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
   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 2033
   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 transport
      iv 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.

4.2 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 (30th June 2018) and the following projection years:
      i mid (2021);
      ii mid (2026);
      iii mid (2031);
      iv mid (2036);

v Ultimate development.

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 on Local Government Infrastructure Plan Priority Infrastructure Area maps PIA – 001:009 in schedule 3—Local government infrastructure plan mapping and tables.

Table 4.2.1: 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	Detached dwelling	Caretaker's accommodation Dwelling house
	Attached dwelling	Dual occupancy Dwelling unit Multiple dwelling Retirement facility Short-term accommodation
	Other dwelling	Community residence Home based business Non-resident workforce accommodation Outstation Relocatable home park Residential care facility Rooming accommodation Rural workers accommodation Tourist Park
Non-residential development	Retail	Adult store Agricultural supplies store Brothel Bulk landscape supplies Car wash Food and drink outlet Garden centre Hardware and trade supplies Market Outdoor sales Parking station Sales office Service station Shop Shopping centre Showroom Wholesale nursery
	Commercial	Bar Club Function facility Hotel

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
		Indoor sport and recreation Nature-based tourism Nightclub entertainment facility Office Resort complex Theatre Tourist attraction Veterinary service
	Industry	Extractive Industry High impact industry Low impact industry Marine industry Medium impact industry Research and technology industry Service industry Special industry Transport depot Warehouse
	Community Purposes	Cemetery Child care centre Community care centre Community use Crematorium Detention facility Educational establishment Emergency services Funeral parlour Health care service Hospital Major sport, recreation and entertainment facility Motor sport facility Outdoor sport and recreation Park Place of Worship
	Rural and Other Uses	Air service Animal Husbandry Animal keeping Aquaculture Cropping Environment facility Intensive animal husbandry Intensive horticulture Landing

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
		Major electricity infrastructure Permanent plantation Port service Renewable energy facility Roadside stall Rural industry Substation Telecommunications facility Utility installation Winery

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

4.2.2 Population and employment growth

1. A summary of the assumptions about population and employment growth for the planning scheme area is stated in table 4.2.2 – Population and employment assumptions summary.

Table 4.2.2 – Population and employment assumptions summary

Column 1 Description	Column 2 Assumptions					
	Base date 2018	2021	2026	2031	2036	Ultimate development
Population	36,777	40,414	41,832	43,531	45,675	75,532
Employment	31,275	33,084	33,790	34,635	35,702	50,559

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—Existing and projected population;
b. for employment, Table SC3.1.2—Existing and projected employees

4.2.3 Development

1. The developable area is represented by zones relating to urban uses not affected by the following constraints:
    - Biodiversity Areas Overlay;
    - Bushfire Hazard Overlay (partial constraint);
    - Coastal Protection (partial constraint);
    - Key Resource Areas;
    - Mineral and Mining Areas;

- Flood Hazard Overlay (partial constraint);
- Existing Easements.

2. The planned density for future development is stated in 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 4.2.3 – Residential dwellings and non-residential floor space assumptions summary.

Table 4.2.3 – Residential dwellings and non-residential floor space assumptions summary

Column 1 Description	Assumptions					
	Base date 2018	2021	2026	2031	2036	Ultimate development
Residential Dwellings	14,376	15,846	16,491	17,262	18,225	30,138
Non-residential floor space (m² GFA)	1,328,794	1,406,185	1,436,362	1,472,519	1,518,146	2,153,540

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

4.2.4 Infrastructure demand

1. The demand generation rate for a trunk infrastructure network is stated in Column 4 of Table SC3.1.3 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:
   a. for the water supply network, Table SC3.1.6
   b. for the sewerage network, Table SC3.1.7
   c. for the transport network, Table SC3.1.8
   d. for the parks and land for community facilities network, Table SC3.1.9.

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 2033.
2. The priority infrastructure area is identified on Local Government Infrastructure Plan Map Priority Infrastructure Area PIA - 001:009

4.4 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 following planning scheme policies and other controlled documents.

4.4.1 Water supply network

1. The Water Supply trunk infrastructure network comprises infrastructure shown in Table 4.4.1.

Table 4.4.1: Water Supply trunk infrastructure network inclusions

Water Supply Network			
Class	**Facility**	**Qualification**	
		Size	**Capacity / Description**
Water Supply – Bulk Supply	Supply sources		Bores, wells, dams, weirs and associated works
	Raw water treatment		All systems provided to improve the quality of the water from the supply source, including chlorinators
	Bulk water mains		
	Regional pumping station		
	Major reservoirs		
Water Supply – Distribution	Delivery mains		Mains from the point of treatment to service reservoirs
	Pumping system		Distribution and booster pumps within the delivery and distribution main.
	Reservoirs and storage facilities		Service or supply reservoirs between the supply source and the distribution and reticulation mains.
	Distribution Mains	200mm dia or greater	Mains from the end of delivery mains, or from service reservoirs to form the distribution network to suburbs.
	Associated pump stations, fittings, monitoring and control systems.		

2. The Desired Standards for Water Supply trunk infrastructure are shown in Table 4.4.2: Desired Standards of Service: Water Supply and should be read in conjunction with Local governments' own adopted technical standards.

Table 4.4.2: Desired Standards of Service – Water Supply

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.	The design of the network and its construction is managed under the following Guidelines, Policies, Codes and Standards. • Plans for Trunk Infrastructure – Water Supply; • Water Services Association of Australia – WSA 03 – 2011 – Water Supply Code of Australia; • IPEWA – Standard Drawings; • AUS-SPEC specifications; and • Capricorn Municipal Development Guidelines.	• 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; • In seeking to minimise capital costs consider: o Optimising network solutions in respect of location, alignment, sizing, and staging; o Infrastructure constructed provides durability and performance; o Infrastructure is fit for purpose (not over or undersized and allows for growth capacity); o Use standard fittings and components wherever possible to ensure value for money; • In seeking to minimise operational costs consider assets with least impact on: o operating costs – e.g. electricity, consumables, staffing o maintenance – labour, parts, consumables cleaning/replacement		Through the appropriate planning, design and construction the following benefits are achieved: • Extend asset life • Defer system augmentation • 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

Desired Goal	Planning Standard	Design and Construction Standard	Community Outcome
	○ 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.		
Minimise Risk from Fire	• Department of Energy and Water Supply "Planning 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.		• The water supply system 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 Strategy and associated Environmental Management Plans.		• 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.

4.4.2 Sewerage network

1. The Sewerage trunk infrastructure network comprises infrastructure shown in Table 4.4.3.

Table 4.4.3: Sewerage trunk infrastructure network inclusions

Sewerage			
Class	**Facility**	**Qualification**	
		Size	**Capacity / Description**
Sewerage – Regional	Treatment Plant		All systems provided to produce an acceptable quality effluent for discharge and sludge for beneficial reuse.
	Storage facilities		Ponds
	Effluent disposal systems		Gravity or pumping system to deliver treated effluent to approved final discharge point, including Effluent Mains.
	Associated monitoring and control systems		
	Odour and corrosion control systems		
Sewerage – Trunk Reticulation	Gravity Sewers	225mm dia or greater	Gravity sewers which receive (or are designed to receive in future) flows from a pumped system, irrespective of the source of flow. Some exceptions to the minimum size of trunk mains have been made where these are considered to perform critical functions within the network to allow for appropriate connectivity of the trunk system.
	Pumping Stations		Systems to pump sewerage from any sewer drainage catchment to either another catchment or direct to a treatment plant and including the necessary rising mains. This excludes temporary, private (i.e. Single use), and low use (i.e. servicing a small local catchment) pump stations.
	Rising mains		
	Associated manholes and fittings		
	Odour and corrosion control systems		
	Associated monitoring and control systems		

2. The Desired Standards for Sewerage trunk infrastructure are shown in Table 4.4.4: Desired Standards of Service: Sewerage and should be read in conjunction with Local governments' own adopted technical standard

Table 4.4.4: Desired Standards of Service – Sewerage

Desired Goal	Planning Standard	Design 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. • Sewerage Code of Australia – Water Services Association of Australia – WSA 02 - 2002 • Gravity Sewerage Code of Australia -Water Services Association of Australia - WSA 02 – 2014. • Sewerage Pumping Station Code of Australia-Water Services Association of Australia - WSA 04 – 2005. • Vacuum Sewerage Code of Australia – Water Services Association of Australia – WSA 06 – 2008 • Pressure Sewerage Code of Australia – Water Services Association of Australia – WSA 07 - 2007 • Capricorn Municipal Development Guidelines; • Environmental Protection Agency (Environmental Protection Policy) requirements and guidelines; • Plan for Trunk Infrastructure – Wastewater; and • The *Water Act (2000)* and Standard Sewerage Law under the *Sewerage and Water Supply Act (1949)*.	• 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

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
			• 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

	○ 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; • 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

4.4.3 Transport network

1. The transport trunk infrastructure network comprises infrastructure shown in Table 4.4.5.

Table 4.4.5: Transport trunk infrastructure network inclusions

Transport		
CLASS	**FACILITY**	**ASSET**
Transport	Local government roads	• Rural Arterial Roads • Rural Sub-Arterial Roads • Urban Arterial Roads • Urban Sub-Arterial Road • Urban major collector roads • Associated lighting, bridges, culverts, kerb and channel, local road drainage, pedestrian footpaths, pedestrian crossings, and cycleways (within the road reserve), on road cycleways, basic revegetation.
	Intersections (where located at intersecting trunk roads)	• Roundabout • Priority Intersection • Definition Works
	Structures (where located on a trunk road)	• Bridge • Culvert • Floodway

2. The desired standard of service for transport trunk infrastructure (including in road reserve cycleways and pathways) is outlined in Table 4.4.6: Desired Standards of Service: Transport and should be read in conjunction with Isaac Regional Council's own adopted technical standards.

Table 4.4.6: Desired Standards of Service - Transport

Desired Goal	Planning Standard	Design Standard	Community Outcome
Provide a safe and efficient transport system.	• Site master planning and lot and road configuration to be undertaken in accordance with Isaac Regional Council Planning Scheme – ROL Code; • Road network planning to be undertaken in an Urban environment with: o Complete Streets: Guidelines for Urban Street Design (2011) – Institute of Public Works Engineering Australasia Or rural environment with: o Road Planning and Design Manual (2nd Edition) July 2013 Main Roads • 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 network system is designed and provided in accordance with: • Department of Transport and Main Roads: o Road Planning and Design Manual (2nd Edition) July 2013 o Transport and Main Roads Specifications o Transport and Main Roads Standard Drawings o Transport and Main Roads Bridge Design Manual; o Manual of Uniform Traffic Control Devices (MUTCD); • Austroads; • AGRD Guide to Road Design; • AGTM Guide to Traffic Management; • AGPT Guide to Pavement Technology; • AGBT Guide to Bridge Technology; and • Capricorn Municipal Development Guidelines; Street Lighting • AS/NZS 1158 Set: 2010 - Lighting for roads and public spaces; • AS/NZS 2890 Set: 2009 – Parking Facilities; and • AS 1742.2-2009 Manual of uniform traffic control devices – Traffic control devices for general use. <u>Other:</u> • Urban Drainage o 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; and • Cycleway and footpaths o Plans for trunk infrastructure	Safety/Amenity • Protects the amenity of residential communities by removing non-local traffic. • Improves local safety by removing “through” traffic. • Encouragement of cycling and walking has positive health outcomes. • Promotes health benefits. • Improves transport opportunities for local trips. • Ensures an acceptable level of amenity for users. • Allows for high propensity to use walk and cycle options when convenient connections are provided. • Limits community severance. Efficiency • Maintains reliability of connectivity. • Maintains travel speeds in off-peak periods. • Reduces fuel consumption and emission levels by sustaining efficient operating speeds. • Reduces vehicle operating costs. • Supports economic growth by developing efficient and integrated transport networks. • Minimises through traffic and heavy vehicles in residential areas. • Reduces fuel consumption and emission levels through the use of efficient transport modes. • Reduce delays during peak periods. • Improve safety by reducing vehicle speed differentials. • Supports efficient and integrated freight movement network. 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 impacts on biodiversity.

Desired Goal	Planning Standard	Design Standard	Community Outcome
		○ Design standards adopted by Council.	• 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.
Optimise Whole of Lifecycle Cost	• Planning ensures cross sections and pavements are 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 required 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.	• Design solutions are taken from 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.	• Reduced cost of energy • Cost effective service for community • Greenhouse gas reduction • Reduced maintenance costs • Reduced overall operation costs • Reduced replacement costs • Maximise life of system

4.4.4 Public parks and land for community facilities network

1. The Public Parks and Land for Community Facilities trunk infrastructure network comprises infrastructure shown in Table 4.4.7:
2. The desired standards for the public parks and land for community facilities trunk infrastructure are shown in Table 4.4.8: Desired Standards of Service: Public Parks and Land for Community Facilities and should be read in conjunction with the Local government's own adopted technical standards.
3. Design criteria for Public Parks and Land for Community Facilities are shown in Table 4.4.9.
4. Standard embellishments for public parks are shown in Table 4.4.10.

Table 4.4.7: Public Parks and Land for Community Facilities trunk infrastructure network inclusions

Public Parks and Land for Community Facilities				
Class	**Facility (Hierarchy)**	**Asset (Function)**	**Embellishments**	**Qualification/Design Criteria**
Public Parks	Local	Recreation	As per Table 4.1.5.4: Standard Embellishments for Public Parks	As per Table 4.1.5.3 Design Criteria for Public Parks and Land for Community Facilities
	District	Recreation		
		Sportsgrounds and Courts		
	Regional	Recreation		
		Sportsgrounds and Courts		
	Recreation Corridors			
Land for Community Facilities			N/A	Land only for community facilities which allow public access, not restricted by membership, for purposes such as youth centres, senior citizens centre, neighbourhood centres, meeting halls, libraries, performing arts centres, museums, art galleries, community centres. Works associated with the clearing of land and connection to services.

Table 4.4.8: Desired Standards of Service – Public Parks and Land for Community Facilities

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.
• 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.
Design Standard	**Community Outcome**
• Public parks and land for community facilities 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 Land for Community Facilities. •	• 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 land for community facilities are to be in accordance with Council's Public Parks and Land for Community Facilities 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 land for community facilities design criteria.	• Topography does not reduce or interfere with amenity and recreation use.
• Flood immunity for public parks and land for community facilities are achieved in accordance with Council's Public Parks and Land for Community Facilities 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 Land for Community Facilities.	• Provides a range of park types that are suitability embellished to meeting their purpose within the park hierarchy.

Table 4.4.9: Public Parks and Land for Community Facilities design criteria

Park Type	Hierarchy	Min Park Size	Accessibility (catchment)	Land Characteristics
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 Q105 and free of hazards.*
	District	2Ha – 4 Ha of usable space	2500m	*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* *Flood immunity: At least 25% of total area to be above Q50 with main activity areas above Q105.*
	Regional	6Ha of usable space	Isaac Region (LGA)	*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* *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 minute-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 Q105.*
	Regional	6Ha (10Ha+ desirable)	Isaac Region (LGA)	*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 Q105.*
Recreation Corridors		Average 6m wide	NA	*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: Minimal, to be assessed on a case-by-case basis.*

Table 4.4.10: Standard embellishments for Public Parks

Embellishment type	Recreation			Sportsgrounds and Courts		Recreation Corridors
	Local	District	Regional	District	Regional	
Recreation activity area	✓	✓	✓			
Bollard fencing	✓	✓				✓
Post and rail fencing			✓	✓	✓	
Park trees	✓	✓	✓			✓
Bike rack	✓	✓	✓	✓	✓	
Small park sign	✓	✓	✓	✓	✓	✓
Large park sign		✓	✓		✓	✓
Water bubbler	✓	✓	✓		✓	
Bench seats	✓	✓	✓		✓	✓
Picnic table	✓	✓	✓			
Picnic shelter (with table/chairs)		✓	✓			
Bins	✓		✓	✓	✓	✓
Park lighting		✓	✓	✓	✓	
Barbecues		✓	✓			
Shade structure		✓	✓		✓	
Irrigation		✓	✓	✓		
Amenity Block		✓	✓	✓	✓	
Spectator seating				✓	✓	
Pathway		✓	✓	✓	✓	✓
Carparking		✓	✓	✓	✓	

4.5 Plans for trunk infrastructure

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 identified on the following maps in schedule 3 – Local government infrastructure plan mapping and tables:

    a. Local Government Infrastructure Plan Map WS - 001:008 — Plans for trunk infrastructure water supply network
    b. Local Government Infrastructure Plan Map SEW - 001:007 — Plans for trunk infrastructure sewerage network
    c. Local Government Infrastructure Plan Map TR - 001:016 — Plans for trunk infrastructure transport network
    d. Local Government Infrastructure Plan Map PPCL - 001:011 — Plans for trunk infrastructure parks and land for community facilities network

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 relating to the existing and future trunk infrastructure networks are identified in the electronic Excel schedule of works model, which can be viewed here: <insert link>

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 transport network, Table SC3.2.3
d) for the parks and land for community facilities network, Table SC3.2.4

Editor's note – Extrinsic material

The table below 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 to the Local Government Infrastructure Plan report – Prepared for Isaac Regional Council	March 2020	Integran Pty Ltd
Isaac Region Economic & Population Review	October 2016	Norling Consulting
Moranbah Access Road Upgrade – Preliminary Estimate of Cost	April 2013	UDP Consulting Engineers

Schedule 3 – Local government infrastructure plan mapping and tables

SC3.1 Planning assumption tables

Table SC3.1.1: Existing and projected population

Column 1 Projection area	Column 2 LGIP development type	Column 3 Existing and projected population					
		2018	2021	2026	2031	2036	Ultimate development (capacity)
Clermont Rural	Single dwelling	258	257	256	255	253	252
	Multiple dwelling	15	15	14	14	14	14
	Other dwelling	17	17	17	17	17	17
	Total	**289**	**289**	**288**	**287**	**284**	**284**
Clermont Town	Single dwelling	2,222	2,281	2,383	2,482	2,565	2,996
	Multiple dwelling	126	129	135	140	145	169
	Other dwelling	149	153	160	166	172	201
	Total	**2,496**	**2,563**	**2,677**	**2,789**	**2,882**	**3,366**
Dysart	Single dwelling	3,904	4,092	4,169	4,239	4,394	5,453
	Multiple dwelling	221	231	236	240	248	308
	Other dwelling	262	274	279	284	295	366
	Total	**4,386**	**4,598**	**4,684**	**4,763**	**4,937**	**6,126**
Glenden	Single dwelling	1,568	1,647	1,672	1,703	1,723	1,932
	Multiple dwelling	89	93	94	96	97	109
	Other dwelling	105	110	112	114	115	130
	Total	**1,762**	**1,850**	**1,878**	**1,914**	**1,936**	**2,171**
Middlemount	Single dwelling	2,815	2,985	3,016	3,042	3,180	4,189
	Multiple dwelling	159	169	170	172	180	237
	Other dwelling	189	200	202	204	213	281
	Total	**3,163**	**3,354**	**3,388**	**3,417**	**3,573**	**4,707**
Moranbah	Single dwelling	10,800	11,255	11,706	12,046	12,044	13,317

Column 1 Projection area	Column 2 LGIP development type	Column 3 Existing and projected population					
		2018	2021	2026	2031	2036	Ultimate development (capacity)
	Multiple dwelling	610	636	661	681	681	752
	Other dwelling	724	754	785	807	807	893
	Total	**12,134**	**12,645**	**13,152**	**13,534**	**13,532**	**14,962**
Nebo Rural	Single dwelling	667	788	808	847	973	1,828
	Multiple dwelling	38	45	46	48	55	103
	Other dwelling	45	53	54	57	65	123
	Total	**750**	**885**	**908**	**951**	**1,093**	**2,054**
Nebo Town	Single dwelling	674	796	831	880	1,000	1,774
	Multiple dwelling	38	45	47	50	56	100
	Other dwelling	45	53	56	59	67	119
	Total	**757**	**894**	**934**	**989**	**1,123**	**1,993**
Inside priority infrastructure area	Single dwelling	22,908	24,101	24,841	25,494	26,132	31,741
	Multiple dwelling	1,294	1,362	1,404	1,440	1,476	1,793
	Other dwelling	1,536	1,616	1,665	1,709	1,752	2,128
	Total	**25,738**	**27,079**	**27,910**	**28,644**	**29,360**	**35,663**
Outside priority infrastructure area	Single dwelling	9,826	11,869	12,391	13,250	14,521	35,485
	Multiple dwelling	555	671	700	749	820	2,005
	Other dwelling	659	796	831	888	973	2,379
	Total	**11,040**	**13,335**	**13,922**	**14,887**	**16,315**	**39,869**
Isaac Regional Council	Single dwelling	32,734	35,970	37,232	38,745	40,653	67,227
	Multiple dwelling	1,849	2,032	2,104	2,189	2,297	3,798
	Other dwelling	2,194	2,411	2,496	2,597	2,725	4,507
	Total	**36,777**	**40,414**	**41,832**	**43,531**	**45,675**	**75,532**

Table SC3.1.2: Existing and projected employees

Column 1 Projection area	Column 2 LGIP development type	Column 3 Existing and projected employees					
		2018	2021	2026	2031	2036	Ultimate development (capacity)
Clermont Rural	Retail	13	13	13	13	13	13
	Commercial	36	36	36	36	36	36
	Industry	37	37	37	37	37	37
	Community Purposes	18	18	18	18	18	18
	Rural and Other Uses	139	139	139	138	138	138
	Total	**244**	**244**	**243**	**243**	**241**	**241**
Clermont Town	Retail	116	119	124	129	134	156
	Commercial	311	318	329	340	350	399
	Industry	321	327	338	349	358	405
	Community Purposes	156	159	165	171	177	203
	Rural and Other Uses	1,184	1,196	1,218	1,238	1,256	1,346
	Total	**2,087**	**2,119**	**2,175**	**2,229**	**2,274**	**2,508**
Dysart	Retail	127	134	137	140	146	189
	Commercial	584	608	617	626	646	779
	Industry	487	501	507	512	524	604
	Community Purposes	196	207	211	215	224	284
	Rural and Other Uses	3,599	3,673	3,703	3,730	3,791	4,206
	Total	**4,993**	**5,123**	**5,176**	**5,224**	**5,331**	**6,062**
Glenden	Retail	62	66	67	69	70	79
	Commercial	184	192	194	197	199	218
	Industry	144	147	149	150	151	160
	Community Purposes	82	87	88	90	91	103
	Rural and Other Uses	1,518	1,548	1,558	1,570	1,577	1,656
	Total	**1,991**	**2,040**	**2,056**	**2,075**	**2,087**	**2,216**
Middlemount	Retail	119	127	129	130	137	188

Column 1 Projection area	Column 2 LGIP development type	Column 3 Existing and projected employees					
		2018	2021	2026	2031	2036	Ultimate development (capacity)
	Commercial	428	449	453	456	473	598
	Industry	256	264	265	266	273	320
	Community Purposes	145	154	156	158	165	222
	Rural and Other Uses	2,843	2,913	2,926	2,937	2,994	3,409
	Total	**3,791**	**3,908**	**3,929**	**3,947**	**4,042**	**4,737**
Moranbah	Retail	378	391	404	413	413	450
	Commercial	1,440	1,478	1,515	1,544	1,544	1,650
	Industry	1,594	1,627	1,661	1,685	1,685	1,779
	Community Purposes	597	614	630	643	643	689
	Rural and Other Uses	4,772	4,874	4,976	5,052	5,052	5,339
	Total	**8,781**	**8,984**	**9,186**	**9,338**	**9,337**	**9,906**
Nebo Rural	Retail	19	23	23	25	29	57
	Commercial	73	84	86	89	100	179
	Industry	148	164	167	172	188	299
	Community Purposes	61	73	75	78	90	170
	Rural and Other Uses	399	432	437	448	481	711
	Total	**701**	**775**	**787**	**811**	**889**	**1,417**
Nebo Town	Retail	19	23	24	26	30	55
	Commercial	73	85	88	92	103	174
	Industry	150	166	170	177	192	293
	Community Purposes	62	73	77	81	93	165
	Rural and Other Uses	403	436	445	458	490	698
	Total	**707**	**782**	**804**	**834**	**908**	**1,386**
Inside priority infrastructure area	Retail	852	896	922	945	972	1,188
	Commercial	3,130	3,248	3,318	3,381	3,451	4,032
	Industry	3,137	3,234	3,294	3,349	3,408	3,896

Column 1 Projection area	Column 2 LGIP development type	Column 3 Existing and projected employees					
		2018	2021	2026	2031	2036	Ultimate development (capacity)
	Community Purposes	1,318	1,386	1,421	1,455	1,500	1,854
	Rural and Other Uses	14,858	15,211	15,401	15,571	15,779	17,502
	Total	**23,295**	**23,976**	**24,356**	**24,701**	**25,110**	**28,472**
Outside priority infrastructure area	Retail	228	289	304	330	366	1,014
	Commercial	1,064	1,256	1,308	1,390	1,504	3,476
	Industry	1,803	1,985	2,035	2,110	2,215	4,018
	Community Purposes	343	428	452	490	534	1,433
	Rural and Other Uses	4,542	5,150	5,336	5,614	5,974	12,145
	Total	**7,980**	**9,109**	**9,434**	**9,935**	**10,593**	**22,086**
Isaac Regional Council	Retail	1,080	1,185	1,226	1,276	1,338	2,202
	Commercial	4,194	4,505	4,626	4,771	4,955	7,508
	Industry	4,940	5,219	5,328	5,459	5,623	7,914
	Community Purposes	1,661	1,813	1,873	1,944	2,034	3,287
	Rural and Other Uses	19,400	20,362	20,737	21,186	21,753	29,647
	Total	**31,275**	**33,084**	**33,790**	**34,635**	**35,702**	**50,559**

Table SC3.1.3 – Planned density and demand generation rate for a trunk infrastructure network

Column 1 Zone	Column 2 Precinct / Location	Column 3 Planned density		Column 4 Demand generation rate for a trunk infrastructure network			
		Non-residential plot ratio	Residential density (dwellings/ dev ha)	Water supply network (EP/dev ha)	Sewerage network (EP/dev ha)	Transport network (trips/dev ha)	Parks and land for community facilities network (persons/dev ha)
Residential development							
Centre			32.0	51.1	51.1	320.0	51.1
Centre	Moranbah		48.0	76.7	76.7	480.0	76.7
Low density residential			11.7	30.2	30.2	116.9	30.2
Low density residential	Moranbah		13.5	33.8	33.8	135.3	33.8
Low-medium density residential			23.7	49.8	49.8	236.7	49.8
Emerging Community			13.5	33.8	33.8	135.3	33.8
Rural residential			0.3	0.7	0.7	2.5	0.7
Rural			0.0002	0.0	0.0	0.0	0.0
Township			10.0	26.9	26.9	100.0	26.9
Specialised Centre			45.6	45.6	45.6	456.0	45.6
Non-residential development and mixed development*							
Centre		4		67.1	67.1	500	0
Centre	Moranbah	3		67.1	67.1	500	0
Industry		0.75		40.3	40.3	75	0
Specialised Centre		0.6		13.4	13.4	50	0
Community Facilities		0.4		13.4	13.4	50	0
Special Purpose		0		0	0	0	0
Tourism Area (Minor)		0		0	0	0	0
Environmental Management and Conservation		0		0	0	0	0
Recreation and Open Space		0		0	0	0	0

* Mixed development is development that includes residential and non-residential development.

Table SC3.1.4: Existing and projected residential dwellings

Column 1 Projection area	Column 2 LGIP development type	Column 3 Existing and projected residential dwellings					
		2018	2021	2026	2031	2036	Ultimate development (capacity)
Clermont Rural	Single dwelling	94	94	94	94	94	94
	Multiple dwelling	9	9	9	9	9	9
	Other dwelling	10	10	10	10	10	10
	Total	**113**	**113**	**113**	**114**	**113**	**113**
Clermont Town	Single dwelling	811	835	877	919	955	1,116
	Multiple dwelling	77	79	83	87	91	106
	Other dwelling	88	91	95	100	104	121
	Total	**976**	**1,005**	**1,055**	**1,106**	**1,150**	**1,343**
Dysart	Single dwelling	1,424	1,498	1,534	1,569	1,636	2,031
	Multiple dwelling	135	142	146	149	155	193
	Other dwelling	155	163	167	171	178	221
	Total	**1,714**	**1,803**	**1,847**	**1,889**	**1,970**	**2,444**
Glenden	Single dwelling	572	603	615	630	642	720
	Multiple dwelling	54	57	58	60	61	68
	Other dwelling	62	66	67	69	70	78
	Total	**689**	**726**	**740**	**759**	**772**	**866**
Middlemount	Single dwelling	1,027	1,093	1,110	1,126	1,184	1,560
	Multiple dwelling	98	104	105	107	113	148
	Other dwelling	112	119	121	122	129	170
	Total	**1,236**	**1,315**	**1,336**	**1,355**	**1,426**	**1,878**
Moranbah	Single dwelling	3,940	4,119	4,307	4,458	4,486	4,959
	Multiple dwelling	374	391	409	424	426	471
	Other dwelling	429	448	468	485	488	539
	Total	**4,743**	**4,958**	**5,185**	**5,367**	**5,399**	**5,970**

Column 1 Projection area	Column 2 LGIP development type	Column 3 Existing and projected residential dwellings					
		2018	2021	2026	2031	2036	Ultimate development (capacity)
Nebo Rural	Single dwelling	244	288	297	313	362	681
	Multiple dwelling	23	27	28	30	34	65
	Other dwelling	26	31	32	34	39	74
	Total	**293**	**347**	**358**	**377**	**436**	**819**
Nebo Town	Single dwelling	246	291	306	326	372	661
	Multiple dwelling	23	28	29	31	35	63
	Other dwelling	27	32	33	35	40	72
	Total	**296**	**351**	**368**	**392**	**448**	**795**
Inside priority infrastructure area	Single dwelling	8,357	8,820	9,140	9,436	9,732	11,821
	Multiple dwelling	794	838	868	896	924	1,123
	Other dwelling	909	959	994	1,026	1,058	1,286
	Total	**10,060**	**10,618**	**11,003**	**11,359**	**11,715**	**14,230**
Outside priority infrastructure area	Single dwelling	3,586	4,344	4,559	4,904	5,408	13,215
	Multiple dwelling	341	413	433	466	514	1,255
	Other dwelling	390	472	496	533	588	1,437
	Total	**4,317**	**5,229**	**5,488**	**5,904**	**6,510**	**15,908**
Isaac Regional Council	Single dwelling	11,943	13,164	13,699	14,340	15,140	25,036
	Multiple dwelling	1,134	1,250	1,301	1,362	1,438	2,378
	Other dwelling	1,299	1,432	1,490	1,560	1,647	2,723
	Total	**14,376**	**15,846**	**16,491**	**17,262**	**18,225**	**30,138**

Table SC3.1.5: Existing and projected non-residential floor space

Column 1 Projection area	Column 2 LGIP development type	Column 3 Existing and projected non-residential floor space (m2 GFA)					
		2018	2021	2026	2031	2036	Ultimate development (capacity)
Clermont Rural	Retail	403	402	400	399	395	395
	Commercial	1,085	1,083	1,080	1,076	1,068	1,068
	Industry	5,605	5,597	5,579	5,563	5,524	5,522
	Community Purposes	452	451	450	448	444	444
	Rural and Other Uses	2,778	2,776	2,771	2,767	2,757	2,757
	Total	**10,323**	**10,310**	**10,279**	**10,254**	**10,189**	**10,186**
Clermont Town	Retail	3,474	3,566	3,724	3,877	4,007	4,674
	Commercial	9,326	9,528	9,875	10,213	10,497	11,966
	Industry	48,116	49,080	50,734	52,343	53,696	60,687
	Community Purposes	3,890	3,980	4,136	4,287	4,414	5,071
	Rural and Other Uses	23,682	23,930	24,355	24,768	25,116	26,913
	Total	**88,488**	**90,084**	**92,824**	**95,489**	**97,729**	**109,310**
Dysart	Retail	3,798	4,026	4,120	4,204	4,392	5,675
	Commercial	17,516	18,229	18,520	18,784	19,369	23,370
	Industry	73,064	75,202	76,076	76,867	78,623	90,625
	Community Purposes	4,911	5,177	5,286	5,385	5,603	7,098
	Rural and Other Uses	71,974	73,452	74,056	74,602	75,816	84,112
	Total	**171,262**	**176,086**	**178,057**	**179,842**	**183,802**	**210,879**
Glenden	Retail	1,869	1,980	2,015	2,059	2,086	2,380
	Commercial	5,531	5,751	5,820	5,908	5,961	6,544
	Industry	21,606	22,116	22,277	22,481	22,605	23,959
	Community Purposes	2,057	2,168	2,203	2,248	2,275	2,569
	Rural and Other Uses	30,367	30,966	31,155	31,394	31,540	33,129
	Total	**61,431**	**62,981**	**63,469**	**64,089**	**64,468**	**68,581**
Middlemount	Retail	3,566	3,824	3,869	3,908	4,119	5,647

Column 1 Projection area	Column 2 LGIP development type	Column 3 Existing and projected non-residential floor space (m2 GFA)					
		2018	2021	2026	2031	2036	Ultimate development (capacity)
	Commercial	12,850	13,481	13,593	13,688	14,203	17,942
	Industry	38,331	39,534	39,748	39,930	40,912	48,050
	Community Purposes	3,624	3,861	3,904	3,940	4,133	5,541
	Rural and Other Uses	56,869	58,269	58,519	58,731	59,874	68,185
	Total	**115,240**	**118,969**	**119,632**	**120,198**	**123,241**	**145,364**
Moranbah	Retail	11,332	11,722	12,110	12,401	12,400	13,492
	Commercial	43,199	44,335	45,463	46,312	46,308	49,487
	Industry	239,119	244,117	249,078	252,812	252,796	266,781
	Community Purposes	14,936	15,350	15,762	16,071	16,070	17,229
	Rural and Other Uses	95,434	97,482	99,515	101,045	101,039	106,770
	Total	**404,020**	**413,007**	**421,928**	**428,641**	**428,613**	**453,760**
Nebo Rural	Retail	559	679	700	738	864	1,715
	Commercial	2,182	2,511	2,567	2,673	3,019	5,360
	Industry	22,273	24,620	25,017	25,773	28,234	44,908
	Community Purposes	1,533	1,816	1,864	1,955	2,252	4,262
	Rural and Other Uses	7,987	8,633	8,742	8,950	9,628	14,216
	Total	**34,534**	**38,259**	**38,890**	**40,089**	**43,995**	**70,462**
Nebo Town	Retail	565	686	722	771	889	1,661
	Commercial	2,202	2,537	2,633	2,768	3,094	5,215
	Industry	22,481	24,862	25,549	26,508	28,834	43,937
	Community Purposes	1,548	1,835	1,918	2,033	2,314	4,134
	Rural and Other Uses	8,061	8,716	8,905	9,169	9,809	13,965
	Total	**34,857**	**38,636**	**39,726**	**41,249**	**44,940**	**68,912**
Inside priority infrastructure area	Retail	25,566	26,886	27,659	28,358	29,152	35,639
	Commercial	93,891	97,454	99,550	101,421	103,519	120,952
	Industry	470,595	485,129	494,058	502,277	511,224	584,470

Column 1 Projection area	Column 2 LGIP development type	Column 3 Existing and projected non-residential floor space (m2 GFA)					
		2018	2021	2026	2031	2036	Ultimate development (capacity)
	Community Purposes	32,951	34,640	35,521	36,366	37,504	46,348
	Rural and Other Uses	297,152	304,225	308,018	311,428	315,579	350,046
	Total	**920,155**	**948,333**	**964,807**	**979,851**	**996,978**	**1,137,455**
Outside priority infrastructure area	Retail	6,836	8,674	9,132	9,908	10,976	30,415
	Commercial	31,919	37,685	39,226	41,714	45,117	104,280
	Industry	270,468	297,791	305,183	316,519	332,249	602,650
	Community Purposes	8,567	10,694	11,300	12,238	13,350	35,836
	Rural and Other Uses	90,849	103,008	106,714	112,289	119,476	242,904
	Total	**408,639**	**457,852**	**471,555**	**492,668**	**521,168**	**1,016,085**
Isaac Regional Council	Retail	32,402	35,560	36,791	38,266	40,128	66,054
	Commercial	125,809	135,139	138,777	143,135	148,636	225,232
	Industry	741,063	782,920	799,241	818,796	843,473	1,187,121
	Community Purposes	41,518	45,334	46,822	48,604	50,854	82,184
	Rural and Other Uses	388,001	407,233	414,732	423,717	435,055	592,950
	Total	**1,328,794**	**1,406,185**	**1,436,362**	**1,472,519**	**1,518,146**	**2,153,540**

Table SC3.1.6: Existing and projected demand for the water supply network

Column 1 Service Catchment*	Column 2 Existing and projected demand (EP)					
	2018	2021	2026	2031	2036	Ultimate development (capacity)
WS01 – Clermont	5,712	5,948	6,225	6,551	6,758	10,129
WS02 – Moranbah	14,705	16,001	16,664	17,319	17,939	32,345
WS03 – Dysart	7,131	7,752	8,042	8,277	8,891	12,744
WS04 – Middlemount	4,454	4,764	4,812	4,857	5,113	7,344
WS05 – Glenden	2,264	2,424	2,481	2,558	2,601	3,695
WS06 – Nebo	757	895	934	991	1155	2,165
TOTAL	**35,023**	**37,784**	**39,158**	**40,554**	**42,458**	**68,422**

*The service catchments for the water supply network are identified on Local Government Infrastructure Plan Map WS - 001:008 (Plans for trunk infrastructure water supply network) in Schedule 3 (local government infrastructure mapping and tables).

Table SC3.1.7: Existing and projected demand for the sewerage network

Column 1 Service Catchment*	Column 2 Existing and projected demand (EP)					
	2018	2021	2026	2031	2036	Ultimate development (capacity)
S01 – Clermont	5,451	5,675	5,939	6,250	6,448	9,653
S02 – Moranbah	14,705	16,001	16,664	17,319	17,939	32,345
S03 – Dysart	7,131	7,752	8,042	8,277	8,891	12,744
S04 – Middlemount	4,454	4,764	4,812	4,857	5,113	7,344
S05 – Glenden	2,264	2,424	2,481	2,558	2,601	3,695
S06 – Nebo	757	895	934	991	1155	2,165
TOTAL	**34,762**	**37,511**	**38,873**	**40,253**	**42,147**	**67,946**

*Column 1. The service catchments for the sewerage network are identified on Local Government Infrastructure Plan Map SEW - 001:007 (Plans for trunk infrastructure sewerage network) in Schedule 3 (local government infrastructure mapping and tables).

Table SC3.1.8: Existing and projected demand for the transport network

Column 1 Service Catchment*	Column 2 Existing and projected demand (trips)					
	2018	2021	2026	2031	2036	Ultimate development (capacity)
TR01 – Clermont	15,183	15,964	16,931	18,074	18,859	29,433
TR02 – Moranbah	54,972	59,891	62,656	65,450	68,179	122,041
TR03 – Dysart	24,155	26,195	27,122	28,023	29,977	42,038
TR04 – Middlemount	16,084	17,312	17,592	17,812	19,023	27,833
TR05 – Glenden	8,476	9,102	9,380	9,738	9,949	14,248
TR06 – Nebo	2,728	3,235	3,395	3,627	4,260	8,021
TR07 – St Lawrence	776	776	776	776	776	3,310
TR08 – Rest of LGA	80,914	93,541	96,972	102,459	108,982	184,128
TOTAL	**203,288**	**226,016**	**234,824**	**245,960**	**260,005**	**431,053**

* Column 1. The service catchments for the transport network are identified on Local Government Infrastructure Plan Map TR - 001:016 (Plans for trunk infrastructure transport network) in Schedule 3 (local government infrastructure mapping and tables).

Table SC3.1.9: Existing and projected demand for the parks and land for community facilities network

Column 1 Service Catchment*	Column 2 Existing and projected demand (persons)					
	2018	2021	2026	2031	2036	Ultimate development (capacity)
PPCL01 – Clermont	2,829	2,938	3,083	3,247	3,370	4,960
PPCL02 – Moranbah	13,073	14,177	14,781	15,336	15,943	28,431
PPCL03 – Dysart	5,382	5,728	5,836	5,956	6,211	8,037
PPCL04 – Middlemount	3,763	3,954	3,988	4,016	4,182	5,371
PPCL05 – Glenden	1,782	1,878	1,915	1,961	1,993	2,636
PPCL06 – Nebo	747	883	923	979	1113	1,945
PPCL07 – St Lawrence	160	160	160	160	160	838
PPCL08 – Rest of LGA	9,088	10,816	11,255	11,977	12,789	22,878
TOTAL	**36,825**	**40,532**	**41,941**	**43,631**	**45,760**	**75,096**

* Column 1. The service catchments for the parks and land for community facilities network are identified on Local Government Infrastructure Plan Map PPLC - 001:011 (Plans for trunk infrastructure parks and land for community facilities network) in Schedule 3 (local government infrastructure mapping and tables).

SC3.2 Schedules of works

Table SC3.2.1: Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost*
BRF01	Nebo - Bore Field	2019	$559,680
BRF02	Nebo - Bore Field Upgrade	2020	$192,082
BRF03	Nebo - Bore Field Upgrade	2020	$192,082
BRF04	Nebo - Bore Field Upgrade	2020	$192,082
PSF01	Nebo - Pump Station	2020	$0
RESF01	Nebo - 2ML Reservoir	2020	$0
RESF05	Theresa Creek Dam - Generator Upgrade	2022	$0
WTPF01	Clermont - Generator Upgrade	2019	$173,350
WTPF02	Nebo - New WTP	2019	$3,968,900
WTPF03	Moranbah - Generator Upgrade	2020	$557,891
WTPF09	Middlemount - Generator Upgrade	2022	$0
RWMF01	Raw Water Main (200mm)	2020	$1,754,323
RWMF02	Raw Water Main (150mm)	2020	$292,060
WMF39	Water Main (300mm)	2020	$1,395,474
WMF40	Water Main (200mm)	2020	$180,412
WMF41	Water Main (300mm)	2020	$192,949
WMF42	Water Main (200mm)	2020	$96,297
WMF43	Water Main (200mm)	2020	$105,694
TOTAL			**$9,853,277**

*Column 4. The establishment cost is expressed in current cost terms as at the base date.

Table SC3.2.2: Sewerage network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost*
PSF01	Dysart PS - New	2029	$694,837
PSF03	Clermont PS - Wet Well Storage Upgrade	2020	$391,301
PSF05	Clermont PS - Upgrade backup power	2022	$110,108
PSF06	Middlemount PS - Upgrade backup power	2022	$110,108
PSF07	Moranbah PS2 - Upgrade backup power	2022	$110,108
PSF08	Moranbah PS15 - Upgrade backup power	2022	$110,108
WWTPF01	Clermont STP - Emergency Generator/Telemetry Upgrades	2019	$128,235
WWTPF03	Dysart STP - Sludge Drying Beds	2019	$821,729
WWTPF04	Middlemount STP - Sludge Drying Beds	2019	$693,161
WWTPF05	Middlemount STP - Emergency Generator/Telemetry Upgrades	2020	$128,235
WWTPF06	Dysart STP - Emergency Generator/Telemetry Upgrades	2020	$128,235
WWTPF07	Glenden STP - Emergency Generator/Telemetry Upgrades	2020	$128,235
WWTPF08	Glenden STP - Inlet Screen	2019	$391,301
WWTPF09	Nebo STP - Recycled Water Plant and Irrigation	2021	$251,550
WWTPF10	Nebo STP - Upgrade	2019	$608,049
WWTPF11	Clermont STP - Effluent Polishing Plant and Pipelines	2020	$503,100

WWTPF12	Dysart STP - Effluent Polishing Plant	2019	$535,812
WWTPF13	Middlemount STP - Effluent Polishing Plant	2019	$549,927
WWTPF14	Clermont STP - Inlet Screen	2020	$894,401
EMF01	Effluent Main (300mm)	2019	$150,644
EMF02	Effluent Main (300mm)	2019	$392,412
EMF04	Effluent Main (225mm)	2019	$114,727
EMF13	Effluent Main (200mm)	2019	$46,658
EMF14	Effluent Main (200mm)	2019	$127,233
EMF16	Effluent Main (125mm)	2019	$287,184
EMF17	Effluent Main (200mm)	2019	$55,909
EMF18	Effluent Main (125mm)	2019	$160,451
EMF19	Effluent Main (200mm)	2019	$410,330
GMF14	Gravity Main (300mm)	2029	$66,097
GMF15	Gravity Main (375mm)	2029	$456,398
RMF01	Rising Main (300mm)	2029	$1,389,259
TOTAL			**$10,945,841**

*Column 4. The establishment cost is expressed in current cost terms as at the base date.

Table SC3.2.3: Transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost*
INTF_010	Definition Works - Dysart-Saraji and Dysart-Clermont Rds	2021	$54,662
INTF_022	Definition Works - Moranbah Access Rd and Cunningham Way	2031	$54,662
INTF_001	Definition Works - Goonyella Rd and Curtin St	2031	$54,662
INTF_002	Definition Works - Goonyella Rd and Mills Ave	2031	$54,662
INTF_016	Definition Works - Waverley St and Trimmer St	2031	$54,662
INTF_015	Definition Works - Peak Downs Hwy and Bowen St	2026	$54,662
INTF_018	Definition Works - Mills Ave and Bacon St	2025	$54,662
INTF_019	Definition Works - Mills Ave and Bacon Ln	2023	$54,662
INTF_020	Definition Works - Mills Ave and Griffin St	2029	$54,662
INTF_021	Definition Works - Mills Ave and Appleton St	2031	$54,662
INTF_024	Safety Works - Dysart Middlemount Rd and Queen Elizabeth Dr	2020	$0 (subsidy available)
INTF_025	Safety Works - Queen Elizabeth Dr and Caswell St	2020	$0 (subsidy available)
INTF_026	Safety Works - Queen Elizabeth Dr and Beardmore Cres	2020	$0 (subsidy available)
INTF_027	Safety Works - Queen Elizabeth Dr	2020	$0 (subsidy available)
INTF_029	Safety Works - Queen Elizabeth Dr	2020	$0 (subsidy available)
INTF_030	Safety Works - Queen Elizabeth Dr	2020	$0 (subsidy available)
INTF_031	Safety Works - Copperfield Rd, Jellicoe St and Francis St	2020	$0 (subsidy available)
INTF_032	Safety Works - Jellicoe St and Tropic St	2020	$0 (subsidy available)
INTF_033	Safety Works - Tropic St and Herschel St	2020	$0 (subsidy available)
INTF_034	Safety Works - Capricorn St and Herschel St	2020	$0 (subsidy available)
INTF_035	Safety Works - Tropic St and Box St	2020	$0 (subsidy available)
INTF_036	Safety Works - Capricorn St and Box St	2020	$0 (subsidy available)
INTF_037	Safety Works - Capricorn St and Lime St	2020	$0 (subsidy available)
INTF_038	Safety Works - Belyando Ave and Griffin St	2020	$0 (subsidy available)

INTF_039	Safety Works - Clements St and McCool St	2020	$0 (subsidy available)
STF_001	Moranbah Access Road	2026	$22,565,233
STF_002	Rural Major Collector - Peakvale Rd (ch 50.41)	2021	$17,517
STF_003	Rural Major Collector - Peakvale Rd (ch 40.38)	2021	$17,517
STF_004	Rural Major Collector - Peakvale Rd (ch 39.54)	2021	$17,517
STF_005	Rural Major Collector - Peakvale Rd (ch 37.80)	2021	$17,517
STF_006	Rural Major Collector - Peakvale Rd (ch 27.81)	2021	$17,517
STF_007	Rural Major Collector - Peakvale Rd (ch 21.61)	2021	$17,517
STF_008	Rural Major Collector - Peakvale Rd (ch 8.30)	2021	$17,517
STF_009	Rural Sub Arterial - Booroondarra Capella Road (ch 19.25)	2021	$17,517
STF_010	Rural Sub Arterial - Booroondarra Capella Road (ch 20.27)	2021	$17,517
STF_011	Rural Sub Arterial - Booroondarra Capella Road (ch 21.47)	2021	$17,517
STF_012	Rural Sub Arterial - Booroondarra Capella Road (ch 22.68)	2021	$17,517
STF_013	Rural Sub Arterial - Booroondarra Capella Road (ch 23.94)	2021	$17,517
STF_014	Rural Sub Arterial - Booroondarra Capella Road (ch 24.90)	2021	$17,517
STF_015	Rural Major Collector - Turrawulla Road (ch 50.42)	2021	$17,517
STF_016	Rural Sub Arterial - Saraji Road	2021	$98,195
STF_017	Rural Major Collector - Golden Mile Road	2021	$106,544
STF_018	Rural Major Collector - Golden Mile Road	2021	$106,544
TRF_022	Urban Sub Arterial - Moranbah Access Road	2031	$2,949,640
TRF_023	Urban Sub Arterial - Goonyella Road	2031	$5,595,462
TRF_033	Urban Major Collector - Jeffrey Street	2031	$5,431,552
TRF_034	Urban Major Collector - Water Street	2021	$512,416
TRF_036	Urban Major Collector - McDonald Flat Road	2031	$3,882,647
TRF_037	Rural Major Collector - Valkyrie Road	2021	$2,600,826
TRF_038	Urban Major Collector - Bacon Street	2021	$82,455
PWF01	Cycleway - Capricorn Street	2021	$164,253
PWF02	Cycleway - Capricorn Street	2021	$41,156
PWF03	Cycleway - Moranbah Access Road	2021	$274,410
TOTAL			**$45,203,197**

*Column 4. The establishment cost is expressed in current cost terms as at the base date.

Table SC3.2.4: Parks and land for community facilities schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost*
PF01	Future Park (Local Recreation)	2031	$500,939
PF18	Skate Park/Ted Rolfe Oval (Local Recreation)	2020	$151,827
PF19	Clairview Park (District Recreation)	2020	$16,609
PF20	Carmila Sports Grounds (Sports Park)	2020	$70,147
TOTAL			**$739,521**

*Column 4. The establishment cost is expressed in current cost terms as at the base date

SC3.3 Local government infrastructure plan maps

Local Government Infrastructure Plan Map LGIP Priority infrastructure area PIA - 001:009

Local Government Infrastructure Plan Map LGIP Plans for trunk infrastructure water supply network WS - 001:008

Local Government Infrastructure Plan Map LGIP Plans for trunk infrastructure sewerage network SEW - 001:007

Local Government Infrastructure Plan Map LGIP Plans for trunk infrastructure transport network TR - 001:016

Local Government Infrastructure Plan Map LGIP Plans for trunk infrastructure parks and land for community facilities network PPCL - 001:011