



Mareeba Shire Council Local Government Infrastructure Plan

Mareeba Shire Council

Background Information on Population Assumptions

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1. Preliminary

This report provides the background information for the planning assumptions to support the development of the Mareeba Shire Council Local Government Infrastructure Plan (LGIP).

The report provides further information regarding:

- a) Priority infrastructure area (Section 2);
- b) Population and dwelling growth (Section 3);
- c) Employment and GFA growth (Section 4);
- d) Ultimate development (Section 5);
- e) Source and supporting documents (Section 6).

2. Priority Infrastructure Area

The Priority Infrastructure Area (PIA) included in this documents reflects the area incorporated in the prior Priority Infrastructure Plan. The growth expectations implied within the former PIP have not been met and it is considered that there is adequate available urban land to service anticipated future development over the life of the PIP. Land included within the PIA, typically meets the following criteria:

- The area is planned for urban growth within the next 10 to 15 years within the Mareeba Shire Planning Scheme (to 2031);
- The area is serviced by proposed trunk infrastructure networks; and
- The land is zoned for urban uses.

The PIA is shown at **Appendix A**. The development capacity of land within the PIA boundaries is addressed in Section 4 and specifically identified in Table 5.4 and Table 6.5.

3. Planning Assumptions

The planning assumptions have been broadly based on the former Priority Infrastructure Plan which provided an assessment of the available capacity of each of the four PIA localities to accommodate anticipated growth over the life of the planning scheme. While the planning scheme has not been updated since this time and the quantity of zones land remains largely unchanged, the information included in the PIP was estimated with reference to a 2008 base year. Since this time there have been changes in the trajectory of both population and employment growth within the Shire. This information has been updated to reflect the outcomes of more recent studies and surveys, including the 2015 Queensland Government Statistical Office (QGSO) population projections and the results of the 2016 Census.

4. Ultimate Development

The former PIP contained estimates of the ultimate development capacity for each land use type and zone within the PIA for each locality. The key assumptions underpinning the calculation of ultimate development capacity are outlined in the following sections.

The net developable area is land designated for urban purposes under the planning scheme minus land required for infrastructure, easements which constrain development and land that is affected by the following site constraints:

- a) 1% AEP flood inundation
- b) nature conservation overlay
- c) catchment protection overlays
- d) any resumption plans

4.1 Key Density Assumptions

The key density assumptions used to determine development capacity are contained in Table 4.1 and Table 4.2. These are derived from the current PIP and 2011 *Mareeba Shire Planning Scheme Priority Infrastructure Plan Assumptions and Priority Infrastructure Area* study.

Table 4.1 Residential Density Assumptions

Planning scheme area identification		Planning scheme use type	Assumed density (dwellings / net developable ha)
Zone	Precinct		
Emerging Community		Dwelling House	7.5 Dw per Ha
Medium density residential		Dwelling House Dual Occupancy Multiple Dwelling Community Type Activities	Max 22 Dw per Ha
Low density residential	Sewered	Dwelling House Dual Occupancy	7.5Dw per Ha
Low density residential	Unsewered	Dwelling House	6.0 Dw per Ha
Centre Zone	All precincts	Multiple Dwelling	Max 80 Dw per Ha
Rural Residential	2ha Precinct	Dwelling House	0.5 Dw per Ha
Rural Residential	1ha Precinct	Dwelling House	1.0 Dw per Ha
Rural Residential	4,000m ² Precinct	Dwelling House	2.1 Dw per Ha

Table 4.2 Employment Uses Density Assumptions

Planning scheme area identification		Planning scheme use type	Assumed density (floor space(m ² / net developable ha)
Zone	Precinct		
Centre		Commercial Activities	6,240 m ² GFA/net ha
Industry	Trades and Services Precinct	Industrial Activities	5,200 m ² GFA/net ha.
	General Industry Precinct	Industrial Activities	5,200 m ² GFA/net ha.
	Heavy Industry Precinct	Industrial Activities	5,200 m ² GFA/net ha.
Community Facilities		Community Activities	4,500 m ² GFA/net ha
Recreation & Open Space		Sport & Recreation Activities	1,000 m ² GFA/net ha
Conservation		N/A	N/A

4.2 Development potential of residential land

The QGSO has undertaken an assessment of available broad hectare land for future residential development within the shire. This study has concluded that the shire has sufficient broad hectare land available to accommodate future dwelling demand yield. In addition, both the planning scheme and FNQ Regional Plan encourage infill development within existing centers in preference to expansion of the urban footprint through greenfield land development.

The studies undertaken for the 2011 PIP update included detailed assessment of land supply within each of the four PIAs based on existing land supply (*Mareeba Shire Planning Scheme Priority Infrastructure Plan Assumptions and Priority Infrastructure Area*, TSC, 2011), infill capacity within the existing residential areas, approved development and future development areas outside of the PIA boundary. While some development has occurred between 2011 and 2016, the pattern of land development and the future supply of developable land remains largely unchanged.

It is therefore proposed to retain the prior capacity assessments for each of the PIA localities as outlined in Table 4.3.

Table 4.3 Residential Dwelling Capacity PIA Areas

Category of Development	Dwelling Capacity	Approximate Land Area (hectares)
Mareeba		
Redevelopment and Infill	306	N/A
Greenfield	1,199	297.5
Future Development	N/A	N/A
Total	1,505	297.5
Projected Demand 2031	1,302	200.3
Dwellings Approved 2012-2016 (includes areas outside PIA)	409	
Surplus/Shortfall 2031	-206	-27.5
Notes	The 2011 study identifies potential for an additional 9,612 lots in Mareeba, the majority of which are located outside of the PIA boundary. Future revisions of the Planning Scheme and LGIP should consider whether the PIA boundary should be extended to include additional land.	
Kuranda		
Redevelopment and Infill	596	N/A
Greenfield	25	9.7
Total	681	9.7
Projected Demand 2031	279	67.4
Dwellings Approved 2012-2016 (includes areas outside PIA and areas added to the PIA)	130	
Surplus/Shortfall 2026	+271	
Notes	<p>The 2011 study identifies significant potential for infill development within Kuranda, noting that most future development will be infill in areas to the south of the existing Village. Significant new greenfield development is not anticipated due to the significant environmental and regional plan constraints.</p> <p>It is acknowledged that the majority of the residential population within Kuranda will be accommodated within rural residential areas which are outside of the PIA boundary. It is noted that the key areas for rural residential development within Kuranda are located in the Rural Living Area designation of the Far North Queensland Regional Plan.</p>	
Dimbulah		
Redevelopment and Infill	37	N/A
Greenfield	92	15.7
Total	129	15.7
Projected Demand 2031	21	
Dwellings Approved 2012-2016	10 (estimate)	
Surplus/Shortfall 2031	+99	

Category of Development	Dwelling Capacity	Approximate Land Area (hectares)
Notes	New growth within Dimbulah is largely anticipated to be accommodated within the Barooga Estate to the east of the town and through small amounts of infill development. Given the modest rate of anticipated dwelling growth identification of further residential areas is not warranted. It is likely that some of this development will occur beyond the life of the LGIP and the PIA boundary has been amended accordingly.	
Chillagoe		
Redevelopment and Infill	74	N/A
Greenfield	39	6.6
Total	113	
Projected Demand 2031	38	
Dwellings Approved 2012-2016	5 (estimate)	
Surplus/Shortfall 2031	+109	
Notes	New growth within Chillagoe would be accommodated through infill development of existing vacant lots and identification of new residential areas is not warranted. The PIA boundary has been amended to reflect this.	

4.3 Development Potential of Employment Lands

The 2011 PIP studies considered the availability of employment lands within the 4 PIA localities. It is noted that there has been some development of new employment generating land since the completion of the 2011 study, however the underlying circumstances are largely unchanged. The supply of employment GFA is shown in Table 4.4.

Table 4.4 Employment Uses Development Capacity

Category of Development	GFA (m2)
Mareeba	
Redevelopment and Infill	N/A
Development already approved	3,594
Future Development	43,680
Total	47,274
Projected Demand 2031	13,888
Surplus/Shortfall 2031	+33,386
Notes	The 2011 study identified there was adequate industrial land within the Mareeba Industrial Park (MIP) to accommodate future industrial needs. There remain a number of vacant lots within the MIP, in addition to an area within the PIA boundary which is yet to be developed. This is considered appropriate for future industrial development. There are a number of commercial sites within the centre of Mareeba which are suitable for development / redevelopment which will address retail and commercial growth needs over the life of the LGIP.
Kuranda	
Redevelopment and Infill	466
Development already approved	--

Background Information on Population Assumptions

Queensland Government population projections:



Category of Development	GFA (m2)
Future Development	N/A
Total	466
Projected Demand 2031 (Excludes industry and construction)	939
Surplus/Shortfall 2031	-473
Notes	<p>There is limited demand for new commercial and retail employment space within Kuranda. Vacant land identified in the 2011 study remains vacant and it is considered that there may be opportunities for infill and redevelopment of other commercial properties to meet demand up to 2031.</p> <p>It is also acknowledged that there is a degree of out commuting from Kuranda to surrounding localities.</p>
Dimbulah	
Redevelopment and Infill	N/A
Development already approved	N/A
Future Development	782
Total	782
Projected Demand 2021	328
Surplus/Shortfall 2021	+454
Notes	<p>There were a number of vacant sites identified for future commercial and industrial uses in the 2011 study which remain available for future development.</p>
Chillagoe	
Redevelopment and Infill	3,360
Development already approved	N/A
Future Development	N/A
Total	3,360
Projected Demand 2021	60
Surplus/Shortfall 2021	+3,300
Notes	<p>The 2011 study noted a large number of sites suitable for commercial and other employment uses due to historical patterns of development. There is large surplus in available land for employment uses which will service the town beyond the life of the LGIP.</p>

5. Population Projections and Dwellings

Estimates of Shire wide population growth are provided by the Queensland Government Statistician's Office (2015), these are outlined below:

Table 5.1 Shire Wide Population Projections, QGSO 2015

Year	Series		
	Low	Medium	High
2011	20,745	20,745	20,745
2016	21,785	21,859	21,933
2016 (census)*	21,557		
2021	22,605	23,013	25,288
2026	23,562	24,412	27,244
2031	24,522	25,856	29,259

* 2016 census figures, ABS

2016 census figures show that Mareeba Shire is currently tracking in line with the “Low” series population projections. Based this, and the 2016 census estimates for the corresponding urban areas and localities, projections for each of the PIA localities have been estimated based on the QGSO low series population projections. It is noted that Chillagoe and Dimbulah populations have remained static (or fallen slightly) since 2007 (QGSO, <http://www.qgso.qld.gov.au/products/tables/erp-ucl-qld/index.php>) and this trend is anticipated to continue over the life of the LGIP.

Table 5.2 PIA Locality Population Estimates and Projections

PIA locality	Existing and projected population				Ultimate Development***
	2016	2021	2026	2031	
CHILLAGOE	188	195	203	212	251
DIMBULAH	372	386	402	419	591
KURANDA*	1,906	1,978	2,062	2,146	2,690
MAREEBA**	8,902	9,241	9,631	10,022	13,186
Total PIA	11,368	11,801	12,299	12,798	16,718
Total outside PIA	10,189	10,804	11,263	11,724	11,724
Total for area of Planning Scheme	21,557	22,605	23,562	24,522	28,442

2016 population based on 2016 census results for the respective urban centres and localities. Uniform population growth assumed across the Shire.

* Census area includes areas outside of the PIA within Kuranda

** Census area does not cover entire PIA area for Mareeba

*** Ultimate Development = Dwelling capacity multiplies by 2031 dwelling occupancy for the PIA localities. No calculations have been undertaken for areas outside of the PIA localities.

5.1 Dwelling Requirements

5.1.1 Occupancy

Based on the former PIP and the results of the 2016 census, the following occupancy levels have been assumed across the PIA localities:

Table 5.3 Projected Occupancy Level by PIA Locality

	2016	2021	2026	2031
Chillagoe	1.9	1.83	1.74	1.65
Dimbulah	1.6			
Mareeba	2.4	2.14	2.07	2.0
Kuranda				

5.1.2 Dwelling Demand

Based on the population projections included in Table 5.2 and the projected occupancies outlined in Table 5.3 the following dwelling projections have been calculated:

Table 5.4 PIA Locality Dwelling Demand

PIA locality	Projected dwelling demand				Additional Dwellings Required	Development Capacity – (PIA)	Ultimate Development (locality)
	2016	2021	2026	2031			
CHILLAGOE	99	107	117	128	29	117	152
DIMBULAH	232	239	247	254	21	328	358
KURANDA*	794	924	996	1,073	279	350*	1,345
MAREEBA	3,709	4,318	4,653	5,011	1,302	4,805	6,593
Total PIA	4,835	5,560	5,996	6,466	1,631	5,600	8,363

**It is noted that the Kuranda locality includes significant areas of rural residential living, outside of the PIA boundary. These areas currently accommodate the majority of the population of Kuranda, and this is expected to remain the case in the near term. Some infill and higher density development may occur within the existing village area within the PIA boundary. Most rural residential zones lands in Kuranda are included in the Rural Living designation of the Far North Queensland Regional Plan.*

Estimated dwelling requirements for the 2031 are indicated in Table 3-5. These have been determined based on the census 2016 findings. For future years no significant change in the number of “other” dwellings (caravans, boats etc.) is anticipated.

Table 5.5 Dwelling Demand by Type (2031)

PIA locality	Projected dwelling demand (2031)			
	Single Dwelling	Multi-Unit Dwelling	Other	Total
CHILLAGOE	109	0	19	128
DIMBULAH	216	9	29	254
KURANDA*	858	80	134	1,073
MAREEBA**	4309	626	75	5,011

6. Employment

6.1 Employment Projections

The total number of persons employed in 2016 is derived from 2016 census results which reports on employment status within each locality. For Mareeba as the main service centre within the Shire, it is acknowledged that additional employment is located in this locality, with a degree of in commuting to each town from surrounding localities. For this area 2016 labour force levels have been based on the full suburb census results for the Mareeba state suburb areas.

The proportion of persons employed has been applied to the population forecast to estimate employment growth, and to broadly align labour force growth with population growth.

Table 6.1 Workforce projections by PIA Locality

PIA locality	% all persons employed	Existing and projected working population				Ultimate Development*
		2016	2021	2026	2031	
CHILLAGOUE	31%	58	60	63	65	122
DIMBULAH	34%	127	132	137	143	249
KURANDA	49%	933	968	1,009	1,050	638
MAREEBA	31%	4,344	4,509	4,700	4,891	6365
Total PIA		5,462	5,669	5,909	6,149	7,373
Total outside PIA	42%	4,350	3,026	3,155	3,284	3,284
Total for area of Planning Scheme	38%	9,812	8,695	9,064	9,433	10,657

* *Ultimate development = development capacity for all employment groups within existing zoned employment land, except rural, mining and other or employment in non PIA localities.*

The 2016 census provides a breakdown of employment by industry. This has been used to determine the percentage of employment within a number of categories for each PIA locality (see Table 6.3), which in turn has been used to derive projections of workforce by type of employment for each PIA locality (see Table 6.4).

It is recommended that future updates to the LGIP be prepared following completion of more detailed economic modelling of economic and employment growth opportunities within the Shire.

6.2 Employment GFA Projections

6.2.1 Assumed Scale of Development

Table 6.2 outlines the average floor area per jobs for the identified range of jobs identified within the employment projections. This allows estimates of required floor space to be established for each employment type. This is outlined in Table 6.5.

Table 6.2 Floor Area per Employee (Whole Shire)

PIP projection category	Employment ratio (m ² per Employee)
Retail	20
Industry and Construction	110
Office	25
Community	50
Rural, Mining and Other	N/A – Assumed to be located outside of the PIA localities.

Jobs within the rural mining and other categories are assumed to be typically located outside of the PIA.

Table 6.3 Proportion of Employment by Industry (from 2106 Census)

Census Category	LGIP Category	Shire Wide	Chillagoe	Dimbulah	Kuranda	Mareeba
Agriculture, Forestry and Fishing	Rural, Mining and Other	18.1%	9.1%	19.7%	2.2%	14.2%
Mining	Rural, Mining and Other	1.2%	9.1%	2.4%	1.5%	2.2%
Manufacturing	Industry and Construction	5.1%	0.0%	3.9%	2.6%	5.7%
Electricity, Gas, Water and Waste Services	Industry and Construction	1.2%	0.0%	2.4%	0.3%	1.4%
Construction	Industry and Construction	5.9%	0.0%	4.7%	8.7%	6.6%
Wholesale Trade	Retail	2.3%	0.0%	0.0%	1.4%	2.4%
Retail Trade	Retail	9.0%	0.0%	13.4%	11.9%	10.7%
Accommodation and Food Services	Retail	6.5%	20.5%	2.4%	7.7%	7.5%
Transport, Postal and Warehousing	Industry and Construction	3.8%	0.0%	3.9%	5.7%	3.8%
Information Media and Telecommunications	Office	0.5%	0.0%	0.0%	0.9%	0.5%
Financial and Insurance Services	Office	0.9%	0.0%	0.0%	1.0%	1.2%
Rental, Hiring and Real Estate Services	Office	1.2%	6.8%	0.0%	1.4%	0.9%
Professional, Scientific and Technical Services	Office	2.8%	0.0%	0.0%	5.5%	2.2%
Administrative and Support Services	Office	2.7%	9.1%	3.1%	6.4%	3.2%
Public Administration and Safety	Community	10.0%	6.8%	12.6%	7.3%	9.5%

Census Category	LGIP Category	Shire Wide	Chillagoe	Dimbulah	Kuranda	Mareeba
Education and Training	Community	8.4%	11.4%	19.7%	11.2%	7.4%
Health Care and Social Assistance	Community	10.8%	0.0%	5.5%	14.2%	12.7%
Arts and Recreation Services	Community	1.9%	6.8%	0.0%	3.4%	0.7%
Other Services	Rural, Mining and Other	3.5%	0.0%	2.4%	2.0%	4.3%
Inadequately described/Not stated	Rural, Mining and Other	4.2%	20.5%	3.9%	4.9%	3.1%

Table 6.4 Projected Employment by Category

PIA Locality	LGIP Employment Category	% employed by category	Existing and projected persons in employment by PIA Locality (persons)				Ultimate Development
			2016	2021	2026	2031	
CHILLAGOE	Retail	20.5%	12	12	13	13	60
	Industry and Construction	0.0%	-	-	-	-	
	Office	22.7%	9	10	10	10	20
	Community	18.2%	15	15	16	16	16
	Rural, Mining and Other*	38.6%	22	23	24	25	
DIMBULAH	Retail	15.7%	20	21	22	23	101
	Industry and Construction	15.0%	19	20	21	21	19
	Office	15.7%	4	4	4	5	33
	Community	25.2%	48	50	52	54	54
	Rural, Mining and Other*	28.3%	36	37	39	41	
KURANDA	Retail	21.0%	196	203	212	221	430
	Industry and Construction	17.3%	162	168	175	182	10
	Office	22.4%	141	147	153	159	
	Community	28.7%	336	348	363	378	141
	Rural, Mining and Other*	10.5%	98	102	106	110	378
MAREEBA	Retail	20.6%	894	928	967	1,007	
	Industry and Construction	17.6%	762	791	825	858	1,908
	Office	17.4%	345	358	373	389	1,195

PIA locality	LGIP Employment Category	% employed by category	Existing and projected persons in employment by PIA Locality (persons)				Ultimate Development
			2016	2021	2026	2031	
	Community	20.7%	1,312	1,361	1,419	1,477	625
	Rural, Mining and Other*	23.7%	1,031	1,070	1,115	1,160	
Total PIA			5,462	5,669	5,909	6,149	6,037**

* Excludes employment in rural, mining and industry which is assumed to be predominantly located outside of the PIA.

Table 6.5 Required Floor Space by Employment Category

PIA locality	LGIP Employment Category	GFA per person	Existing and projected employment GFA by PIA Locality (m ²)				Ultimate Development m ²
			2016	2021	2026	2031	
CHILLAGOE	Retail	20	237	246	256	268	1,208
	Industry and Construction	110	-	-	-	-	-
	Office	25	231	239	249	260	495
	Community	50	725	752	783	818	818
	Total		1,194	1,238	1,289	1,346	2,521
DIMBULAH	Retail	20	400	415	432	451	2,029
	Industry and Construction	110	2,091	2,170	2,259	2,355	2,095
	Office	25	100	104	108	113	831
	Community	50	2,401	2,491	2,595	2,704	2,704
	Total		4,992	5,180	5,395	5,623	7,659
KURANDA	Retail	20	3,921	4,069	4,242	4,415	8,600
	Industry and Construction*	110	17,786 (1,778)	18,458 (1,846)	19,242 (1,924)	20,025 (2,003)	1,047
	Office	25	3,537	3,671	3,826	3,982	3,522
	Community	50	16,775	17,409	18,148	18,888	18,888
	Total		26,011	26,995	28,140	29,288	32,057
MAREEBA	Retail	20	17,884	18,565	19,349	20,134	38,163
	Industry and Construction	110	83,867	87,061	90,735	94,419	131,445
	Office	25	8,628	8,957	9,335	9,714	15,629
	Community	50	65,575	68,073	70,945	73,826	73,826
	Total		175,955	182,656	190,365	198,093	259,063
Total PIA			208,152	216,068	225,188	234,350	301,300

*Industry and construction employment for Kuranda is assumed to be either mobile or predominantly outside of the PIA. Assume 10% within PIA.

7. Sources and Supporting Documents

Australian Bureau of Statistics, *2016 Census Quick Statistics – Chillagoe (L) – UCL322029*.

Australian Bureau of Statistics, *2016 Census Quick Statistics – Dimbulah (L) – UCL322036*.

Australian Bureau of Statistics, *2016 Census Quick Statistics – Kuranda – UCL315048*.

Australian Bureau of Statistics, *2016 Census Quick Statistics – Mareeba – UCL314016*.

Australian Bureau of Statistics, *6291.0.55.003 - Labour Force, Australia, Detailed, Quarterly, Aug 2017*.

Queensland Government Statisticians Office, *Broadhectare study 2014 - Profile Mareeba Shire*, (<http://www.qgso.qld.gov.au/products/reports/broadhectare-study/bhs-fnq-mareeba-201408.pdf>), 2014.

Queensland Government Statisticians Office, *Estimated Resident Population (ac) by urban centre and locality (b), Queensland 2006 to 2016pr*, (<http://www.qgso.qld.gov.au/products/tables/erp-ucl-qld/index.php>).

Queensland Government Statisticians Office, *Queensland Government population projections: Local government areas and statistical areas level 2*, (<http://www.qgso.qld.gov.au/subjects/demography/population-projections/reports/qld-govt-pop-proj-lga-sa2/index.php>), 2015.

Mareeba Shire Planning Scheme, MSC, 2016.

Tablelands Regional Council, *Mareeba Shire Planning Scheme Priority Infrastructure Plan Assumptions and Priority Infrastructure Area*, 2011.

