

LIVINGSTONE SHIRE COUNCIL

Local Government Infrastructure Plan

Planning Assumptions Report

2023

Based on the LSCPAM2021 V5

Prepared by:

Liam Saxby
Growth Management
Livingstone Shire Council

Table of Contents

1.0	Background.....	Page 3
1.1	Purpose of Report	Page 3
1.2	Supporting Material	Page 3
2.0	Purpose of Planning Assumptions	Page 4
3.0	Planning Assumption and Projection Parameters	Page 5
4.0	Methodology	Page 8
4.1	Development Projections	Page 9
4.2	Land Use Analysis and Assumptions.....	Page 14
4.3	Development Capacity Analysis and Assumptions.....	Page 18
4.4	Development Sequencing Analysis and Assumptions.....	Page 37
4.5	Infrastructure Analysis and Assumptions.....	Page 49
4.6	Priority Infrastructure Area Determination.....	Page 49

List of Tables

Table 1	– Relationship between LGIP development category, LGIP development type, and planning scheme land use terms
Table 2	– Population Projections for the Livingstone Shire SA2 Projection Areas
Table 3	– Population Projections for the Livingstone Shire Local Government Area
Table 4	– Dwelling Type Mix in the Livingstone Shire Local Government Area
Table 5	– Dwelling Type Estimated Resident Person Conversion Rate in the Livingstone Shire Local Government Area
Table 6	– Dwelling Demand Projections by Dwelling Type for the Livingstone Shire Local Government Area
Table 7	– Employment Type Mix in the Livingstone Shire Local Government Area
Table 8	– Employment Projections in the Livingstone Shire Local Government Area
Table 9	– Employment Projections by Employment Type in the Livingstone Shire Local Government Area
Table 10	– Employment Type Gross Floor Area Conversion Rate in the Livingstone Shire Local Government Area
Table 11	– Gross Floor Area Demand Projections by Employment Type in the Livingstone Shire Local Government Area
Table 12	– Outline of Future Land Use Type Assumptions
Table 13	– Development Constraint Features (100% Constraint)
Table 14	– Development Constraint Features (50% Constraint)
Table 15	– Development Constraint Features (30% Constraint)
Table 16	– Road, stormwater management and park allocation assumptions
Table 17	– Dwelling Type Size Assumptions
Table 18	– Dwelling Density Assumptions
Table 19	– Non-residential Development Density Assumptions
Table 20	– Dwellings by Dwelling Type Ultimate Development Assumptions
Table 21	– Employment Gross Floor Area by Employment Type Ultimate Development Assumptions
Table 22	– Population by Dwelling Type Ultimate Assumptions
Table 23	– Employed Persons by Employment Type Ultimate Assumptions
Table 24	– Dwellings by Dwelling Type Timing Assumptions
Table 25	– Employment Gross Floor Area by Employment Type Timing Assumptions
Table 26	– Population by Dwelling Type Timing Assumptions
Table 27	– Employed Persons by Employment Type Timing Assumptions

List of Maps

Map PIA-01	– Priority Infrastructure Areas Shire
Map PIA-02	– Priority Infrastructure Area Yeppoon and Surrounds
Map PIA-03	– Priority Infrastructure Area Emu Park and Surrounds

1.0 Background

In the State of Queensland, it is a requirement of the *Planning Act 2016* that local government prepare a Local Government Infrastructure Plan (LGIP) which forms a part of the local government planning scheme.

The purpose of the local government infrastructure plan is to:

- (1) integrate infrastructure planning with the land use planning identified in the planning scheme;
- (2) provide transparency regarding a local government's intentions for the provision of trunk infrastructure;
- (3) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning;
- (4) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner; and
- (5) provide a basis for the imposition of conditions about infrastructure on development approvals.

The local government infrastructure plan:

- (1) states the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network;
- (2) identifies the prioritised infrastructure area which is serviced or intended to be serviced with development infrastructure for urban purposes, and which can accommodate urban growth for a period of 10 to 15 years;
- (3) states, for each trunk infrastructure network, the desired standard of performance;
- (4) identifies the existing and future trunk infrastructure for the following networks:
 - (a) water supply;
 - (b) sewerage;
 - (c) stormwater;
 - (d) transport;
 - (e) parks and land for community facilities;
- (5) provides a list of supporting documents that assist in the interpretation of the local government infrastructure plan.

1.1 Purpose of Report

This report has been prepared to assist with interpreting the Livingstone Shire Council Local Government Infrastructure Plan. The report summarises the planning assumptions component of the Local Government Infrastructure Plan and outlines the methodology used to determine the planning assumptions.

1.2 Supporting Material

Various information sources assisted with determining the planning assumptions that were used to inform the preparation of the local government infrastructure plan.

Information sources included the following:

- (1) *Planning Act 2016*, State of Queensland.
- (2) *Planning Regulation 2017*, State of Queensland.
- (3) Minister's Guidelines and Rules, Under the Planning Act 2016, Version 1.1, State of Queensland, Queensland Treasury, June 2020.
- (4) Guidance for the Minister's Guidelines and Rules: Guidance for Plan Making, State of Queensland, Queensland Treasury, Planning Group, June 2020.
- (5) Local infrastructure planning: Guidance for local governments and applicants, January 2022, Version 1.2, Department of State Development, Infrastructure, Local Government and Planning.
- (6) Livingstone Planning Scheme 2018, Version 3, Livingstone Shire Council.

- (7) Records of Development Permits for Material Change of Use, Livingstone Shire Council Local Government Area, Livingstone Shire Council.
- (8) Records of Development Permits for Reconfiguring a Lot, Livingstone Shire Council Local Government Area, Livingstone Shire Council.
- (9) Records of Variation Approvals, Livingstone Shire Council Local Government Area, Livingstone Shire Council.
- (10) Livingstone Shire Council, GIS Property Database Information as at May 2021 including Parcel Area, Lot Number, Plan Number, Tenure, Locality.
- (11) Livingstone Shire Council, GIS Property Database, General Rate Category Land Use Descriptions as at 2021.
- (12) Digital Aerial Imagery as at 2020, State of Queensland, Department of Resources, Spatial Imagery Subscription Plan.
- (13) Digital Aerial Imagery as at 2021, Nearmap Australia.
- (14) Panoramic Photography as at 2020, Google Streetview.
- (15) Population projections:
 - (a) Queensland Government Statisticians Office (QGSO). Projected population, by local government area, Queensland, 2021 to 2046. These projections were sourced from the Queensland Government population projections, 2023 edition; Australian Bureau of Statistics, Regional population, 2021. 2021 data are preliminary rebased estimated resident population.
 - (b) Queensland Government Statisticians Office (QGSO). Projected population (medium series), by statistical area level 2 (SA2), SA3 and SA4, Queensland, 2021 to 2046. These projections were sourced from the Queensland Government population projections, 2023 edition; Australian Bureau of Statistics, Regional population, 2021. 2021 data are preliminary rebased estimated resident population.
- (16) Dwelling mix assumptions previously applied to the Livingstone Shire Council Local Government Area:
 - (a) Australian Bureau of Statistics 2011 Census;
 - (b) Australian Bureau of Statistics 2016 Census;
 - (c) Queensland Government Statisticians Office 2017 (2011-2036);
 - (d) Queensland Government Statisticians Office 2021 (2016-2041);
 - (e) Livingstone Shire Council Local Government Infrastructure Plan Assumptions Report 2018, Strategic AM Pty Ltd.
- (17) Employee per gross floor area assumptions previously applied to the Livingstone Shire Council Local Government Area:
 - (a) Livingstone Shire Council Local Government Infrastructure Plan Assumptions Report 2018, Strategic AM Pty Ltd.
- (18) Employment rate assumptions previously applied to the Livingstone Shire Council Local Government Area:
 - (a) Australian Bureau of Statistics 2011 Census;
 - (b) Australian Bureau of Statistics 2016 Census;
 - (c) Queensland Government Statisticians Office 2017 (2011-2036);
 - (d) Queensland Government Statisticians Office 2021 (2016-2041).
- (19) Livingstone Shire Council Economic Profile, provided by .ID (Informed Decisions), <https://economy.id.com.au/livingstone>. Information sourced from the Livingstone Shire Council Economy Profile is compiled by Informed Decisions, and it is derived from information from the Australian Bureau of Statistics and the National Institute of Economic and Industry Research Pty Ltd.

2.0 Purpose of Planning Assumptions

Planning assumptions are an important base for infrastructure planning. The planning assumptions align the expected future land use intensity and the type and pattern of development, as envisaged by the Livingstone Planning Scheme 2018, to infrastructure planning. These planning assumptions, together with the desired standards of service,

provide a logical and consistent basis for the planning of trunk infrastructure networks and the determination of the priority infrastructure areas to support urban development and urban growth.

The planning assumptions component of the local government infrastructure plan state the assumptions and projections about:

- (1) existing and future population, and residential dwelling demand and supply in the Livingstone Shire local government area;
- (2) existing and future employee numbers, and non-residential floor space in the Livingstone Shire local government area; and
- (3) the type, scale, location and timing of development including the associated anticipated demand for each trunk infrastructure network.

3.0 Planning Assumption and Projection Parameters

- (a) To align with Australian Bureau of Statistics census years and statutory requirements, a base year of 2021 and the following projection years were used:
 - (a) mid-year 2026;
 - (b) mid-year 2031;
 - (c) mid-year 2036; and
 - (d) mid-year 2041.
- (b) Broad population projection areas are the Livingstone Local Government Area and Statistical Area Level 2 (SA2) boundaries within the Livingstone Shire Local Government Area. The SA2 boundaries are based on the Australian Statistical Geography Standard. The SA2 projection areas included the following:
 - (a) Emu Park;
 - (b) Glenlee-Rockyview;
 - (c) Rockhampton Surrounds – East;
 - (d) Rockhampton Surrounds – North;
 - (e) Shoalwater Bay; and
 - (f) Yeppoon.
- (c) Development projections were made based on Medium Series population projections.
- (d) Development projections were made using the residential and non-residential reporting categories and broad development types identified in Table 1 – Relationship between LGIP development category, LGIP development type, and planning scheme land use terms. The reporting categories and development types are an aggregation of Livingstone Planning Scheme 2018 Version 3 land use terms.
- (e) The Livingstone Planning Scheme 2018 Version 3 was the local planning instrument which contained the main parameters used for making assumptions about current and future land use, current and future LGIP development types, development density, development constraints, and developable area for land parcels.
- (f) Ultimate development assumptions were made for relevant parcels of land. Ultimate development was considered to be the realistic extent of development achievable when the parcel is fully developed (within the parameter of the Livingstone Shire Planning Scheme V3). The ultimate development assumptions were made for parcels allocated to a planning scheme zone if the zone was an urban zone which predominantly provides for current or future urban purposes. Ultimate development assumptions were also made for parcels in the Rural Residential Zone, the Township Zone, and land parcels having a current Development Approval for urban development.

Table 1 – Relationship between LGIP development category, LGIP development type, and planning scheme land use terms

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Planning Scheme Land Use Terms
Residential development	Single dwelling	Caretakers accommodation Dual occupancy Dwelling house
	Multiple dwelling	Hotel (accommodation component) Multiple dwelling Relocatable home park Retirement facility Rooming accommodation Short-term accommodation
	Other dwelling	Community residence Dwelling unit Nature based tourism (accommodation component) Non-resident workforce accommodation Resort complex (accommodation component) Rural workers' accommodation Tourist park (accommodation component)
Non-residential development	Commercial	Commercial (Bulk Goods and Supplies): <ul style="list-style-type: none"> • Agricultural supplies store • Bulk landscape supplies • Garden centre • Hardware and trade supplies • Outdoor sales • Showroom Commercial (Office): <ul style="list-style-type: none"> • Office • Sales office
	Retail	Adult store Bar Food and drink outlet Resort complex (retail component) Service industry Service station Shop Shopping centre
	Industrial	High impact industry Low impact industry

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Planning Scheme Land Use Terms
		<p>Marine industry Medium impact industry Research and technology industry Special industry Warehouse</p> <p>Industrial (Rural):</p> <ul style="list-style-type: none"> • Animal husbandry • Aquaculture • Cropping • Extractive industry • Permanent plantation • Intensive animal industry • Intensive horticulture • Rural industry • Wholesale nursery • Winery
	Community	<p>Places of Assembly:</p> <ul style="list-style-type: none"> • Child care centre • Club • Community care centre • Community use • Educational establishment • Function facility • Funeral parlour • Place of worship <p>Entertainment:</p> <ul style="list-style-type: none"> • Hotel • Nightclub entertainment facility • Theatre <p>Sport and Recreation:</p> <ul style="list-style-type: none"> • Indoor sport and recreation • Outdoor sport and recreation • Nature based tourism (recreation tourism component) <p>Essential Services:</p> <ul style="list-style-type: none"> • Detention facility

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Planning Scheme Land Use Terms
		<ul style="list-style-type: none"> • Emergency services • Health care services • Hospital • Residential care facility • Veterinary services
	Other	<p>Specialised uses</p> <ul style="list-style-type: none"> • Air services • Brothel • Car wash • Crematorium • Home based business • Major sport, recreation and entertainment facility • Market • Motor sport facility • Port services • Renewable energy facility • Tourist attraction • Transport depot • Utility installation (major utilities) <p>Minor Uses</p> <ul style="list-style-type: none"> • Cemetery • Environment facility • Landing • Major electricity infrastructure • Outstation • Park • Parking station • Roadside stall • Substation • Telecommunications facility • Utility Installation (minor utilities)

4.0 Methodology

Numerous planning assumptions were made to support the development of the Local Government Infrastructure Plan. The broad process can be summarised under the following headings:

- (1) Development Projections;
 - (a) Population Projections;

- (b) Dwelling Demand Projections;
- (c) Employment Projections;
- (d) Non-residential Floor Space Demand Projections;
- (2) Land Use Analysis and Assumptions;
 - (a) Existing Land Use;
 - (b) Future Land Use;
- (3) Development Capacity Analysis and Assumptions;
- (4) Development Sequencing Analysis and Assumptions;
- (5) Infrastructure Analysis and Assumptions;
 - (a) Desired Standards or Service;
 - (b) Infrastructure Demand Conversions;
 - (c) Existing Infrastructure Capacity;
 - (d) Infrastructure Cost Effectiveness and Efficiency;
- (6) Priority Infrastructure Area Determination.

Council's Geographic Information System was an important tool for managing, analysing, processing, and recording information while undertaking work associated with headings two to six above. This process resulted in an update to Council's Geographic Information System parcel-based Planning Assumptions Model in the year 2021 (referred to as the Livingstone Shire Council PAM2021). The Livingstone Shire Council PAM2021 records various planning assumptions and outputs that underpin and assist with making updates to the Local Government Infrastructure Plan.

A large amount of data shown in various tables in this report was extracted from the LSCPAM2021 and converted to Microsoft excel format. Due to rounding, numbers represented in tables may not add up precisely with the output from the LSCPAM2021v5.

A summary of the process and planning assumptions is provided in Section 4.1 through to Section 4.6 of this report. A detailed summary regarding the Infrastructure Analysis and Assumptions is contained in separate infrastructure network summary reports.

4.1 Development Projections

4.1.1 Population Projections

- (1) Broad population projections were made by the Queensland Government Statisticians Office for Statistical Area Level 2 (SA2) boundaries within the Local Government Area of the Livingstone Shire.
- (2) The assumption underpinning the Livingstone Shire Council Local Government Infrastructure Plan is that population growth over the planning horizon accords with the medium series population projections made by the Queensland Government Statisticians Office.
- (3) The broad population projections by Statistical Area Level 2 (SA2) boundaries within the Local Government Area of the Livingstone Shire are stated in Table 2 - Population Projections for the Livingstone Shire SA2 Projection Areas.
- (4) The total population projections for the Livingstone Shire Local Government Area are stated in Table 3 - Population Projections for the Livingstone Shire Local Government Area.

Table 2 - Population Projections for the Livingstone Shire SA2 Projection Areas

Column 1 Description – Projection Area	Column 2 Assumptions - Population per SA2 Projection Areas				
	Base date 2021 (30 June)	2026	2031	2036	2041
SA2 - Emu Park	5,837	6,496	7,306	8,194	9,118

Column 1 Description – Projection Area	Column 2 Assumptions - Population per SA2 Projection Areas				
	Base date 2021 (30 June)	2026	2031	2036	2041
Change from previous period	-	+659	+810	+888	+924
SA2 - Glenlee- Rockyview	5,286	5,761	6,256	6,738	7,172
Change from previous period	-	+475	+495	+482	+434
SA2 - Rockhampton Surrounds - East	3,533	3,800	3,989	4,195	4,396
Change from previous period	-	+267	+189	+206	+201
SA2 - Rockhampton Surrounds - North	4,628	4,766	4,814	4,881	4,976
Change from previous period	-	+138	+48	+67	+95
SA2 - Shoalwater Bay	22	22	22	22	22
Change from previous period	-	-	-	-	-
SA2 - Yeppoon	20,575	23,297	27,091	30,667	33,783
Change from previous period	-	+2,722	+3,794	+3,576	+3,116

Table 3 - Population Projections for the Livingstone Shire Local Government Area

Column 1 Description - Projection Area	Column 2 Assumptions - Population per Local Government Area Total				
	Base date 2021 (30 June)	2026	2031	2036	2041
LGA - Livingstone Shire	39,881	44,143	49,479	54,697	59,467
Change from previous period	-	+4,262	+5,336	+5,218	+4,770

4.1.2 Dwelling Demand Projections

- (1) The assumed dwelling type mix for the Livingstone Shire Local Government area was that which is stated in Table 4 - Dwelling Type Mix in the Livingstone Shire Local Government Area.
- (2) The assumed dwelling type estimated resident person conversion rate was that which is stated in Table 5 - Dwelling Type Estimated Resident Person Conversion Rate in the Livingstone Shire Local Government Area.

- (3) Dwelling demand projections by dwelling type are stated in Table 6 - Dwelling Demand Projections by Dwelling Type in the Livingstone Shire Local Government Area.
- (4) Dwelling demand projections by dwelling type were made based on the projected population in Table 3 - Population Projections in the Livingstone Shire Local Government Area, the assumed dwelling type mix stated in Table 4 - Dwelling Type Mixture in the Livingstone Shire Local Government Area, and the dwelling type estimated resident person conversion rates stated in Table 5 - Dwelling Type Estimated Resident Person Conversion Rate in the Livingstone Shire Local Government Area.

Table 4 - Dwelling Type Mix in the Livingstone Shire Local Government Area

Column 1 Description - Dwelling Type	Column 2 Assumptions - Dwelling Type Mixture - Yeppoon SA2, Emu Park SA2	Column 3 Assumptions - Dwelling Type Mixture - Other SA2
Single Dwelling	86%	100%
Multiple Dwelling	6%	-
Other Dwelling	8%	-

Table 5 - Dwelling Type Estimated Resident Person Conversion Rate in the Livingstone Shire Local Government Area

Column 1 Description - Dwelling Type	Column 2 Assumptions - Persons per Dwelling Type
Single Dwelling	2.7
Multiple Dwelling	1.6
Other Dwelling	1.6

Table 6 - Dwelling Demand Projections by Dwelling Type for the Livingstone Shire Local Government Area

Column 1 Description – Dwelling Type	Column 2 Assumptions - Dwelling Demand per Dwelling Type			
	2026	2031	2036	2041
Single Dwelling	1,721	1,974	1,957	1,820
Multiple Dwelling	79	108	104	94
Other Dwelling	105	144	141	126

Note: The figures shown in Table 6 represent an assumed 5-year period dwelling demand. The figures are a total of the dwelling demand projections for each Statistical Area within the Livingstone Shire Local Government Area.

4.1.3 Employment Projections

- (1) The assumed employment rate of the Livingstone Shire Local Government Area was thirty-two (32) percent.
- (2) The assumed employment type mix for the Livingstone Shire Local Government Area was that which is stated in Table 7 - Employment Type Mix in the Livingstone Shire Local Government Area.
- (3) Employment projections for the Livingstone Shire Local Government Area are stated in Table 8 - Employment Projections in the Livingstone Shire Local Government Area.
- (4) Employment projections for the Livingstone Shire Local Government Area were made by multiplying the projected population in Table 3 - Population

Projections in the Livingstone Shire Local Government Area by the assumed employment rate of thirty-two (32) percent.

- (5) Employment projections categorised by employment type are stated in Table 9 - Employment Projections by Employment Type in the Livingstone Shire Local Government Area.
- (6) Employment projections categorised by employment type were made by multiplying the employment projections stated in Table 8 - Employment Projections in the Livingstone Shire Local Government Area, by the assumed employment type percentages stated in Table 7 - Employment Type Mixture in the Livingstone Shire Local Government Area.

Table 7 - Employment Type Mix in the Livingstone Shire Local Government Area

Column 1 Description - Employment Type	Column 2 Assumptions - Broad LGA Employment Type Mixture	Column 3 Assumptions - LGA Employment Sub-Type Mixture
Commercial	15%	Commercial (Bulk Goods & Supplies) <ul style="list-style-type: none"> • 5% Commercial (Office) <ul style="list-style-type: none"> • 10%
Retail	20%	-
Industrial	20%	Industrial (Urban): <ul style="list-style-type: none"> • 10% Industrial (Rural): <ul style="list-style-type: none"> • 10%
Community	30%	Community (Non-Accommodation): <ul style="list-style-type: none"> • 25% Community (Accommodation): <ul style="list-style-type: none"> • 5%
Other	15%	-

Table 8 - Employment Projections in the Livingstone Shire Local Government Area

Column 1 Description - Projection Area	Column 2 Assumptions – Employed Persons				
	Base date 2021 (30 June)	2026	2031	2036	2041
LGA - Livingstone Shire	12,762	14,126	15,833	17,503	20,283

Table 9 - Employment Projections by Employment Type in the Livingstone Shire Local Government Area

Column 1 Description - Employment Type or Sub-Type	Column 2 Assumptions – Employed Persons				
	Base date 2021 (30 June)	2026	2031	2036	2041
Commercial (Bulk Goods & Supplies)	638	706	792	875	1,014
Commercial (Office)	1,276	1,412	1,584	1,750	2,028
Retail	2,552	2,825	3,167	3,501	4,057

Column 1 Description - Employment Type or Sub-Type	Column 2 Assumptions – Employed Persons				
	Base date 2021 (30 June)	2026	2031	2036	2041
Industrial (Urban)	1,276	1,412	1,584	1,750	2,028
Industrial (Rural)	1,276	1,412	1,584	1,750	2,028
Community (Non-Accommodation)	3,191	3,532	3,958	4,375	5,071
Community (Accommodation)	638	706	792	875	1,014
Other	1,914	2,119	2,375	2,625	3,042

4.1.4 Non-residential Floor Space Demand Projections

- (1) The assumed conversion rates for calculating non-residential floor space demand, based on employment type, were those stated in Table 10 - Employment Type Gross Floor Area Conversion Rate in the Livingstone Shire Local Government Area.
- (2) Non-residential floor space demand projections are stated in Table 11 – Gross Floor Area Demand Projections by Employment Type in the Livingstone Shire Local Government Area.
- (3) Non-residential floor space demand projections were made by multiplying the employment projections by employment type in Table 9 - Employment Projections by Employment Type in the Livingstone Shire Local Government Area by the conversion rates stated in Table 10 - Employment Type Gross Floor Area Conversion Rate in the Livingstone Shire Local Government Area.

Table 10 - Employment Type Gross Floor Area Conversion Rate in the Livingstone Shire Local Government Area

Column 1 Description - Employment Type	Column 2 Assumptions - Persons Employed per Gross Floor Area per Employment Type	Column 2 Assumptions - Persons Employed per Gross Floor Area per Employment Sub- Type
Commercial	-	Commercial (Bulk Goods & Supplies) • 1 employee / 50 m ² Commercial (Office) • 1 employee / 25 m ²
Retail	1 employee / 35 m ²	-
Industrial	1 employee / 100 m ²	-
Community	1 employee / 80 m ²	-
Other	1 employee / 40 m ²	-

Table 11 – Gross Floor Area Demand Projections by Employment Type in the Livingstone Shire Local Government Area

Column 1 Description - Employment Type or Sub- Type	Column 2 Assumptions – Gross Floor Area (m ²)				
	Base date 2021 (30 June)	2026	2031	2036	2041
Commercial (Bulk Goods & Supplies)	31,900	35,300	39,600	43,750	50,700
Commercial (Office)	31,900	35,300	39,600	43,750	50,700
Retail	89,320	98,875	110,845	122,535	141,995
Industrial (Urban)	127,600	141,200	158,400	175,000	202,800
Industrial (Rural)	127,600	141,200	158,400	175,000	202,800
Community (Non-Accommodation)	255,280	282,560	316,640	350,000	405,680
Community (Accommodation)	51,040	56,480	63,360	70,000	81,120
Other	76,560	84,760	95,000	105,000	121,680

4.2 Land Use Analysis and Assumptions

Various information sources were analysed to make an assumption about the existing use and future use of each parcel of land in the Livingstone Shire Local Government Area. Information sources which were analysed included the following:

- (1) Livingstone Shire Council, GIS Property Database, General Rate Category Land Use Descriptions as at 2021;
- (2) Digital Aerial Imagery as at 2020, State of Queensland, Department of Resources, Spatial Imagery Subscription Plan;
- (3) Digital Aerial Imagery as at 2021, Nearmap Australia;
- (4) Panoramic Photography as at 2020, Google Streetview;
- (5) Records of Development Permits for Material Change of Use, Livingstone Shire Council Local Government Area, Livingstone Shire Council;
- (6) Records of Development Permits for Reconfiguring a Lot, Livingstone Shire Council Local Government Area, Livingstone Shire Council;
- (7) Records of Variation Approvals, Livingstone Shire Council Local Government Area, Livingstone Shire Council;
- (8) Council officer local knowledge; and
- (9) Livingstone Planning Scheme 2018 Version 3.

4.2.1 Existing Land Use Analysis and Assumptions

An assumption was made about the land use conducted on each parcel in the model. Each parcel in the Livingstone Shire Council PAM2021 was given a description based on the land use terms of the Livingstone Planning Scheme 2018, or where not suitable, an alternative term was allocated. These terms were then converted to a broader best fit land use term which enables other assumptions to be made and enables reporting for Local Government Infrastructure Plan purposes.

Making assumptions about the existing use of each parcel provides a base for making an assumption about the existing supply and capacity for dwellings, population, non-residential floor area and employed persons. Making assumptions about existing land use also enables further assumptions to be made about which

parcels have achieved ultimate development and which parcels have further capacity to cater for additional development in the future.

4.2.2 Future Land Use Analysis and Assumptions

Output from the Existing Land Use Analysis and Assumptions was considered. The Livingstone Planning Scheme 2018 Version 3 was then analysed to determine the planning scheme intent and preferences for land use in the Local Government Area. An assumption was made, and each parcel in the Livingstone Shire Council PAM2021 was allocated a best fit land use term which represents a realistic future land use on the parcel (within the framework of the current planning scheme). These terms were then converted to a broader best fit land use term which enables other assumptions to be made and enables reporting for Local Government Infrastructure Plan purposes. An outline of the approach taken to make assumptions about future land use is stated in Table 12 – Outline of Future Land Use Type Assumptions.

Making assumptions about the future use of each parcel provides a base for making assumptions about the future type and number of dwellings, future population, future non-residential development and future employment that can be accommodated. Making assumptions about future land use also enables further assumptions to be made about which parcels likely have achieved ultimate development and which parcels have capacity to cater for additional development in the future.

Table 12 – Outline of Future Land Use Type Assumptions

Column 1 Description - Planning Scheme Zone	Column 2 Assumptions - Predominant Future Land Use Type
Low Density Residential	Single Dwellings.
Low-medium Density Residential	Single Dwellings.
Medium Density Residential	<ul style="list-style-type: none"> For vacant land, the future land use was assumed to be Multiple Dwellings. For parcels having an existing Single Dwelling and an unconstrained area $\geq 2,000 \text{ m}^2$ the future land use was assumed to be Multiple Dwellings. For parcels having an existing Single Dwelling and an unconstrained area $< 2,000 \text{ m}^2$ the future land use was assumed to be a Single Dwelling.
Medium Density Residential (if in the Rosslyn Bay Accommodation Precinct)	Multiple Dwellings.
Emerging Community (if the predominant land use was considered likely to be or is known to be consistent with a residential category zone)	<ul style="list-style-type: none"> For smaller parcels (unconstrained area $< 10,000 \text{ m}^2$) the future land use was assumed to be Single Dwellings; For larger parcels (unconstrained area $\geq 10,000 \text{ m}^2$) the future land use was identified as Emerging Community Residential which was assumed to be as follows: <ul style="list-style-type: none"> 95% of the unconstrained land area of the parcel develops as Single Dwellings; and 5% of the unconstrained land area of the parcel develops as Multiple Dwellings.

Column 1 Description - Planning Scheme Zone	Column 2 Assumptions - Predominant Future Land Use Type
Emerging Community (if located in the Seaspray Local Plan Area)	<ul style="list-style-type: none"> Where located in the LPP-01 Seaspray Residential Low Density Local Plan Precinct, the future land use was predominantly assumed to be Single Dwellings. Where located in the LPP-02 Seaspray Residential Medium Density Local Plan Precinct, the future land use was predominantly assumed to be Multiple Dwellings.
Rural Residential (Park Residential Precinct)	Single Dwellings.
Rural Residential (Not Park Residential Precinct)	Single Dwellings.
Township	Single Dwellings.
Low Impact Industry	Industrial.
Medium Impact Industry	Industrial.
Emerging Community (The Gateway Industrial Estate)	Industrial.
Specialised Centre	Commercial (Bulk Goods and Supplies).
Special Purpose (if in the Rosslyn Bay Precinct)	The sub-precincts of the Special Purpose Zone and Rosslyn Harbour Precinct at this location were translated to the most suitably aligned non-residential development types of Retail, Industrial, Other, or Community.
Major Centre (Yeppoon) District Centre (none currently) Local Centre (Emu Park) Note: In the Livingstone Shire Council PAM2021, the zones identified above were all identified as a Major Centre. A major centre was comprised of a specific land use mix, which was determined based on a review of approvals and a survey of the existing land uses in these centres.	The ultimate future land use was assumed to be as follows: <ul style="list-style-type: none"> Ground level and the Storey 1 comprised of a mix of Retail, Commercial, and Community uses at the following percentages: Retail (60%), Commercial (Office) (20%), and Community (20%); Storey 3 or above as Multiple Dwellings.
Emerging Community (District Centre) Notes: The Livingstone Planning Scheme 2018 emerging community zone provides opportunities for master planned communities containing a mix of residential development types plus other non-residential uses. The Strategic Framework identifies general locations for the development of a District Centre. Strategically identified potential District Centres have been considered and included at sites in the Livingstone Shire Council PAM2021. Allocation of a District Centre to a parcel accounted for the loss of the equivalent Single Dwellings which might otherwise develop.	A District Centre was assumed to be comprised of mix of Retail, Commercial, and Community uses at the following percentages: Retail (60%), Commercial (Office) (20%), and Community (20%).
Neighbourhood Centre Note: In the Livingstone Shire Council PAM2021, the Neighbourhood Centre Zone was identified as a Minor Centre. A minor centre was comprised of a specific land use mix, which was determined based on a review of approvals and a survey of the existing land uses in these centres.	A Neighbourhood Centre was assumed to be comprised of a mix of Retail and Community uses at the following percentages: Retail (80%) and Community (20%).
Emerging Community (Neighbourhood Centre)	A Neighbourhood Centre was assumed to be comprised of a mix of Retail and Community

Column 1 Description - Planning Scheme Zone	Column 2 Assumptions - Predominant Future Land Use Type
<p>Notes: The Livingstone Planning Scheme 2018 emerging community zone provides opportunities for master planned communities containing a mix of residential development types plus other non-residential uses. The Strategic Framework identifies general locations for the development of neighbourhood centres.</p> <p>Strategically identified potential neighbourhood centres have been considered and included at sites in the Livingstone Shire Council PAM2021. Allocation of a Minor Centre to a parcel accounted for the loss of the equivalent Single Dwellings which might otherwise develop.</p>	<p>uses at the following percentages: Retail (80%) and Community (20%).</p>
<p>Rural</p>	<p>The future land use was predominantly identified as Rural which was assumed to be Industrial (Rural) land use types. In circumstances where other non-residential land use types exist, the future land use was assumed to be the existing land use. Parcels were translated to the most suitably aligned non-residential land use types of Retail, Commercial, Industrial, Other, or Community.</p>
<p>Other zones such as the following:</p> <ul style="list-style-type: none"> • Community Facilities • Special Purpose • Sport and Recreation • Open Space 	<p>As per the assumed existing land use. Parcels were translated to the most suitably aligned non-residential land use types of Retail, Commercial, Industrial, Other, or Community.</p>
<p>Notes:</p> <p>With regard to the Rural Zone, although Single Dwellings exist on many parcels and additional new dwellings may develop in the Rural Zone on some existing vacant parcels in the future (hence an ability to accommodate some future residential growth), this growth was not considered significant for urban growth trunk infrastructure planning purposes. Consequently, Rural zoned parcels were predominantly assumed to host Rural activities as the primary land use in the future and therefore they were allocated in the PAM2021 as Rural.</p> <p>With regard to all zones:</p> <ul style="list-style-type: none"> • Despite the broad assumptions for development located within specific planning scheme zones, if there was an existing land use which was generally inconsistent with the planning scheme zone or it was arguably of a higher order nature or it was developed at a higher density than the current planning scheme codes prefer, then the future land use was assumed to remain the same as the existing land use. • If the parcel was assumed to have a low likelihood of accommodating urban residential development types or urban non-residential development types, the parcels were allocated alternative land use descriptions in the PAM2021. This ensures that no growth is assigned where it is unrealistic. <p>Examples:</p> <ol style="list-style-type: none"> 1. If an existing non-residential development type such as Commercial, Retail, Other, Community, or Industrial was located within a residential category zone or a rural residential zone, then the future land use was assumed to remain the same as the existing land use. 2. If an existing residential development type such as Multiple Dwelling or Other Dwelling was located within a low density residential zone or low-medium density residential zone, then the future land use was assumed to remain the same as the existing land use. 3. If a parcel was identified as a base parcel in a community title scheme, then parcel was identified as a 'base parcel' with no assumed future growth potential. 4. If a parcel was identified as being constrained or impeded in a way that makes future growth difficult (such as group or community title parcels, access restriction strips, easements or covenants, stormwater management parcels, environmental management and conservation parcels), then the parcel was identified as 'Constraint/Impediment' with no assumed future growth potential. 5. If the parcel was identified as being for the purpose of minor uses from an employment generation perspective (such as a landing, pump station, electricity transformer, water reservoir, cemetery, environment facility, electrical substation, outbuildings titled separately), then the parcel was identified as 'Minor' with no assumed future growth potential. 	

4.3 Development Capacity Analysis and Assumptions

4.3.1 Background

The Development Capacity Analysis involved making assumptions about the capacity of parcels of land to accommodate urban development via the supply of different dwelling types or via the supply of Gross Floor Area for different employment land use types. The capacity of each parcel to accommodate new or additional development is determined after considering the Livingstone Planning Scheme 2018, current development approvals, and other relevant planning and development matters.

The Development Capacity Analysis involved the following actions which are outlined in Section 4.3.2 to Section 4.3.5:

- (1) Development Constraint Analysis and Assumptions;
- (2) Development Density Analysis and Assumptions;
- (3) Development Approvals Analysis and Assumptions; and
- (4) Ultimate Development Assumptions.

4.3.2 Development Constraint Analysis and Assumptions

The Development Constraint Analysis considered absolute constraints and other partial constraints which affect the capacity of each parcel of land to provide for development. Information sources included the Livingstone Planning Scheme 2018 (assessment criteria and overlay maps), other Council spatial layers of relevance in the Geographic Information System, and the Digital Cadastral Database for the Livingstone Shire.

4.3.2.1 Planning Scheme Constraints

Planning scheme related constraint assumptions provide a basis to make further assumptions about the capacity of each parcel to accommodate additional development. The Livingstone Shire Council PAM2021 took into account an array of absolute and partial constraints.

Livingstone Planning Scheme 2018 Version 3 assessment criteria and GIS based spatial constraint layers were analysed to enable assumptions to be made about absolute and partial constraints for development. Constraints were categorised and combined to create new GIS constraint layers for the entire Livingstone Shire Local Government Area. The created GIS constraint layers consisted of the following categories: 100% Constrained, 50% Constrained, 30% Constrained, and 0% Constrained.

Assumptions regarding planning scheme related constraints were as follows:

- (1) The constraint features assumed to be a one-hundred (100) percent constraint on development are stated in Table 13 – Development Constraint Features (100% Constraint).
- (2) The constraint features assumed to be a fifty (50) percent constraint on development are stated in Table 14 – Development Constraint Features (50% Constraint).
- (3) The constraint features assumed to be a thirty (30) percent constraint on development are stated in Table 15 – Development Constraint Features (30% Constraint).
- (4) Where constraint layers overlap, the higher order constraint becomes the determining constraint layer.

Table 13 – Development Constraint Features (100% Constraint)

Column 1 Description - Constraint Feature	Column 2 Assumptions - Constraint Percentage
MSES – Declared Fish Habitat Area	100% Constraint
MSES - Wildlife Habitat. Includes Endangered or Vulnerable Wildlife.	100% Constraint
MSES - Regulated Vegetation. Includes Category B Endangered or Of Concern Vegetation.	100% Constraint
MSES – Marine Park. Includes Marine Park – Highly Protected Zones.	100% Constraint
MSES – Protected Area. Includes Protected Area Nature Refuges and Protected Area Estates.	100% Constraint
MSES – High Ecological Value Waters	100% Constraint
MSES – High Ecological Value Waters (Wetland). Includes	100% Constraint
MSES – High Ecological Significant Wetlands	100% Constraint
Wildlife Habitat – Special Least Concern Animal	100% Constraint
Regulated Vegetation - 100 metres from Wetlands	100% constraint
Regulated Vegetation - Category C Endangered or Of Concern	100% constraint
MLES – Wetlands	100% Constraint
Stream Order 1 & 2 plus a separation buffer area	100% Constraint
Stream Order 3 & 4 plus a separation buffer area	100% Constraint
Stream Order 5+ plus a separation buffer area	100% Constraint
Coastal Hazard Area – Storm Tide Hazard Area (excluding approved major developed sites)	100% constraint
Key Resource Area – Resource and Processing Area	100% constraint
Key Resource Area – Separation Area	100% constraint
Historic, current, or potential mining and extractive resource	100% constraint
Flood Hazard Area Fitzroy River	100% constraint
Landslide Hazard Area where slope was 25% or more	100% constraint.
Major Electricity Infrastructure plus a 30 metre separation buffer area	100% constraint
Stock Route	100% constraint
Local Heritage Sites	100% constraint
State Heritage Sites	100% constraint
Yeppoon Landfill plus a 500 metre separation buffer area for sensitive land use	100% constraint
Medium Impact Industry Zone plus a 250 metre separation buffer area for sensitive land use	100% constraint
Mine Areas	100% constraint
MLES - Vegetation and Habitat within Local Biodiversity Corridor. The corridor is comprised of the vegetation and habitat layer where within 25 metres of identified local corridors.	100% constraint
MLES – Vegetation and Habitat within Regional Biodiversity Corridor. The corridor is comprised of the vegetation and habitat layer where within 250 metres of identified regional corridors.	100% constraint

Table 14 – Development Constraint Features (50% Constraint)

Column 1 Description - Constraint Feature	Column 2 Assumptions - Constraint Percentage
Identified TUFLOW ARI100 Modelled Areas	50% constraint

Table 15 – Development Constraint Features (30% Constraint)

Column 1 Description - Constraint Feature	Column 2 Assumptions - Constraint Percentage
MLES - Habitat & Vegetation	30% constraint

4.3.2.2 Road, stormwater management, and park allocation

Road, stormwater management and park allocation assumptions provide a basis to make further assumptions about the capacity of each parcel to accommodate urban development.

The Livingstone Shire Council PAM2021 took into account an allocation of land for road, stormwater management and park allocation for development in different circumstances. The percentage of a parcel that was assumed to be needed for roads, stormwater management and park was consistent with development that has occurred in the Livingstone Shire. This was confirmed by a review of the GIS Digital Cadastral Database and the use of GIS geoprocessing tools for a selection of areas in the Livingstone Shire.

Assumptions regarding roads, stormwater management and park were as follows:

- (1) The percentage of a parcel needed for road, stormwater management, and park was assumed to be dependent on the parcel size in specific zones, and the characteristics of the parcel and its surrounds.
- (2) It was assumed that smaller parcels predominantly exist in infill development areas that have existing roads, stormwater management infrastructure and park, and they are unlikely to require additional allocation for these purposes.
- (3) The rates for parcels assumed to require an allocation for new road, stormwater management or park purposes were those stated in Table 16 – Road, stormwater management and park allocation.

Table 16 – Road, stormwater management and park allocation assumptions

Column 1 Description - Planning Scheme Zone and Parcel Size	Column 2 Assumptions - Parcel Percentage Needed for Road, Stormwater Management and Park	Column 3 Assumptions - Parcel Percentage available for development net of road, stormwater management and park
Low Density Residential • Applied to Large Parcels ($\geq 5,000 \text{ m}^2$)	35%	65%
Low-medium Density Residential • Applied to Large Parcels ($\geq 5,000 \text{ m}^2$)	35%	65%
Medium Density Residential • Applied to Large Parcels ($\geq 5,000 \text{ m}^2$)	35%	65%
Emerging Community (if the predominant land use is likely to be or is known to be consistent with a residential category zone)	35%	65%

Column 1 Description - Planning Scheme Zone and Parcel Size	Column 2 Assumptions - Parcel Percentage Needed for Road, Stormwater Management and Park	Column 3 Assumptions - Parcel Percentage available for development net of road, stormwater management and park
<ul style="list-style-type: none"> Applied to Large Parcels ($\geq 5,000 \text{ m}^2$) <p>Examples: The Pines Residential Estate, Seahaven Residential Estate, Seaspray Residential Estate, West Emu Park.</p>		
Low Impact Industry <ul style="list-style-type: none"> Applied to Large Parcels ($\geq 5,000 \text{ m}^2$) 	20%	80%
Medium Impact Industry <ul style="list-style-type: none"> Applied to Large Parcels ($\geq 5,000 \text{ m}^2$) 	20%	80%
Specialised Centre <ul style="list-style-type: none"> Applied to Large Parcels ($\geq 10,000 \text{ m}^2$) 	20%	80%
Emerging Community (if the predominant land use is likely to be or is known to be consistent with an industrial category zone) <ul style="list-style-type: none"> Applied to Large Parcels ($\geq 5,000 \text{ m}^2$) <p>Example: The Gateway Industrial Estate.</p>	20%	80%
Rural Residential (General Precinct) <ul style="list-style-type: none"> Applied to Large Parcels ($\geq 20,000 \text{ m}^2$) 	20%	80%
Rural Residential (Park Residential) <ul style="list-style-type: none"> Applied to Large Parcels ($\geq 20,000 \text{ m}^2$) 	20%	80%
Township	20%	80%
Centre Category Zones <ul style="list-style-type: none"> Applied to Large Parcels ($\geq 5,000 \text{ m}^2$) 	30%	70%
Other Urban Zones	30%	70%

4.3.3 Development Density Analysis and Assumptions

Density assumptions provide a basis to make further assumptions about the capacity of each parcel to accommodate urban development. The Livingstone Shire Council PAM2021 took into account realistic densities for development in different circumstances. Development density assumptions were made after consideration was given to the provisions of the Livingstone Planning Scheme 2018 Version 3 and consideration was given to development trends and current development approvals in the Livingstone Shire.

Assumptions regarding development density were as follows:

- (1) The assumed dwelling type sizes were those which are stated in Table 17 – Dwelling Type Size Assumptions.
- (2) The assumed densities of dwelling development for different areas within the Local Government Area were predominantly those which are stated in Table 18 – Dwelling Density Assumptions.

- (3) The assumed densities of non-residential development for different areas within the Local Government Area were those which are stated in Table 19 – Non-residential Development Density Assumptions.

Table 17 – Dwelling Type Size Assumptions

Column 1 Description - Dwelling Type	Column 2 Assumptions - Standard Dwelling Size (number of bedrooms) per Dwelling Type
Single Dwelling	3 bedrooms
Multiple Dwelling	2 bedrooms
Other Dwelling	2 bedrooms
<p>Notes:</p> <ul style="list-style-type: none"> In the circumstance where a Multiple Dwelling or Other Dwelling was known to be comprised of dwelling sizes that were substantially different to the standard sizes above, then the development was translated as accurately as practicable to an equivalent number of dwellings based on the standard sizes. Each dwelling house was considered to be the Standard Single Dwelling size. <p>Example:</p> <ul style="list-style-type: none"> A Multiple Dwelling comprised of twenty (20) dwellings each having one (1) bedroom, was identified as being equivalent to ten (10) standard Multiple Dwellings. 	

Table 18 – Dwelling Density Assumptions

Column 1 Description - Planning Scheme Zone	Column 2 Assumptions - Dwelling Density (net of roads, stormwater management, parks)
Low Density Residential	15.38 single dwellings per hectare. Note: Refer additional notes at the end of this table.
Low-medium Density Residential	22.22 single dwellings per hectare. Note: Refer additional notes at the end of this table.
Medium Density Residential	40 multiple dwellings per hectare. Note: The density was only applied to vacant parcels or larger parcels containing an existing single dwelling. It was assumed that only these lots have any near term potential and likelihood for viable intensification for multiple dwelling development.
Medium Density Residential (if in the Rosslyn Bay Accommodation Precinct)	<p>Density assumptions for residential zone precincts were as follows:</p> <ul style="list-style-type: none"> Despite parcel size, no allocation for public roads, stormwater management or park. Site cover for multiple dwelling habitable area portion of building = 50%. Average size of multiple dwelling by floor area = 120 m². Building heights as per planning scheme Figure 6.7.3.4.1.3 – Rosslyn Bay Height Limits (with the exception being areas mapped as a storm tide hazard area). Building storey = 3 metres. In areas mapped as a storm tide hazard area, a loss of two (2) storeys of building height (potential use for car parking and other appropriate non-residential
<p>Notes:</p> <p>The Rosslyn Bay Accommodation Precinct contains greater building height limits than other Medium Density Zoned areas and a far greater dwelling density is achievable. Parcel specific density assumptions were made at this location.</p>	

Column 1 Description - Planning Scheme Zone	Column 2 Assumptions - Dwelling Density (net of roads, stormwater management, parks)
	development) to ensure habitable floor levels satisfy with planning scheme requirements.
<p>Emerging Community (if the predominant land use is likely to be or is known to be consistent with a residential category zone)</p> <p>Note: The ratio of single dwelling to multiple dwelling in the master planned communities approved in the Livingstone Shire vary. A conservative mix of 95% of the land area being Single Dwellings and 5% of the land area being Multiple Dwellings.</p>	<ul style="list-style-type: none"> • Smaller parcels (unconstrained area <10,000 m²) in the Emerging Community Zone develop at a Low Density Residential Zone density of 15.38 single dwellings per hectare. • Larger parcels (unconstrained area ≥10,000 m²) in the Emerging Community Zone develop as follows: <ul style="list-style-type: none"> ○ 95% of the unconstrained land area of the parcel develops at 15.38 single dwellings per hectare; and ○ 5% of the unconstrained land area of the parcel develops at 40 multiple dwellings per hectare. <p>Note: Refer additional notes at the end of this table.</p>
<p>Emerging Community (if located in the Seaspray Local Plan Area)</p> <p>Note: The Seaspray Local Plan Area has locally relevant planning scheme provisions for the assessment of development within the Seaspray residential neighbourhood. In the Seaspray Local Plan Area there are two local plan precincts where the intent is for residential development.</p>	<p>Where located in the LPP-01 Seaspray Residential Low Density Local Plan Precinct:</p> <ul style="list-style-type: none"> • Development within the residential development type of Single Dwelling develops at a density of 15.38 single dwellings per hectare. <p>Where located in the LPP-02 Seaspray Residential Medium Density Local Plan Precinct:</p> <ul style="list-style-type: none"> • Development within the residential development type of Multiple Dwelling develops at a density of 40 multiple dwellings per hectare.
Rural Residential (Park Residential Precinct)	2.5 Single Dwellings per hectare.
Rural Residential (Not Park Residential Precinct)	0.5 Single Dwellings per hectare.
Township	Irrespective of size, each parcel was assigned an ultimate yield of 1 Single Dwelling.
<p>Major Centre (Yeppoon) District Centre (none presently) Local Centre (Emu Park)</p> <p>Note: At this point in time, the centre category zones identified above allow for a similar range of preferred land uses. Within these zones there are different planning scheme height limits. The ultimate development was considered to be non-residential uses at ground level and the next storey, and then multiple dwellings at storey 3 or above (depending on height limit).</p>	<p>Density assumptions for residential components in the centre category zones were as follows:</p> <ul style="list-style-type: none"> • No allocation for public roads, stormwater management or park. • Site cover for multiple dwelling habitable area portion of building = 40%. • Average size of multiple dwelling by floor area = 100 m². • Multiple dwellings develop above centre activities, starting at storey 3 and finishing

Column 1 Description - Planning Scheme Zone	Column 2 Assumptions - Dwelling Density (net of roads, stormwater management, parks)
	<p>at the planning scheme building height limit for the zone.</p> <ul style="list-style-type: none"> • Building heights as per planning scheme Figure 6.2.2.4.1.1 – Emu Park Business District Height Limits (Local Centre Zone Emu Park), three storeys (District Centre Zone), and Figure 6.2.4.4.1.1 – Yeppoon Business District Height Limits (Major Centre Zone Yeppoon). • Building storey = 3 metres. • Existing multi-storey mixed-use development was assumed to be at ultimate development.
Neighbourhood centre zone	Nil
Rural zone	Nil
<p>Other zones such as the following:</p> <ul style="list-style-type: none"> • Community Facilities • Special Purpose Zone • Sport and Recreation • Open Space 	Nil
<p>Note:</p> <p>Despite the broad assumptions for development located within specific planning scheme zones as outlined above:</p> <ul style="list-style-type: none"> • if there was an existing land use which was generally inconsistent with the planning scheme zone or it was arguably of a higher order nature or it was developed at a higher density then the current planning scheme codes prefer, then the land use and the density for the parcel was assumed to remain the same as that of the existing land use. • If there was a current residential development approval in place over a parcel, and it was considered unlikely that the default density assumption outlined above was to be achieved based on development in accordance with the development approval, then a density closely aligned to the development approval was assumed to be a likely outcome. <p>Examples:</p> <ul style="list-style-type: none"> • If an existing non-residential development type such as Commercial, Retail, Other, Community, or Industrial was located within a residential category zone or a rural residential zone, then the future land use was assumed to remain as the existing land use however no additional gross floor area was assumed. The development was assumed to already be at its ultimate development. • If an existing residential development type such as Multiple Dwelling or Other Dwelling was located within a low density residential zone, then the future land use and density was generally assumed to remain the same as that of the existing land use and existing density. The development was assumed to already be at its ultimate development. The only exception to this was if there was significant capacity remaining on the parcel for a continuation of the development. In this circumstance, additional yield was applied on a case-by-case basis after considering the assumed densities stated elsewhere in this table and the nature of the existing development, the site and surrounds. • If a residential development approval for reconfiguring a lot was current and the density was significantly different to the default density assumption for the zone and there was a high likelihood that the development progressed in accordance with the approved lot yield, then a site-specific density was assumed for the parcel. The assumed site-specific density considered the approved lot yield plus an additional yield due to infill via dual occupancy or secondary dwelling type development. 	

Table 19 – Non-residential Development Density Assumptions

Column 1 Description - Planning Scheme Zone	Column 2 Assumptions - Non-residential Development Density (net of roads, stormwater management, parks)
Low Impact Industry	<ul style="list-style-type: none"> Existing gross floor area was determined based on digitisation of building footprint (or information from known approved plans where information was at hand). Ultimate building height = 1 storey. At the Tanby Road Industrial Zoned Area, the ultimate gross floor area was based on 50% of the unconstrained parcel area. At the Jabiru Drive/Plover Drive Industrial Zoned Area, the ultimate gross floor area was based on 50% the unconstrained parcel area. Ultimate gross floor area = the greater of the parcel site cover based ultimate gross floor area calculation or the existing building footprint gross floor area calculation.
Medium Impact Industry	<ul style="list-style-type: none"> Existing gross floor area was determined based on digitisation of building footprint (or information from known approved plans where information was at hand). Ultimate building height = 1 storey. At the Tanby Road Industrial Zoned Area, the ultimate gross floor area was based on 50% of the unconstrained parcel area. At the Jabiru Drive/Plover Drive Industrial Zoned Area, the ultimate gross floor area was based on 50% the unconstrained parcel area. Ultimate gross floor area = the greater of the parcel site cover based ultimate gross floor area calculation or the existing building footprint gross floor area calculation.
Specialised Centre	<ul style="list-style-type: none"> Existing gross floor area was determined based on digitisation of building footprint (or information from known approved plans where information was at hand). Ultimate building height = 1 storey. The ultimate gross floor area was based on 50% of the unconstrained parcel area. Ultimate gross floor area = the greater of the parcel site cover based ultimate gross floor area calculation or the existing building footprint gross floor area calculation.
Major Centre Zone (Yeppoon) District Centre Zone (none currently) Local Centre Zone (Emu Park)	<ul style="list-style-type: none"> Existing gross floor area was determined based on digitisation of building footprint (or information from known approved

Column 1 Description - Planning Scheme Zone	Column 2 Assumptions - Non-residential Development Density (net of roads, stormwater management, parks)
	<p>plans where information was at hand).</p> <ul style="list-style-type: none"> • These centre categories zones are assumed to be comprised of Retail, Commercial, and Community uses at the following percentages Retail (60%), Commercial (Office) (20%) and Community (20%). • Ultimate building height as per planning scheme Figure 6.2.2.4.1.1 – Emu Park Business District Height Limits (Local Centre Zone Emu Park), three storeys (District Centre Zone), and Figure 6.2.4.4.1.1 – Yeppoon Business District Height Limits (Major Centre Zone Yeppoon). • Retail, Commercial, and Community uses develop on Storey 1 and Storey 2 of buildings. • A building storey = 3 metres. • The ultimate gross floor area was based on a building site cover of 80%. • Ultimate gross floor area = the greater of the parcel site cover based ultimate gross floor area calculation or the existing building footprint gross floor area calculation. • Existing multi-storey mixed-use development was assumed to be at ultimate development.
Neighbourhood Centre	<ul style="list-style-type: none"> • Existing gross floor area was determined based on digitisation of building footprint (or information from known approved plans where information was at hand). • Neighbourhood centre category zones are assumed to be comprised of Retail and Community uses at the following percentages Retail (80%) and Community (20%). • Ultimate building height = 2 storeys. • The ultimate gross floor area was based on a building site cover of 50%. • Ultimate gross floor area = the greater of the parcel site cover based ultimate gross floor area calculation or the existing building footprint gross floor area calculation.
Emerging Community (Neighbourhood Centre)	<ul style="list-style-type: none"> • The Neighbourhood Centres are assumed to be comprised of Retail and Community uses at the following percentages Retail (80%) and Community (20%).

Column 1 Description - Planning Scheme Zone	Column 2 Assumptions - Non-residential Development Density (net of roads, stormwater management, parks)
	<ul style="list-style-type: none"> • Ultimate building height = 2 storeys. • Neighbourhood Centre size = 2,500 m². • Building site cover = 50%, therefore assumed parcel area requirement = 5,000 m².
Emerging Community (District Centre)	<ul style="list-style-type: none"> • A District Centre develops at locations identified in the Strategic Framework of the Livingstone Planning Scheme 2018 as a District Centre. • The District Centre is assumed to be comprised of Retail, Commercial, and Community uses at the following percentages Retail (60%), Commercial (Office) (20%), and Community (20%). • District Centre size = 15,000 m². • Building site cover = 50%, therefore assumed parcel area requirement = 30,000 m².
Emerging Community (The Gateway Industrial Estate)	<ul style="list-style-type: none"> • Existing gross floor area was determined based on digitisation of building footprint (or information from known approved plans where information was at hand). • Ultimate building height = 1 storey. • Building site cover = 50%. • Ultimate gross floor area = the greater of the parcel site cover based ultimate gross floor area calculation or the existing building footprint gross floor area calculation.
<p>Special Purpose (Rosslyn Bay Precinct)</p> <p>Notes: The Rosslyn Bay Precinct contains Sub-Precincts which have greater building height limits than other Special Purpose zoned areas. Building height limits vary depending on the sub-precinct of the parcel. Parcel specific density assumptions were made at this location. The sub-precincts at this location broadly translate to the non-residential development types Retail, Industrial and Community.</p>	<ul style="list-style-type: none"> • Existing gross floor area was determined based on digitisation of building footprint (or information from known approved plans where information was at hand). • Building heights as per planning scheme Special Purpose Zone Code AO1.1 for the relevant Sub-Precinct. • Building site cover = 50%. • Ultimate gross floor area = the greater of the parcel site cover based ultimate gross floor area calculation or the existing building footprint gross floor area calculation.
<p>Zones such as the following:</p> <ul style="list-style-type: none"> • Community Facilities • Special Purpose • Township • Sport and Recreation • Open Space 	<p>If employment generating development was identified:</p> <ul style="list-style-type: none"> • The existing gross floor area was determined based on digitisation of building footprint (or information from known approved plans where information was at hand).

Column 1 Description - Planning Scheme Zone	Column 2 Assumptions - Non-residential Development Density (net of roads, stormwater management, parks)
<p>Note: Examples of development where data may have been captured in the Livingstone Shire Council PAM2021 in this circumstance include: Community Use and Club buildings located in Sports and Recreation Zones such as the Yeppoon Showgrounds, Educational Establishment buildings or Community Use buildings located in the Community Facilities Zone, major Utility Installation buildings located in the Special Purpose Zone such as at the Yeppoon Landfill or Yeppoon Sewage Treatment Facility site, or Food and Drink Outlet buildings located in the Open Space Zone along the Yeppoon foreshore.</p>	<ul style="list-style-type: none"> • The non-residential employment generating development was assumed to remain as the ultimate land use. • The ultimate gross floor area was assumed to be the same as the existing gross floor area.
<p>Rural (employment generating development other than Rural Activities, Mining Activities, Extractive Resource Activities and the like)</p> <p>Note: Examples of development where data may have been captured in the Livingstone Shire Council PAM2021 include: the Meatworks in the locality of Nerimbera, Low Impact Industrial buildings, Education Establishment buildings, or Service Stations.</p>	<p>If employment generating development was identified:</p> <ul style="list-style-type: none"> • The existing gross floor area was determined based on digitisation of building footprint (or information from known approved plans where information was at hand). • The non-residential employment generating development was assumed to remain as the ultimate land use. • The ultimate gross floor area was assumed to be the same as the existing gross floor area.
<p>Note: Despite the above broad assumptions for development located within specific planning scheme zones, if there was an existing land use which was generally inconsistent with the planning scheme zone or it was arguably of a higher order nature or it was developed at a higher density than the current planning scheme codes prefer, then the land use and the density for the parcel was assumed to remain the same as that of the existing land use.</p> <p>Examples:</p> <ul style="list-style-type: none"> • If an existing non-residential development type such as Commercial, Retail, Other, Community, or Industrial was located within a residential category zone or a rural residential zone, or rural zone, then the existing land use was assumed to remain as a future land use however no additional gross floor area was assumed. The development was assumed to already be at its ultimate development. 	

4.3.4 Development Approvals Analysis and Assumptions

An analysis of current development approvals of significance and current variation approvals of significance was undertaken. Where specific development yield details were readily available this information was included in the Livingstone Shire Council PAM2021. Development approvals and variation approvals assist with making assumptions about ultimate development and the sequencing of development.

4.3.5 Ultimate Development Assumptions

The Livingstone Shire Council PAM2021 contains assumptions about the realistic total development yield that can be supplied on parcels in specific areas in the Livingstone Shire Local Government Area (within the capacity or limits of the Livingstone Planning Scheme 2018 Version 3). This is referred to as the 'Ultimate Development'. Ultimate development assumptions were made for relevant parcels located within urban category zones, rural residential zones, and rural zoned parcels if the parcels were the subject of a current development approval or variation approval. Consideration is given to the existing dwelling and non-residential floorspace supply. The ultimate development assumptions enable an analysis of the

planning scheme capacity and development approval capacity to supply land for the development of dwellings and non-residential floorspace. Ultimate development can then be compared with the assumed demand projections.

The assumptions about the realistic ultimate development yield for specific parcels took into account the following:

- Future Land Use Analysis and Assumptions;
- Table 5 - Dwelling Type Estimated Resident Person Conversion Rate in the Livingstone Shire Local Government Area;
- Table 10 - Employment Type Gross Floor Area Conversion Rate in the Livingstone Shire Local Government Area;
- Table 13 – Development Constraint Features (100% Constraint);
- Table 14 – Development Constraint Features (50% Constraint);
- Table 15 – Development Constraint Features (30% Constraint);
- Table 16 – Road, stormwater management and park allocation assumptions;
- Table 17 – Dwelling Type Size Assumptions;
- Table 18 – Dwelling Density Assumptions;
- Table 19 – Non-residential Development Density Assumptions; and
- Development Approvals Analysis and Assumptions.

If there was a difference between a development yield forming part of a development approval or variation approval and the development yield calculated for each parcel using the default planning assumptions, then the following process was used when preparing the Livingstone Shire Council PAM2021:

- In circumstances where the current development approval or current variation approval had a development yield which was significantly different to the yield calculated from the default planning assumptions, then a site specific density assumption was used for determining the final ultimate development capacity of the parcel.

Assumptions regarding ultimate development are represented as follows:

- (1) The assumed ultimate dwellings by dwelling type for each projection area are represented in Table 20 – Dwellings by Dwelling Type Ultimate Development Assumptions; and
- (2) The assumed ultimate employment gross floor area by employment type for each projection area are represented in Table 21 – Employment Gross Floor Area by Employment Type Ultimate Development Assumptions.

Table 20 – Dwellings by Dwelling Type Ultimate Development Assumptions

Column 1 Description - Projection Area	Column 2 Assumptions – Ultimate Dwellings by Dwelling Type	
	Reporting Category	Ultimate Dwellings
Emu Park SA2 (within 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	5
	Single Dwelling	4,334
	Multiple Dwelling	1,709
	Other Dwelling	406
	Total	6,454
Emu Park SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	67
	Single Dwelling	1,715
	Multiple Dwelling	169
	Other Dwelling	0
	Total	1,951
Glenlee - Rockyview SA2 (outside 2021 Draft PIA Boundary)	Single Dwelling (Existing Rural)	311
	Single Dwelling	2,653
	Multiple Dwelling	0

Column 1 Description - Projection Area	Column 2 Assumptions – Ultimate Dwellings by Dwelling Type	
	Reporting Category	Ultimate Dwellings
V4)	Other Dwelling	0
	Total	2,964
Rockhampton Region - East SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	981
	Single Dwelling	695
	Multiple Dwelling	0
	Other Dwelling	40
	Total	1,716
Rockhampton Region - North SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	1,570
	Single Dwelling	426
	Multiple Dwelling	0
	Other Dwelling	0
	Total	1,996
Shoalwater Bay SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	0
	Single Dwelling	0
	Multiple Dwelling	0
	Other Dwelling	0
	Total	0
Yeppoon SA2 (within 2021 Draft PIA Boundary V4) Yeppoon SA2	Single Dwelling (Existing Rural)	7
	Single Dwelling	12,167
	Multiple Dwelling	5,778
	Other Dwelling	400
	Total	18,352
Yeppoon SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	185
	Single Dwelling	2,052
	Multiple Dwelling	181
	Other Dwelling	88
	Total	2,506
Livingstone Local Government Area – All SA2	Single Dwelling (Existing Rural)	3,126
	Single Dwelling	24,042
	Multiple Dwelling	7,837
	Other Dwelling	934
	Total	35,939

Table 21 – Employment Gross Floor Area by Employment Type Ultimate Development Assumptions

Column 1 Description - Projection Area	Column 2 Assumptions – Ultimate Employment Gross Floor Area by Employment Type	
	Reporting Category	Ultimate Gross Floor Area (m ²)
Emu Park SA2 (within 2021 Draft PIA Boundary V4)	Major Centre Total	93,669
	• @60% Retail	• 56,201
	• @20% Commercial (Office)	• 18,734
	• @20% Community	• 18,734
	Minor Centre Total	2,500
	• @80% Retail	• 2,000
	• @20% Community	• 500
	Commercial (Office)	1,201
	Commercial (Bulk Goods and Supplies)	0
	Retail	2,945
	Other	239
	Community	18,302
	Industrial	16,193

Column 1 Description - Projection Area	Column 2 Assumptions – Ultimate Employment Gross Floor Area by Employment Type	
	Reporting Category	Ultimate Gross Floor Area (m ²)
Emu Park SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0
	• @60% Retail	• 0
	• @20% Commercial (Office)	• 0
	• @20% Community	• 0
	Minor Centre Total	2,500
	• @80% Retail	• 2000
	• @20% Community	• 500
	Commercial (Office)	0
	Commercial (Bulk Goods and Supplies)	0
	Retail	0
	Other	1,022
	Community	6,561
	Industrial	548
Glenlee - Rockyview SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0
	• @60% Retail	• 0
	• @20% Commercial (Office)	• 0
	• @20% Community	• 0
	Minor Centre Total	0
	• @80% Retail	• 0
	• @20% Community	• 0
	Commercial (Office)	0
	Commercial (Bulk Goods and Supplies)	0
	Retail	1,231
	Other	1,137
	Community	50,745
	Industrial	2,713
Rockhampton Region - East SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0
	• @60% Retail	• 0
	• @20% Commercial (Office)	• 0
	• @20% Community	• 0
	Minor Centre Total	0
	• @80% Retail	• 0
	• @20% Community	• 0
	Commercial (Office)	231
	Commercial (Bulk Goods and Supplies)	0
	Retail	906
	Other	1,284
	Community	6,745
	Industrial	101,892
Rockhampton Region - North SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0
	• @60% Retail	• 0
	• @20% Commercial (Office)	• 0
	• @20% Community	• 0
	Minor Centre Total	2,500
	• @80% Retail	• 2,000
	• @20% Community	• 500

Column 1 Description - Projection Area	Column 2 Assumptions – Ultimate Employment Gross Floor Area by Employment Type	
	Reporting Category	Ultimate Gross Floor Area (m ²)
	Commercial (Office)	0
	Commercial (Bulk Goods and Supplies)	0
	Retail	4,401
	Other	1,037
	Community	10,013
	Industrial	58,399
Shoalwater Bay SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0
	• @60% Retail	• 0
	• @20% Commercial (Office)	• 0
	• @20% Community	• 0
	Minor Centre Total	0
	• @80% Retail	• 0
	• @20% Community	• 0
	Commercial (Office)	0
	Commercial (Bulk Goods and Supplies)	0
	Retail	0
	Other	0
	Community	0
	Industrial	0
Yeppoon SA2 (within 2021 Draft PIA Boundary V4)	Major Centre Total	268,589
	• @60% Retail	• 161,153
	• @20% Commercial (Office)	• 53,718
	• @20% Community	• 53,718
	Minor Centre Total	6,889
	• @80% Retail	• 5,511
	• @20% Community	• 1,378
	Commercial (Office)	6,784
	Commercial (Bulk Goods and Supplies)	77,640
	Retail	12,836
	Other	1,974
	Community	105,136
	Industrial	334,469
Yeppoon SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0
	• @60% Retail	• 0
	• @20% Commercial (Office)	• 0
	• @20% Community	• 0
	Minor Centre Total	2,500
	• @80% Retail	• 2000
	• @20% Community	• 500
	Commercial (Office)	0
	Commercial (Bulk Goods and Supplies)	154
	Retail	0
	Other	0
	Community	5,583
	Industrial	0

Column 1 Description - Projection Area	Column 2 Assumptions – Ultimate Employment Gross Floor Area by Employment Type	
	Reporting Category	Ultimate Gross Floor Area (m ²)
Livingstone Local Government Area – All SA2	Major Centre Total	362,258
	• @60% Retail	• 217,354
	• @20% Commercial (Office)	• 72,452
	• @20% Community	• 72,452
	Minor Centre Total	16,889
	• @80% Retail	• 13,511
	• @20% Community	• 3,378
	Commercial (Office)	8,216
	Commercial (Bulk Goods and Supplies)	77,794
	Retail	22,319
	Other	6,693
	Community	203,085
	Industrial	514,214

Assumptions regarding ultimate population and ultimate employment are represented as follows:

- (1) The assumed ultimate estimated resident persons by dwelling type for each projection area are represented in Table 22 – Population by Dwelling Type Ultimate Assumptions; and
- (2) The assumed ultimate employed persons by employment type for each projection area are represented in Table 23 – Employed Persons by Employment Type Ultimate Assumptions.

Table 22 – Population by Dwelling Type Ultimate Assumptions

Column 1 Description - Projection Area	Column 2 Assumptions – Ultimate Population by Dwelling Type	
	Reporting Category	Ultimate Estimated Resident Persons
Emu Park SA2 (within 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	14
	Single Dwelling	11,702
	Multiple Dwelling	2,735
	Other Dwelling	650
	Combined Total	15,101
Emu Park SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	181
	Single Dwelling	4,631
	Multiple Dwelling	271
	Other Dwelling	0
	Combined Total	5,083
Glenlee - Rockyview SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	840
	Single Dwelling	7,164
	Multiple Dwelling	0
	Other Dwelling	0
	Combined Total	8,004
Rockhampton Region - East SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	2,649
	Single Dwelling	1,877
	Multiple Dwelling	0
	Other Dwelling	64
	Combined Total	4,590
Rockhampton Region - North SA2 (outside	Single Dwelling (Existing Rural)	4,239
	Single Dwelling	1,151

Column 1 Description - Projection Area	Column 2 Assumptions – Ultimate Population by Dwelling Type	
	Reporting Category	Ultimate Estimated Resident Persons
2021 Draft PIA Boundary V4)	Multiple Dwelling	0
	Other Dwelling	0
	Combined Total	5,390
Shoalwater Bay SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	0
	Single Dwelling	0
	Multiple Dwelling	0
	Other Dwelling	0
	Combined Total	0
Yeppoon SA2 (within 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	19
	Single Dwelling	32,851
	Multiple Dwelling	9,245
	Other Dwelling	640
	Combined Total	42,755
Yeppoon SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	500
	Single Dwelling	5,541
	Multiple Dwelling	290
	Other Dwelling	141
	Combined Total	6,472
Livingstone Local Government Area – All SA2	Single Dwelling (Existing Rural)	8,442
	Single Dwelling	64,917
	Multiple Dwelling	12,541
	Other Dwelling	1,495
	Combined Total	87,395

Table 23 – Employed Persons by Employment Type Ultimate Assumptions

Column 1 Description - Projection Area	Column 2 Assumptions – Ultimate Employed Persons by Employment Type	
	Reporting Category	Ultimate Employed Persons
Emu Park SA2 (within 2021 Draft PIA Boundary V4)	Major Centre Total	2,591
	• @60% Retail	• 1,606
	• @20% Commercial (Office)	• 750
	• @20% Community	• 235
	Minor Centre Total	65
	• @80% Retail	• 58
	• @20% Community	• 7
	Commercial (Office)	49
	Commercial (Bulk Goods and Supplies)	0
	Retail	85
	Other	6
	Community	229
	Industrial	162
Emu Park SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0
	• @60% Retail	• 0
	• @20% Commercial (Office)	• 0
	• @20% Community	• 0
	Minor Centre Total	65
	• @80% Retail	• 58
	• @20% Community	• 7
	Commercial (Office)	0

Column 1 Description - Projection Area	Column 2 Assumptions – Ultimate Employed Persons by Employment Type	
	Reporting Category	Ultimate Employed Persons
	Commercial (Bulk Goods and Supplies)	0
	Retail	0
	Other	26
	Community	82
	Industrial	6
Glenlee - Rockyview SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0
	• @60% Retail	• 0
	• @20% Commercial (Office)	• 0
	• @20% Community	• 0
	Minor Centre Total	0
	• @80% Retail	• 0
	• @20% Community	• 0
	Commercial (Office)	0
	Commercial (Bulk Goods and Supplies)	0
	Retail	36
	Other	29
	Community	635
	Industrial	28
Rockhampton Region - East SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0
	• @60% Retail	• 0
	• @20% Commercial (Office)	• 0
	• @20% Community	• 0
	Minor Centre Total	0
	• @80% Retail	• 0
	• @20% Community	• 0
	Commercial (Office)	10
	Commercial (Bulk Goods and Supplies)	0
	Retail	26
	Other	33
	Community	85
	Industrial	1,019
Rockhampton Region - North SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0
	• @60% Retail	• 0
	• @20% Commercial (Office)	• 0
	• @20% Community	• 0
	Minor Centre Total	65
	• @80% Retail	• 58
	• @20% Community	• 7
	Commercial (Office)	0
	Commercial (Bulk Goods and Supplies)	0
	Retail	126
	Other	26
	Community	126
	Industrial	584
Shoalwater Bay SA2	Major Centre Total	0

Column 1 Description - Projection Area	Column 2 Assumptions – Ultimate Employed Persons by Employment Type	
	Reporting Category	Ultimate Employed Persons
(outside 2021 Draft PIA Boundary V4)	• @60% Retail	0
	• @20% Commercial (Office)	0
	• @20% Community	0
	Minor Centre Total	0
	• @80% Retail	0
	• @20% Community	0
	Commercial (Office)	0
	Commercial (Bulk Goods and Supplies)	0
	Retail	0
	Other	0
	Community	0
	Industrial	0
Yeppoon SA2 (within 2021 Draft PIA Boundary V4)	Major Centre Total	7,426
	• @60% Retail	• 4,605
	• @20% Commercial (Office)	• 2,149
	• @20% Community	• 672
	Minor Centre Total	176
	• @80% Retail	• 158
	• @20% Community	• 18
	Commercial (Office)	272
	Commercial (Bulk Goods and Supplies)	1,553
	Retail	367
	Other	50
	Community	1,315
	Industrial	3,345
Yeppoon SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0
	• @60% Retail	• 0
	• @20% Commercial (Office)	• 0
	• @20% Community	• 0
	Minor Centre Total	65
	• @80% Retail	• 58
	• @20% Community	• 7
	Commercial (Office)	0
	Commercial (Bulk Goods and Supplies)	4
	Retail	0
	Other	0
	Community	70
	Industrial	0
Livingstone Local Government Area – All SA2	Major Centre Total	10,017
	• @60% Retail	• 6,211
	• @20% Commercial (Office)	• 2,899
	• @20% Community	• 907
	Minor Centre Total	436
	• @80% Retail	• 390
	• @20% Community	• 46
	Commercial (Office)	331

Column 1 Description - Projection Area	Column 2 Assumptions – Ultimate Employed Persons by Employment Type	
	Reporting Category	Ultimate Employed Persons
	Commercial (Bulk Goods and Supplies)	1,557
	Retail	640
	Other	170
	Community	2,542
	Industrial	5,144

4.4 Development Sequencing Analysis and Assumptions

- For parcels identified in the Livingstone Shire Council PAM2021 as having capacity to accommodate urban development, assumptions were made about the likelihood of development, the timing of development, and the quantity of development over the following time intervals:
 - (a) mid-year 2026 (i.e., growth from mid-2021 to mid-2026);
 - (b) mid-year 2031 (i.e., growth from mid-2026 to mid-2031);
 - (c) mid-year 2036 (i.e., growth from mid-2031 to mid-2036); and
 - (d) mid-year 2041 (i.e., growth from mid-2036 to mid-2041).
- The development sequencing assumptions importantly enable further assumptions to be made about trunk infrastructure demand, trunk infrastructure capacity take up rates, and the likely timing when trunk infrastructure may need to be upgraded or delivered to support development on parcels with assumed capacity to accommodate development.
- The development sequencing assumptions were made with consideration given to the following:
 - Development Projections identified in Section 4.1 of this document.
 - Land Use Assumptions identified in Section 4.2 of this document.
 - Development Capacity Assumptions identified in Section 4.3 of this document.
 - Knowledge of members of Council's Growth Management team and Development Assessment team regarding development activity and development approvals.
 - Output from a Development Probability Analysis. The Development Probability Analysis involved the preparation and analysis of a scoring system which was applied to parcels in the Planning Assumption Model 2021 which were assumed to have urban development growth capacity. The scoring system considered zone allocation, whether a Local Plan existed, whether a Development Approval (MCU or ROL) applied and was current, whether a Variation Approval applied and was current, whether stages or work had commenced, whether the land was vacant, and the capacity of the parcel to yield additional development.
 - Output from a review of recent urban residential and rural residential estate development rates.

Assumptions regarding the quantity and timing of development are represented as follows:

- (1) The assumed Dwellings by different dwelling types for each projection area are represented in Table 24 - Dwelling by Dwelling Type Timing Assumptions;
- (2) The assumed Employment Gross Floor Area by different employment types for each projection area are represented in Table 25 – Employment Gross Floor Area by Employment Type Timing Assumptions;
- (3) The assumed Population by different dwelling types for each projection area are represented in Table 26 - Population by Dwelling Type Timing Assumptions; and

- (4) The assumed Employment Persons by different employment types for each projection area are represented in Table 27 – Employed Persons by Employment Type Timing Assumptions

Table 24 - Dwellings by Dwelling Type Timing Assumptions

Column 1 Description - Projection Area	Column 2 Assumptions – Dwellings by Dwelling Type Timing						
	Reporting Category	Existing Dwellings	2026	2031	2036	2041	Ultimate Dwellings
Emu Park SA2 (within 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	5	5	5	5	5	5
	Single Dwelling	2,471	2,851	3,130	3,504	3,671	4,334
	Multiple Dwelling	265	305	505	675	775	1,709
	Other Dwelling	355	385	406	406	406	406
Emu Park SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	67	67	67	67	67	67
	Single Dwelling	43	95	95	95	257	1,715
	Multiple Dwelling	17	17	17	17	18	169
	Other Dwelling	0	0	0	0	0	0
Glenlee - Rockyview SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	311	311	311	311	311	311
	Single Dwelling	1,235	1,405	1,549	1,689	1,839	2,653
	Multiple Dwelling	0	0	0	0	0	0
	Other Dwelling	0	0	0	0	0	0
Rockhampton Region - East SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	981	981	981	981	981	981
	Single Dwelling	463	587	635	677	689	695
	Multiple Dwelling	0	0	0	0	0	0
	Other Dwelling	40	40	40	40	40	40
Rockhampton Region - North SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	1,570	1,570	1,570	1,570	1,570	1,570
	Single Dwelling	247	411	411	411	411	426
	Multiple Dwelling	0	0	0	0	0	0
	Other Dwelling	0	0	0	0	0	0

Column 1 Description - Projection Area	Column 2 Assumptions – Dwellings by Dwelling Type Timing						
	Reporting Category	Existing Dwellings	2026	2031	2036	2041	Ultimate Dwellings
Shoalwater Bay SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	0	0	0	0	0	0
	Single Dwelling	0	0	0	0	0	0
	Multiple Dwelling	0	0	0	0	0	0
	Other Dwelling	0	0	0	0	0	0
Yeppoon SA2 (within 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	7	7	7	7	7	7
	Single Dwelling	6,761	7,908	9,115	10,288	10,821	12,167
	Multiple Dwelling	1,803	2,008	2,217	2,392	2,670	5,778
	Other Dwelling	369	400	400	400	400	400
Yeppoon SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	185	185	185	185	185	185
	Single Dwelling	473	539	571	615	1,118	2,052
	Multiple Dwelling	16	16	16	16	25	181
	Other Dwelling	88	88	88	88	88	88
Livingstone Local Government Area – All SA2	Single Dwelling (Existing Rural)	3,126	3,126	3,126	3,126	3,126	3,126
	Single Dwelling	11,693	13,796	15,506	17,279	18,806	24,042
	Multiple Dwelling	2,101	2,346	2,755	3,100	3,488	7,837
	Other Dwelling	852	913	934	934	934	934

Table 25 – Employment Gross Floor Area by Employment Type Timing Assumptions

Column 1 Description – Projection Area	Column 2 Assumptions – Employment Gross Floor Area by Employment Type Timing						
	Reporting Category	Existing Gross Floor Area (m ²)	2026	2031	2036	2041	Ultimate Gross Floor Area (m ²)
Emu Park SA2 (within 2021 Draft PIA Boundary V4)	Major Centre Total	9,042	9,042	9,042	16,542	16,542	93,669
	• @60% Retail	5,426	5,426	5,426	9,926	9,926	56,201
	• @20% Commercial (Office)	1,808	1,808	1,808	3,308	3,308	18,734
	• @20% Community	1,808	1,808	1,808	3,308	3,308	18,734

Column 1 Description – Projection Area	Column 2 Assumptions – Employment Gross Floor Area by Employment Type Timing						
	Reporting Category	Existing Gross Floor Area (m ²)	2026	2031	2036	2041	Ultimate Gross Floor Area (m ²)
	Minor Centre Total	0	0	0	2500	2500	2500
	• @80% Retail	0	0	0	2000	2000	2000
	• @20% Community	0	0	0	500	500	500
	Commercial (Office)	1,201	1,201	1,201	1,201	1,201	1,201
	Commercial (Bulk Goods and Supplies)	0	0	0	0	0	0
	Retail	1,145	1,145	1,145	1,145	1,145	2,945
	Other	239	239	239	239	239	239
	Community	13,964	13,964	13,964	13,964	13,964	18,302
	Industrial	2,351	2,351	2,351	2,351	2,351	16,193
Emu Park SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0	0	0	0	0	0
	• @60% Retail	0	0	0	0	0	0
	• @20% Commercial (Office)	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Minor Centre Total	0	0	0	0	2,500	2,500
	• @80% Retail	0	0	0	0	2,000	2,000
	• @20% Community	0	0	0	0	500	5,00
	Commercial (Office)	0	0	0	0	0	0
	Commercial (Bulk Goods and Supplies)	0	0	0	0	0	0
	Retail	0	0	0	0	0	0
	Other	1,022	1,022	1,022	1,022	1,022	1,022
	Community	6,561	6,561	6,561	6,561	6,561	6,561
	Industrial	548	548	548	548	548	548
Glenlee - Rockyview SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0	0	0	0	0	0
	• @60% Retail	0	0	0	0	0	0
	• @20% Commercial (Office)	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Minor Centre Total	0	0	0	0	0	0
	• @80% Retail	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Commercial	0	0	0	0	0	0

Column 1 Description – Projection Area	Column 2 Assumptions – Employment Gross Floor Area by Employment Type Timing						
	Reporting Category	Existing Gross Floor Area (m ²)	2026	2031	2036	2041	Ultimate Gross Floor Area (m ²)
	(Office)						
	Commercial (Bulk Goods and Supplies)	0	0	0	0	0	0
	Retail	1,231	1,231	1,231	1,231	1,231	1,231
	Other	1,137	1,137	1,137	1,137	1,137	1,137
	Community	50,745	50,745	50,745	50,745	50,745	50,745
	Industrial	2,713	2,713	2,713	2,713	2,713	2,713
Rockhampton Region - East SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0	0	0	0	0	0
	• @60% Retail	0	0	0	0	0	0
	• @20% Commercial (Office)	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Minor Centre Total	0	0	0	0	0	0
	• @80% Retail	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Commercial (Office)	231	231	231	231	231	231
	Commercial (Bulk Goods and Supplies)	0	0	0	0	0	0
	Retail	906	906	906	906	906	906
	Other	1,284	1,284	1,284	1,284	1,284	1,284
	Community	6,745	6,745	6,745	6,745	6,745	6,745
	Industrial	13,074	13,074	13,074	13,074	13,074	101,892
Rockhampton Region - North SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0	0	0	0	0	0
	• @60% Retail	0	0	0	0	0	0
	• @20% Commercial (Office)	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Minor Centre Total	0	0	0	0	2,500	2,500
	• @80% Retail	0	0	0	0	2,000	2,000
	• @20% Community	0	0	0	0	500	500
	Commercial (Office)	0	0	0	0	0	0
	Commercial (Bulk Goods and Supplies)	0	0	0	0	0	0
	Retail	4,401	4,401	4,401	4,401	4,401	4,401
	Other	1,037	1,037	1,037	1,037	1,037	1,037

Column 1 Description – Projection Area	Column 2 Assumptions – Employment Gross Floor Area by Employment Type Timing						
	Reporting Category	Existing Gross Floor Area (m ²)	2026	2031	2036	2041	Ultimate Gross Floor Area (m ²)
	Community	10,013	10,013	10,013	10,013	10,013	10,013
	Industrial	2,242	2,242	2,242	2,242	2,242	58,399
Shoalwater Bay SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0	0	0	0	0	0
	• @60% Retail	0	0	0	0	0	0
	• @20% Commercial (Office)	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Minor Centre Total	0	0	0	0	0	0
	• @80% Retail	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Commercial (Office)	0	0	0	0	0	0
	Commercial (Bulk Goods and Supplies)	0	0	0	0	0	0
	Retail	0	0	0	0	0	0
	Other	0	0	0	0	0	0
	Community	0	0	0	0	0	0
	Industrial	0	0	0	0	0	0
Yeppoon SA2 (within 2021 Draft PIA Boundary V4)	Major Centre Total	71,684	73,357	75,357	77,357	79,357	268,589
	• @60% Retail	43,010	44,015	45,215	46,415	47,615	161,153
	• @20% Commercial (Office)	14,337	14,671	15,071	15,471	15,871	53,718
	• @20% Community	14,337	14,671	15,071	15,471	15,871	53,718
	Minor Centre Total	1,889	1,889	1,889	4,389	4,389	6,889
	• @80% Retail	1,511	1,511	1,511	3,511	3,511	5,511
	• @20% Community	378	378	378	878	878	1,378
	Commercial (Office)	7,286	7,286	9,306	7,372	7,372	6,386
	Commercial (Bulk Goods and Supplies)	20,589	20,589	20,589	27,283	27,283	77,640
	Retail	10,380	10,380	10,380	10,380	9,929	12,836
	Other	9,771	9,771	9,771	9,771	9,771	1,974
	Community	106,041	103,436	103,436	103,436	103,436	105,136
	Industrial	62,694	82,694	107,399	126,299	148,569	334,469
Yeppoon SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0	0	0	0	0	0
	• @60% Retail	0	0	0	0	0	0

Column 1 Description – Projection Area	Column 2 Assumptions – Employment Gross Floor Area by Employment Type Timing						
	Reporting Category	Existing Gross Floor Area (m ²)	2026	2031	2036	2041	Ultimate Gross Floor Area (m ²)
	• @20% Commercial (Office)	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Minor Centre Total	0	0	0	0	0	2,500
	• @80% Retail	0	0	0	0	0	2,000
	• @20% Community	0	0	0	0	0	500
	Commercial (Office)	0	0	0	0	0	0
	Commercial (Bulk Goods and Supplies)	154	154	154	154	154	154
	Retail	0	0	0	0	0	0
	Other	0	0	0	0	0	0
	Community	7,710	7,710	7,710	7,710	7,710	7,710
	Industrial	0	0	0	0	0	0
Livingstone Local Government Area – All SA2	Major Centre Total	80,726	82,399	84,399	93,899	95,899	362,258
	• @60% Retail	48,436	49,441	50,641	56,341	57,541	217,354
	• @20% Commercial (Office)	16,145	16,479	16,879	18,779	19,179	72,452
	• @20% Community	16,145	16,479	16,879	18,779	19,179	72,452
	Minor Centre Total	1,889	1,889	1,889	6,889	11,889	16,889
	• @80% Retail	1,511	1,511	1,511	5,511	9,511	13,511
	• @20% Community	378	378	378	1,378	2,378	3,378
	Commercial (Office)	8,718	8,718	10,738	8,804	8,804	7,818
	Commercial (Bulk Goods and Supplies)	20,743	20,743	20,743	27,437	27,437	77,794
	Retail	18,063	18,063	18,063	18,063	17,612	22,319
	Other	14,490	14,490	14,490	14,490	14,490	6,693
	Community	201,779	199,174	199,174	199,174	199,174	205,212
	Industrial	83,622	103,622	128,327	147,227	169,497	514,214

Table 26 - Population by Dwelling Type Timing Assumptions

Column 1 Description – Projection Area	Column 2 Assumptions – Population by Dwelling Type Timing						
	Reporting Category	Existing Estimated Resident Persons	2026	2031	2036	2041	Ultimate Estimated Resident Persons
Emu Park SA2 (within 2021)	Single Dwelling	14	14	14	14	14	14

Column 1 Description – Projection Area	Column 2 Assumptions – Population by Dwelling Type Timing						
	Reporting Category	Existing Estimated Resident Persons	2026	2031	2036	2041	Ultimate Estimated Resident Persons
Draft PIA Boundary V4)	(Existing Rural)						
	Single Dwelling	6,672	7,698	8,451	9,461	9,912	11,702
	Multiple Dwelling	424	488	808	1,080	1,240	2,734
	Other Dwelling	568	616	650	650	650	650
Emu Park SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	181	181	181	181	181	181
	Single Dwelling	116	257	257	257	694	4,631
	Multiple Dwelling	27	27	27	27	29	270
	Other Dwelling	0	0	0	0	0	0
Glenlee - Rockyview SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	840	840	840	840	840	840
	Single Dwelling	3,335	3,794	4,182	4,560	4,965	7,163
	Multiple Dwelling	0	0	0	0	0	0
	Other Dwelling	0	0	0	0	0	0
Rockhampton Region - East SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	2,649	2,649	2,649	2,649	2,649	2,649
	Single Dwelling	1,250	1,585	1,715	1,828	1,860	1,877
	Multiple Dwelling	0	0	0	0	0	0
	Other Dwelling	64	64	64	64	64	64
Rockhampton Region - North SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	4,239	4,239	4,239	4,239	4,239	4,239
	Single Dwelling	667	1,110	1,110	1,110	1,110	1,150
	Multiple Dwelling	0	0	0	0	0	0
	Other Dwelling	0	0	0	0	0	0
Shoalwater Bay SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	0	0	0	0	0	0
	Single Dwelling	0	0	0	0	0	0

Column 1 Description – Projection Area	Column 2 Assumptions – Population by Dwelling Type Timing						
	Reporting Category	Existing Estimated Resident Persons	2026	2031	2036	2041	Ultimate Estimated Resident Persons
	Multiple Dwelling	0	0	0	0	0	0
	Other Dwelling	0	0	0	0	0	0
Yeppoon SA2 (within 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	19	19	19	19	19	19
	Single Dwelling	18,255	21,352	24,611	27,778	29,217	32,851
	Multiple Dwelling	2,885	3,213	3,547	3,827	4,272	9,245
	Other Dwelling	590	640	640	640	640	640
Yeppoon SA2 (outside 2021 Draft PIA Boundary V4)	Single Dwelling (Existing Rural)	500	500	500	500	500	500
	Single Dwelling	1,277	1,455	1,542	1,661	3,019	5,540
	Multiple Dwelling	26	26	26	26	40	290
	Other Dwelling	141	141	141	141	141	141
Livingstone Local Government Area – All SA2	Single Dwelling (Existing Rural)	8,440	8,440	8,440	8,440	8,440	8,440
	Single Dwelling	31,571	37,249	41,866	46,653	50,776	64,913
	Multiple Dwelling	3,362	3,754	4,408	4,960	5,581	12,539
	Other Dwelling	1,363	1,461	1,494	1,494	1,494	1,494

Table 27 – Employed Persons by Employment Type Timing Assumptions

Column 1 Description – Projection Area	Column 2 Assumptions – Employed Persons by Employment Type Timing						
	Reporting Category	Existing Employed Persons	2026	2031	2036	2041	Ultimate Employed Persons
Emu Park SA2 (within 2021 Draft PIA Boundary V4)	Major Centre Total	250	250	250	457	457	2,589
	• @60% Retail	155	155	155	284	284	1,606
	• @20% Commercial (Office)	72	72	72	132	132	749
	• @20% Community	23	23	23	41	41	234
	Minor Centre Total	0	0	0	63	63	63
	• @80% Retail	0	0	0	57	57	57
	• @20% Community	0	0	0	6	6	6

Column 1 Description – Projection Area	Column 2 Assumptions – Employed Persons by Employment Type Timing						
	Reporting Category	Existing Employed Persons	2026	2031	2036	2041	Ultimate Employed Persons
	Commercial (Office)	48	48	48	48	48	48
	Commercial (Bulk Goods and Supplies)	0	0	0	0	0	0
	Retail	33	33	33	33	33	84
	Other	6	6	6	6	6	6
	Community	175	175	175	175	175	229
	Industrial	24	24	24	24	24	162
Emu Park SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0	0	0	0	0	0
	• @60% Retail	0	0	0	0	0	0
	• @20% Commercial (Office)	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Minor Centre Total	0	0	0	0	63	63
	• @80% Retail	0	0	0	0	57	57
	• @20% Community	0	0	0	0	6	6
	Commercial (Office)	0	0	0	0	0	0
	Commercial (Bulk Goods and Supplies)	0	0	0	0	0	0
	Retail	0	0	0	0	0	0
	Other	26	26	26	26	26	26
	Community	82	82	82	82	82	82
	Industrial	5	5	5	5	5	5
Glenlee - Rockyview SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0	0	0	0	0	0
	• @60% Retail	0	0	0	0	0	0
	• @20% Commercial (Office)	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Minor Centre Total	0	0	0	0	0	0
	• @80% Retail	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Commercial (Office)	0	0	0	0	0	0
	Commercial (Bulk Goods and Supplies)	0	0	0	0	0	0
	Retail	35	35	35	35	35	35
	Other	28	28	28	28	28	28
	Community	634	634	634	634	634	634
	Industrial	27	27	27	27	27	27
Rockhampton Region -	Major Centre Total	0	0	0	0	0	0

Column 1 Description – Projection Area	Column 2 Assumptions – Employed Persons by Employment Type Timing						
	Reporting Category	Existing Employed Persons	2026	2031	2036	2041	Ultimate Employed Persons
East SA2 (outside 2021 Draft PIA Boundary V4)	• @60% Retail	0	0	0	0	0	0
	• @20% Commercial (Office)	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Minor Centre Total	0	0	0	0	0	0
	• @80% Retail	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Commercial (Office)	9	9	9	9	9	9
	Commercial (Bulk Goods and Supplies)	0	0	0	0	0	0
	Retail	26	26	26	26	26	26
	Other	32	32	32	32	32	32
	Community	84	84	84	84	84	84
	Industrial	131	131	131	131	131	1,019
Rockhampton Region - North SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0	0	0	0	0	0
	• @60% Retail	0	0	0	0	0	0
	• @20% Commercial (Office)	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Minor Centre Total	0	0	0	0	63	63
	• @80% Retail	0	0	0	0	57	57
	• @20% Community	0	0	0	0	6	6
	Commercial (Office)	0	0	0	0	0	0
	Commercial (Bulk Goods and Supplies)	0	0	0	0	0	0
	Retail	126	126	126	126	126	126
	Other	26	26	26	26	26	26
	Community	125	125	125	125	125	125
	Industrial	22	22	22	22	22	584
Shoalwater Bay SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0	0	0	0	0	0
	• @60% Retail	0	0	0	0	0	0
	• @20% Commercial (Office)	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Minor Centre Total	0	0	0	0	0	0
	• @80% Retail	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Commercial	0	0	0	0	0	0

Column 1 Description – Projection Area	Column 2 Assumptions – Employed Persons by Employment Type Timing						
	Reporting Category	Existing Employed Persons	2026	2031	2036	2041	Ultimate Employed Persons
	(Office)						
	Commercial (Bulk Goods and Supplies)	0	0	0	0	0	0
	Retail	0	0	0	0	0	0
	Other	0	0	0	0	0	0
	Community	0	0	0	0	0	0
	Industrial	0	0	0	0	0	0
Yeppoon SA2 (within 2021 Draft PIA Boundary V4)	Major Centre Total	1,766	1,808	1,857	1,906	1,956	6,619
	• @60% Retail	1,229	1,258	1,292	1,326	1,360	4,604
	• @20% Commercial (Office)	358	367	377	387	397	1,343
	• @20% Community	179	183	188	193	198	671
	Minor Centre Total	48	48	48	111	111	174
	• @80% Retail	43	43	43	100	100	157
	• @20% Community	5	5	5	11	11	17
	Commercial (Office)	291	291	372	295	295	255
	Commercial (Bulk Goods and Supplies)	412	412	412	546	546	1,553
	Retail	297	297	297	297	284	367
	Other	244	244	244	244	244	49
	Community	1,326	1,293	1,293	1,293	1,293	1,314
	Industrial	627	827	1,074	1,263	1,486	3,345
Yeppoon SA2 (outside 2021 Draft PIA Boundary V4)	Major Centre Total	0	0	0	0	0	0
	• @60% Retail	0	0	0	0	0	0
	• @20% Commercial (Office)	0	0	0	0	0	0
	• @20% Community	0	0	0	0	0	0
	Minor Centre Total	0	0	0	0	0	63
	• @80% Retail	0	0	0	0	0	57
	• @20% Community	0	0	0	0	0	6
	Commercial (Office)	0	0	0	0	0	0
	Commercial (Bulk Goods and Supplies)	3	3	3	3	3	3
	Retail	0	0	0	0	0	0
	Other	0	0	0	0	0	0
	Community	96	96	96	96	96	96
	Industrial	0	0	0	0	0	0
Livingstone Local Government	Major Centre Total	2,016	2,058	2,107	2,364	2,413	9,208
	• @60%	1,384	1,413	1,447	1,610	1,644	6,210

Column 1 Description – Projection Area	Column 2 Assumptions – Employed Persons by Employment Type Timing						
	Reporting Category	Existing Employed Persons	2026	2031	2036	2041	Ultimate Employed Persons
Area – All SA2	Retail						
	• @20% Commercial (Office)	431	439	449	519	529	2,092
	• @20% Community	202	206	211	235	240	906
	Minor Centre Total	48	48	48	175	301	428
	• @80% Retail	43	43	43	157	272	386
	• @20% Community	5	5	5	17	30	42
	Commercial (Office)	349	349	430	352	352	313
	Commercial (Bulk Goods and Supplies)	415	415	415	549	549	1,556
	Retail	516	516	516	516	503	638
	Other	362	362	362	362	362	167
	Community	2,522	2,490	2,490	2,490	2,490	2,565
	Industrial	836	1,036	1,283	1,472	1,695	5,142

4.5 Infrastructure Analysis and Assumptions

Detail regarding the Infrastructure Analysis and Assumptions is contained in separate summary reports.

4.6 Priority Infrastructure Area Determination

The Priority Infrastructure Area is identified on the following Maps:

Map PIA-01 – Priority Infrastructure Areas Shire

Map PIA-02 - Priority Infrastructure Area Yeppoon and Surrounds

Map PIA-03 – Priority Infrastructure Area Emu Park and Surrounds

The Priority Infrastructure Area (PIA) identifies the area prioritised for the provision of trunk infrastructure to service existing and the assumed future urban development from mid-year 2021 to mid-year 2036.