Broadhectare study 2014 profile

Far North Queensland*

Introduction

The preliminary estimated resident population of the Far North Queensland region (hereafter referred to as Far North Queensland) at 30 June 2013 was 243,400 persons (Source: ABS 3218.0). This is expected to increase to between 271,800 (low series) and 287,000 (high series) persons by 2021, representing population growth over the 2012–2021 period of between 28,400 (low series) and 43,600 (high series) (Source: *Queensland Government Population Projections*, 2013 edition).

* For the purposes of the broadhectare study, the Far North Queensland region excludes the Aboriginal Shires of Wujal Wujal and Yarrabah.

Land stock

The total area of broadhectare land available in Far North Queensland for residential development is 7,376 hectares, representing only a very small percentage of the total land area (Tables 1 and 2).

Broadhectare land is defined as the amount of unconstrained residential land under the current planning scheme including existing residential developments approved by council. For this study, land parcels are excluded that yield less than three dwellings.

Broadhectare land can be further classified as follows:

- urban residential broadhectare land 4,637 hectares
- rural residential broadhectare land 2,739 hectares.

The broadhectare 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' and 'higher density' is classified as yielding between 4 to 20 dwellings and greater than 20 dwellings per hectare respectively.



Table 1 Far North Queensland land use profile

Land use category	Area	% of total
Suitable for urban residential broadhectare development	4,638	0.06%
Suitable for rural residential broadhectare development	2,809	0.04%
Assumed existing urban residential use	6,911 ha	0.09%
Assumed existing lower density residential use	19,166 ha	0.26%
Roads, watercourses and railway casements	101,099 ha	1.37%
Rural/Green/Open space	7,247,674 ha	98.16%
Balance area (a)	1,490 ha	0.02%

(a) Includes all land uses other than residential.



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Dwelling yields

Table 2 shows 'theoretical dwelling yield' (the potential number of dwellings that could be constructed 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).

Table 2 Far North Queensland broadhectare stock and dwelling yield (a)

	Broadhectare stock (hectares)			Theoretical	Expected dwelling yield (dwellings) (c)				
Timeframe	Higher density	Standard urban density	Rural density	Total stock	dwelling yield (dwellings) ^(b)	Higher density	Standard urban density	Rural density	Total dwellings
0-<2 years	0	549	331	880	4,772	0	4,411	363	4,772
2-<5 years	78	1,349	494	1,922	17,421	2,389	14,198	167	16,754
5-<10 years	10	541	511	1,062	4,669	433	2,655	438	3,525
10+ years	4	1,651	280	1,935	14,339	150	10,633	173	10,956
Not specified	2	449	1,123	1,575	5,849	80	2,520	1,313	3,916
Total	94	4,539	2,739	7,375	45,876	3,052	34,417	2,454	39,923

- (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.

The main points from Table 2 are:

- Broadhectare land is likely to yield approximately 39,900 dwellings.
- Development at higher density accounts for over 7 per cent of the total expected dwelling yield.
- An additional 6,000 dwellings could be added to supply based on the theoretical yield.

Stock composition

The broadhectare stock in Far North Queensland 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 (10,175 hectares) and the area available for development (7,376 hectares) indicates that some parcels are affected by physical or environmental constraints. The main points from Table 3 include:

- Residential stock is contained within 1,575 land parcels.
- Parcels greater than 10 hectares account for almost 44 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 Far North Queensland broadhectare stock composition (a)

Parcel size Land		Total area	Broadhectare area (hectares)			Expected dwelling yield (number)		
categories (hectares)	parcels (number)	of parcels (hectares)	Urban residential ^(b)	Rural residential	Total stock	Urban residential ^(b)	Rural residential	Total dwellings
<= 1.2	687	397	349	73	422	1,977	16	1,993
1.3-2.0	300	517	225	257	482	1,678	187	1,864
2.1-4.9	234	749	360	307	667	2,794	225	3,018
5.0-9.9	133	977	493	349	842	3,800	282	4,082
10.0+	221	7,535	3,210	1,752	4,962	27,222	1,743	28,966
Total	1,575	10,175	4,637	2,738	7,375	37,469	2,454	39,923

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

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Population capacity

Average household size for occupied private dwellings in Far North Queensland at the time of the 2011 Census was 2.7 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 household sizes current at the time of the 2011 Census are highlighted.

The main finding from Table 4 is that, depending on average household size, land from broadhectare development could accommodate between 89,000 and 121,000 persons. Further development in existing residential areas, where the parcel size is less than 2,500m², could also accommodate additional population.

Table 4 Far North Queensland population yields based on a range of household sizes (persons) (a)

Development	Number of	Household size (average persons per household)						
type	dwellings	2.3	2.5	2.7	2.9	3.1		
			Possible population yield					
Rural residential	2,454	5,644	6,135	6,626	7,117	7,607		
Standard urban density residential	34,417	79,159	86,043	92,926	99,809	106,693		
		Hou	Household size (average persons per household)					
		1.4	1.6	1.8	2.0	2.2		
			Possible population yield					
Higher density residential	3,052	4,273	4,883	5,494	6,104	6,714		
Total	39,923	89,076	97,061	105,045	113,030	121,015		

⁽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

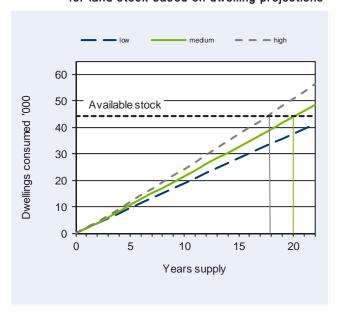
Land ownership and fragmentation of land are potential constraints to residential development, and adjustments have been made to the broadhectare stock by applying potential development rates to land parcels. Furthermore, existing vacant residential land stock below 2,500m² has been added to the broadhectare supply. Broadhectare residential land supply based on these components indicates a total potential dwelling yield of approximately 44,200 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.

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

Figure 1 Far North Queensland projected demand for land stock based on dwelling projections



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.

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Table 5 also shows that developed land parcels that are vacant account for approximately 10 per cent of the total potential dwelling yield from broadhectare land.

Table 5 Far North Queensland broadhectare supply scenarios

	Demand for residential lots	Supply -			
Dwelling production scenario ^(a)	Dwellings required to 2036 ^(b)	Broadhectare dwelling yield ^(c)	Existing vacant land parcels (d)	Total potential dwellings ^(e)	Years supply ^(f)
Low trend	41,007	39,923	4,306	44,229	n.a*
Medium trend	48,368	39,923	4,306	44,229	20
High trend	56,207	39,923	4,306	44,229	18

- (a) Based on dwelling projection levels produced in 2013.
- (b) Dwellings required to 2036 based on Queensland Government's household projections, 2013 edition.
- (c) Adjusted to take into account the propensity of development.
- (d) Estimate of vacant residential parcels at August 2014.

- (e) Supply of residential lots.
- (f) Illustrative only, if no development occurs outside of broadhectare land.
- n.a* supply beyond projection range

Conclusion — Far North Queensland

The study has estimated that the total area of broadhectare land available for residential development is 7,376 hectares. If this land were fully developed it has the potential to yield approximately 39,900 dwellings and accommodate 105,000 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 20 years of supply. Using the current low series household projections the supply is beyond the projection range.

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