Scenic Rim Regional Council

GROWTH MANAGEMENT STRATEGY

Housing Land Supply and Constraints

Methodology OCTOBER 2022

SCENIC RIM REGIONAL COUNCIL

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1 Introduction

1.1 Purpose

The purpose of this report is to describe the methodology adopted for the Growth Management Strategy to inform the:

1. Housing land supply analysis; and
2. Determination of hard constraints that informed both the housing and employment land supply analysis.

1.2 Background

The South East Queensland Regional Plan 2017 (the*ShapingSEQ*), outlines that the Scenic Rim region's population is expected to reach 62,000 by 2041. The *ShapingSEQ* identifies a need for 10,000 additional dwellings and a minimum of 7,609 new jobs between 2016-2041 to support projected growth for the Scenic Rim.

It should be noted that the *ShapingSEQ's* dwelling supply benchmark of 10,000 new dwellings has been adjusted in the Growth Management Strategy to reflect the 2018 Queensland Treasury dwelling projections (medium series). The 2018 dwelling projections were created in association with the Queensland Government revised population projections (2018 edition), which estimate Scenic Rim's population to reach over 67,000 by 2041. Under the 2018 dwelling projections, the Scenic Rim LGA is projected to experience an increase of 11,000 dwellings between 2016 and 2041.

The Growth Management Strategy provides a planning framework to guide and manage the growth of the Scenic Rim region to 2041. The overall aim of the Growth Management Strategy is to identify the indicative scale, location and timing of future residential and employment growth within the region based on community feedback and needs.

1.3 The Study Area

While the Growth Management Strategy addresses the Scenic Rim region as a whole, particular focus is given to the areas in the region which will accommodate the overwhelming majority of the area's population, employment and dwelling growth. Eleven Study Areas form the basis of the Growth Management Strategy and have been identified for a number of reasons such as, they are:

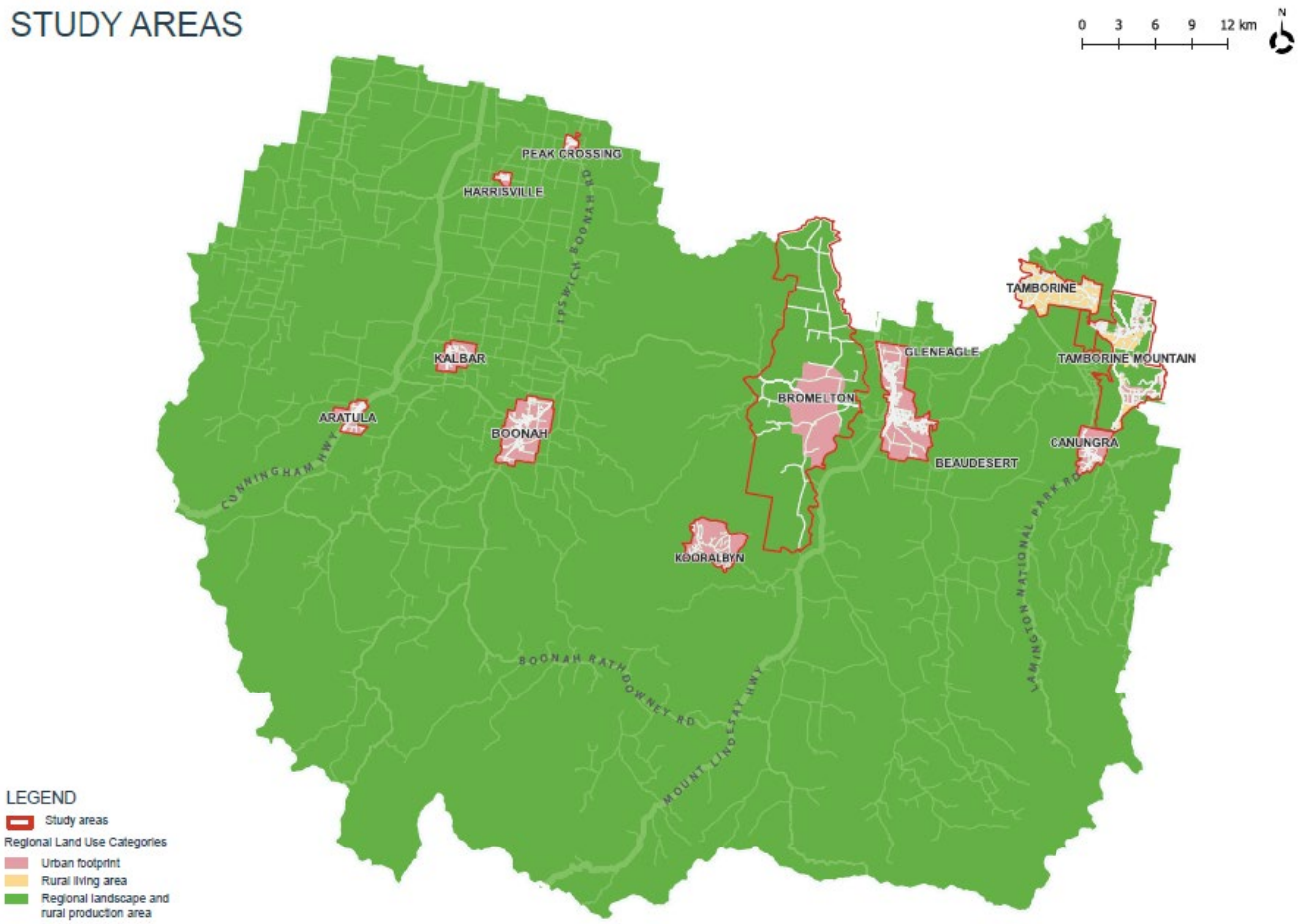
1. Identified in the *ShapingSEQ* as being within the Urban Footprint, Rural Living Area or Regional Economic Cluster; and/or
2. Identified as an Investigation Area in accordance with the *Scenic Rim Planning Scheme 2020* Strategic Framework (Strategic Framework Map SFM-01); and/or
3. Identified within the Local Government Infrastructure Plan 2018 (LGIP) as a Priority Infrastructure Area (PIA) – this only applies to selected study areas.

The Study Areas which are the primary focus of the Growth Management Strategy are shown on Map 1 – Growth Management Strategy Study Areas and include:

- Aratula
- Beaudesert & Gleneagle[1]
- Boonah
- Bromelton
- Canungra
- Harrisville

[1] Beaudesert & Gleneagle are considered to be part of one greater study area for investigation.

- Kalbar
- Kooralbyn
- Peak Crossing
- Tamborine
- Tamborine Mountain



Map 1 – Growth Management Strategy Study Areas

2 Housing Land Supply

2.1 Background

Under the 2018 Queensland Treasury dwelling projections, the Scenic Rim LGA is projected to experience an increase of 11,000 dwellings between 2016 and 2041. Between 1 July 2016 and 30 April 2021, 1,549 residential building approvals were achieved[2]. This equates to an average of 310 dwelling approvals per year, which were primarily for detached housing. Based on the current rate of development, a further 9,451 additional dwellings are required to meet the dwelling supply benchmark by 2041.

[2] *Housing Needs Assessment, Scenic Rim Regional Council. Bull and Bear Economics, 11 August 2022*

Through the GMS, Council aims to provide for additional capacity to account for the fact that not every developable parcel of land will actually be developed during the benchmark time period of 2016 to 2041 and that a pipeline of supply is required to meet the region's housing needs. In this respect, Scenic Rim is prudently planning to provide for around 15,000 dwellings of land supply to achieve its dwelling projection of 11,000 dwellings to 2041.

A Housing Needs Assessment was prepared in 2021 to support the draft Growth Management Strategy and was updated in 2022 for the final Growth Management Strategy, to reflect the release of 2021 Census data. A Housing Land Supply Assessment has been undertaken within Council's Strategic Planning team to determine whether the regulatory planning framework currently meets the residential growth needs of the Scenic Rim. Together, these assessments address whether and how the dwelling supply benchmark is capable of being achieved.

2.2 Housing Land Supply Assessment Methodology

To identify how many new dwellings can be accommodated within the Growth Management Strategy Study Areas, a methodology has been developed that provides a developable land area. The housing land supply assessment uses the average lot densities stipulated in the zones identified within the *Scenic Rim Planning Scheme 2020* to establish the potential number of residential lots for each parcel of developable land within each Study Area[3]. This is described as the 'Planned Yield'. The *Scenic Rim Planning Scheme 2020* average lot densities are shown in Table 1 below.

Table 1: Scenic Rim Planning Scheme 2020 minimum average lot densities

Zone and Precinct (if applicable)	Average lot size (m^2)	Study Area examples
Low-medium Density residential	700	Beaudesert, Canungra, Kooralbyn
Low Density Residential	700	Aratula, Beaudesert, Boonah, Canungra, Kalbar, Kooralbyn
Rural Residential	4,000	Aratula, Beaudesert, Boonah, Canungra, Kooralbyn
Rural Residential Zone - Rural Residential A Precinct	10,000	Aratula, Beaudesert, Canungra, Kooralbyn
Township Zone - Township Residential Precinct	1,000 where reticulated sewer is provided. 4,000 where reticulated sewer is not provided.	Harrisville, Peak Crossing

The methodology used for calculating the housing land supply within each Study Area is summarised within a series of steps as follows:

Step 1

Identify vacant and underutilised residential lots (assume one house existing per underutilised lot) within each residential zone (refer Table 1) across each of the Study Areas.

[3] The period of calculation and projection is between July 2016 and June 2041. While the Scenic Rim Planning Scheme horizon is 2020 to 2041, the current Planning Scheme zones are used for residential density calculations and are varied where development that has been approved and commenced since July 2016, provides the actual dwelling yield.

Step 1 parameters:

a) All lots must be located within the Study Area boundary.

b) All lots within the Study Area boundaries must be able to support additional reconfigured lots for residential purposes. Note: reconfiguring of lots for residential purposes is not currently permitted within the Tamborine Mountain and Tamborine Study Areas under the current *Scenic Rim Planning Scheme 2020*. Assumptions varying the methodology have been applied (refer variation and assumptions below).

c) As a minimum, each lot must be larger than 2,500m^2. Note: Under the *Scenic Rim Planning Scheme 2020*, the minimum average residential lot size in the Low-medium density Residential and Low Density Residential zones is 700m^2.

Step 2

Calculate potential residential yields for the vacant and underutilised lots identified in Step 1 based on the following formula:

a) Using the Growth Management Strategy Constraints Mapping (refer Section 2.3 of this report), subtract the constrained area (m^2) from the lot area (m^2) = **Unconstrained Area**.

b) Subtract the standard 30% infrastructure area (m^2) from the Unconstrained Area = **Developable Area**.

c) Divide the Developable Area (m^2) by the applicable *Scenic Rim Planning Scheme 2020* minimum average lot density (e.g. 700m^2, 1,000m^2, 4,000m^2, 10,000m^2) = **Planned Yield** for the lot.

d) Subtract any existing houses from the Planned Yield.

e) The Planned Yield for each lot is aggregated to provide a total Planned Yield for each Study Area.

Step 3

Aggregate the Planned Yield for each Study Area and the number of lots approved between July 2016 and July 2022 and measure against State Government dwelling projections to establish whether the existing residential zoned land is sufficient to meet the projected growth of 11,000 dwellings between 2016 and 2041.

Table 2 below provides a detailed breakdown of the number of households, land supply and growth calculations showing the results of Steps 1 to 3 in columns 4 and 5; for each Study Area.

Housing Land Supply calculations - Variations and Assumptions

- In undertaking the housing land supply calculations, it is assumed that each new lot identified through the subdivision of the developable area of a larger lot, is converted into one dwelling, that is, 1 new lot = 1 new dwelling.
- Where development has been approved since 1 July 2016, the approved number of lots (which are each assumed to provide 1 dwelling) is used and replaces the Planned Yield for those particular parcels of land, for the purposes of the growth calculation.
- For an approved development lot, the approval has been reviewed to determine whether any existing houses have been incorporated in the final residential lot number.
- For rural residential lots with an existing dwelling and located within an established rural residential neighbourhood, if the reconfiguration calculation provides less than two (2) lots once the constraints area is applied, neither the calculation, nor the existing dwelling number is included in the Study Area total for Planned Yield.

- Whether the land parcel is identified as being fully or partially inside or outside a Priority Infrastructure Area (for the purpose of future sequencing considerations), has no bearing on the calculation of planned or approved lot numbers.
- The 30% infrastructure calculation is not applied to lots where eligible to be reconfigured for growth if within established rural residential zones on which dwellings are present on each lot.
- The calculated yield is rounded down to a whole number, even when the figure includes a value that is over half a decimal (0.5). For example, once an existing dwelling number is removed (where applicable), developable land that yields 11.8 lots, gives a final yield of 11 additional lots.

Additional Housing Land Supply

- To provide additional capacity to account for the fact that not every developable parcel of land will be developed by 2041, suitable lots (proposed growth in addition to the Planned Yield within the Study Areas) are identified and allocated an appropriate zone and associated lot size or reconfiguration density.
- Increase the density of dwelling capacity on rural land by rezoning to Low or Low-medium density residential development in the Urban Footprint of Beaudesert and Kalbar.
- Calculate additional housing land supply through the application of a new zone or precinct with a 300m^2 average dwelling density to produce Medium density residential living options in accessible locations within the Beaudesert and Gleneagle Study Area.
- Infill rural residential development is assumed in Tamborine and on Tamborine Mountain in the Rural Living Area or Urban Footprint (refer below).

Infill Growth

- Where subdivision is currently not supported within the *Scenic Rim Planning Scheme 2020*, for the Study Areas of Tamborine and Tamborine Mountain, residential growth scenarios using a 4,000m2 minimum lot size; and a 1ha minimum lot size were tested within the Rural Residential Zone and Rural Residential Precincts.
- A Rural Residential Infill Strategy using lot-by-lot consideration of reconfiguration suitability (instead of the broadhectare application that removes constrained land from the developable area, as identified in Steps 1, 2 and 3, above) is applied.
- A 1ha minimum is identified as being the most appropriate lot size for the infill residential growth for Tamborine and Tamborine Mountain for a number of reasons: the provision of on-site sewerage disposal that does not impact constrained or ecologically significant areas; consistency with the large lot character and existing settlement pattern; the opportunity to maintain and enhance the areas' small scale tourist or agri-business activities; the 2ha sized lots required as a minimum for reconfiguring will not concentrate growth in one area; and a small number of large acreage rural residential living lots for which there is demand, can be facilitated through the Growth Management Strategy.
- Where land is significantly constrained by environmental overlay mapping or its current use is not suited to residential growth by 2041, the sites have not been included in the subdivision growth number.
- Where Dual occupancy development has already occurred, those additional dwellings are accounted for, reducing the number of proposed potential dwellings on new lots.
- The proposed subdivision number for Tamborine and Tamborine Mountain will be revised, as further investigations into Matters of Environmental Significance and biodiversity corridors and linkages are finalised and adopted within an amendment to the *Scenic Rim Planning Scheme 2020*.
- The dispersed nature of the individual lots that meet the minimum size requirement, along with the costs associated with servicing individual parcels of unreticulated land, mean that the development costs for these additional rural residential lots make it difficult to gauge the uptake, thus compounding the unknown take up of lots available through this strategy.
- Sections 9.12 and 9.13 of the Growth Management Strategy provide further analysis and the infill growth strategies for the Tamborine and Tamborine Mountain Study Areas, which includes the application of this methodology.

Table 2 summarises the housing land supply growth for each of the Study Areas between 2016 and 2041 using the above Housing Land Supply methodology, along with the constraints mapping which is described below. The table identifies the potential additional housing land supply for the proposed expansion and re-zoning of residential land at Beaudesert and Kalbar; and the proposed infill subdivision at Tamborine and Tamborine Mountain. In summary, Table 2 demonstrates that the benchmark 11,000 new dwellings to be achieved within the Scenic Rim by 2041 is exceeded under the current land supply provisions of the Planning Scheme zoning however, with the application of new proposed growth, primarily through the proposed rezoning of rural to residential land within the Beaudesert & Gleneagle Study Area, a pipeline of residential dwelling supply (additional lots) of just over 15,000 is achievable by 2041.

Table 2 Proposed residential growth in the GMS study areas between 2016 and 2041

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11
Study area	No. of households (CDM Smith, 2016 Census)	No. of households (Bull & Bear, 2021 Census)#	Approved lots (1 July 2016 - 1 July 2022)	Remaining potential lots under Planning Scheme (minus approved)	Developable Area for additional residential lots	Planned Lot capacity within PIA	GMS Strategy for additional residential lot growth	Developable Area for additional greenfield residential lots through GMS Strategy for additional lot growth	Residential lot growth potential (Column 4 + 5 + 8) (2016 to 2041)	% Share of residential lot potential across all study areas (Column 10)
Aratula	178	181	113	409	89ha	N/A	0	0	522	3.43%
Beaudesert & Gleneagle	3,372	3,571	1,131	5,758	523ha	3,120	2,668	110ha	9557	62.83%
Boonah	1,394	1,439	135	2,086	204ha	744	0	0	2,221	14.60%
Canungra	627	605	534	430	52ha	858	0	0	964	6.34%
Harrisville	168	156	37	73	52ha	N/A	0	0	110	0.73%
Kalbar	437	422	289	855	122ha	150	36	2.5ha	1180	7.76%
Kooralbyn	646	788	5	177	63ha	159	0	0	182	1.19%
Peak Crossing	187	167	3	75	24ha	N/A	0	0	78	0.51%
Tamborine	764	657	0	0	N/A	N/A	258*	0	258	1.69%
Tamborine Mountain	2,955	3,190	8	0	N/A	N/A	132*	0	140	0.92%
Total Study Area	10,728	11,176	2,255	9,863			3,094		15,212	100%

Most Study Areas grew in the number of household dwellings between the Census years of 2016 and 2021 although this growth was lower than expected due to a general increase in average household size. It is also anticipated that a few Study Areas recorded declines in the number of household dwellings between 2016 and 2021 because of this trend.

*The GMS strategy for additional residential lot growth potential, uses an industry accepted methodology for growth in *broadhectare* locations. All Study Areas within the Scenic Rim GMS follow this approach with the exception of Tamborine and Tamborine Mountain. Within Tamborine and Tamborine Mountain, large scale growth is not possible under the *ShapingSEQ,* or within the current settlement pattern and environmental constraints. The methodology is therefore applied in recognition of these Study Areas being limited to small scale *infill* growth potential, instead of *broadhectare* growth. A site-specific lens has been used to consider each lot that is 2 hectares or larger, resulting in an approximation of proposed lot growth, that is

dispersed throughout Tamborine and Tamborine Mountain. Further assessment of specific lot-level suitability for reconfiguration will be included within a proposed amendment to the *Scenic Rim Planning Scheme 2020*.

2.3 Development Constraints Mapping Methodology

To help calculate the developable land area for residential and employment development across the Study Areas, hard constraints to development were identified and spatially mapped. In accordance with the Growth Monitoring Program (GMP) best practice research and SEQ-wide developability rules, a hard constraint is defined as *100% of an area that is not considered available for development*. As previously described in Step 2 above, the area taken up by the hard constraints is calculated and removed from the total land area available for development. Table 3 below provides a list of the hard constraints used to calculate the developable area.

Each hard constraint listed in Table 3 has been compiled into a GIS mapping layer and dissolved into a single Constraints Mapping layer to inform the housing and employment land supply analysis. Refer to Map 2 - Consolidated Constraints.

Please refer to the supporting Employment Lands Assessment for further details regarding the adopted methodology to determine the employment land supply and employment projections for each Study Area.

Table 3: Hard Constraints applied in the calculation of developable land

Item	Element	Source	Comments
Koalas	• Highly constrained koala habitat	• Data downloaded 7 February 2020 from Queensland Spatial Catalogue	Areas where Core Koala Habitat Area and Locally Refined Koala Habitat Area overlap with land in a Koala Priority Area.
Flood	• Defined Flood Area (1% AEP + Climate Change factor) • Investigation Area	• Datasets sourced from the following studies: • *Bremer River Flood Modelling – Consolidated, Final Report, Aurecon* dated 14 December 2017 • *Warrill Creek Flood Modelling – Consolidated Final Report, Aurecon* dated 12 January 2018 • *Purga Creek Flood Modelling – Consolidated Final Report, Aurecon* dated 14 December 2017 • *Teviot Brook Flood Modelling – Consolidated Final Report,*	

Item	Element	Source	Comments
		Aurecon dated 14 December 2017 • *Logan River Flood Modelling – Consolidated Final Report, Aurecon* dated 14December 2017 • *Albert River Flood Modelling – Consolidated Final Report, Aurecon* dated 14 December 2017 • *Upper Coomera River Flood Modelling – Consolidated Final Report, Aurecon* dated 14 December 2017 • *Canungra Creek and Biddaddaba Creek Flood Modelling – Study Report Aurecon* dated 17 June 2019 • *Canungra Township - Updated Detailed Flood Study Aurecon* dated 26 April 2022 • *Veresdale Food Study dated Aurecon* 26 April 2022	
Water and Wastewater Infrastructure	• Bulk Water Storage Infrastructure • Pipelines and Channels • Pump Station Facility • Bulk Water Facility • Bulk Water Supply Buffer Area	• Seqwater datasets • Bulk Water Supply Buffer Area dated 20 Feb 2018 • All other datasets dated 25 May 2017	

Item	Element	Source	Comments

	• Wastewater Treatment Plant
	• Wastewater Treatment Plant Buffer Area
		• *Scenic Rim Planning Scheme 2020* datasets
		  • Wastewater Treatment Plant dated 13 September 2017
		  • Wastewater Treatment Plant Buffer Area dated 17 September 2018	

Slope	• Slope Over 25%	• *Scenic Rim Planning Scheme 2020* datasets created using SEQ Catchments analysis dated December 2015.	Slope Hazard that is identified in the *Scenic Rim Planning Scheme 2020* overlay as between 15.1% - 20% and Slope Hazard 20.1% - 25% have not been included as a 100% constraint for the Growth Management Strategy because: • Matters of State Environmental Significance (MSES) and Local biodiversity provide similar coverage; and • Development within these slopes is permitted subject to RPEQ approval.

Landslide	• Very High
	• High
	• Medium
		• *Scenic Rim Planning Scheme 2020* datasets dated 11 September 2017 and created from the following studies:
		  • *Slope Stability And Its Constraints On Closer Settlement On Tamborine Mountain, Southeast Queensland by W.F. Willmott May1981 Record 1981/14, and*
		  • *Slope Stability And Its Constraints On Closer Settlement In The Canungra-Beechmont-Numinbah Area,*	

Item	Element	Source	Comments
		Southeast Queensland by W.F. Willmott May1981 Record 1983/64	
Rail	• Existing Rail Network	• Data downloaded June 2014 from Queensland Spatial Catalogue	
	• Future Rail Network	• Data downloaded July 2013 from Queensland Spatial Catalogue	
	• Rail Buffer	• Created from data downloaded June 2014 (for Existing Rail Network) and July 2013 (for Future Rail Network) from Queensland Spatial Catalogue	
Electricity	• Electricity Substation	• Energex data issued to Council February 2016.	
	• 110kV Transmission Line • 33kV Transmission Line • Major Electricity Infrastructure Buffer Area	• Data sourced or created (i.e. Buffer Areas) from Energex data issued to Council May 2015	
	• Energex Easements	• Data downloaded 13 August 2020 from Queensland Spatial Catalogue	
Roads	• State Controlled Roads	• Data downloaded 7 March 2020 from Queensland Spatial Catalogue	
	• Road Investigation Corridor	• *Scenic Rim Planning Scheme 2020* dataset dated 21 November 2017.	

Aviation and Defence	• Aviation Facility
	• Building Restricted Area
		• *Scenic Rim Planning Scheme 2020* datasets
		  • Aviation facility dated 20 Nov 2017
		  • Building Restricted Area	

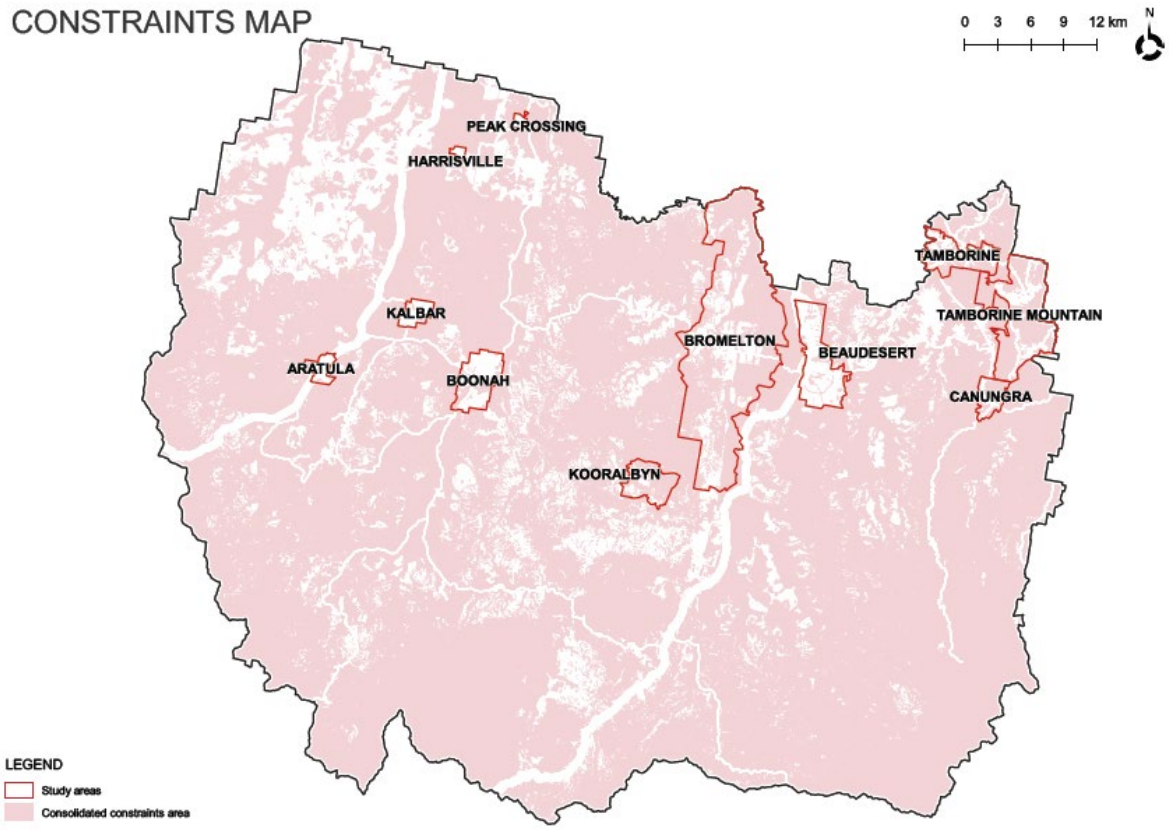
Item	Element	Source	Comments
		dated 21 January 2020	
	• Defence Land • Defence Land Buffer Area	• *Scenic Rim Planning Scheme 2020* datasets dated 21 January 2020	
Heritage	• Queensland Heritage Register	• Data downloaded 11th August 2020 from Queensland Spatial Catalogue	
	• Local Heritage Place	• *Scenic Rim Planning Scheme 2020* dataset dated November 2018.	
Streams and Dams	• Urban Water Supply Storage	• Seqwater datasets issued to Council 1st August 2017	Only major stream orders (4-7) considered as hard constraints to development.
	• Stream Order 4 to 7 only	• Data downloaded 8 February 2018 from Queensland Spatial Catalogue	
Agriculture	• Agricultural Land Classification (Class A and Class B)	• Data downloaded July 2020 from QLD Spatial Catalogue	
Local Biodiversity	• Core Corridor • Node Corridor • Stepping Stone • Critical Linkage	• *Scenic Rim Planning Scheme 2020* datasets dated 12 February 2016	
Matters of State Environmental Significance (MSES)	• Regulated Vegetation Category B	• Data downloaded 13 August 2020 from QLD Spatial Catalogue	
	• Regulated Vegetation Category C	• Data downloaded 13 August 2020 from QLD Spatial Catalogue	
	• Regulated Vegetation Essential Habitat	• Data downloaded 13 August 2020 from QLD Spatial Catalogue	
	• Regulated Vegetation 100m from wetland	• Data downloaded 13 August 2020 from QLD Spatial Catalogue	
	• Legally Secured Offset Area Vegetation Offsets	• Data downloaded 13 August 2020 from QLD Spatial Catalogue	

Item	Element	Source	Comments
	• Regulated Vegetation intersecting a watercourse	• Data downloaded 13 August 2020 from QLD Spatial Catalogue	
	• Protected Area - Estates	• Data downloaded 14 August 2020 from QLD Spatial Catalogue	
	• Protected Area - Nature Refuges	• Data downloaded 14 August 2020 from QLD Spatial Catalogue	
	• Wildlife Habitat - endangered or vulnerable wildlife	• Data downloaded 14 August 2020 from QLD Spatial Catalogue	
	• Wildlife habitat - special least concern animal	• Data downloaded 14 August 2020 from QLD Spatial Catalogue	
	• High ecological value waters - wetlands	• Data downloaded 14 August 2020 from QLD Spatial Catalogue	
	• High ecological significance wetlands	• Data downloaded 14 August 2020 from QLD Spatial Catalogue	
	• High ecological value waters - watercourse	• Data downloaded 14 August 2020 from QLD Spatial Catalogue	

Key Resource Areas	• Resource Processing Area
	• KRA Separation Area
	• KRA Transport Route
	• KRA Transport Route Separation Area
		• *Scenic Rim Planning Scheme 2020* datasets
		  • KRA Transport Routes dated 6 September 2017
		  • KRA Separation Area dated 16 November 2017
		  • Resource Processing Area dated 20 November 2017
		  • KRA Separation Area dated 15 February 2016	

	• Mineral Development licence	• Data downloaded 16 December 2020 from QLD Spatial Catalogue	

Item	Element	Source	Comments
	• Mining leases	• Data downloaded 20 June 2016 from QLD Spatial Catalogue	
Matters of National Environmental Significance	• Important Wetlands • World Heritage Areas	• Data downloaded 18 August 2020 from QLD Spatial Catalogue	



Map 2 – Consolidated Constraints

A more detailed application of how the dissolved constraints map layer is used to inform growth within the Growth Management Strategy is illustrated in each of the individual study area strategies and maps within section 9 of the Growth Management Strategy.