of network links providing redundancy in the network; • Network modelling and planning reflects the land use needs; • Ensure the pipe network is sized appropriate to provide pressures at the desired levels as set out in the Customer Service obligations; • Provide adequate storage in the system to accommodate reasonable outages of electricity supply needed for treatment and pumping. • Undertake risk management planning and development of appropriate strategies and action plans to deal with adverse events. • Network meets the Levels of Service within the Summary Asset and Services Management Plan	The design of the network and its construction is managed under the following Guidelines, Policies, Codes and Standards. • Plans for Trunk Infrastructure – Water Supply; • FNQROC Development Manual Design Guidelines - D6 Water Reticulation • WSA 03-2011 Water Supply Code of Australia; • IPEWA – Standard Drawings; • AUS-SPEC specifications.	Ensures that all premises within the service catchment are provided with a water supply service that meets the Customer Service Obligations of Council.
Optimise Whole of Lifecycle Cost	• Department of Energy and water Supply "Planning Guidelines for Water Supply and Sewerage – Chapter 7-9: March 2014 (as amended); • Delivery of the water supply network planning must be carried out as efficiently as can be reasonably achieved balancing the costs of both construction and operation;		Through the appropriate planning, design and construction the following benefits are achieved: • Extend asset life • Defer system augmentation

Desired Goal	Planning Standard	Design and Construction Standard	Community Outcome
	• In seeking to minimise capital costs consider: ▪ Optimising network solutions in respect of location, alignment, sizing, and staging; ▪ Infrastructure constructed provides durability and performance; ▪ Infrastructure is fit for purpose (not over or undersized and allows for growth capacity); ▪ Use standard fittings and components wherever possible to ensure value for money; • In seeking to minimise operational costs consider assets with least impact on: ▪ operating costs – e.g electricity, consumables, staffing ▪ maintenance – labour, parts, consumables cleaning/replacement ▪ asset life/durability – frequency of replacement/renewal of components or entire asset. • Ensure alternative network outcomes are investigated for trunk assets incorporating the demands of both the existing and location, timing and intensity of the future urban environment; • Investigate staged delivery of infrastructure in line with growth in demands to minimise where possible the overall cash flow position; • Implement a comprehensive asset management system to ensure the system is reliable and robust minimising the uncontrolled loss of water (e.g water meter inaccuracies, unauthorised consumption, main breaks, valve failure etc.) from the system.		• Improve environmental flows • Reduced greenhouse gas emissions • Reduce extraction of water from source • Defer requirement for new water source • Reduced cost of energy • Cost effective service for community • Reduced cost of energy and chemicals • Improve water quality. • Reduced environmental effects from chemical production • Reduced maintenance costs • Reduced overall operation costs • Reduced replacement costs
Minimise Risk from Fire	• Department of Energy and Water Supply “Planning		• The water supply system

Desired Goal	Planning Standard	Design and Construction Standard	Community Outcome
	Guidelines for Water Supply and Sewerage - March 2014 – Chapter 6 Network Modelling and Applications (as amended); • The network is planned to provide adequate firefighting capacity both in terms of pressure and flow rate; • Planning and design provides Hydrants located conveniently to all premises to permit ready access to water.		provides, where possible, a network of firefighting capacity to reduce the risk of fire to person and property; • Reduces the overall cost of fire incidents to the community; • Provides the necessary support to the fire services in fighting fire safely and effectively.
Maintain Public Health and Sustainable Environmental Quality	• Plan the network so that a supply of potable drinking water is provided to each premise within the urban area and to any area of concentrated residential settlement including park and rural residential. • The planning ensure a network can deliver drinking water complies with the NHMRC Australian Drinking Water Guidelines for colour, turbidity and microbiology. >95% water test compliance; • Comply with Integrated Environmental Management		• Provides uniform quality of water monitored in relation to recognised standards. • Provide a safe and reliable water supply. • Safeguards community health. • Provides for system operation and monitoring in accordance with recognised standards. • Ensures environmental controls maintained. • Ensures potable water is provided in a manner consistent with environmental standards.

7.4.2. Sewerage Network

Table 7.4.2 – Sewerage Network Desired Standards of Service

Desired Goal	Planning Standard	Design and Construction Standard	Community Outcome
Provide a Reliable Sewerage Network	• Department of Energy and Water Supply "Planning Guidelines for Water Supply and Sewerage - Chapter 1-11 - March 2014 (as amended); • Plan the network so that sewerage infrastructure provides service to each premise in the defined service catchment. • Network planning should ensure that the likelihood of adverse events (blockages, overflow, odour infiltration etc) are minimised or eliminated; • Network modelling and planning reflects the land use needs; • Ensure the pipe network is sized appropriate to provide appropriate capacity desired levels as set out in the Customer Service obligations; • Provide adequate storage in the system to accommodate reasonable outages of electricity supply needed for pumping. • Undertake risk management planning and development of appropriate strategies and action plans to deal with adverse events.	The design of the network and its construction is managed under the following Guidelines, Policies, Codes and Standards. • FNQROC Development Manual Design Guidelines - D7 Sewerage System. • WSA 02-2002 Sewerage Code of Australia • WSA 02-2014 Gravity Sewerage Code of Australia • WSA 04-2005 Sewage Pumping Station Code Of Australia • WSA 06-2008 Vacuum Sewerage Code • WSA 07-2007 Pressure Sewerage Code of Australia • CMDG; and • EPA including EPP requirements and guidelines; and • Plan for Trunk Infrastructure – Wastewater; and • The Water Act and Standard	• Reduced impact from blockages, overflows and spills; • Amenity is maintained; • Reduced impact on residents • Minimises release of nitrogen and phosphorous to the environment • Improved community health • Rapid response to breakages • Reduction in use of potable water supply and treatment • Reduction of raw water extraction from source • Reduced overflows to local waterways and marine waters.

Desired Goal	Planning Standard	Design and Construction Standard	Community Outcome
		Sewerage Law.	
Optimise Whole of Lifecycle Cost	• Department of Energy and Water Supply "Planning Guidelines for Water Supply and Sewerage – Chapter 7-9 March 2014 (as amended); • Delivery of the sewerage network planning must be carried out as efficiently as can be reasonably achieved balancing the costs of both construction and operation; • Wherever possible reduce or eliminated active assets (e.g pump stations) in lieu of gravity systems of collection; • In seeking to minimise capital costs consider: ▪ Optimising network solutions in respect of location, alignment, sizing, and staging; ▪ Infrastructure constructed provides durability and performance; ▪ Infrastructure is fit for purpose (not over or undersized and allows for growth capacity); ▪ Use standard fittings and components wherever possible to ensure value for money. • In seeking to minimise operational costs consider assets with least impact on: ▪ operating costs – e.g electricity, consumables, staffing ▪ maintenance – labour, parts, consumables cleaning/replacement ▪ asset life/durability – frequency of replacement/renewal of components or entire asset. • Ensure alternative network outcomes are investigated for trunk assets incorporating the demands of both the existing and location, timing and intensity of the future urban environment;		• Reduced cost of energy • Cost effective service for community • Greenhouse gas reduction • Reduced maintenance costs • Reduced overall operation costs • Reduced replacement costs • Reduced environmental effects from chemical production. • Beneficial use of reclaimed water and biosolids • Opportunity for cost recovery for reclaimed water treatment • Reduced cost of energy for effluent transport, treatment and disposal • Maximise life of system

Desired Goal	Planning Standard	Design and Construction Standard	Community Outcome
	• Investigate staged delivery of infrastructure in line with growth in demands to minimise where possible the overall cash flow position; • Reuse effluent where possible to use the resource which is created through its appropriate treatment; • Implement a comprehensive asset management system to ensure the system is reliable and robust minimising the breakdown of active assets (e.g pump station failures)and adverse environmental incidents (overflow, odour etc) • Ensure infiltration and inflow in the sewerage collection and transportation system remains within industry acceptable limits (compliance with Environmental licences, IEMS and associated EMPs).		
Maintain Public Health and Sustainable Environmental Quality	• Plan the network so that sewerage is provided to each premise within the urban area to ensure sewage is collected and treated offsite; • Comply with Integrated Environmental Management Strategy and associated Environmental Management Plans.		• Minimise work, health and safety risks • Noise control • Reduction in release of nitrogen and phosphorous to the environment • No adverse visual effect • Control of overflows from system • Improves community health • Ensure odour control • Minimise environmental effects • Reduction in contaminated discharges

7.4.3. Stormwater Network

Table 7.4.3 – Stormwater Network Desired Standards of Service

Desired Goal	Planning Standard	Design and Construction Standard	Community Outcome
Stormwater is managed to ensure urban land is flood free	• Provide system of shared stormwater infrastructure allowing free and safe drainage of urban. • Ensure development occurs on land that is flood free or on land that can be appropriately filled to provide land • Any filling work must not adversely affect neighbouring land through increased flooded depth or velocities.	Design stormwater infrastructure to comply with; • National Water Quality Management Strategy (NWQMS) • Far North Queensland Regional Organisation of Councils (FNQROC) Design Manual; • Queensland Urban Drainage Manual, • Australian Rainfall and Runoff; and • Dept. Environmental and Heritage Protection requirements and guidelines; and • Plans for Trunk Infrastructure – Stormwater.	• Minimises inundation of habitable areas. • Minimises the damage and risk associated with flooding. • Minimises the impact of development on the ecological health and water quality within waterway corridor. • Minimises impact on the community of mosquitoes and biting midges.
Stormwater Quantity is managed to ensure no adverse impacts on neighbouring properties	• Implement regional and on-site detention facilities to minimise the impact of peak run-off for the full range of events (100% AEP to Council's Defined Flood Level (DFL)) from developments, taking into account safety and risk. • Design detention basins to maintain pre-development peak flow levels from the development site for all flood events (100% AEP to Council's Defined Flood Level (DFL)). • Design attenuation measures in the same catchment to ensure that the coincident peak discharge at downstream control points is not increased.		• Free and safe drainage of urban land. Provision of infrastructure that is fit for purpose and has a viable whole of life cycle cost to the community. • Meets the performance requirements of the infrastructure to ensure water quantity and quality is appropriately managed. • Negative impacts on adjoining and downstream properties are minimised. Reduces the cumulative impact from existing and future developments on peak flow levels. • Reduces the need to increase the size of waterway corridors and underground

Desired Goal	Planning Standard	Design and Construction Standard	Community Outcome
			drainage. Increases active and passive recreation opportunities.
Stormwater discharge from urban environments does not adversely affect waterways and aquatic ecosystems	• Ensure the use of Water Sensitive Urban Design and other types of on-site infrastructure to minimise impact on trunk infrastructure • Ensure sufficient buffers from urban development along waterway corridors for ecological links (including rehabilitation of degraded waterway corridor banks, where required). • Ensure natural stream processes are maintained within waterway corridors • Implement Water Sensitive Urban Design principles (including use of bio-retention, trash racks and GPTs) to achieve maximum on site quantity and quality treatment and minimise offsite discharge.		• Minimises the impact on the environmental values of downstream waterway corridors by maintaining pre-development flows and velocities. • Reduces downstream sedimentation by slowing flow velocities. • Ensures that cumulative discharge of attenuation systems do not adversely affect parts of the natural catchments. • Reduces pollution to waterways. • Provides waterways infrastructure at least life cycle cost. • Reduces the scale of shared infrastructure by optimising on site solutions. • Improves water quality at the point of discharge to benefit the waterway corridor's health. • Maintain or improves environment amenity such as scenic values and natural construction.

Desired Goal	Planning Standard	Design and Construction Standard	Community Outcome
			• Erosion and sedimentation is minimised. • Negative impacts on adjoining and downstream properties are minimised. • Protects environmentally sensitive areas from development. • Reduces the need for costly structural treatments of waterway corridor banks. • Provides for natural processes of accretion, erosion and sedimentation and reduces environmental effects from pollution.

7.4.4. Transport Network

Table 7.4.4 – Transport Network Desired Standards of Service

Desired Goal	Planning Standard	Design and Construction Standard	Community Outcome
Provide a safe and efficient transport system	• Site master planning and lot and road configuration to be undertaken in accordance with Torres Shire Council Planning Scheme – ROL Code; • Road network planning to be undertaken in an Urban environment with: ▪ Complete Streets (2011) – Institute of Public Works Engineering Australasia Or rural environment with: ▪ Road Planning and Design Manual (2nd Edition) July 2013 Main Roads	• Road network system is designed and provided in accordance with: • FNQROC Development Manual Design Guidelines - D1 Road Geometry • FNQROC Development Manual Design Guidelines - D3 Road Pavements • Department of Transport and Main Roads:	Environmental: • Design bridges and culverts with appropriate flood immunity and capacity to convey floodwater, taking into account the Council's road hierarchy. • Construction of bridges and culverts must not adversely impact on the natural environment, such as through the loss of vegetation and undesirable

Desired Goal	Planning Standard	Design and Construction Standard	Community Outcome
	• Define the road network as a functional Urban and Rural hierarchy and freight routes which supports the urban, rural and mining activities that support commercial and economic development. • Provide safe and convenient pedestrian pathways and cycleways network in the townships. • Lot reconfiguration layouts provides for a highly connected and permeable path network between home and key activity nodes.	▪ Road Planning and Design Manual (2nd Edition) July 2013 ▪ Transport and Main Roads Specifications (October 2014) ▪ Transport and Main Roads Standard Drawings (October 2014) ▪ Bridges- DTMR Bridge Design Manual; ▪ Manual of Uniform Traffic Control Devices (MUTCD) (May 2014) • Austroads • AGRD Guide to Road Design • AGTM Guide to Traffic Management (February 2014 latest update) • AGPT Guide to Pavement Technology (June 2014 latest update) • AGBT Guide to Bridge Technology Street Lighting • AS/NZS 1158 Set: 2010 - Lighting for roads	impacts on bio-diversity. • Design bridges and culverts to maintain fauna and recreational links where feasible. • Ensures road crossings operate safely in times of inundation. • Reduces the risk of flooding for upstream properties. • Provides opportunities for extended pedestrian and bicycle links. • Enhances ecological links.

Desired Goal	Planning Standard	Design and Construction Standard	Community Outcome
		and public spaces • AS/NZS 2890 Set: 2009 – Parking Facilities • AS 1742.2-2009 Manual of uniform traffic control devices – Traffic control devices for general use Other: • Urban Drainage ▪ Queensland Urban Drainage Manual (2013 Provisional Edition) Department of Energy and Water Supply • Standard Drawings – Institute of Public Works Engineering Australia • Sealed Local Roads Manual – Guidelines to Good Practice: Design, construction, maintenances and rehabilitation of pavements. ARRB Cycleway and footpaths • Plans for trunk infrastructure • Design standards adopted by Council.	
Optimise Whole of	• Planning ensures cross-sections and pavements are	• Design solutions are taken from	• Reduced cost of energy

Desired Goal	Planning Standard	Design and Construction Standard	Community Outcome
Lifecycle Cost	delivered which are fit for purpose in terms of operating width and durability. Optimising capital and operational costs; • Road alignments should be determined to minimise the impact structures to require to accommodate watercourses and other natural features where possible; • Traffic control devices are carefully determined to ensure their operation meets the requirement management outcome but also the operation of the device is within the technical capability of Council. • Embellishment on the road reserve including control devices and amenity improvements have high durability and are appropriate located. • Application of standards to achieve road design outcomes are carefully crafted to be consistent but at the same time fit for purpose in any given location.	the most appropriate best practice design guideline (as above) and aligned to the operational needs of the transport network component; • Design and construction solutions which are, readily sourced, prefabricated, modular and are to be preferred than bespoke design solutions.	• Cost effective service for community • Greenhouse gas reduction • Reduced maintenance costs • Reduced overall operation costs • Reduced replacement costs • Maximise life of system

7.4.5. Public Parks and Land for Community Facilities Network

Table 7.4.5.1 – Public Parks and Land for Community Facilities Desired Standards of Service

Planning Standard	Community Outcome
Provide a connected and accessible network of parks, open space, and community facilities that meets the needs of the local government's residents and visitors.	• Provides opportunities for access and increased usage of open space, recreational and community facilities. • Provides for an appropriate balance of land uses and ensures high levels of amenity in the urban form. • Provides a basis for a healthy and active community.
Ensure strong linkages and where possible co-location of existing and future parks, open space and community facilities.	• Ensures utilisation of existing and future assets while maintaining maximum access. • Makes economic efficiency of land owned by the Community.

Planning Standard	Community Outcome
Provide a preferred level of development or embellishments to public parks, commensurate with the range of activities envisaged.	• Provides safe open space embellishments that meet the needs of the community by providing a range of facilities for social activities and/or fitness/recreational pursuits. • Ensures activities are met and contained within designated areas - reducing potential off site impacts to other more sensitive areas in the Local government area. • Maximises the use of the land and provides the basis for a healthy community.
Ensure that existing and future parks, open space and community facilities with significant environmental, waterway or cultural heritage value are managed appropriately.	• Protects and enhances items of cultural interest in the Local government for the benefit of current and future communities in the area. • Provides a basis for tourism opportunities. • Protection of the natural landscape ensures maintenance of quality of air, water and land resources reducing negative impacts requiring amelioration.
Public parks and community land areas are provided in accordance with standard of provision (minimum park size) defined in Council's Public parks and land for community facilities design criteria, and where identified in accordance with the Plans for Trunk Infrastructure – Public Parks and Community Land.	• Provides a standard of service consistent with community expectations. • Land and facilities are developed to optimise layout and use. • Facilities are provided in close proximity to the residents of the Local government and provide for a range of active and passive pursuits.
Access to public parks and community facilities are to be in accordance with Council's Public parks and community land design criteria.	• Provides community access to a range of park, open space and community facilities.
Land characteristics including shape, road frontage and gradient are in accordance with the desired land characteristics defined in Council's Public parks and community land design criteria.	• Topography does not reduce or interfere with amenity and recreation use.
Flood immunity for parks and community lands are achieved in accordance with Council's Public parks and community land design criteria.	• Ensure adequate provision of safe, accessible and usable facilities.
Public park embellishments are provided in accordance with: • the type and purpose of public park as identified below; • Plans for Trunk Infrastructure – Public Parks and Community Land.	• Provides a range of park types that are suitability embellished to meeting their purpose within the park hierarchy.

Table 7.4.5.2 – Parks and Land for Community Facilities Design Criteria

Park type	Hierarchy	Min Park Size	Accessibility (Catchment)	Land Characteristics
Informal Recreation	District	>0.2Ha	None – located by natural characteristics of site	Land provides a natural landscape that provides for adventure based recreational activities. Minimal modification of the land form to allow for safe access and use of the site. Sites with interesting natural characteristics including remnant vegetation, rock outcrops, vantage points, ephemeral streams, foreshore areas, embayment's, small water bodies.
Waterfront Recreation	District	Min 6m from MHWS tide level. Optimum 30m or greater	None – land adjacent to shoreline in areas of public ownership	Area of land varies to accommodate at a minimum walking access around the island foreshore where safe and convenient. New land or easements are taken as part of development approvals to provide for public use and access of the foreshore. The extent of land is governed by reasonable negotiation during development application but should at least deliver a 6m corridor above MHWS.
Recreation	Local	0.5Ha of usable space	400m	Shape: Square to rectangular with sides no greater than 2:1 Gradient: Max 1:10 for 80% of park area Road frontage: 30-50% of perimeter to have direct frontage Flood immunity: 15% of area above Q100 and free of hazards.
	District	2Ha – 4 Ha of usable space	2,500m	Shape: Square to rectangular with sides no greater than 2:1 Gradient: Max 1:10 for 80% of park area Road frontage: 30-50% of perimeter to have direct frontage on a collector road
	Regional	6Ha of usable space	Horn, Thursday and Prince of Wales	Shape: Square to rectangular with sides no greater than 2:1 Gradient: Average 1:20 for main use areas, 1:50 for kick-about area, and variable for remainder

Park type	Hierarchy	Min Park Size	Accessibility (Catchment)	Land Characteristics
				Road frontage: 30-50% of perimeter to have direct frontage on a collector road Flood immunity: At least 50% of total area to be above Q50 with main activity areas above Q100.
Sportsgrounds and Courts	District	3Ha	10 minutes drive	Shape: Square or rectangular Gradient: Average 1:80 for all playing surfaces Road frontage: approx. 25% of perimeter to have direct road frontage Flood immunity: At least 20% of land above Q20, with fields and courts above Q50. Built facilities to be above Q100.
	Regional	6Ha (10Ha+ desirable)		Shape: Square or rectangular Gradient: Max. 1:100 Road frontage: approx. 25% of perimeter to have direct road frontage Flood immunity: At least 90% of land above Q20, with fields and courts above Q50. Built facilities to be above Q100.
Recreation Corridors		Minimum 6m wide. Optimal width 40m, generally located along waterways and overland flow.	N/A	Shape: Linear Gradient: As flat as possible to encourage walking and cycling. Road frontage: road frontage where possible for safety and access reasons. Flood immunity: No requirement, to be assessed on a case-by-case basis.

Table 7.4.5.3 – Standard Embellishments for Public Parks

Asset Item	Informal Recreation Area	Waterfront Recreation Esplanades		Recreation Corridors	Formal Recreation Parks	Sportsgrounds and Courts	
	Local	Local	District	Local	District	District	Regional
Site Preparation							
Clearing and grubbing	✓	✓	✓		✓	✓	✓
Bulk Earthworks					✓	✓	✓
Amenities							
BBQ			✓				
Play equipment	✓				✓		✓
Shelter/Rotunda	✓	✓					✓
Rubbish Bin		✓	✓		✓		✓
Table and bench set	✓	✓	✓		✓		
Toilets			✓		✓		
Water bubbler							✓
Signage	✓	✓	✓		✓		✓
Landscaping							
Turf	✓				✓	✓	✓
Planted beds							
Mature trees	✓			✓	✓		
Infrastructure services							
Irrigation							✓
Lighting pole			✓		✓		
Flood lighting							✓
Fencing/bollards/post and rail	✓	✓	✓	✓	✓	✓	✓
Water and sewer connection			✓		✓	✓	✓
Electricity connection			✓		✓	✓	✓
Communications/WiFi							✓
Pathways			✓	✓	✓		✓
Sporting facilities							
Playing field/Courts Surface Turf						✓	✓
Grandstand							✓
Spectator Mound						✓	✓

7.5 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.

7.5.1. Plans for Trunk Infrastructure Maps

(1) The existing and future trunk infrastructure networks are identified on the following maps in Schedule 3 – Local government infrastructure plan mapping and tables:
- (a) for the water supply network, Local Government Infrastructure Plan Maps WS-01, WS-02, WS-03.
- (b) for the sewerage network, Local Government Infrastructure Plan Maps SEW-01, SEW-02, SEW-03.
- (c) for the stormwater network, Local Government Infrastructure Plan Maps SW-01, SW-02.
- (d) for the transport network, Local Government Infrastructure Plan Maps TR-01, TR-02, TR-03, TR-04.
- (e) for the parks and land for community facilities network, Local Government Infrastructure Plan Maps PPCL-01, PPCL-02 and PPCL-03.

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

7.5.2. Schedules of Works

(1) Details relating to the existing and future trunk infrastructure networks are identified in the electronic Excel schedule of works model, which can be viewed here: https://www.torres.qld.gov.au/council-services/planning-and-development/local-government-infrastructure-plan

(2) The future trunk infrastructure, derived from the SOW model, is summarised in the following tables in Schedule 3 – Local government infrastructure plan mapping and tables:
- (a) for the water supply network, **Table SC3.2.1**.
- (b) for the sewerage network, **Table SC3.2.2**.
- (c) for the stormwater network, **Table SC3.2.3**.
- (d) for the transport network, **Table SC3.2.4**.
- (e) for the parks and land for community facilities network, **Table SC3.2.5**.

7.5.3. Extrinsic Material

Table 7.5.3 identifies the documents that assist in the interpretation of the local government infrastructure plan and are extrinsic material under the *Statutory Instruments Act 1992*.

Table 7.5.3 – List of Extrinsic Material

Column 1 Title of document	Column 2 Date	Column 3 Author
LGIP Review Report – Torres Shire Local Government Infrastructure Plan	2020	Cardno
LGIP Planning Assumptions Extrinsic Materials	2017	Integran
Unit rate cost inputs	2020	
Wasaga Master Plan Strategy	2013	Inside out Architects
Thursday Island Foreshore Landscape Report	2015	