

## Broadhectare Study 2012 profile Gladstone Regional Council

### Introduction

The preliminary estimated resident population of Gladstone Regional Council (hereafter referred to as Gladstone) at 30 June 2011 was 59,400 persons (Source: ABS 3218.0). This is expected to increase to between 70,960 (low series) and 77,630 (high series) persons by 2016, representing population growth over the 2011–2016 period of between 11,560 (low series) and 18,230 (high series) (Source: Queensland Government Population Projections to 2031, Local Government Areas 2011 edition).

### Land stock

The total area of broadhectare land available in Gladstone for residential development is 1,596 hectares, representing only a very small percentage of the total land area, (Tables 1 and 2). This includes Urban Land Development Authority sites at Clinton, Tannum Sands and Toolooa. This land is shown on the maps that accompany the profile.

Broadhectare land is defined as the amount of unconstrained residential land identified under the current planning scheme including existing residential developments approved by council.

Broadhectare land can be further classified as follows:

- urban residential land for development – 1,138 hectares
- lower density residential land for development – 458 hectares.

'Lower density' refers to development yielding three dwellings or less per hectare, or as otherwise described in the planning scheme.

'Standard urban density' refers to development yielding between 4 and 15 dwellings per hectare.

'Higher density' refers to development yielding greater than 15 dwellings per hectare.



Table 1: Gladstone (R) land use profile

Land use category	Area	Per cent
Suitable for standard urban residential development	1,138 ha	0.11%
Suitable for lower density residential development	458 ha	0.04%
Assumed urban residential use	1,478 ha	0.14%
Assumed lower density residential use	6,361 ha	0.61%
Roads, watercourses and railway casements	60,814 ha	5.80%
Rural/Green/Open space	961,606 ha	91.67%
Balance area <sup>(a)</sup>	17,145 ha	1.63%

(a) includes all land uses other than residential

Table 2: Gladstone (R) broadhectare stock and dwelling yield (a)

Timeframe	Broadhectare stock (hectares)				Theoretic dwelling yield stock (dwellings) (b)	Expected dwelling yield (dwellings) (c)			
	Higher density	Standard urban density	Lower density	Total		Higher density	Standard urban density	Lower density	Total
0–2 years	36	166	67	269	2,124	1,109	941	74	2,124
2–5 years	9	429	204	643	2,330	210	1,714	183	2,107
5–10 years	15	202	47	264	2,132	437	1,430	63	1,929
10+ years	7	200	0	207	1,891	229	1,437	0	1,666
Not specified	11	63	140	214	619	244	207	106	557
<b>Total</b>	<b>78</b>	<b>1,060</b>	<b>458</b>	<b>1,596</b>	<b>9,096</b>	<b>2,229</b>	<b>5,729</b>	<b>426</b>	<b>8,384</b>

(a) Components may not sum exactly to totals due to rounding.

(b) Yield if all broadhectare stock is developed irrespective of ownership and/or fragmentation.

(c) Yield has been reduced to account for likelihood of development due to factors such as ownership and fragmentation.



## Dwelling yields

Table 2 shows the potential number of dwellings that could be constructed based on the identified land stock. This is known as the 'expected dwelling yield'. The main points from Table 2 are:

- Broadhectare land can potentially yield some 8,400 dwellings.
- Higher density development accounts for approximately 27 per cent of the total expected dwelling yield.
- Development at standard urban densities would account for the majority of development from broadhectare land.

## Stock composition

The broadhectare stock in Gladstone is contained primarily within land parcels greater than 10 hectares in area (Table 3). For all broadhectare parcels, the difference between the overall parcel area (2,143 hectares) and the area available for development (1,596 hectares) indicates that a number of parcels are affected by physical or environmental constraints. The main points from Table 3 include:

- Residential stock is contained within 159 land parcels.
- Parcels less than or equal to 2 hectares account for 44 per cent of all parcels.
- Of the urban broadhectare stock, more than 86 per cent is contained in parcels sized 10 hectares or more.
- Parcels sized 10 hectares or more account for almost 73 per cent of the expected total dwelling yield from broadhectare land.

Table 3: Gladstone (R) broadhectare stock composition (a)

Parcel size categories (hectares)	Land parcels (number)	Total area of parcels (hectares)	Broadhectare area (hectares)			Expected dwelling yield (number)		
			Urban residential (b)	Low density residential	Total stock	Urban residential (b)	Low density residential	Total dwellings
<= 1.2	50	30	26	27	53	714	25	738
1.3–2.0	20	35	28	0	28	294	0	294
2.1–4.9	25	84	48	2	50	631	3	633
5.0–9.9	15	112	53	24	77	567	36	603
10.0+	49	1,882	983	404	1,388	5,752	363	6,115
<b>Total</b>	<b>159</b>	<b>2,143</b>	<b>1,138</b>	<b>457</b>	<b>1,596</b>	<b>7,958</b>	<b>427</b>	<b>8,384</b>

(a) Components may not sum exactly to totals due to rounding.

(b) Includes dwellings at Higher and Standard urban densities.

## Population capacity

Average household size for occupied private dwellings in Gladstone at the time of the 2011 Census was 2.8 and 1.8 persons for houses and attached dwellings respectively. Table 4 shows a range of possible population yields for the total identified broadhectare stock in each density category by a range of household sizes. The current household sizes at the time of the 2011 Census are highlighted.

Table 4: Gladstone (R) population yields based on a range of household sizes (persons)

Development type	Number of dwellings	Household size (average persons per household)				
		2.4	2.6	2.8	3.0	3.2
Possible population yield						
Low density residential	426	1,022	1,108	1,193	1,278	1,363
Standard urban density residential	5,729	13,750	14,895	16,041	17,187	18,333
Household size (average persons per household)						
		1.4	1.6	1.8	2.0	2.2
Possible population yield						
Higher density residential	2,229	3,121	3,566	4,012	4,458	4,904
Total	8,384	17,893	19,569	21,246	22,923	24,600



The main finding from Table 4 is that, depending on average household size, land from greenfield development could accommodate between 17,900 and 24,600 persons. Further development in existing residential areas, where the parcel size is less than 2,500 square metres, could also accommodate additional population.

### Total potential dwelling yield

Land ownership and fragmentation of land are potential constraints to residential development, and adjustments have been made to the broadhectare stock by applying potential development rates to land parcels. Furthermore, to determine overall residential land supply for this study, existing vacant residential land stock below 2,500 square metres has been added to the broadhectare supply. Residential land supply based on these components indicates a total potential dwelling yield of approximately 9,900 dwellings (See Table 5).

It is important to note that this dwelling yield does not include dwellings that would have been achieved through infill and redevelopment of smaller parcels below the broadhectare model threshold.

### Years supply – illustrative only

Evidently, not all future dwelling demand will be met through development of broadhectare land. Nevertheless, an indicator of the adequacy of the supply of residential land (broadhectare and vacant lots) can be calculated by comparing the total supply as indicated above with future demand.

To make an assessment of future demand and determine whether there is an adequate supply of residential land, three scenarios of dwelling projections have been used based on the Queensland Government's population projection series—low, medium and high. An allowance has been made for a continuous but gradual decline in average household size into the future. Figure 1 and Table 5 show, based on these scenarios, the amount of land supply in terms of years remaining.

Table 5 also shows that existing developed vacant land stock accounts for 15 per cent of the total residential land stock yield.

Figure 1: Gladstone (R) projected demand for land stock based on dwelling projections

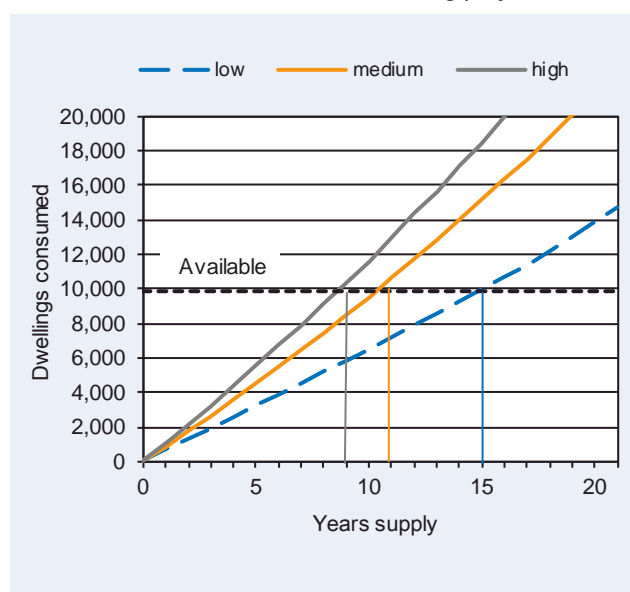


Table 5: Gladstone (R) broadhectare supply scenarios

Dwelling production scenario (a)	Demand for residential lots	Supply - Stock of residential lots			
	Dwellings required per annum (b)	Broadhectare dwelling yield (c)	Existing vacant land stock (d)	Total potential dwellings (e)	Years supply (f)
Low trend	663	8,384	1,510	9,894	15
Medium trend	968	8,384	1,510	9,894	10
High trend	1,152	8,384	1,510	9,894	9

(a) Based on dwelling projection levels produced in 2011.

(b) Dwellings required per annum to 2031 based on Government Statistician dwelling projections.

(c) Decreased to take into account the probability of development.

(d) Estimate of vacant residential land stock at October 2012.

(e) Supply of residential lots.

(f) Illustrative only if no additional infill or redevelopment occurs.

### Conclusion – Gladstone Regional Council

The study has determined that the total area of broadhectare land available for residential development is 1,600 hectares. If this land was fully developed it could potentially yield approximately 8,400 dwellings and accommodate approximately 21,200 persons, using current average household sizes.

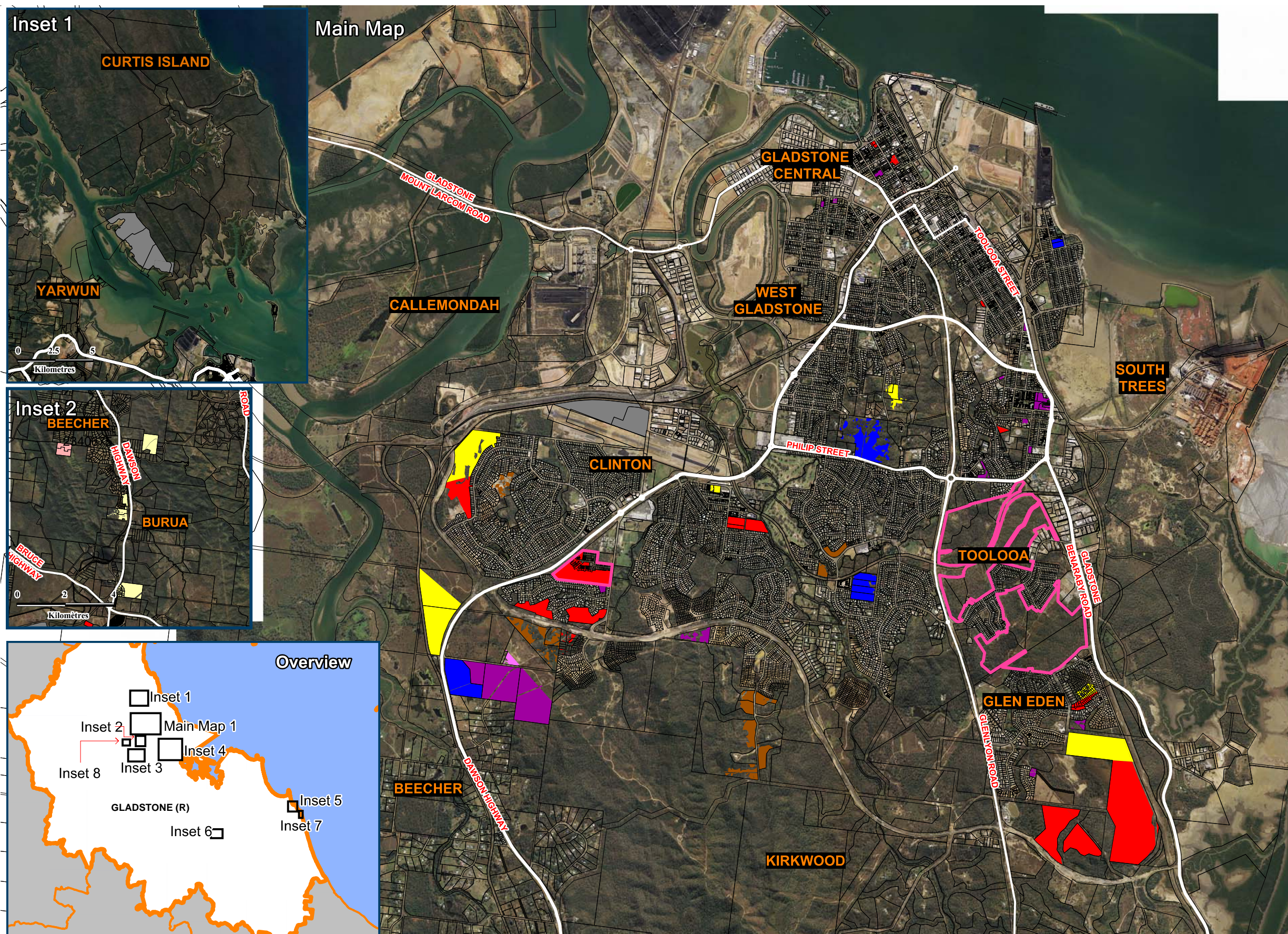
Based on current medium series household projections and a reduced broadhectare dwelling yield (to account for economics of development and ownership issues), the available residential land stock indicates 10 years of supply.



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## Legend

### Broadhectare land Gladstone RC

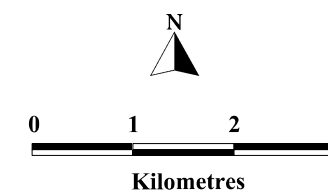
Timeframe	Urban residential	Low density residential
0 – 2 years	202 ha	67 ha
2 – 5 years	438 ha	204 ha
5 – 10 years	217 ha	47 ha
10+ years	207 ha	140 ha
Not specified	74ha	0 ha
Workers' camps <sup>1</sup>	824 ha	

Land suitable and potentially available for residential development. Timeframes are indicative only.

<sup>1</sup> Land for workers' camps. This land does not form part of the broadhectare stock.

### Other map features

- Local government boundaries
- Major roads
- Urban Land Development Authority area



### Notes

This map indicates the areas which are suitable and potentially available for residential development. This map does not commit council to approve developments within these identified areas or within the indicated timeframes.

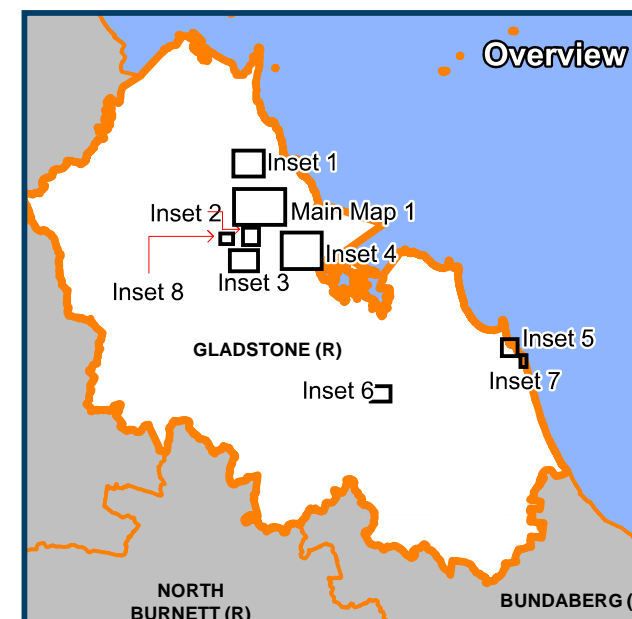
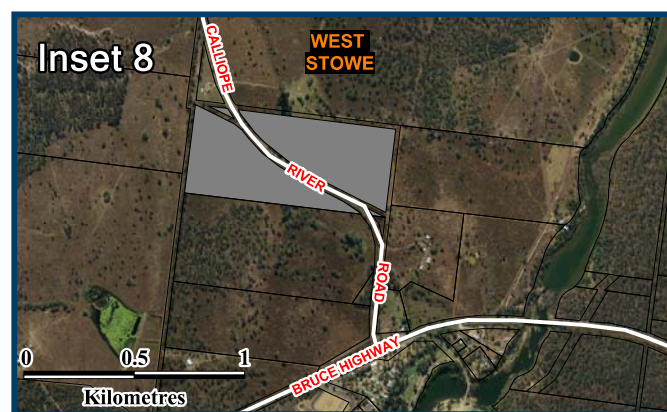
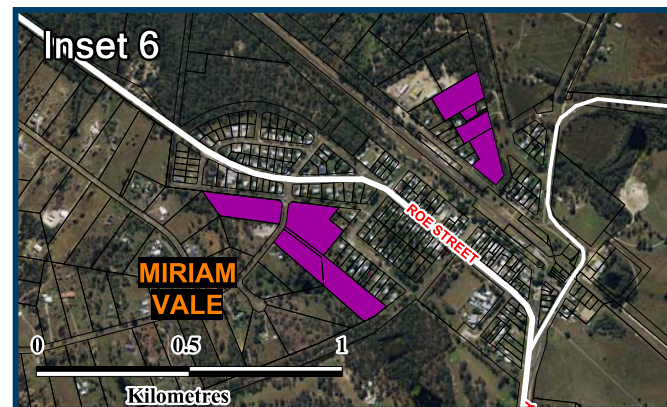
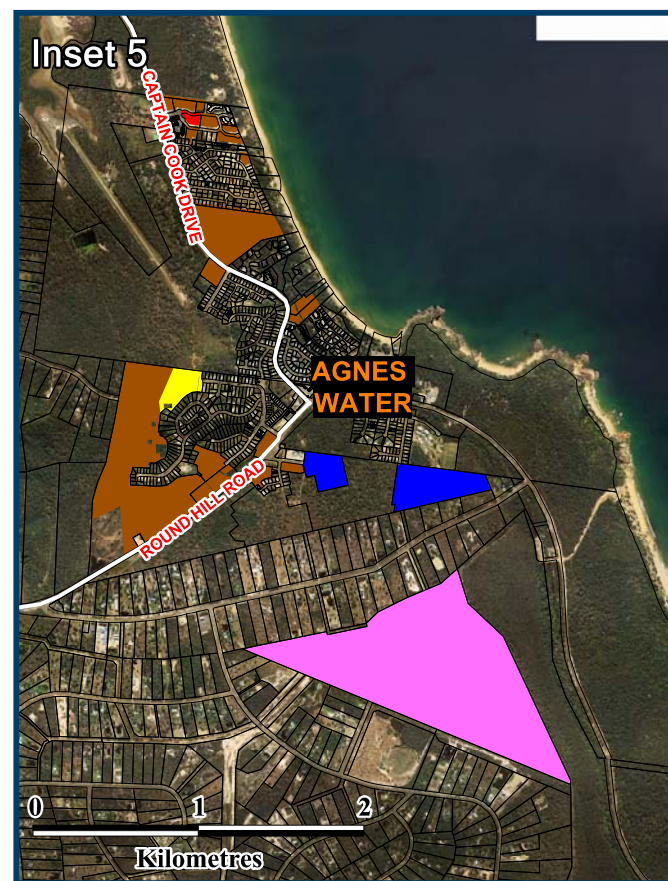
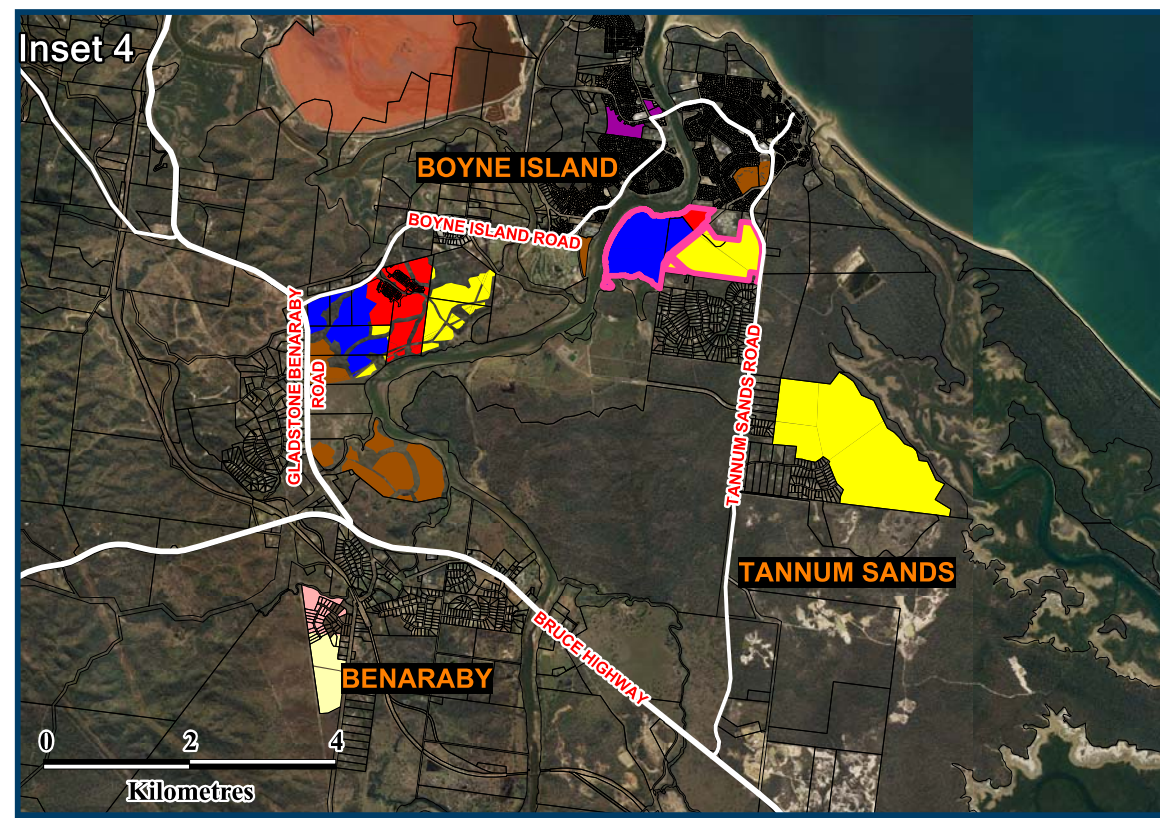
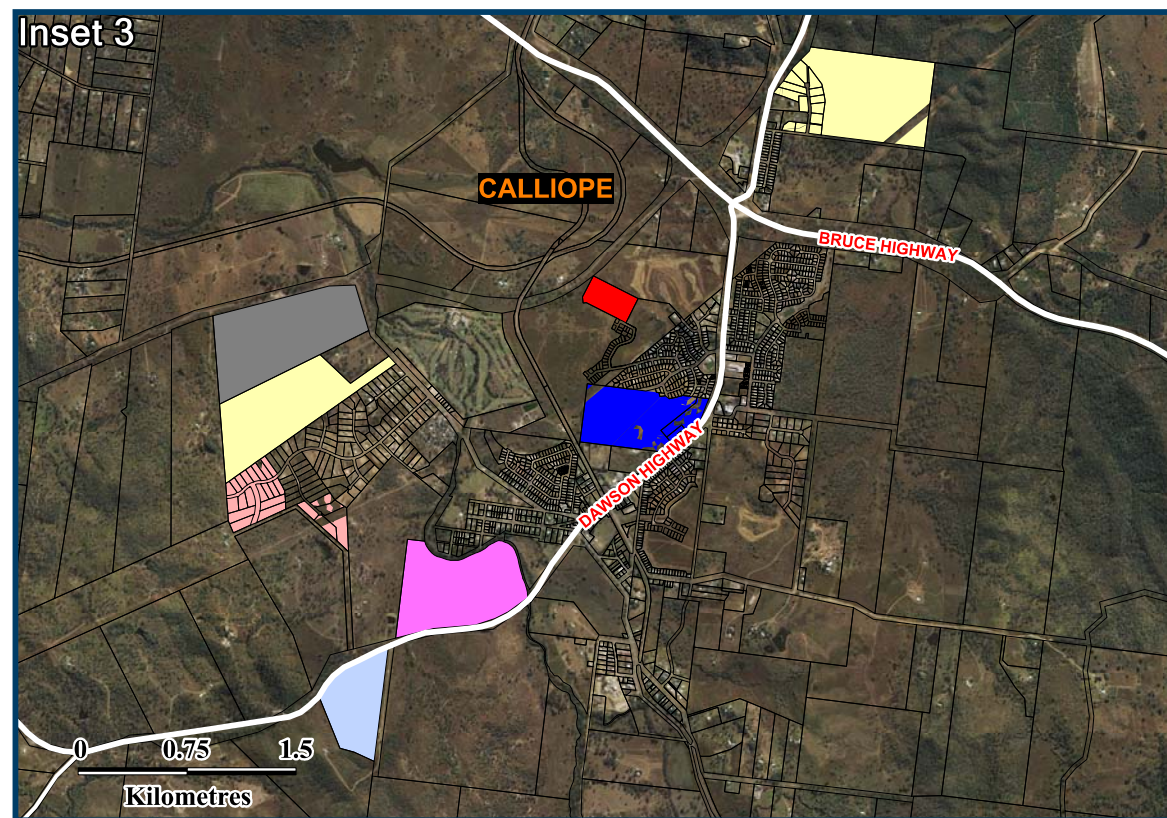
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