

Broadhectare study 2015 profile

Mackay, Isaac and Whitsunday Region

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 the Mackay, Isaac and Whitsunday Region (hereafter referred to as MIW) is 5,806 hectares, representing a small percentage of the total land area of MIW (Tables 1 and 2).

Broadhectare can be further classified as follows:

- urban residential broadhectare — 3,358 hectares
- rural residential broadhectare — 2,448 hectares.

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

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.

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 likely to yield approximately 34,300 dwellings.
- Rural residential development is only a minor component of the total expected dwelling yield.
- Development at standard urban density will account for 79 per cent of the total expected dwelling yield.



Table 1 MIW land use profile

Land use category	Area	% of total
Suitable for urban residential broadhectare development	3,358 ha	0.04%
Suitable for rural residential broadhectare development	2,448 ha	0.03%
Assumed existing urban residential use	4,963 ha	0.05%
Assumed existing lower density residential use	16,631 ha	0.18%
Roads, watercourses and railway easements	224,400 ha	2.48%
Rural/Green/Open space	8,762,525 ha	96.97%
Balance area ^(a)	21,675 ha	0.24%

(a) Includes all land uses other than residential.

Table 2 MIW 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	6	230	513	749	2,478	144	1,926	256	2,326
2–<5 years	44	563	394	1,001	2,521	1,322	5,540	280	7,142
5–<10 years	18	1,019	528	1,565	11,943	913	9,261	400	10,574
10+ years	58	654	379	1,091	6,595	2,127	6,028	463	8,618
Not specified	16	750	637	1,403	13,569	345	4,465	831	5,641
Total	142	3,216	2,448	5,806	37,106	4,851	27,220	2,230	34,301

(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 MIW 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 (7,338 hectares) and the area available for development (5,806 hectares) indicates that some parcels are affected by physical or environmental constraints. The main points from Table 3 include:

- Residential stock is contained within 2,975 land parcels.
- Parcels less than or equal to 1.2 hectares account for over 9 per cent of all parcels.
- Parcels sized 10 hectares or more account for 73 per cent of the expected total dwelling yield from broadhectare land.

Table 3 MIW 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	270	159	138	29	167	1,920	21	1,941
1.3–2.0	232	419	98	290	388	1,036	418	1,454
2.1–4.9	201	609	269	276	545	3,205	447	3,652
5.0–9.9	65	429	211	206	417	2,110	214	2,324
10.0+	165	5,722	2,638	1,647	4,285	23,799	1,129	24,928
Total	933	7,338	3,358	2,448	5,806	32,070	2,229	34,301

(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 MIW at 30 June 2014 was 182,000 persons (Source: ABS 3218.0). This is expected to increase to between 221,900 (low series) and 253,600 (high series) persons by 2026, representing population growth over the 2014–2026 period of between 39,900 (low series) and 71,600 (high series) (Source: *Queensland Government Population Projections*, 2013 edition).

The average household size for occupied private dwellings in MIW at the time of the 2011 Census was 2.8 and 1.9 persons for houses and attached dwellings respectively. Table 4 shows that depending on average household size, broadhectare development could accommodate between 78,000 and 105,400 persons. Further development in existing residential areas, where the parcel size is less than 2,500 m², could also accommodate additional population.

Table 4 MIW 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	2,230	5,352	5,798	6,244	6,690	7,136
Standard urban density residential	27,220	65,328	70,772	76,216	81,660	87,104
Household size (average persons per household)						
		1.5	1.7	1.9	2.1	2.3
Possible population yield						
Higher density residential	4,851	7,277	8,247	9,217	10,187	11,157
Total	34,301	77,957	84,817	91,677	98,537	105,397

(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 m² has been added to the broadhectare supply. Broadhectare residential land supply based on these components indicates a total potential dwelling yield of approximately 36,900 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 m².

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.

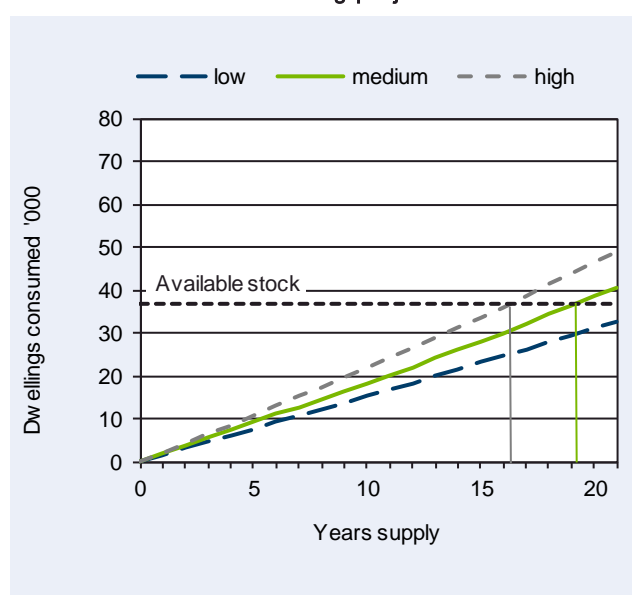
Figure 1 MIW projected demand for land stock based on dwelling projections

Table 5 also shows that developed land parcels that are vacant account for approximately 7 per cent of the total potential dwelling yield from broadhectare land.

Table 5 MIW broadhectare supply scenarios

Dwelling production scenario ^(a)	Demand for residential lots	Supply - Stock of residential lots			Years supply ^(f)
	Dwellings required to 2036 ^(b)	Broadhectare dwelling yield ^(c)	Existing vacant land parcels ^(d)	Total potential dwellings ^(e)	
Low trend	32,767	34,301	2,606	36,907	n.a
Medium trend	40,486	34,301	2,606	36,907	19
High trend	49,026	34,301	2,606	36,907	16

(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.

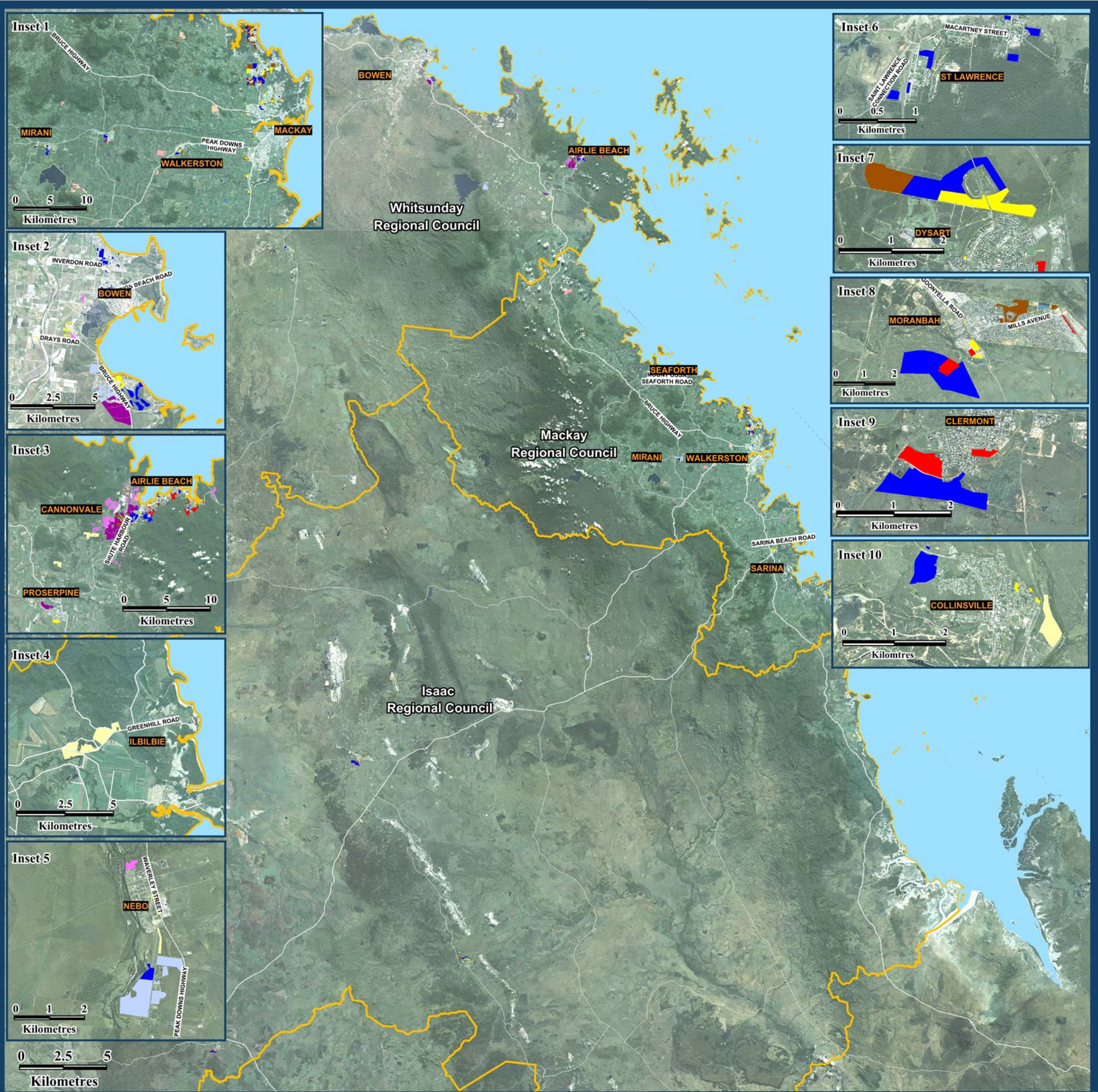
n.a Supply beyond projection range

Conclusion — MIW Region

The study has estimated that the total area of broadhectare available for residential development is 5,806 hectares. If this land were fully developed it has the potential to yield approximately 34,300 dwellings and accommodate 91,700 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 approximately 19 years of supply.

Broadhectare study 2015 - Mackay, Isaac and Whitsunday Region



Legend

Broadhectare land

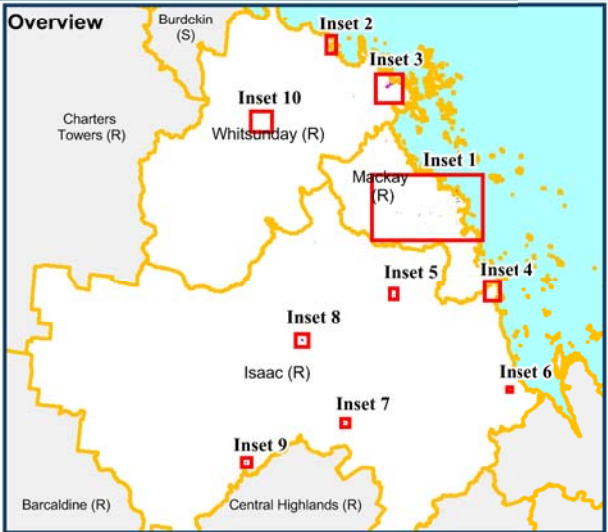
Timeframe	Urban residential	Rural residential
0 – 2 years	236 Ha	513 Ha
2 – 5 years	607 Ha	394 Ha
5 – 10 years	1,037 Ha	528 Ha
10+ years	712 Ha	379 Ha
Not specified	766 Ha	637 Ha

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

Other map features

Local government boundaries

Major roads



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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