Monteath & Powys Pty Ltd

SURVEYING, PLANNING, ENGINEERING DESIGN, PROJECT MANAGEMENT




Lower Hunter

State of the Land

prepared for

Urban Development Institute of Australia
NEW SOUTH WALES
Hunter Chapter

21 August 2014

GIS Research and Analysis

This Report was prepared by:-

Monteath & Powys Pty Ltd
Suite 13 Tonella Commercial Centre
125 Bull Street
NEWCASTLE WEST NSW 2302

PO Box 726
NEWCASTLE NSW 2300

Telephone: (02) 4926 1388
Facsimile: (02) 4929 3475
Web: www.monteathpowys.com.au

PROJECT:	Draft Lower Hunter State of the Land
OUR REFERENCE:	14/0010
AUTHOR:	Greg McHarg BE (Environmental) GIS Analyst and Researcher
SIGNATURE:	*Signed*
CHECKED BY:	Stephen Barr B. Surv. MPlan Monteath & Powys Pty Ltd Certified Practising Planner Registered Surveyor
SIGNATURE:	*Signed*

Disclaimer

Monteath & Powys does not make any representations or warranties about the accuracy, reliability, completeness or suitability of the data for a particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which might be incurred as a result of the data being inaccurate or incomplete in any way and for any reason. Furthermore, the information in this document is provided on the basis that readers will be responsible for making their own assessment of the information and are advised to verify all relevant representations, statements and information.

Table of Contents

Appendices

EXECUTIVE SUMMARY

This report reviews urban growth in the Lower Hunter region since the New South Wales Department of Planning (DoP) released the *Lower Hunter Regional Strategy* (LHRS) in October 2006 (DoP, 2006).

The Lower Hunter region is comprised of the five local government areas of Newcastle, Lake Macquarie, Port Stephens, Maitland and Cessnock, and is situated approximately 140km north of Sydney. The region has an existing population of 556,000, making it the second most populous region in NSW behind the Sydney metropolitan region (4.37 million), and ahead of the Central Coast (323,000) (ABS, 2014).

The LHRS identified the need to plan for an additional 160,000 residents and 115,000 new dwellings from 2006 to 2031, equating to an average annual growth of 6,400 residents and 4,600 dwellings. Of the 115,000 additional dwellings, 80,000 dwellings were identified to house the additional population (160,000 residents). The remaining 35,000 dwellings were identified to meet changing housing demands including a declining occupancy rate from 2.5 persons per dwelling in 2001 to 2.1 persons per dwelling in 2031 (DoP, 2006).

The DoP indicated that the LHRS would be updated every five years, with growth targets monitored annually in the Urban Development Program (UDP). However, the LHRS has not been updated since release in 2006, and the Lower Hunter region has appeared in only two editions of the DoP's UDP monitoring program (2007/08 and 2008/09) (DoP, 2009; DoP, 2010).

In March 2013 the Department of Planning and Infrastructure (DP&I, formerly DoP) released *The Lower Hunter over the next 20 years: A Discussion Paper*, and identified the document as the first step in the development of a new LHRS (DP&I, 2013). There has been no publicly available document representing the second step in the development of a new LHRS.

The Discussion Paper reported that around 2,200 dwellings per year had been constructed in the Lower Hunter, but was below the underlying demand of around 2,500 to 3,000 dwellings per year (DP&I, 2013). Australian Bureau of Statistics (ABS) Census data for 2006 and 2011 indicates an actual average annual growth of 2,483 dwellings per year (1.16% annually) and an actual annual average growth of 6,759 persons per year (1.30%) for the Lower Hunter region (ABS, 2014; ABS, 2014).

In 2008 the DoP's Centre for Demography, Research and Policy (CDRP) projected an annual increase of 3,200 dwellings and 5,640 residents for Lower Hunter between 2006 and 2011, as well as an overall declining occupancy rate from 2006 to 2031 (DoP, 2008). Comparison of these projections to actual growth in the 2006 to 2011 Census period indicates:

- ***Actual*** annual dwelling growth of 2,483 was 29% lower than the ***projected*** annual dwelling growth of 3,200.
- If ***actual*** population growth ***matched*** the ***projected*** population growth – and there were no other significant demographic or household structure changes – it could be assumed that there would be a resulting dwelling shortfall of approximately 3,500 dwellings (717 annually) from 2006 to 2011.
- However, the ***actual*** annual population growth of 6,759 was ***20% higher*** than the ***projected*** annual population growth of 5,640, indicating the actual dwelling shortfall may be worse than the 3,500 implied above.
- Assuming the 2011 persons per dwelling of 2.44, the 1,119 persons in ***actual*** annual growth ***above*** the ***projected*** population results in an additional annual shortfall of 460 dwellings.

This means that over the five year period there is potentially an additional shortfall of 2,300 dwellings on top of the 3,500 dwellings implied above, or a total of 5,800 dwellings (assumptions and limitations of these calculations are outlined in this report).

Indications of a potential housing supply shortfall in the Lower Hunter region are further reinforced by the updated projections prepared by the CDRP in July 2014 (DPE, 2014):

- A (continuing) decrease in average household size for all Lower Hunter local government areas is projected from 2001 to 2031;
- An average annual dwelling requirement of 3,180 dwellings per year is projected from 2011 to 2031, which is slightly higher than the 2008 projections; and
- An average annual increase of approximately 6,100 persons per year is projected from 2011 to 2031, which is higher than the 2008 projections.

An important historic and projected trend of declining persons per dwelling was broken in the 2006 to 2011 Census period, with an increase in the average persons per dwelling in the local government areas of Cessnock, Newcastle, Port Stephens and the Lower Hunter as a whole (ABS, 2014; ABS, 2014). Together with the actual dwelling growth in the 2006 to 2011 Census period below both the underlying housing demand reported in *The Discussion Paper* (DP&I, 2013) and the projections prepared by CDRP (DoP, 2014), the increase in average persons per dwelling strongly indicates a potential housing supply shortfall in the Lower Hunter region.

Residential lots registrations from 2007 to 2013 correlated well with the Census dwelling growth and housing delivery stated in *The Discussion Paper*, further supporting the indication of a potential housing supply shortfall. The spatial analysis of residential lot registrations indicates that the New Release Areas identified in the LHRS have generally failed to deliver housing since the LHRS was released in 2006, making up only 12.4% of the residential lots delivered to the market from 2007 to 2013. Additionally, the New Release Areas that have delivered lots to the market had the majority of planning and rezoning work completed at the time of the LHRS.

Existing Urban Areas supported much the delivery of vacant residential lots to the market, though many of these areas are approaching their ultimate development yield, and generally have a higher median lot sale price than New Release Areas. The overall housing supply issue is impacting on housing affordability in the Lower Hunter, with the median sale price for a vacant residential lot reaching $193,500 in 2013, while 45% of all vacant lots sold in the Lower Hunter are now above $200,000.

Initiatives such as a proposed Growth Infrastructure Plan for the Lower Hunter, together with the Strategic Assessment of the Lower Hunter already underway, partly address the four housing supply blockages acknowledged in *The Discussion Paper*: biodiversity off-setting; infrastructure; economic feasibility; and site location and market preferences (DP&I, 2013). However, an update to the LHRS that is integrated with a Growth Infrastructure Plan, the Lower Hunter Strategic Assessment, annual monitoring and delivery accountability is urgently required to ensure adequate housing supply and affordability in the Lower Hunter Region.

1. INTRODUCTION

This report presents a review of urban growth in the Lower Hunter region since the New South Wales Department of Planning (DoP) released the *Lower Hunter Regional Strategy* (LHRS) in October 2006 (DoP, 2006). The purpose of this report is to provide:

- A consistent time-series analysis of publicly available data to independently assess actual growth against the growth targets presented in the LHRS;
- A body of evidence to support future Urban Development Institute of Australia (UDIA) responses to the proposed review of the LHRS;
- Elements of annual urban growth monitoring that were proposed to be delivered as part of the Urban Development Program (UDP) identified in the LHRS; and
- An evidence-based approach to urban planning advocated by the DoP.

The following scope for this State of the Land report has been agreed upon by Monteath and Powys, the UDIA Hunter Committee and the UDIA NSW State Office:

1. Present an overview of the regional planning context, including historic and projected urban growth for the Lower Hunter;
2. Examine annual residential lot registrations from 2007 to 2013 and report by:
    - Growth Areas identified in the LHRS;
    - Local Government Areas; and
    - Lower Hunter Region.
3. Provide an overview of property sales associated with residential lot registrations from 2007 to 2013; and
4. Provide a commentary and examine key issues related to recent and future urban growth in the Lower Hunter region.

In order to minimise confusion in this document, the Department of Planning (DoP) refers to the New South Wales government department responsible for regional and urban growth, and implementing the planning framework associated with the LHRS. The department is currently known as the Department of Planning and Environment (DPE), and was previously known Department of Planning and Infrastructure (DP&I).

2. URBAN PLANNING CONTEXT

The Lower Hunter region is comprised of the five local government areas of Newcastle, Lake Macquarie, Port Stephens, Maitland and Cessnock, and is situated approximately 140km north of Sydney. The region has an existing population of 556,000, making it the second most populous region in NSW behind the Sydney metropolitan region (4.37 million), and ahead of the Central Coast (323,000) (ABS, 2014).

The locality and local government areas comprising the Lower Hunter are presented in Figure 1.

Figure 1 **Locality of the Lower Hunter Region and Constituent Local Government Areas**

The following sections outline the key strategic planning framework prepared for the Lower Hunter region by the DoP, and is followed by a review of historic and projected population and dwelling growth.

2.1 LOWER HUNTER REGIONAL STRATEGY

In October 2006 the NSW DoP released the LHRS, identifying it as the "*pre-eminent planning document for the Lower Hunter Region*" (DoP, 2006). The primary purpose of the strategy was "*to ensure that adequate land is available and appropriately located to sustainably accommodate the projected housing and employment needs of the Region's population over the next 25 years*" (DoP, 2006). As of the date of this State of the Land Report, the LHRS has been in effect for nearly eight years, and is approaching one-third of the 25 year planning period.

From an estimated population of 515,000 and approximately 205,000 dwellings, the LHRS identified the need to plan for an additional 160,000 residents and 115,000 new dwellings from 2006 to 2031 (DoP, 2006). Of the 115,000 additional dwellings:

- 80,000 dwellings were identified to house the additional population (160,000 people), while 35,000 dwellings were identified to meet changing housing demands. The LHRS highlighted that changing demands included a reduced occupancy rate that is predicted to continue to decline from 2.5 persons per dwelling in 2001 to 2.1 persons per dwelling in 2031.
- 60 per cent of these new dwellings will be provided in New Release Areas, with the remaining 40 percent to be delivered in existing urban areas. This 60:40 split represents a shift from the existing trend, whereby 75 per cent of new housing is being built in new release areas.

The dwelling capacity projections in the LHRS are summarised in Table 1, with the LHRS map presented in Figure 2 (DoP, 2006).

Table 1 Dwelling Capacity Projections from the Lower Hunter Regional Strategy

LGA	Centres and Corridors	Urban Infill	Total Infill	New Release Areas	Total Dwellings
Cessnock	500	1,500	**2,000**	19,700	**21,700**
Lake Macquarie	14,000	7,000	**21,000**	15,000	**36,000**
Maitland	2,000	3,000	**5,000**	21,500	**26,500**
Newcastle	12,200	2,500	**14,700**	5,800	**20,500**
Port Stephens	3,300	2,000	**5,300**	7,200	**12,500**
Total	**32,000**	**16,000**	**48,000**	**69,200**	**117,200**

Note: The LHRS acknowledges a small excess of dwellings in this table (i.e. 117,500 in the table compared to 115,000 in the body of the strategy) so that a contingency exists if dwelling yields are not able to be met. The LHRS indicates that these projections will be continually reviewed and monitored as part of the Urban Development Program.

A key initiative of the LHRS was the proposed annual review of growth targets via the UDP, which was to be "*established and administered by the Department to monitor total dwelling supply and uptake, and to coordinate the planning, servicing and development of new release areas*" (DoP, 2006). Since the release of the LHRS, and up to the *MDP: Metropolitan Development Program - DECEMBER 2013 QUARTERLY MONITOR* (DP&I, 2014) the Lower Hunter region has appeared in only two editions of the DoP's monitoring program:

- *MDP 2007/08 REPORT: Metropolitan Development Program - RESIDENTIAL FORECASTS 2007/08 - 2016/17"* (DoP, 2009); and
- *MDP 2008/09 REPORT: Metropolitan Development Program - RESIDENTIAL FORECASTS 2008/09 - 2017/18* (DoP, 2010).

The DoP also indicated that the LHRS would be reviewed every five years in order to respond to demographic and economic changes. Despite significant economic changes due to the Global Financial Crisis of 2007-08, and the availability of new demographic data from the 2011 Census, the DoP has not released an update to the LHRS as at the time of this report.

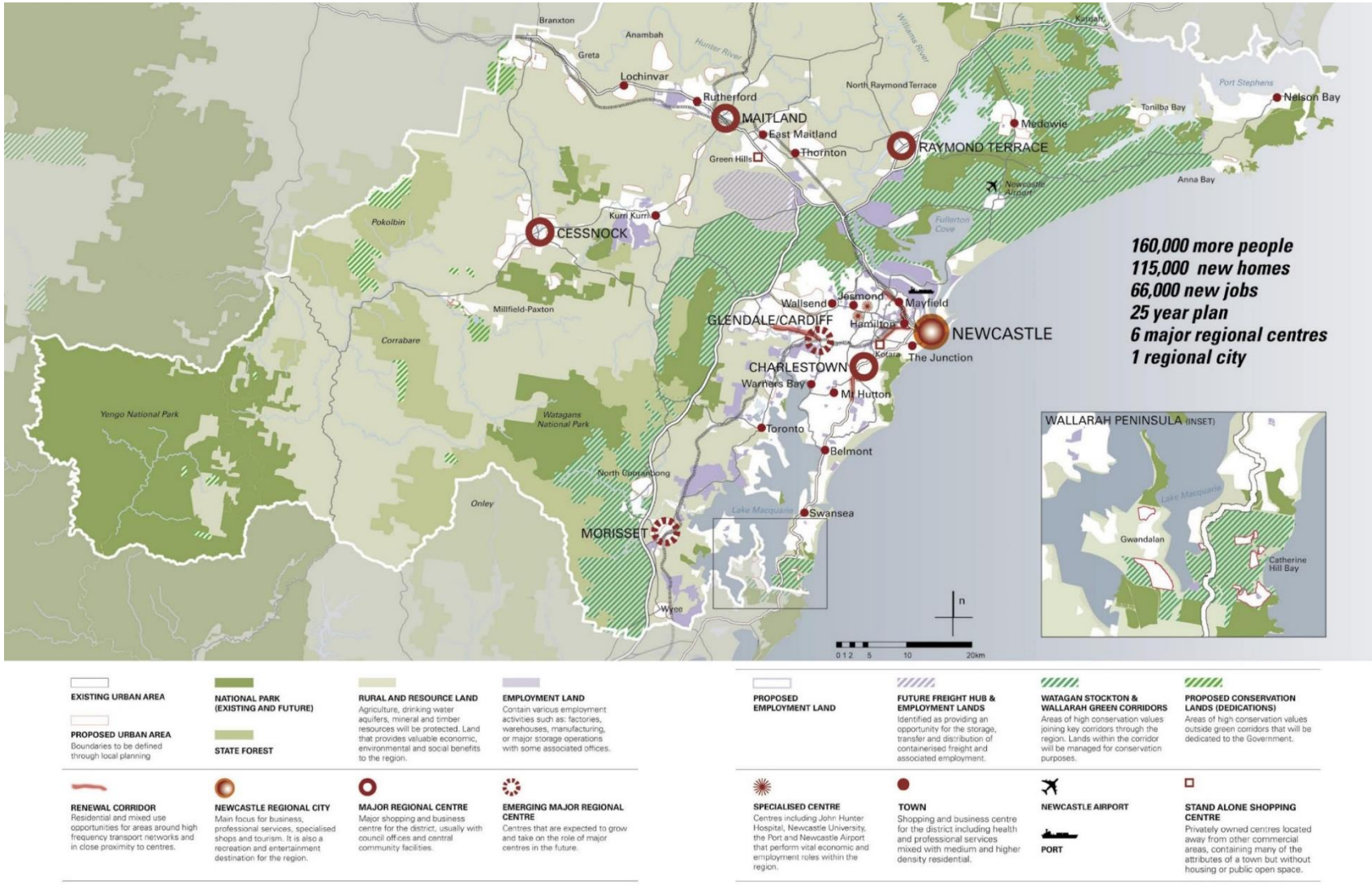


Figure 2 **Lower Hunter Regional Strategy Map (DoP, 2006)**

2.2 LOWER HUNTER DISCUSSION PAPER

In March 2013 the DoP released *The Lower Hunter over the next 20 years: A Discussion Paper*, and identified the document as the first step in the development of a new Lower Hunter Regional Strategy (DP&I, 2013).

The Discussion Paper indicated that up to 75,000 additional dwellings could be needed over the 20 years to 2031, with new research underway to make an informed decision about an appropriate growth target based on data from the 2011 Census (DP&I, 2013).

The Discussion Paper also reported that 11,200 dwellings – or around 2,200 per year – had been constructed in the Lower Hunter. This figure was "*well below the underlying demand of around 2,500 to 3,000 dwellings per year, and below the peak of 3,500 dwellings a year in the lead up to the 2006 Lower Hunter Regional Strategy*" (DP&I, 2013).

The Discussion Paper acknowledged that the rezoning of land was not matched by the construction of new dwellings, and highlighted that this was a consequence of four housing supply blockages: biodiversity off-setting; infrastructure; economic feasibility; and site location and market preferences (DP&I, 2013). These four housing blockages are discussed in greater detail in Section 5.

As at the time of this report, there has been no publicly available document representing the second step in the development of a new LHRS.

2.3 HISTORIC GROWTH

The Lower Hunter region has delivered an average of 2,540 new private dwellings annually from 1996 to 2011 based on the Australian Bureau of Statistics (ABS) Census data presented in Table 2. This represents a steady decline in the average annual growth rate of 1.42% in the 1996-2001 period to 1.16% in the 2006-2011 period. These growth rates are a substantial decrease from the growth in private dwellings from 1991 to 1996 presented in Table 2 (ABS, 2014).

Table 2 Total Private Dwellings from ABS Census

	Total Private Dwellings					Average Annual Growth			
LGA	**1991**	**1996**	**2001**	**2006**	**2011**	**1991-96**	**1996-01**	**2001-06**	**2006-11**
Cessnock	16,302	17,564	18,118	19,113	20,901	252	111	199	358
						1.50%	*0.62%*	*1.07%*	*1.80%*
Lake Macquarie	59,192	66,647	71,986	74,740	78,697	1,491	1,068	551	791
						2.40%	*1.55%*	*0.75%*	*1.04%*
Maitland	16,121	18,592	20,639	23,907	26,445	494	409	654	508
						2.89%	*2.11%*	*2.98%*	*2.04%*
Newcastle	54,336	58,141	60,781	63,277	65,771	761	528	499	499
						1.36%	*0.89%*	*0.81%*	*0.78%*
Port Stephens	18,908	23,246	26,115	28,879	30,516	868	574	553	327
						4.22%	*2.35%*	*2.03%*	*1.11%*
Lower Hunter	**164,859**	**184,190**	**197,639**	**209,916**	**222,330**	**3,866**	**2,690**	**2,455**	**2,483**
						2.24%	***1.42%***	***1.21%***	***1.16%***

In the 2006-2011 Census period the estimated resident population (ERP) in the Lower Hunter has grown at an average annual rate of 1.30%. This represents a substantial increase from the average annual growth rate of 0.89% from 1991 to 2006, which is comprised of 0.78% in the 1991-1996 and 2001-2006 Census periods and 1.10% in 1996 to 2001 presented in Table 3 (ABS, 2014).

Table 3 Estimated Resident Population from ABS Census*

LGA	Estimated Resident Population					Average Annual Growth			
	1991	1996	2001	2006	2011	1991-96	1996-01	2001-06	2006-11
Cessnock	45,299	45,623	46,823	47,426	52,485	65	240	121	1,012
						0.14%	*0.52%*	*0.26%*	*2.05%*
Lake Macquarie	169,709	176,473	186,353	188,503	196,811	1,353	1,976	430	1,662
						0.78%	*1.10%*	*0.23%*	*0.87%*
Maitland	48,623	51,316	56,055	63,505	69,924	539	948	1,490	1,284
						1.08%	*1.78%*	*2.53%*	*1.94%*
Newcastle	136,173	137,050	141,001	146,623	155,550	175	790	1,124	1,785
						0.13%	*0.57%*	*0.79%*	*1.19%*
Port Stephens	45,128	52,200	58,509	62,132	67,214	1,414	1,262	725	1,016
						2.95%	2.31%	1.21%	1.58%
Lower Hunter	**444,932**	**462,662**	**488,741**	**508,189**	**541,984**	**3,546**	**5,216**	**3,890**	**6,759**
						0.78%	***1.10%***	***0.78%***	***1.30%***

* Data is based on revised historical estimated resident population (ERP) data from 1991 to 2011. This "recasting" of estimates back to September 1991 from the "rebased" 2011 Census was undertaken by the ABS due to unusually high "inter-censal" errors and a change in the methodology used to estimate the undercount in the 2011 Census. The key issue for this report is that the 2006 ERP for the Lower Hunter has been recast from 517,511 to 508,189. Appendix B contains the relevant ABS Fact Sheet concerning the rebasing and recasting of population estimates.

An important historic (and projected) trend in persons per dwelling has been broken due to the coupling of a declining growth rate for private dwellings with a substantial increase in the estimated resident population from 2006 to 2011. Figure 3 indicates that the persons per dwelling has consistently declined in the Lower Hunter from 1991 through to 2006. This trend has been reversed in the 2006 to 2011 Census period for the local government areas of Cessnock, Newcastle, Port Stephens and the Lower Hunter as a whole (ABS, 2014; ABS 2014).

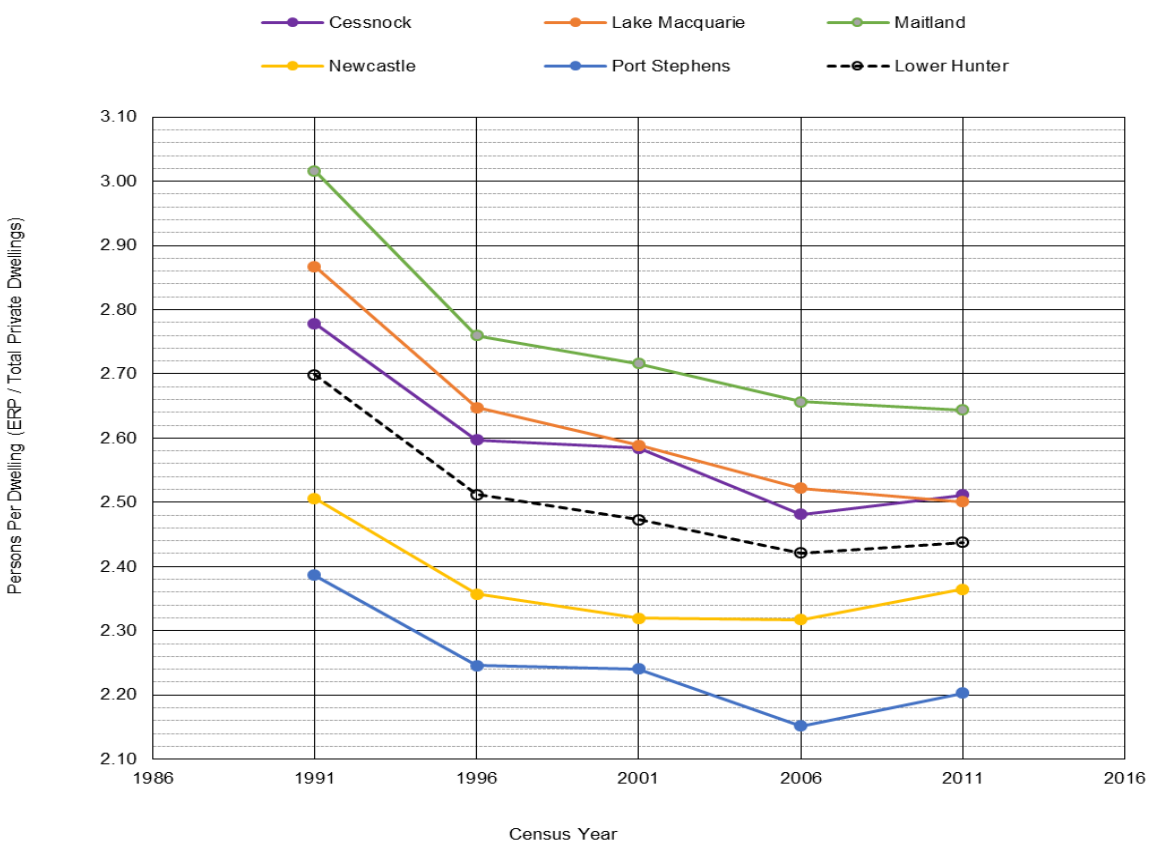


Figure 3 Persons per Dwelling (ERP / Total Private Dwellings) from ABS Census

Although there appears to be an upward trend in persons per dwelling for the Lower Hunter, it must be questioned whether this is a genuine shift to a trend of increasing persons per dwelling, or if it is due to a shortage in housing supply. Part of the answer may be explained by *The Discussion Paper*, which states that the annual dwelling production of around 2,200 per year was "*well below the underlying demand of around 2,500 to 3,000 dwellings per year"* (DP&I, 2013).

While detailed demographic and housing analyses is beyond the scope of this summary report, such analyses have been conducted as part of the population projections prepared by the CDRP, which is discussed in the following section.

2.4 PROJECTED GROWTH

Population and dwelling projections for the Lower Hunter region were prepared in 2008 by the CDRP (DoP, 2008). These projections are summarised in Table 4, with the projected average household size presented Figure 4.

Table 4 Projected Growth for the Lower Hunter by Centre for Demography, Research and Policy (DoP, 2008)*

	Projected Growth						Average Annual Growth				
	2006	2011	2016	2021	2026	2031	2006-11	2011-16	2016-21	2021-26	2026-31
Total Persons	517,500	545,700	573,100	600,500	627,300	652,600	5,640 *(1.07%)*	5,480 *(0.98%)*	5,480 *(0.94%)*	5,360 *(0.88%)*	5,060 *(0.79%)*
Structural Dwellings	213,100	229,100	245,000	260,100	274,600	288,200	3,200 *(1.46%)*	3,180 *(1.35%)*	3,020 *(1.20%)*	2,900 *(1.09%)*	2,720 *(0.97%)*

* These projections are documented with the express limitation that "*these projections do not necessarily reflect policy positions and may well differ from policy targets expressed in the Department of Planning's Metropolitan Strategy and Regional Strategies*".

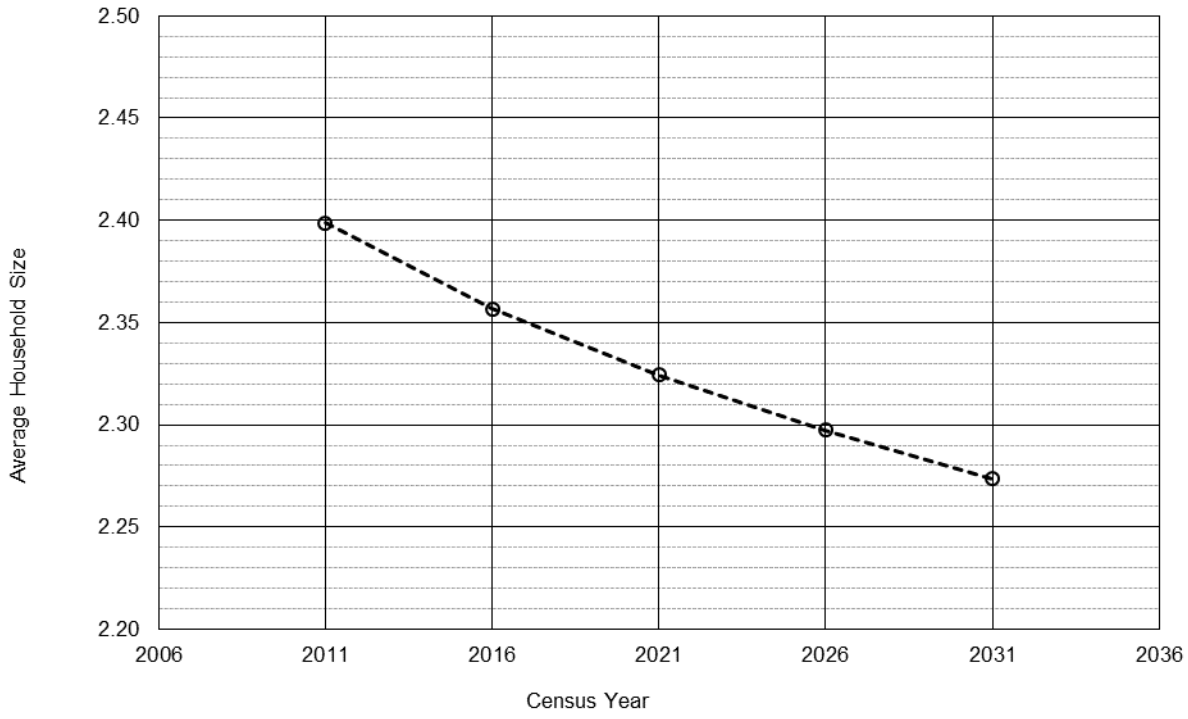


Figure 4 Projected Average Household Size for the Lower Hunter Prepared by the Centre for Demography, Research and Policy (DoP, 2008)

The key element of these projections is a continued decline in household size (persons per dwelling), with an increase of 3,000 dwellings needed annually over a 25 year projection period. These projected dwellings are required to meet an initial growth of 1.07% in the estimated population from 2006 to 2011, declining to 0.79% in the 2026 to 2031 period (DoP, 2008).

A simple comparison of ***actual*** dwelling and population growth from the 2006 and 2011 Census (Table 2 and Table 3) to the ***projected*** dwelling and population growth for 2006 to 2011 (Table 4) indicates that:

- ***Actual*** annual dwelling growth of 2,483 was 29% lower than the ***projected*** annual dwelling growth of 3,200.
- If ***actual*** population growth ***matched*** the ***projected*** population growth – and there were no other significant demographic or household structure changes – it could be assumed that there would be a resulting shortfall of approximately 3,500 dwellings (717 annually) from 2006 to 2011.
- However, the ***actual*** annual population growth of 6,759 was ***20% higher*** than the ***projected*** annual population growth of 5,640, indicating the actual dwelling shortfall may be worse than the 3,500 implied above.
- Assuming the 2011 persons per dwelling of 2.44, the 1,119 additional persons in ***actual*** annual growth ***above*** the ***projected*** population results in an extra annual dwelling shortfall of 460. This means that over the five year period there is potentially an additional shortfall of 2,300 dwellings above the 3,500 dwellings implied above, or a total of 5,800 dwellings.

The potential dwelling shortfall outlined above assumes a worse-case scenario that neglects factors such as the composition of net migration, changing structure of households, any changes in the proportion of occupied to unoccupied dwellings, significant changes in persons in non-private dwellings, the net rate of natural increase, as well as inherent limitations in projecting dwellings and population. Nonetheless, there is sufficient evidence from the comparison of ***actual*** and ***projected*** dwelling and population growth to suggest that the increase in actual average persons per dwelling from the 2006 to the 2011 Census presented in Figure 3 is due to a housing supply shortfall.

Projections updated in July 2014 by the CDRP incorporate data from the 2011 Census (DPE, 2014). Figure 4, Table 5 and Table 6 indicate that the CDRP is projecting:

- A (continuing) decrease in average household size for all Lower Hunter local government areas up to 2031, therefore suggesting that the increase in actual average persons per dwelling from the 2006 to the 2011 Census is not an ongoing trend;
- An annual dwelling requirement in excess of 3,000 dwellings per year up to 2031, which is slightly higher than the 2008 projections; and
- An annual increase of approximately 6,000 persons per year up to 2031, which is higher than the 2008 projections.

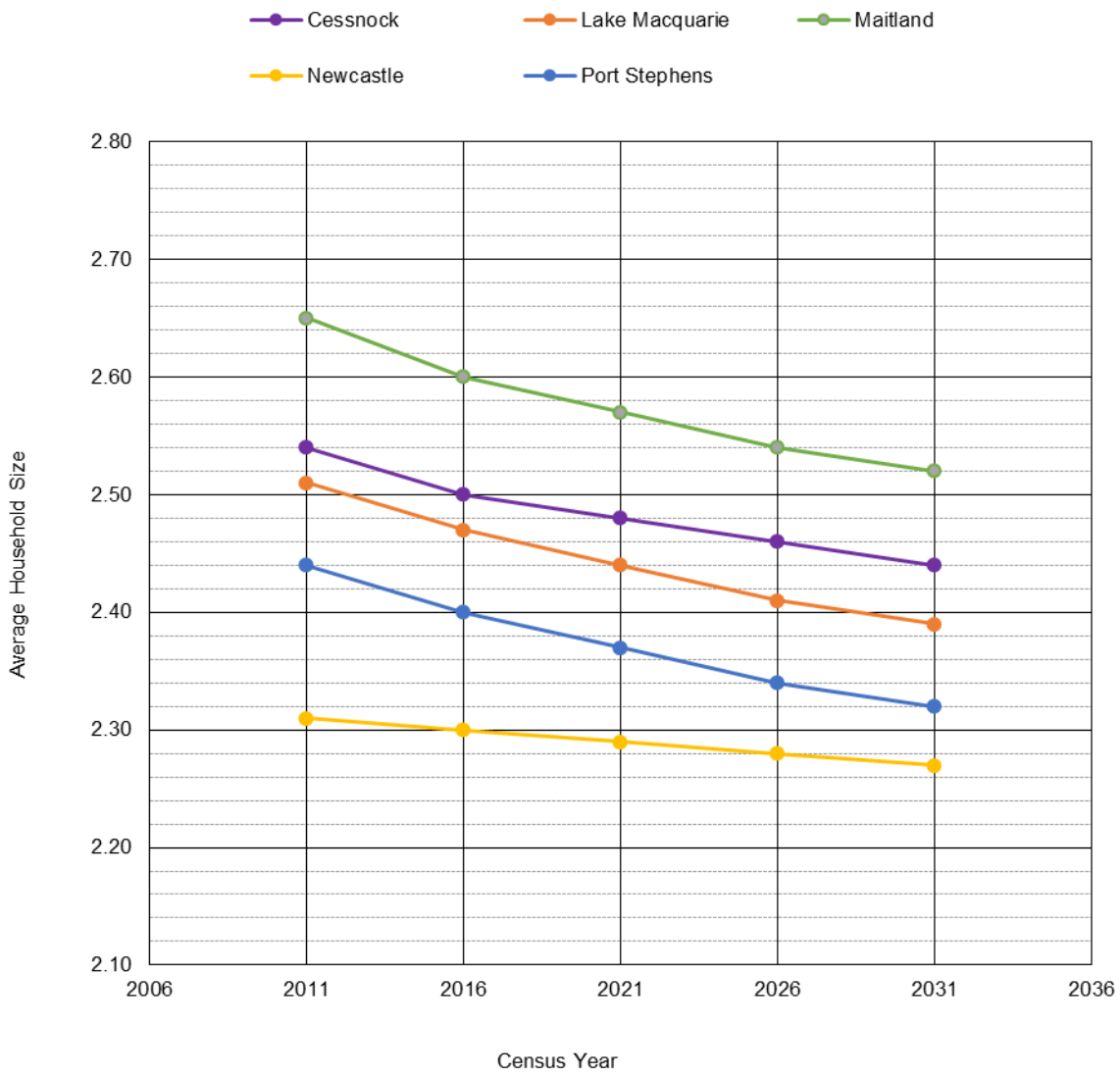


Figure 5 **Projected Average Household Size for the Lower Hunter Prepared by the Centre for Demography, Research and Policy (DPE, 2014)**

Table 5 **Implied Dwelling Growth for the Lower Hunter Prepared by the Centre for Demography, Research and Policy (DPE. 2014)**

	Implied Total Dwellings					Average Annual Growth			
LGA	**2011**	**2016**	**2021**	**2026**	**2031**	**2011-16**	**2016-21**	**2021-26**	**2026-31**
Cessnock	22,250	23,950	25,700	27,300	28,950	340	350	320	330
						1.48%	*1.42%*	*1.22%*	*1.18%*
Lake Macquarie	84,150	87,400	90,950	94,100	97,000	650	710	630	580
						0.76%	*0.80%*	*0.68%*	*0.61%*
Maitland	27,900	31,550	34,950	38,400	41,950	730	680	690	710
						2.49%	*2.07%*	*1.90%*	*1.78%*
Newcastle	70,750	75,200	79,700	83,900	88,050	890	900	840	830
						1.23%	*1.17%*	*1.03%*	*0.97%*
Port Stephens	32,950	36,800	39,900	42,850	45,650	770	620	590	560
						2.23%	*1.63%*	*1.44%*	*1.27%*
Lower Hunter	**238,000**	**254,900**	**271,200**	**286,550**	**301,600**	**3,380**	**3,260**	**3,070**	**3,010**
						1.38%	***1.25%***	***1.11%***	***1.03%***

Table 6 **Projected Estimated Resident Population for the Lower Hunter Prepared by the Centre for Demography, Research and Policy (DPE, 2014)**

	Estimated Resident Population					Average Annual Growth			
LGA	**2011**	**2016**	**2021**	**2026**	**2031**	**2011-16**	**2016-21**	**2021-26**	**2026-31**
Cessnock	52,500	55,900	59,550	63,000	66,400	680	730	690	680
						1.26%	*1.27%*	*1.13%*	*1.06%*
Lake Macquarie	196,800	201,500	207,500	212,800	217,850	940	1,200	1,060	1,010
						0.47%	0.59%	0.51%	0.47%
Maitland	69,900	77,900	85,250	92,750	100,500	1,600	1,470	1,500	1,550
						2.19%	*1.82%*	*1.70%*	*1.62%*
Newcastle	155,550	164,400	173,350	181,850	190,050	1,770	1,790	1,700	1,640
						1.11%	1.07%	0.96%	0.89%
Port Stephens	67,200	73,850	79,150	84,200	88,900	1,330	1,060	1,010	940
						1.91%	*1.40%*	*1.24%*	*1.09%*
Lower Hunter	**541,950**	**573,550**	**604,800**	**634,600**	**663,700**	**6,320**	**6,250**	**5,960**	**5,820**
						1.14%	***1.07%***	***0.97%***	***0.90%***

3. RESIDENTIAL LOT REGISTRATIONS

The Census data presented in Section 2 provides a coarse spatial and temporal overview of population and housing growth in the Lower Hunter. This section focusses on the analysis of residential lot registrations in the Lower Hunter since the release of the LHRS. Lot registration data is the finest spatial resolution (individual lot) and temporal resolution (registration date) publically available to investigate residential growth. More specifically, it enables the aggregation of data to assess growth targets for Corridors and Centres, Urban Infill, and New Release Areas outlined in the LHRS. While not representing dwelling completions or approvals, which are only publically available at coarser spatial resolutions, lot registration data is nonetheless a valid measure of residential growth and is used a performance metric in the Metropolitan Development Program.

The following section reviews the status of New Release Areas identified in the LHRS (DoP, 2006). This review introduces the central theme of subsequent analysis and discussion of residential lot registrations in Corridors and Centres, Urban Infill, and New Release Areas. The overall analysis approach to lot registrations and sales is contained in Appendix C.

3.1 REVIEW AND STATUS OF MAJOR URBAN RELEASE AREAS

The zoning and lot delivery status of New Release Areas identified in the LHRS Map is presented in Figure 2 (DoP, 2006). This map indicates that 28 of the 34 New Release Areas have not delivered lots to the market:

- 13 Release Areas remain unzoned (38%); and
- 21 Release Areas are either fully or partially zoned (62%), but of the these:
    - Only 6 have delivered lots to the market (18% of total); and
    - 15 have yet to deliver lots to the market (44% of total).

A detailed review of the 6 New Release Areas that have delivered lots to the market is presented in Table 7 and Figure 6.

Table 7 Lots Registered in "New" Urban Release Areas Identified in the Lower Hunter Regional Strategy Map from 2006 to 2013 (inclusive).

Release Area	Lots Delivered	Zone	Area (Ha)	Gazettal	Planning Instrument	Amendment
Cliftleigh	188	2(a)	94	14/11/2008	Cessnock Local Environmental Plan 1989	120
Thornton North	280	2(a)	140	27/07/2007	Maitland Local Environmental Plan 1993	86
		2(a)	290	23/09/2011	Maitland Local Environmental Plan 1993	112
Aberglasslyn	748	2(a)	120	2/03/2007	Maitland Local Environmental Plan 1993	92
Gillieston Heights	604	2(a)	107	24/02/2006	Maitland Local Environmental Plan 1993	81
		2(a)	65	15/01/2010	Maitland Local Environmental Plan 1993	101
		2(a)	22	12/11/2010	Maitland Local Environmental Plan 1993	103
North Cooranbong	80	2(1)	204	5/12/2008	State Environmental Planning Policy (Major Projects) 2005	22
		2(2)	13	5/12/2008	State Environmental Planning Policy (Major Projects) 2005	22
Morisset North	25	2(1)	42	-	Lake Macquarie Local Environmental Plan 2004	
		2(1)	22	30/05/2008	Lake Macquarie Local Environmental Plan 2004	20
		2(1)	27	15/01/2010	Lake Macquarie Local Environmental Plan 2004	41
		2(2)	10	15/01/2010	Lake Macquarie Local Environmental Plan 2004	41

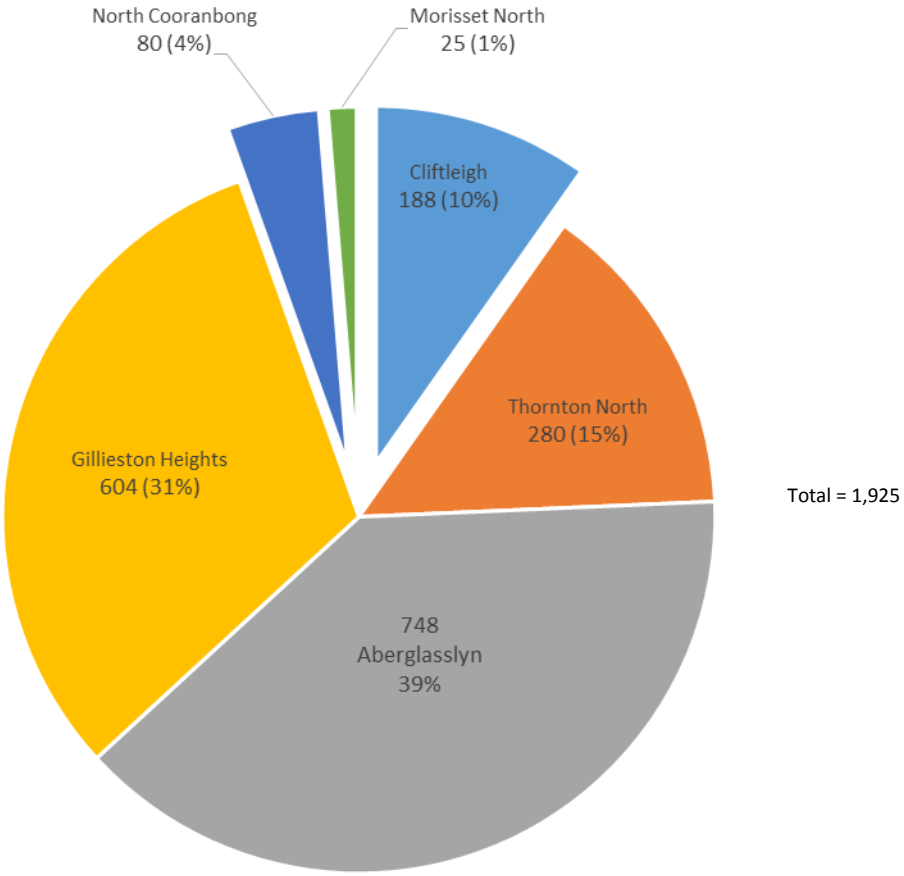


Figure 6 **Proportion of Lots Delivered Across "New" Release Areas Identified in LHRS**

Aberglasslyn and Gillieston Heights have dominated the delivery of lots from "New" Urban Release areas identified in the LHRS Map, while Thornton North has contributed as many lots as the remaining three New Release Areas (North Cooranbong, Morisset North and Cliftleigh). However, the extent that the delivery of these lots can be attributed to the strategic planning and direction of the LHRS is questionable given that:

- Rezoning of 107 hectares at Gillieston Heights occurred in February 2006, well before the release of the LHRS in October 2006;
- Rezoning of 120 hectares at Aberglasslyn occurred in March 2007, suggesting the strategic planning and investigations for Aberglasslyn were completed prior to the release of the LHRS; and
- Rezoning of 140 at hectares at Thornton North occurred in July 2007, though the LHRS did acknowledge that planning for the release of Thornton North was well advanced.

By way of comparison, two "Existing" Urban Areas delivered 1,751 lots in the same period: Cameron Park with 1,038 lots and Fletcher with 713 lots. The pattern of residential lot registrations for these two "Existing" Urban Areas is presented in Figure 7. Figure 8 through to Figure 11 present the residential lot registrations for the 6 "New" Release Areas that have delivered lots.

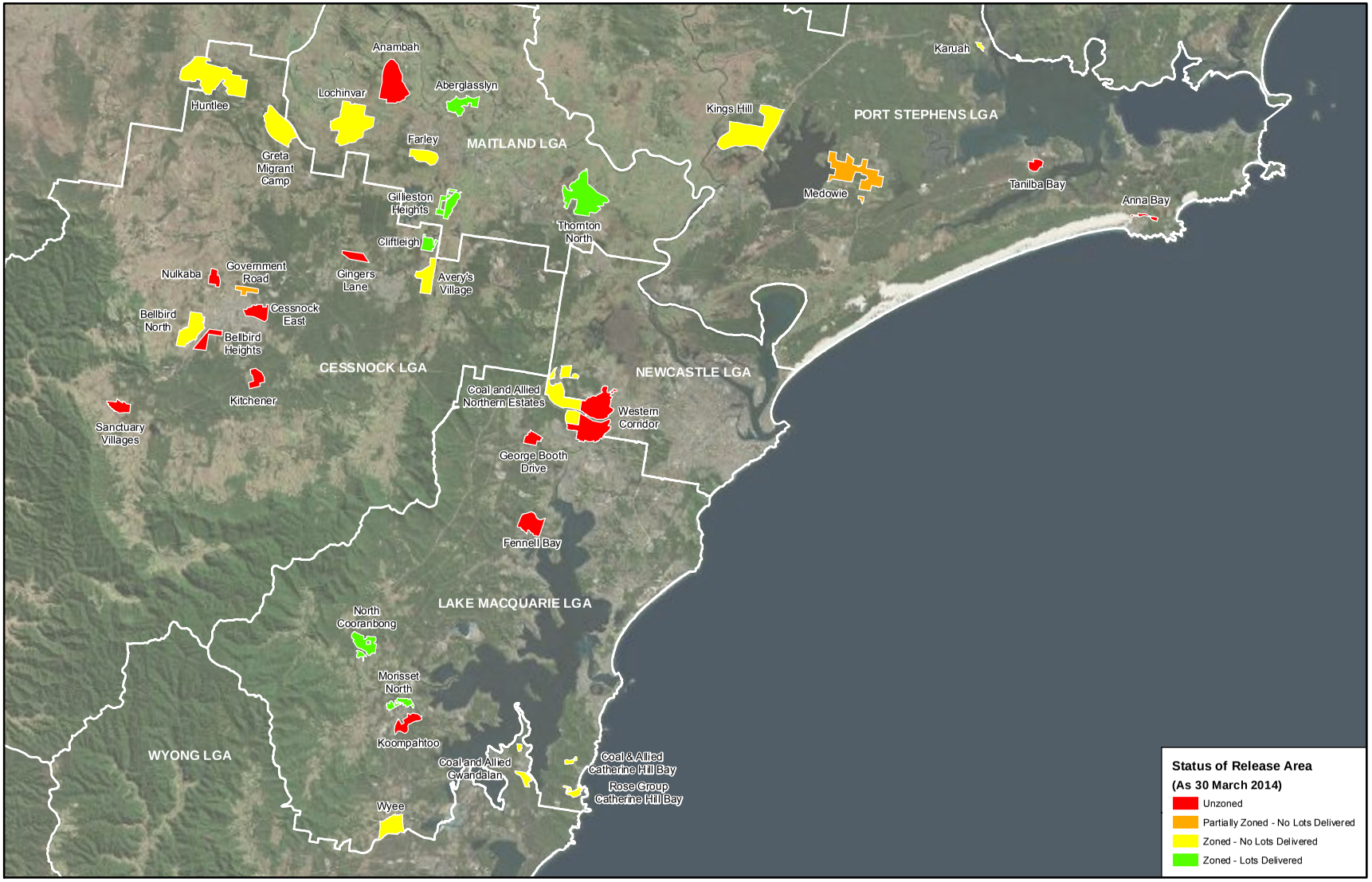


Figure 6 **Zoning and Lot Delivery Status of Release Areas Identified in the Lower Hunter Regional Strategy Map**

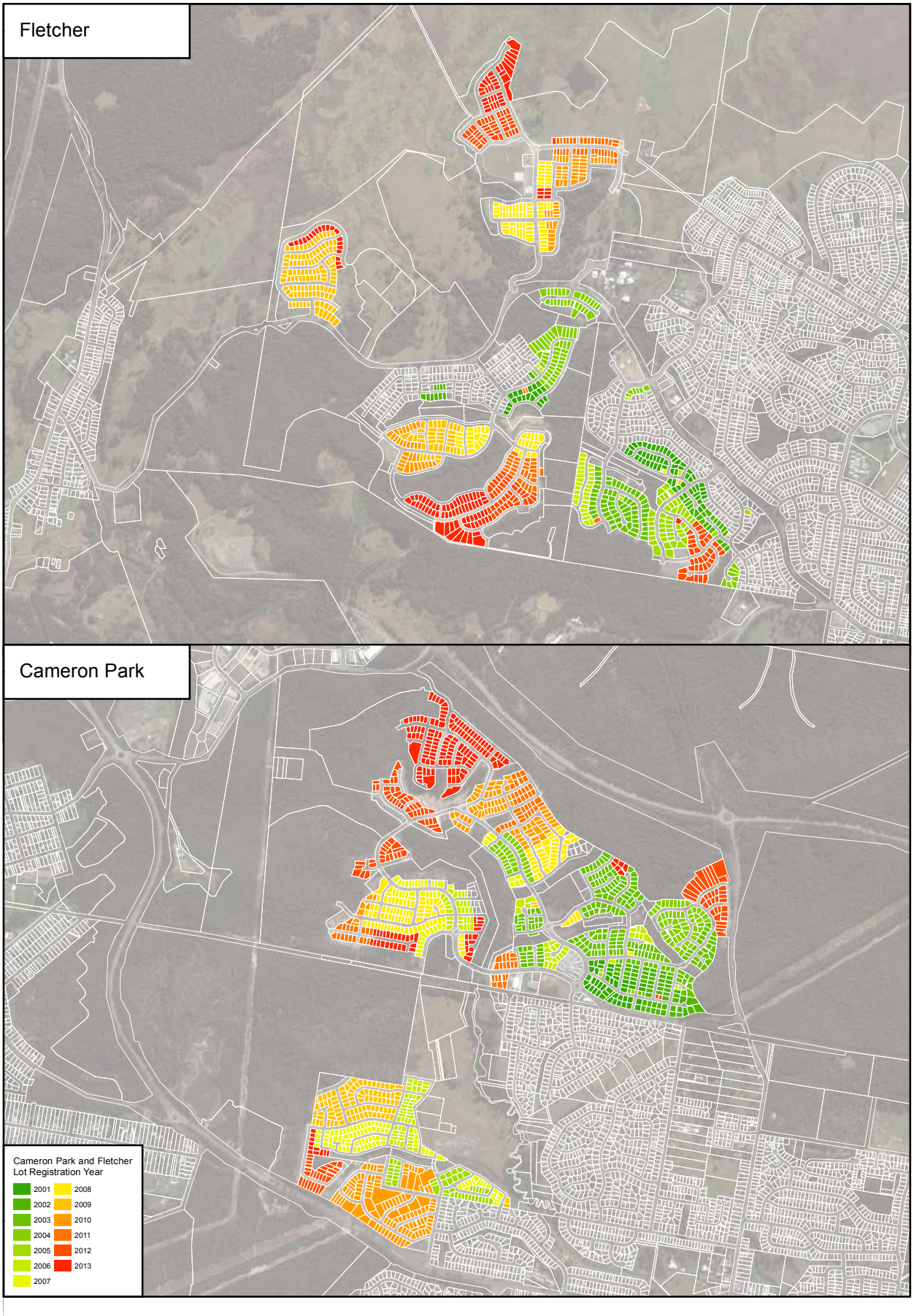


Figure 7 **Pattern of Residential Lot Registration in Fletcher and Cameron Park**

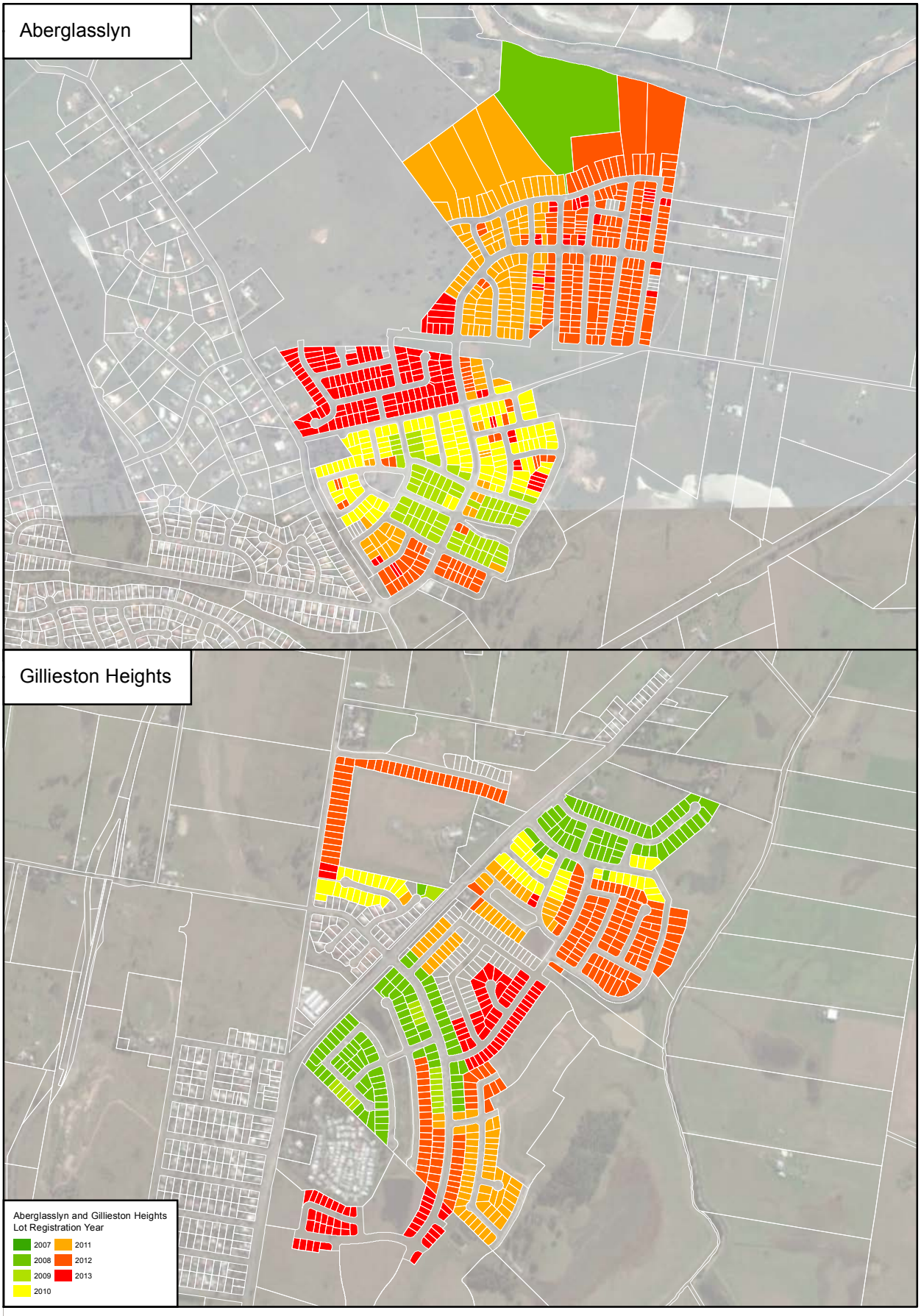


Figure 8 **Pattern of Residential Lot Registration in Aberglasslyn and Gillieston Heights**

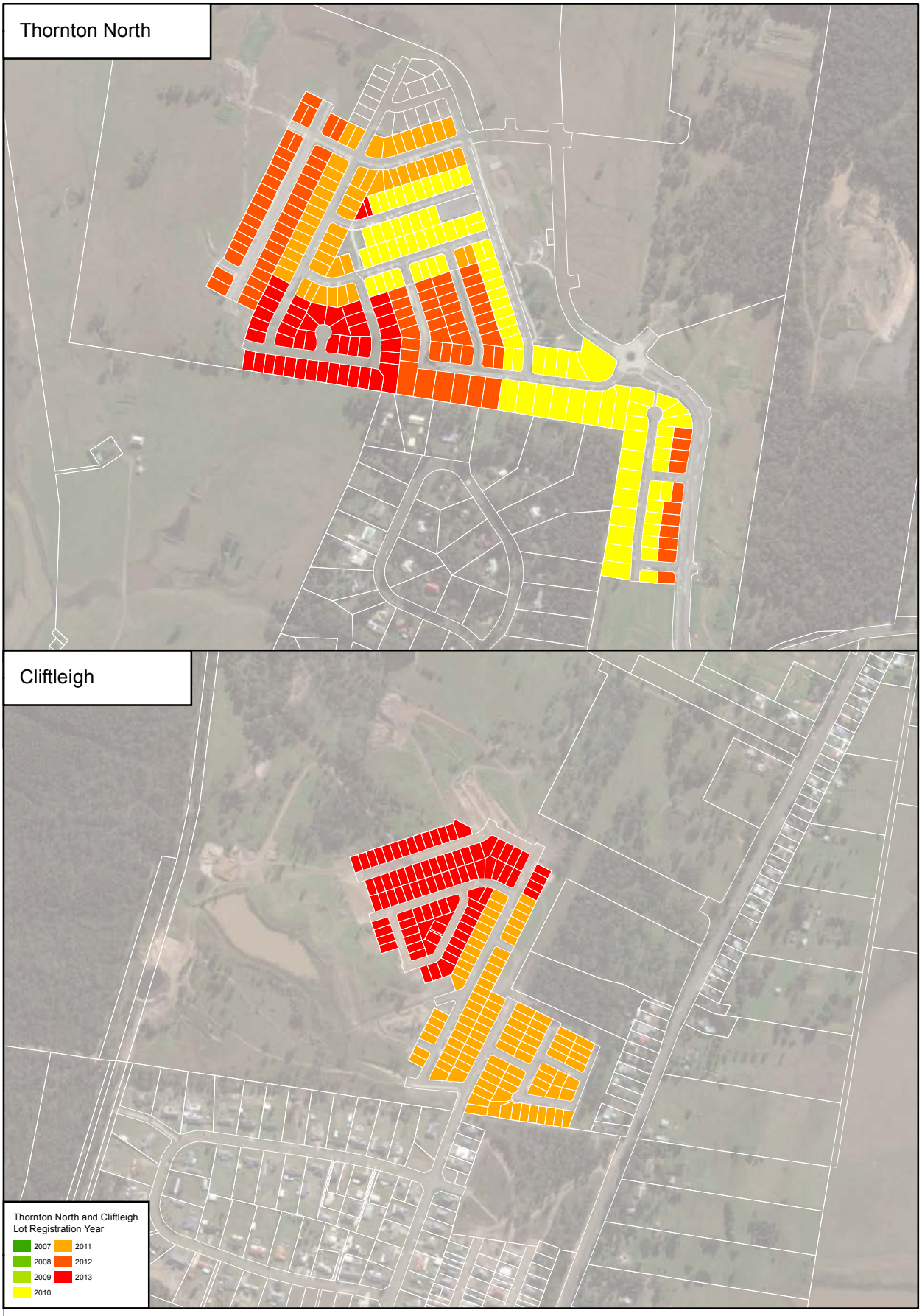


Figure 9 **Pattern of Residential Lot Registration in Thornton North and Cliftleigh**

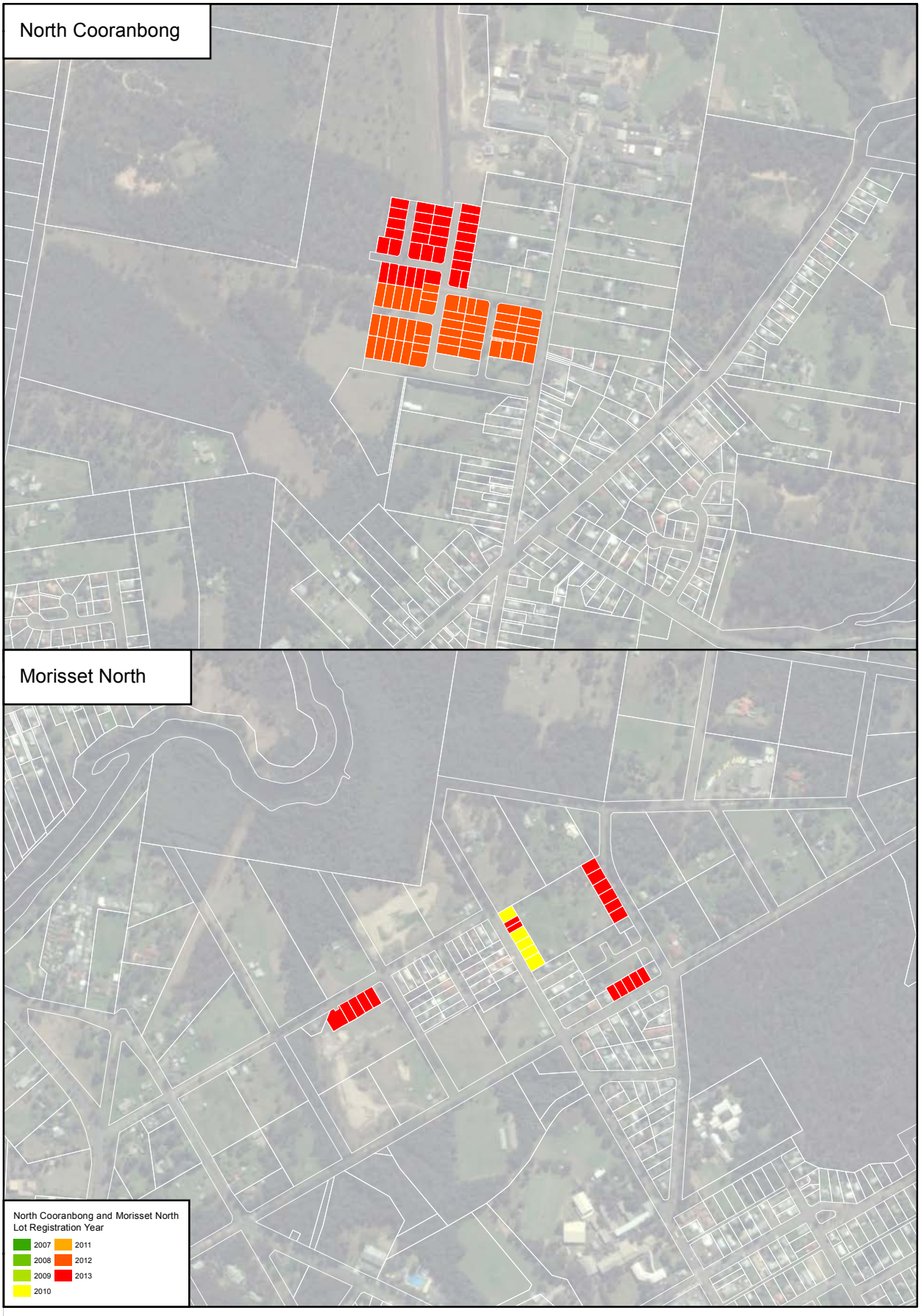


Figure 10 **Pattern of Residential Lot Registration in North Cooranbong and Morisset North**

3.2 RESIDENTIAL LOT REGISTRATION SUMMARY

The spatial analysis of the lot registrations presented in Figure 7 through to Figure 10 was applied to locate all residential lot registrations in the Lower Hunter from 2007 to 2013, and were aggregated into the development categories presented in the LHRS: Centres and Corridors; Urban Infill; and New Release Areas (DoP, 2006). The Urban Infill Category was further broken down into:

- MDP Areas, which are larger development areas identified in the 2007/08 Metropolitan Development Program Map (DP&I, 2009); and
- General Infill, capturing small-scale developments such as 1 into 2 lot subdivision and developments of a strata units outside other development categories identified in the LHRS.

The lot registration approach was also adopted due to the ability to readily examine the likely **net** increase in new dwellings, rather than **gross** new dwelling approvals or completions that are commonly reported at coarser spatial resolutions. Examples of such instances include:

- Demolition of a dwelling and the construction of a new dwelling does not have a net increase in dwellings, but is reported as a new dwelling in approvals and completions reporting; and
- A 1 into 2 subdivision (into strata or torrents title) results in a net increase of 1 dwelling, with 2 gross dwellings reported approved and completed if the original dwelling was demolished.

The results summarised in Figure 12 and Table 8 for each local government area in the Lower Hunter demonstrate:

- A good correlation between the number of residential lots registered from 2006 to 2011 to the increase in private dwellings from 2006 to 2011 presented in Table 2 (ABS, 2104);
- A good correlation between the number of residential lots delivered annually in the Lower Hunter from 2007 to 2012 (2,287) to the of annual production of 2,200 dwellings reported in *The Discussion Paper* (DP&I, 2013); and
- The proportion of lots delivered by New Release Areas in the Lower Hunter comprise only 13.2% of the total residential lots delivered from 2007 to 2013.

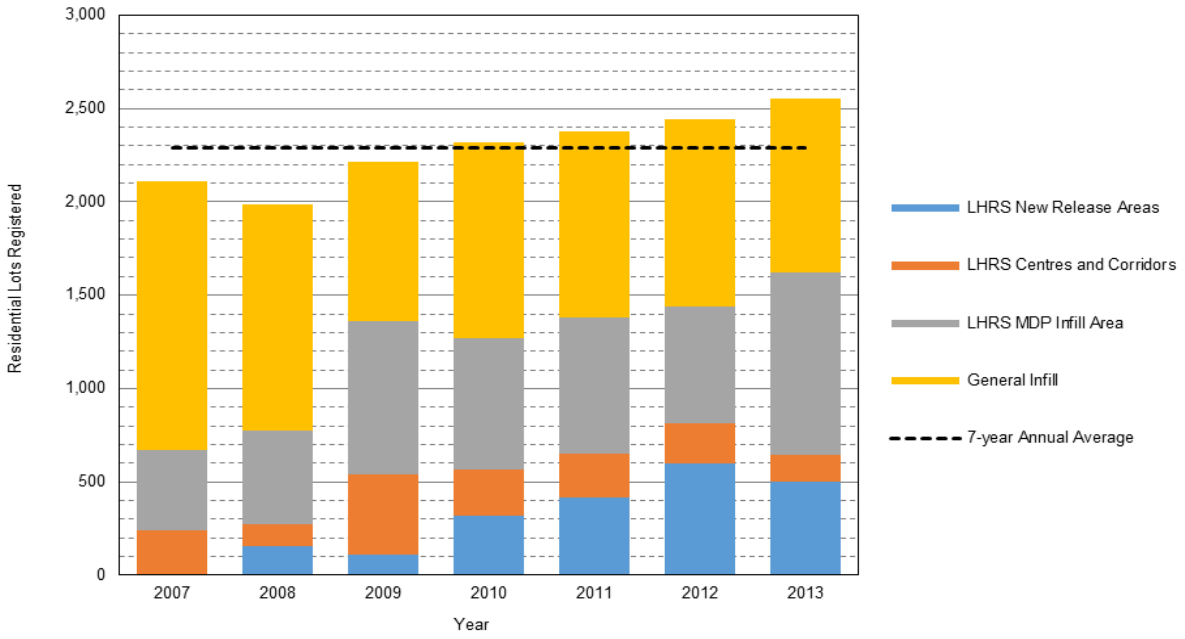


Figure 12 **Residential Lot Registrations in the Lower Hunter Region from 2007 to 2013**

Table 8 Lots Registered from 2007 to 2013 by Local Government, LHRS Category and Type of Title[1]

		2007			2008			2009			2010			2011			2012			2013			Total		
LGA	**LHRS Category**	**CT,TT**	**ST**	**T**	**CT,TT**	**ST**	**T**	**CT,TT**	**ST**	**T**	**CT,TT**	**ST**	**T**	**CT,TT**	**ST**	**T**	**CT,TT**	**ST**	**T**	**CT,TT**	**ST**	**T**	**CT,TT**	**ST**	**T**
Cessnock	New Release Areas	0	0	0	0	0	0	8	0	8	3	39	42	103	0	103	8	0	8	107	0	107	229	39	268
	Corridors and Centres	0	0	0	12	3	15	2	5	7	6	0	6	9	0	9	2	5	7	4	2	6	35	15	50
	MDP Areas	16	6	22	27	17	44	20	16	36	39	16	55	50	2	52	16	12	28	104	4	108	272	73	345
	General Infill	89	68	157	91	211	302	95	91	186	116	65	181	148	62	210	152	56	208	154	53	207	845	606	1,451
	Total	105	74	179	130	231	361	125	112	237	164	120	284	310	64	374	178	73	251	369	59	428	1,381	733	2,114
Lake Macquarie	New Release Areas	0	0	0	0	0	0	0	0	0	5	0	5	1	0	1	53	0	53	58	0	58	117	0	117
	Corridors and Centres	5	21	26	0	4	4	2	37	39	2	35	37	5	13	18	2	21	23	0	52	52	16	183	199
	MDP Areas	48	0	48	187	2	189	197	33	230	283	2	285	121	0	121	196	0	196	340	0	340	1,372	37	1,409
	General Infill	444	98	542	231	63	294	162	76	238	170	118	288	292	40	332	218	86	304	147	78	225	1,664	559	2,223
	Total	497	119	616	418	69	487	361	146	507	460	155	615	419	53	472	469	107	576	545	130	675	3,169	779	3,948
Maitland	New Release Areas	0	0	0	156	2	158	99	5	104	274	0	274	306	4	310	533	6	539	329	10	339	1,697	27	1,724
	Corridors and Centres	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	35	35	5	0	5	5	41	46
	MDP Areas	127	60	187	101	32	133	229	26	255	112	14	126	330	9	339	135	13	148	328	14	342	1,362	168	1,530
	General Infill	37	70	107	194	81	275	41	44	85	87	55	142	95	86	181	60	45	105	76	45	121	590	426	1,016
	Total	164	130	294	451	121	572	369	75	444	473	69	542	731	99	830	728	99	827	738	69	807	3,654	662	4,316
Newcastle	New Release Areas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Corridors and Centres	18	78	96	23	17	40	20	333	353	34	129	163	28	165	193	12	119	131	20	22	42	155	863	1,018
	MDP Areas	15	4	19	109	7	116	178	2	180	96	3	99	72	6	78	142	0	142	147	9	156	759	31	790
	General Infill	279	122	401	126	102	228	146	114	260	99	197	296	102	91	193	128	170	298	87	214	301	967	1,010	1,977
	Total	312	204	516	258	126	384	344	449	793	229	329	558	202	262	464	282	289	571	254	245	499	1,881	1,904	3,785
Port Stephens	New Release Areas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Corridors and Centres	43	79	122	42	6	48	12	17	29	10	32	42	9	7	16	16	0	16	16	18	34	148	159	307
	MDP Areas	150	2	152	23	0	23	122	0	122	138	0	138	138	2	140	111	0	111	32	0	32	714	4	718
	General Infill	111	122	233	105	8	113	64	20	84	57	83	140	59	20	79	90	3	93	75	4	79	561	260	821
	Total	304	203	507	170	14	184	198	37	235	205	115	320	206	29	235	217	3	220	123	22	145	1,423	423	1,846
Lower Hunter	New Release Areas	0	0	0	156	2	158	107	5	112	282	39	321	410	4	414	594	6	600	494	10	504	2,043	66	2,109
	Corridors and Centres	66	178	244	77	36	113	36	392	428	52	196	248	51	185	236	32	180	212	45	94	139	359	1,261	1,620
	MDP Areas	356	72	428	447	58	505	746	77	823	668	35	703	711	19	730	600	25	625	951	27	978	4,479	313	4,792
	General Infill	960	480	1,440	747	465	1,212	508	345	853	529	518	1,047	696	299	995	648	360	1,008	539	394	933	4,627	2,861	7,488
	Total	1,382	730	2,112	1,427	561	1,988	1,397	819	2,216	1,531	788	2,319	1,868	507	2,375	1,874	571	2,445	2,029	525	2,554	11,508	4,501	16,009

[1] CT = Community Title TT = Torrens Title ST = Strata Title T = Total Discrepancies between New Release Areas in Table 8 and Figure 6 are due to subdivision within existing zones without rezoning under the LHRS.

4. RESIDENTIAL SALE PRICES

Due to the significant variability in built-housing forms, and the fact that the delivery of lots from New Release Areas significantly contributed to the potential housing supply shortfall, the trends in the sale price of vacant residential lots in New Release Areas and MDP Areas were examined in further detail.

Figure 13 indicates that the median sale price for vacant residential lots in the Lower Hunter fell from $190,000 in 2007 to $180,000 in 2009, then stabilised to $185,000 and $182,500 in 2010 and 2011 before increasing to $193,000 in 2013. The distribution of the median sale prices for 2013 presented in Figure 14 indicates a sale price of $170,000 to $180,000 accounts for 20% of vacant lot sales in the Lower Hunter. However, vacant lots sale prices between $200,000 and $250,000 accounted for nearly one third of vacant lots sales (15.9% for $200,000 - $225,000 and 16.7% for $225,000 - 250,000), with 45% of all vacant residential lot sales in the Lower Hunter for 2013 greater than $200,000.

Three key geographic market segments within the Lower Hunter are summarised in Figure 15, and presented for the purpose of simplifying the quantity and spatial distribution of vacant lot sales examined:

- The Outer West geographic segment (Aberglasslyn and Gillieston Heights) demonstrated a relatively consistent median sale price of $180,000 from 2008 to 2013;
- The Lake and Coastal geographic segment (Murrays Beach and Fern Bay) demonstrated more variability in median sale price between the range $240,000 and $280,000; and
- The Inner West geographic segment (Cameron Park and Fletcher) had a consistent increase in the median sale price from below $170,000 in 2007 to $210,000 in 2013.

The median sale price increase in the Inner West geographic segment demonstrates a key factor in the overall median sale price of $193,000 for the Lower Hunter in 2013: existing urban areas (MDP Areas such as Cameron Park and Fletcher) have contributed significantly to housing supply since 2006 with consistent increases in median sale price to above $200,000, while New Urban Release (from the LHRS) have contributed less to housing supply but have a more affordable median sale price in the order of $180,000.

Other notable median sales prices, above and below the median sale price for urban release areas across the Lower Hunter, include:

- $175,000 for North Cooranbong and Cliftleigh in 2013, incrementally increasing over the last few years from just below $170,000; and
- $225,000 for Thornton North in 2013, moving within a range of $215,000 to $225,000 since development started.

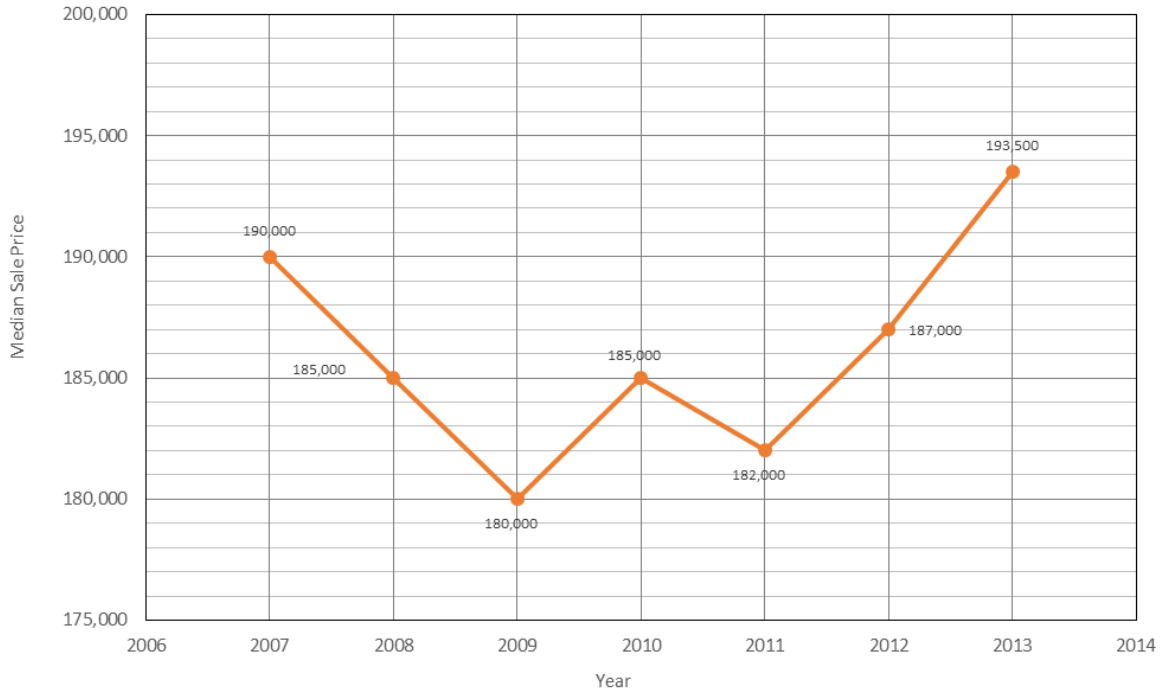


Figure 13 **Median Sale Price for Vacant Residential Lots in the Lower Hunter within New Release Areas and MDP Areas.**

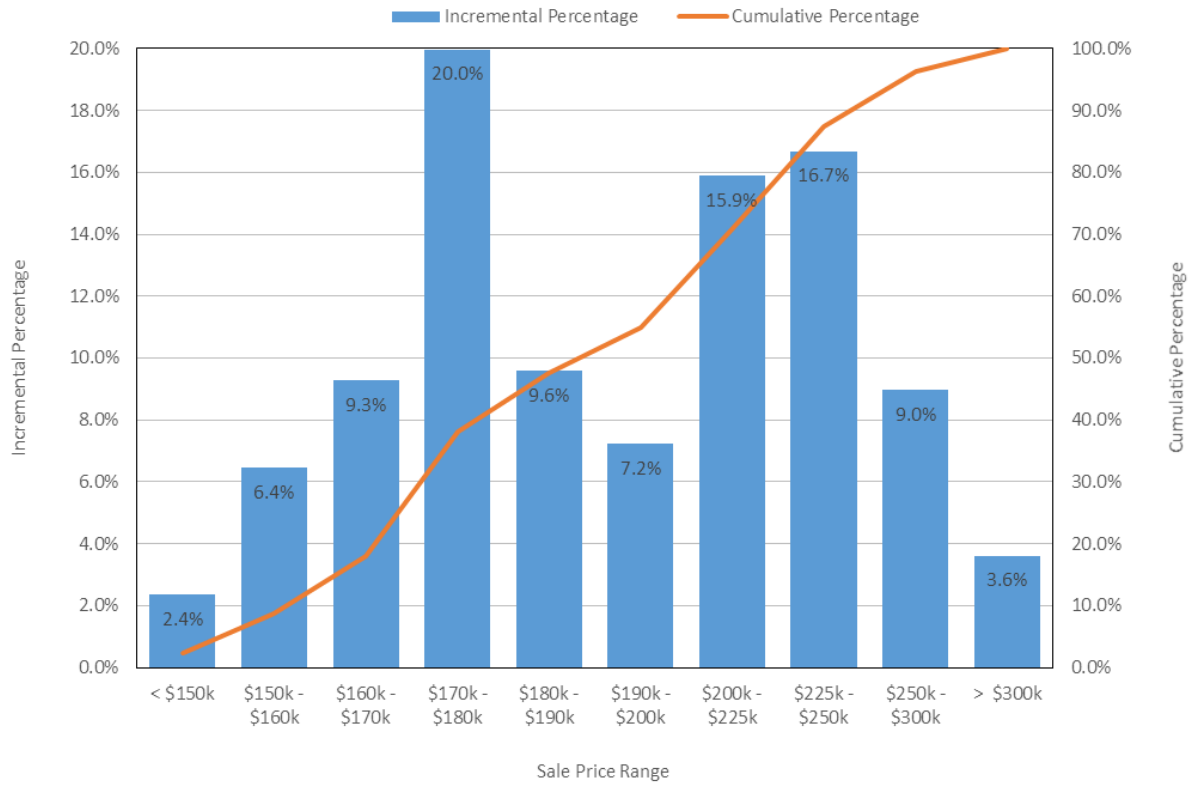
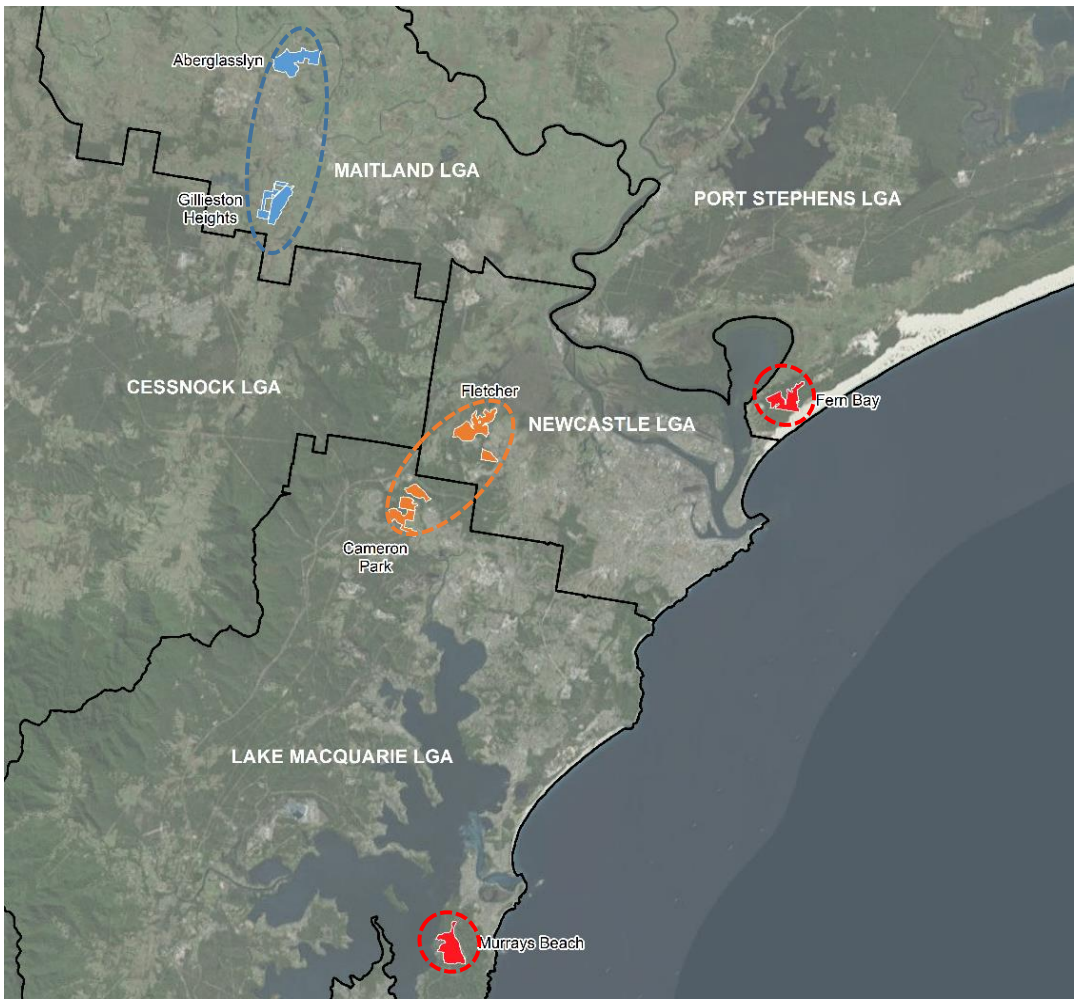
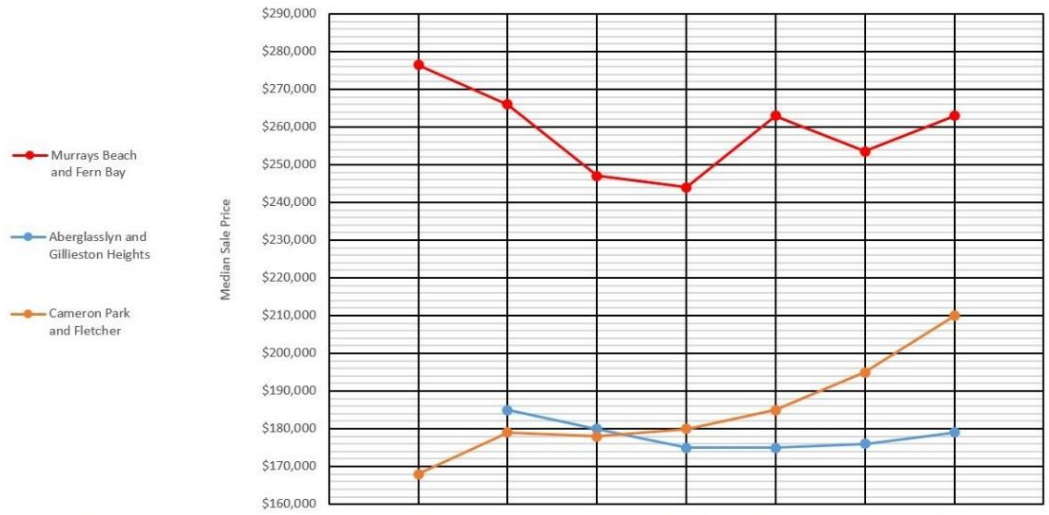


Figure 14 **Breakdown of 2013 Median Sale Price for Vacant Residential Lots in the Lower Hunter within New Release Areas and MDP Areas.**





Geographic Market Segment	2007	2008	2009	2010	2011	2012	2013
Aberglasslyn and Gillieston Heights		$185,000	$180,000	$175,000	$175,000	$176,000	$179,000
(Outer West - Maitland)		*(715m²)*	*(713m²)*	*(680m²)*	*(651m²)*	*(614m²)*	*(601m²)*
Cameron Park and Fletcher	$168,000	$179,000	$178,000	$180,000	$185,000	$195,000	$210,000
(Inner West - Lake Macquarie and Newcastle)	*(647m²)*	*(667m²)*	*(682m²)*	*(653m²)*	*(651m²)*	*(636m²)*	*(645m²)*
Murrays Beach and Fern Bay	$276,500	$266,000	$247,000	$244,000	$263,000	$253,500	$263,000
(Lake and Coastal - Lake Macquarie and Port Stephens)	*(662m²)*	*(665m²)*	*(666m²)*	*(743m²)*	*(756m²)*	*(644m²)*	*(756m²)*

Figure 15 **Median Sale Prices for Three Key Geographic Market Segments**

5. HOUSING SUPPLY BLOCKAGES

The Lower Hunter over the next 20 years: A Discussion Paper identified that the rezoning of land has not been matched by construction of new dwellings due to four housing supply blockages: biodiversity off-setting, infrastructure, economic feasibility; and site location and market preferences (DP&I, 2013). These blockages are equally applicable to New Release Areas, existing Urban Areas or any proposed new urban development. If these housing supply blockages are not properly formalised and quantified, then:

- Any potential policy scenarios will be diffuclt to model accurately;
- The effectiveness of any policy implementation will be doubtful; and
- These blockages will continue to constrain housing supply and affect housing affordability in the Lower Hunter.

The following sections outline key issues raised by the Hunter UDIA Committee in relation to the housing supply blockages identified in *The Discussion Paper*.

5.1 BIODIVERSITY OFF-SETTING

The Discussion Paper highlights that time delays, uncertainty and additional costs associated with biodiversity offsetting are impacting housing affordability and the commercial viability of projects in the Lower Hunter (DPI, 2013). Given the number of urban release areas in the Lower Hunter impacted by native vegetation, this acknowledgement is not only significant in terms of a housing supply blockage but also in terms of overall development yield. In instances where “off-site” biodiversity offsetting cannot be fully achieved, then “on-site” offsetting within the urban release area will reduce the development yield. This not only affects the feasibility of the development, but also reduces the future housing supply anticipated by the DoP for the entire Lower Hunter region.

However, the key biodiversity issue remains the extent and complexity of legislation, tools and policy mechanisms currently implemented across three tiers of government: Commonwealth; State; and local. In 2012 the Commonwealth and New South Wales governments entered into an agreement to undertake regional sustainability planning and a collaborative strategic assessment for the Lower Hunter. If biodiversity off-setting is to be addressed as a housing supply blockage, then the strategic assessment must propose a workable biodiversity framework that significantly reduces the complexity and uncertainty for the development industry. For the purpose of delivering an integrated strategic planning framework for the Lower Hunter, the strategic assessment should ideally be delivered concurrently with the revised LHRS.

5.2 INFRASTRUCTURE

Infrastructure has been generically identified as a housing supply blockage. However, a clear differentiation needs to be formalised between infrastructure that is a housing “supply-side constraint” and infrastructure that is a housing “demand-side driver”.

The majority of government infrastructure plans released to date, such as the Hunter Strategic Infrastructure Plan 2013 (HDC, 2013), focus on major infrastructure projects such as the:

- Hunter Expressway;
- Lower Hunter Freight Corridor;
- F3 Pacific Motorway Extensions;
- Newcastle Inner City Bypass;

- Adamstown Rail Level Crossing;
- University of Newcastle City Campus;
- Duplication of Tourle Street Bridge and Approaches; and
- Newcastle Airport Terminal Expansion.

However, these infrastructure projects are essentially "demand-side drivers" for housing and regional economic growth, and are not related to the infrastructure causing the housing "supply-side constraints" in the Lower Hunter. The irony is that the success of these "demand-side drivers" will likely exacerbate housing supply shortfalls if the "supply-side" infrastructure constraints are not addressed.

The housing "supply-side constraints" in the Lower Hunter relate to "enabling" or "lead" network infrastructure, which require delivery prior to urban growth occurring. Put simply, the lack of (co-ordinated) delivery of water, wastewater and electricity network capacity by infrastructure providers represents the infrastructure housing supply blockage in the Lower Hunter.

Network upgrades causing the housing supply blockage typically require funding by network infrastructure providers to meet growth from several development areas, and are separate to the developer funded works required to service individual developments.

Network infrastructure providers have no price signal (charges) in the property development market to identify the relative cost to service developments in various geographic areas, and are not development consent authorities like the DoP or local councils. Consequently, a regional sequencing plan for new urban growth is required to ensure network infrastructure providers can effectively direct constrained capital budgets to maximise urban growth, or to otherwise transparently justify alternative funding sources to meet growth targets and housing demand.

The UDIA NSW understands that these infrastructure "supply-side constraints" will be addressed by a Growth Infrastructure Plan for the Lower Hunter, as they have not been addressed in the LHRS or UDP.

5.3 ECONOMIC FEASIBILITY

The economic feasibility blockage outlined in *The Discussion Paper* essentially refers to the financial feasibility of urban development projects. In simplistic terms, the financial feasibility of an urban development project is the "time-value of money" relationship between development costs and development revenue, with some components of this relationship clearly beyond the control of planning and consent authorities.

If, however, we accept that housing affordability is a fundamental issue facing the supply of housing in the Lower Hunter, then policy makers and consent authorities need to be aware that a maximum "price-point" exists for various housing products within different geographic markets of the Lower Hunter (i.e. a housing affordability threshold).

By starting with the premise that a "revenue ceiling" is effectively in place to guarantee housing affordability, consent authorities have control over the following cost components that affect the financial feasibility of urban development projects:

- The time to obtain development approval, together with "workable" consent conditions to obtain development finance and to deliver housing;
- The amount, and timing of payment, for developer charges such as Section 94/94A contributions and State Infrastructure Charges (SIC); and
- The co-ordination, delivery and timing of capacity upgrades to "regional" network infrastructure funded by network infrastructure providers.

Another example is the incremental review and increases in various engineering design standards across consent and statutory authorities, often without a clear cost-benefit analysis that can be expressed to the development industry. While often negligible on their own, the cumulative effect of these changes to design standards results in additional development costs that reduce the feasibility of developments, and reduce housing delivery and affordability.

The opportunity to improve financial feasibility of urban development projects also exists with the alternative funding of network infrastructure, such as government sponsored loan schemes, in circumstances where all relevant approvals are in place for development(s), but a constraining component of network infrastructure is delayed in delivery.

5.4 SITE SELECTION AND MARKET PREFERENCES

The Discussion Paper identified that a combination of infrastructure delivery challenges, buyer location preferences and changing housing markets have made the development of some new release areas uncertain in the near to medium term (DP&I, 2013).

As outlined in the previous section, the housing "supply-side constraints" in the Lower Hunter relate to "enabling" or "lead" network infrastructure, which require delivery prior to urban growth occurring. The "lead" network infrastructure are engineering systems that can be readily modelled and upgrade scenarios costed. The solution of infrastructure delivery challenges is ultimately a matter of funding and the co-ordination of capacity upgrade pathways across all network infrastructure providers. Once again, the UDIA understands that these infrastructure delivery challenges will be addressed by a Growth Infrastructure Plan for the Lower Hunter, as they have not been addressed by either the LHRS or UDP.

Understanding buyer location preferences and changing housing markets appears more challenging. In order to make reliable market-based analysis of housing demand, sufficient and diverse housing supply across various locations and at various price-points is required. The recent lack of housing supply in the Lower Hunter, and lack of diversity in the Lower Hunter housing market, has limited the ability to make reliable, evidence-based commentary on housing market preferences. *The Discussion Paper* outlines research that will be undertaken to better inform the LHRS, such as analysis of centres and housing markets, including housing market preferences (DP&I, 2013). This approach is welcomed with the following qualifications:

- Any research, studies and surveys should be conducted in a manner similar to an academic study, allowing for peer-review of scope, methodology, data collection, interpretation of results and formulation of recommendations. In this respect, a transparent and accessible "body of knowledge" regarding housing demand and preferences would be established; and
- On the provision that the previous qualification is met, any research should be implemented in the context of formal feedback loop to:
    - Inform policy and planning controls that are either created, or existing controls removed; and
    - Measure the effectiveness of policy and planning controls.

6. CONCLUSIONS AND SUMMARY

The review of the existing urban planning context and ABS Census data presented in the Section 2 indicates that a potential dwelling supply shortfall existed in the Lower Hunter from 2006 to 2011. On the basis of the data reviewed in this report:

- The potential dwelling supply shortfall is initially indicated by an increase in the persons per dwelling within the local government areas of Cessnock, Newcastle, Port Stephens and the Lower Hunter as a whole from the 2006 to 2011 Census (ABS, 2014; ABS, 2014). This increase in persons per dwelling breaks a significant historic trend of declining persons per dwelling.
- The increase in the persons per dwelling appears to be due to the continued decline in the growth rate for private dwellings coupled with a significant increase in the estimated resident population from 2006 to 2011 of 1.3% annually (ABS, 2014; ABS, 2014).
- The ***actual*** average annual increase of 2,483 private dwellings from the 2006 Census and 2011 Census is ***29% lower*** than the ***projected*** annual growth of 3,200 dwellings projected in 2008 by the CDRP (DoP, 2008).
- During the same period – from 2006 to 2011 – the ***actual*** annual population growth of 6,759 was ***20% higher*** than the ***projected*** annual population growth of 5,640 projected in 2008 by the CDRP (DoP, 2008).
- This divergence – lower than projected dwelling growth and higher than projected population growth over the 2006 to 2011 period – further reinforces the potential dwelling supply shortfall demonstrated by the increasing persons per dwelling in the Census data for the same period.
- Based on the 2008 projections prepared the CDRP, there are two components to a potential dwelling shortfall in the Lower Hunter:
    1. A potential dwelling shortfall of approximately 3,500 dwellings (717 annually) from 2006 to 2011 could be assumed if ***actual*** population growth ***matched*** the ***projected*** population growth.
    2. A potential dwelling shortfall of approximately 2,300 dwellings (460 annually) from 2006 to 2011 could be assumed in order to house the ***actual*** annual population growth that occurred ***above*** the ***projected*** population (at 2011 Census of 2.44 persons per dwelling).

  A total potential dwelling shortfall of 5,800 from 2006 to 2011 is a simplistic calculation that does not account for the composition of net migration, changing structure of households, changes in the proportion of occupied to unoccupied dwellings, changes in persons in non-private dwellings, the net rate of natural increase may, and does address any inherent limitations to projecting dwelling and population.
- A potential dwelling supply shortfall is consistent with data presented in *The Lower Hunter over the next 20 years: A Discussion Paper*, which indicated that the annual dwelling production of around 2,200 per year was "*well below the underlying demand of around 2,500 to 3,000 dwellings per year"* (DP&I, 2013). The lower bound of the underlying housing demand appears to be consistent with an average increase of 2,500 dwellings per year from the 1996 to 2011 Census (ABS, 2014). The upper bound appears reasonably consistent with the 2008 and 2014 projections prepared by the CDRP, which indicated that in excess of 3,000 dwellings are generally required over a 20 to 25 year period to meet future population growth in the Lower Hunter (DoP, 2008; DPE, 2014).
- A potential dwelling supply shortfall from 2006 to 2011 is also consistent with both the 2008 and 2014 projections prepared by the CDRP, both of which projected a continued decline in household size (DoP, 2008; DPE, 2014). The 2014 projections incorporate the 2011 Census, and therefore infer that the increase in persons per dwelling from 2006 to 2011 is a trend that is not expected to continue.

Based on the residential lot registration and sales data presented in Section 3:

- A good correlation exists between the number of residential lots registered from 2006 to 2011 and the increase in private dwellings from 2006 to 2011 presented in Table 2 (ABS, 2014);
- A good correlation exists between the number of residential lots delivered annually in the Lower Hunter from 2007 to 2012 (2,178) and the of annual production of 2,200 dwellings reported in *The Lower Hunter over the next 20 years: A Discussion Paper* (DP&I, 2013);
- On this basis, the potential dwelling supply shortfall in the Lower Hunter from 2006 to 2011 appears to have continued into 2012 and 2013;
- New Release Areas in the LHRS have generally failed to deliver housing since the LHRS was released in 2006. Those New Release Areas that have delivered housing had the majority of planning and rezoning work completed at the time of the LHRS;
- Existing Urban Areas supported much the delivery of vacant residential lots to the market, though many of these areas are approaching their ultimate development yield; and
- Increasing affordability issues are observed in the Lower Hunter, with the median sale price for a vacant residential lot reaching $193,500 in 2013. A median sale price of $210,000 is observed across two existing urban areas of Cameron Park and Fletcher in 2013, while 45% of all vacant lots sold in the Lower Hunter are above $200,000.

The Lower Hunter over the next 20 years: A Discussion Paper identifies four housing supply blockages in the Lower Hunter: biodiversity off-setting, infrastructure, economic feasibility; and site location and market preferences (DP&I, 2013). These blockages are equally applicable to New Release Areas, existing Urban Areas or any proposed new urban development. If these housing supply blockages are not properly formalised and quantified, then:

- Any potential policy scenarios will be diffuclt to model accurately;
- The effectiveness of any policy implementation will be doubtful; and
- These blockages will continue to constrain housing supply and affect housing affordability in the Lower Hunter.

Initiatives such as a proposed Growth Infrastructure Plan for the Lower Hunter, together with the Strategic Assessment of the Lower Hunter (already underway), partly address the four housing supply blockages acknowledged in *The Discussion Paper*. However, an update to the LHRS that is integrated with a Growth Infrastructure Plan, the Lower Hunter Strategic Assessment, annual monitoring and delivery accountability is urgently required to ensure adequate housing supply and affordability in the Lower Hunter Region.

7. REFERENCES

Australian Bureau of Statistics. Estimated Resident Population by Local Government Area (ASGS) 2013. Australian Government: Canberra, website accessed 8 July 2014.
(http://stat.abs.gov.au/Index.aspx?DataSetCode=ABS_ANNUAL_ERP_LGA)

Australian Bureau of Statistics. Time Series Community Profiles. Australian Government: Canberra, website accessed 8 July 2014.
(http://www.abs.gov.au/websitedbs/censushome.nsf/home/communityprofiles?opendocument&navpos=230)

Department of Planning (DoP). Lower Hunter Regional Strategy. NSW Government: Sydney, 2006.
(http://www.planning.nsw.gov.au/regional/pdf/lowerhunter_regionalstrategy.pdf)

Department of Planning (DoP). Metropolitan Development Program (MDP) 2007/08 Report. NSW Government: Sydney, 2009.
(http://www.planning.nsw.gov.au/DeliveringHomes/HousingDeliveryOverview/Metropolitandevelopmentprogram/Metropolitandevelopmentprogramarchive.aspx)

Department of Planning (DoP). Metropolitan Development Program (MDP) 2008/09 Report. NSW Government: Sydney, 2010.
(http://www.planning.nsw.gov.au/Portals/0/ProgramsAndServices/landsupplymanagement/2008_09_MDP_Report.pdf)

Department of Planning (DoP). New South Wales State and Regional Population Projections, 2006-2036: 2008 Release. NSW Government: Sydney, 2008.
(http://www.planning.nsw.gov.au/LinkClick.aspx?fileticket=KG90I5r-ASI%3d&tabid=124&language=en-US)

Department of Planning and Environment (DPE). New South Wales State and Local Government Area Population Projection: 2014 Final. NSW Government: Sydney, 2014.
(http://www.planning.nsw.gov.au/Portals/0/DeliveringHomes/PopulationProjections/Docs/2014_NSW_Projections_Lower_Hunter_and_Central_Coast_LGA_data.xls)

Department of Planning and Infrastructure (DP&I). Metropolitan Development Program (MDP) December 2013 Quarterly Monitor. NSW Government: Sydney, 2014.
(http://www.planning.nsw.gov.au/Portals/0/HousingDelivery/Quarterly/2013_12_mdp_quarterly_report.pdf)

Department of Planning and Infrastructure (DP&I). The Lower Hunter over the next 20 years: A Discussion Paper. NSW Government: Sydney, 2013.
(http://strategies.planning.nsw.gov.au/Portals/0/Lower%20Hunter/Lower%20Hunter%20Discussion%20Paper%20FINAL.pdf)

Hunter Development Corporation (HDC). Hunter Strategic Infrastructure Plan 2013. NSW Government: Sydney, 2013.
(http://www.hunterinfrastructureplan.com.au/dohttp://www.hunterinfrastructureplan.com.au/downloads/HSIP_Plan.pdfwnloads/HSIP_Plan.pdf).