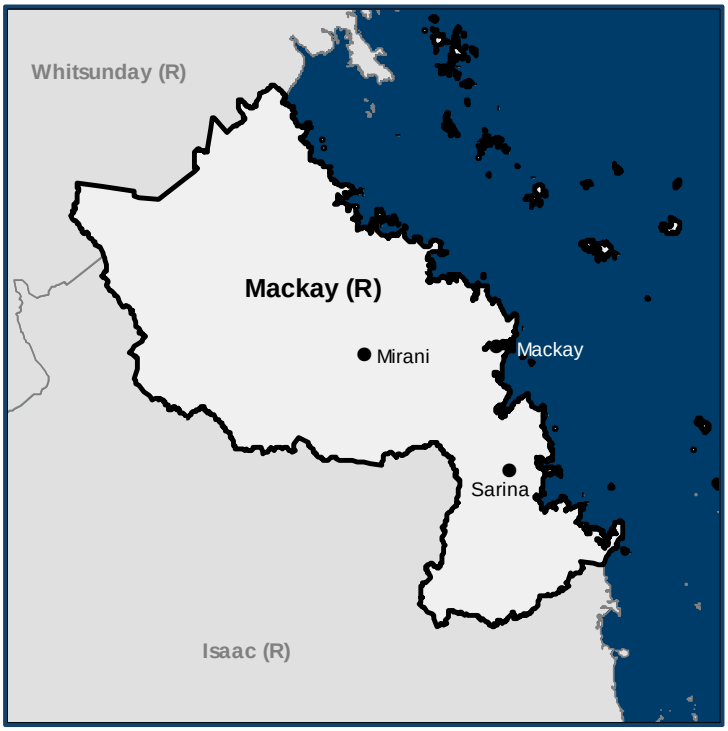
Broadhectare study 2015 profile

Mackay Regional Council



Introduction

The Broadhectare study identifies the location and quantifies the area, timing of development and dwelling yield of larger land parcels to house future population. The land identified is known as broadhectare and represents unconstrained residential land supply under the planning scheme and development approvals.

Land stock

The total area of broadhectare available in Mackay Regional Council (hereafter referred to as Mackay) is 2,351 hectares, representing a small percentage of the total land area of Mackay (Tables 1 and 2).

Broadhectare can be further classified as follows:

- urban residential broadhectare — 1,394 hectares
- rural residential broadhectare — 957 hectares.

The study refers to 'rural residential' development as yielding three dwellings or less per hectare, or as otherwise described in the planning scheme.

Urban development at 'standard urban density' or 'higher density' is classified as yielding between 4 to 20 dwellings and greater than 20 dwellings per hectare respectively.

Table 1 Mackay (R) land use profile

Land use category	Area	% of total
Suitable for urban residential broadhectare development	1,394 ha	0.18%
Suitable for rural residential broadhectare development	957 ha	0.13%
Assumed existing urban residential use	3,199 ha	0.42%
Assumed existing lower density residential use	9,936 ha	1.30%
Roads, watercourses and railway casements	29,635 ha	3.89%
Rural/Green/Open space	697,091 ha	91.46%
Balance area [a]	19,989 ha	2.62%

(a) Includes all land uses other than residential.

Dwelling yield

Table 2 shows 'theoretical dwelling yield' (the potential number of dwellings that could be built based on the identified land stock) and 'expected dwelling yield' (which takes into account factors affecting development of land such as ownership and land fragmentation).

The main points from Table 2 are:

- Broadhectare is expected to yield approximately 18,100 dwellings.
- Development at standard urban density accounts for 70 per cent of the total expected dwelling yield.
- Rural residential development is minor in terms of contribution to overall dwelling supply.

Table 2 Mackay (R) broadhectare stock and dwelling yield [a]

Timeframe	Broadhectare stock (hectares)				Theoretical dwelling yield (dwellings) [b]	Expected dwelling yield (dwellings) [c]			
	Higher density	Standard urban density	Rural density	Total stock		Higher density	Standard urban density	Rural density	Total dwellings
0–<2 years	5	24	433	461	679	114	277	136	527
2–<5 years	41	377	54	473	527	1,230	3,993	93	5,317
5–<10 years	18	359	4	381	5,356	908	3,714	30	4,652
10+ years	58	455	370	882	4,833	2,127	4,487	453	7,067
Not specified	16	43	95	154	7,679	340	185	50	574
Total	**137**	**1,257**	**957**	**2,351**	**19,074**	**4,719**	**12,656**	**762**	**18,137**

(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.

Stock composition

The broadhectare stock in Mackay is located primarily within land parcels greater than 10 hectares in area (Table 3). For all broadhectare parcels, the difference between the overall parcel area (3,476 hectares) and the area available for development (2,351 hectares) indicates that some parcels are affected by physical or environmental constraints. The main points from Table 3 include:

- Broadhectare stock is contained within 362 land parcels.
- Parcels less than or equal to 1.2 hectares account for over 43 per cent of all parcels.
- Parcels sized 10 hectares or more account for over 70 per cent of the expected total dwelling yield from broadhectare land.

Table 3 Mackay (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]	Rural residential	Total stock	Urban residential [b]	Rural residential	Total dwellings
<= 1.2	154	88	81	29	110	1,467	21	1,487
1.3–2.0	39	63	46	6	52	707	37	744
2.1–4.9	54	164	115	31	146	1,842	52	1,894
5.0–9.9	27	204	104	57	161	1,169	77	1,246
10.0+	88	2,957	1,048	833	1,881	12,190	575	12,765
Total	**362**	**3,476**	**1,394**	**957**	**2,351**	**17,375**	**762**	**18,137**

(a) Components may not sum exactly to totals due to rounding.
(b) Includes dwellings at higher and standard urban densities.

Population capacity

The preliminary estimated resident population of Mackay at 30 June 2014 was 123,400 persons (Source: ABS 3218.0). This is expected to increase to between 151,700 (low series) and 174,400 (high series) persons by 2026, representing population growth over the 2014–2026 period of between 28,300 (low series) and 51,000 (high series) (Source: *Queensland Government Population Projections*, 2013 edition).

The average household size for occupied private dwellings in Mackay at the time of the 2011 Census was 2.8 and 1.8 persons for houses and attached dwellings respectively. Table 4 shows that depending on average household size, broadhectare development could accommodate between 38,800 and 53,300 persons. Further development in existing residential areas, where the parcel size is less than 2,500 m^2, could also accommodate additional population.

Table 4 Mackay (R) population yields based on a range of household sizes (persons) [(a)]

Development type	Number of dwellings	Household size (average persons per household) 2.4	2.6	2.8	3.0	3.2
		Possible population yield				
Rural residential	762	1,828	1,980	2,133	2,285	2,437
Standard urban density residential	12,656	30,374	32,905	35,436	37,968	40,499
		Household size (average persons per household) 1.4	1.6	1.8	2.0	2.2
		Possible population yield				
Higher density residential	4,719	6,607	7,550	8,494	9,438	10,382
Total	**18,137**	**38,809**	**42,436**	**46,063**	**49,691**	**53,318**

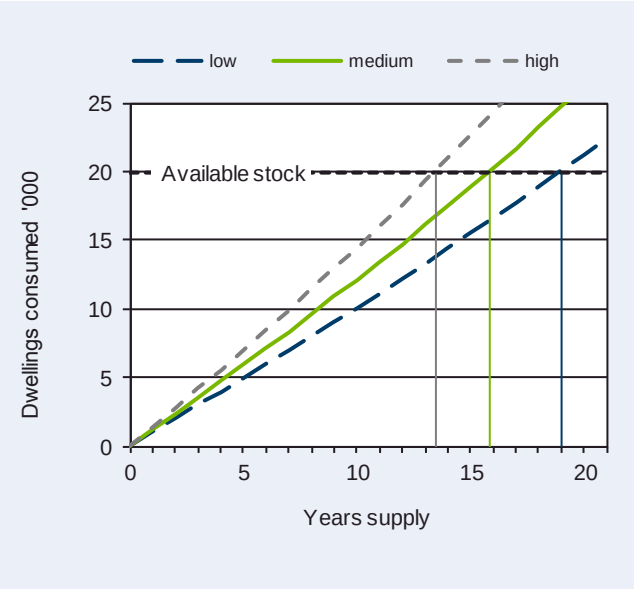
(a) Count of all persons enumerated in the dwelling on census night, including visitors from within Australia. Excludes usual residents who were temporarily absent on census night.

Total potential dwelling yield

Land ownership and fragmentation are potential constraints to residential development, and adjustments have been made to the broadhectare stock by applying potential development rates to land parcels. Furthermore, existing vacant residential land stock below 2,500 m^2 has been added to the broadhectare supply. Broadhectare residential land supply based on these components indicates a total potential dwelling yield of approximately 19,900 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 of 2500 m^2.

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



Dwelling demand

Evidently, not all future dwelling demand will be met through development of broadhectare land. Nevertheless, an indicator of the adequacy of 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 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. 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 developed land parcels that are vacant account for approximately 9 per cent of the total potential dwelling yield.

Table 5 Mackay (R) broadhectare supply scenarios

Dwelling production scenario [a]	Demand for residential lots	Supply - Stock of residential lots			
	Dwellings required to 2036 [b]	Broadhectare dwelling yield [c]	Existing vacant land parcels [d]	Total potential dwellings [e]	Years supply [f]
Low trend	22,338	18,137	1,747	19,884	19
Medium trend	27,637	18,137	1,747	19,884	16
High trend	33,502	18,137	1,747	19,884	13

(a) Based on dwelling projection levels produced in 2013.
(b) Dwellings required to 2036 based on Queensland Government household and dwelling projections, 2013 edition.
(c) Adjusted to take into account the propensity of development.
(d) Estimate of vacant residential parcels at January 2015.
(e) Supply of residential lots.
(f) Illustrative only, if no development occurs outside of broadhectare land.

Conclusion — Mackay Regional Council

The study has estimated that the total area of broadhectare available for residential development is 2,351 hectares. If this land were fully developed it has the potential to yield approximately 18,100 dwellings and accommodate 46,100 persons, using current average household sizes.

Based on current medium series household projections and the expected broadhectare dwelling yield, the available residential land stock indicates 16 years of supply.

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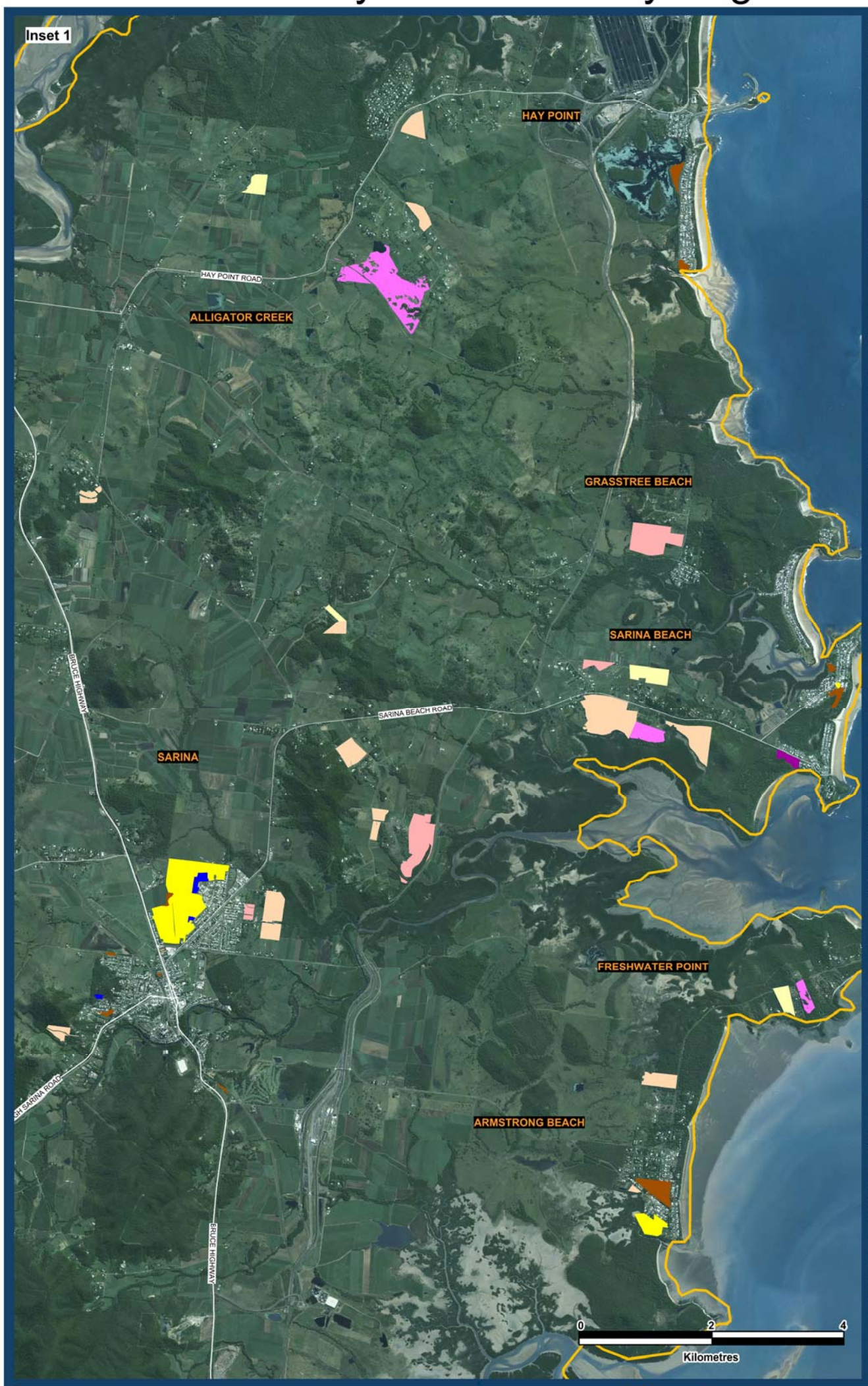
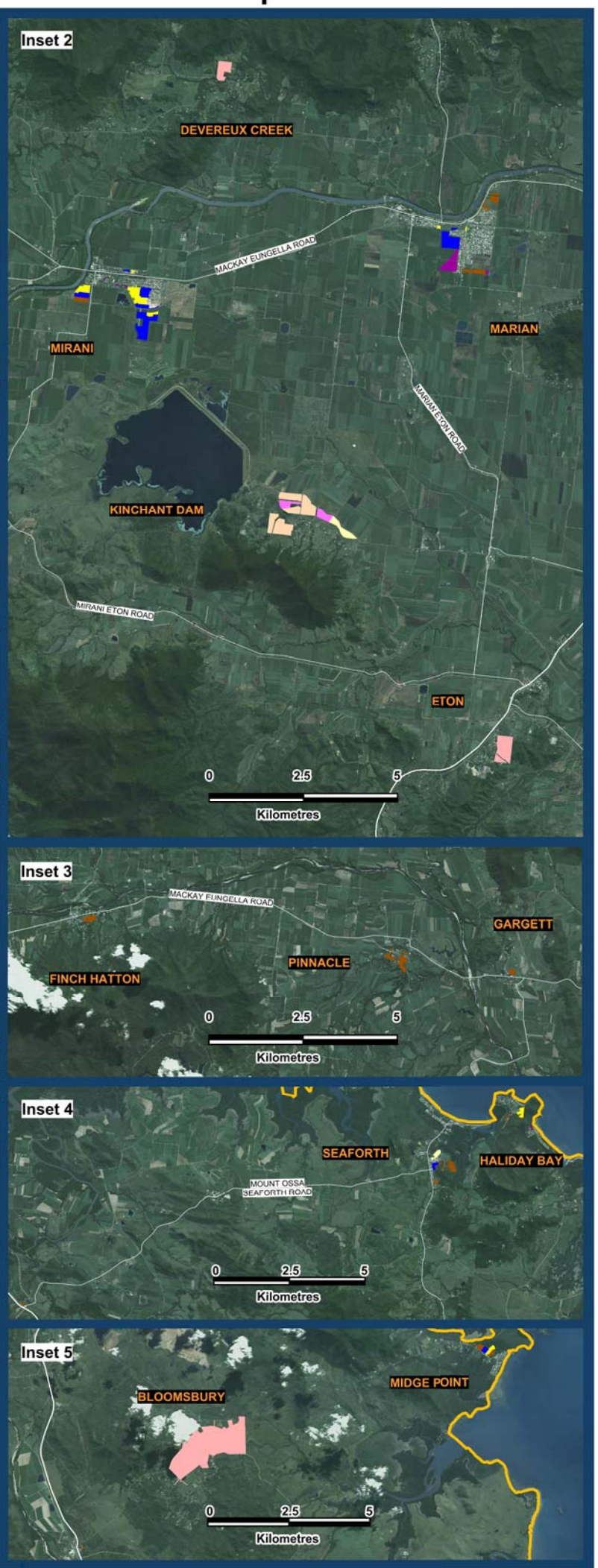
Broadhectare study 2015 - Mackay Regional Council - Map 2





Legend

Broadhectare land

Timeframe	Urban residential	Rural residential
0 – 2 years	29ha	433ha
2 – 5 years	418ha	54ha
5 – 10 years	377ha	4ha
10+ years	513ha	370ha
Not specified	59ha	95ha

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

Other map features

Local government boundaries

Major roads

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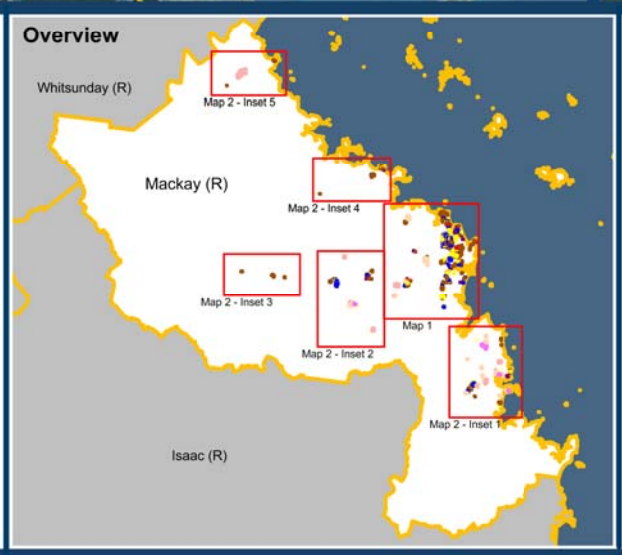

Notes

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.
This map forms part of the broadhectare study and is to be read in conjunction with the main text of the profile.

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This edition of the broadhectare study was based on the Digital Cadastral Database, February 2015.

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