

# Wirra Willa Fresh Agricultural Subdivision

## Strategic Justification Report



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Wirra Willa Fresh Agricultural Subdivision  
Strategic Justification Report

Prepared for Victoria Court Management  
by



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## Executive Summary

Wirra Willa is an orchard located at 41 Elwins Road Somersby with a total area of 52 ha comprising three lots, each with an existing dwelling on them. The land has been growing predominately oranges for in excess of 80 years. It is proposed to develop a cluster subdivision on the property based around the growing of fruit and vegetables. This is considered to be a better outcome than selling the three existing lots which will become rural residential and not be used for the growing of food. This is a trend that has been occurring in the Somersby locality and other parts of the Gosford rural lands.

The Wirra Willa Fresh concept is one of growing and promoting local food. The existing brand of Wirra Willa is to be used and capitalised on moving it into the vegetable market as well as keeping some of the orchard. It is also proposed to have a large protected cropping structure of around 2 ha to grow vegetable under cover in addition to the field growing of vegetables. The marketing of the produce will be to the local area. It is envisaged that local fruit and vegetable shops as well as restaurants will be the main market for the produce grown on the site as well as continuing the existing farm gate sales. This will help to promote the local area as a food producer and will also promote the Wirra Willa Fresh brand to the local community.

Gosford is located in the peri-urban area of Sydney. The land use in the rural landscapes of the peri-urban area has changed over the past 30 – 40 years from one dominated by agriculture to now being mostly rural residential with agriculture interspersed between the rural residential uses and bushland areas. This increasing trend towards the fragmentation of productive agricultural land is affecting its capability to produce agriculture in a sustainable manner. Once viable farming units are now being made into smaller less viable units and the use changed to residential type uses with no realisation about the impacts of this on such issues as land degradation, rural land use conflict or the cumulative impact of the loss to production of this good agricultural land.

The land use of the peri-urban area is dominated by rural residential development. A land use survey of Western Sydney has found that 78% of the land use is rural residential. A land use survey has not been done for the Gosford LGA but one has been done for the Somersby Locality and it showed that the rural residential use comprised 73.9% of the total land use. The agricultural land uses include wholesale plant nurseries, citrus, stone fruit and nut orchards, market gardening, poultry meat and horse studs. These are in the minority and only make up 12.1% of the land uses and cover 21.3% of the area of land use.

The average age of the Somersby locality is 42 and it has a similar profile to the rural lands but has more children aged 5 – 14 and many more adults in the 40 – 44 age group. There are more people in the workforce (15-64) and less over 65. This is consistent with it being a mostly rural residential land area because the average age of farmers is 53 compared to 40 for other occupations. The weekly income data shows that there are more families with incomes of more than \$2,000 and the median income is \$2,588 which is 4.5 times the average income for farmers of \$568. The agriculture sector is the 4<sup>th</sup> highest employment sector with 9.2% of the workforce, which is less than the rural areas (14.3%). To put this figure of employment in agriculture into context, Moree Plains which is the number one agricultural producing LGA in Australia with a value of production at \$918 million has 65.4% of its rural workforce employed in Agriculture. There are more managers in the Somersby area than the urban and LGA and Somersby has nearly three times the number of people who work from home, which is consistent with the area being mostly rural residential. The agriculture sector

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accounts for 20% of the businesses, but when compared to Moree Plains it is not significant because in Moree Plains 66% of the businesses are agriculture related. This also points to it being mostly rural residential.

Data on the agricultural commodities show that Gosford is a significant producer of poultry and nurseries, flowers and turf. These two sectors make up 91% of the total value of \$131.2m. The fact that Somersby only has 13% of the poultry and 6% of the nurseries, flowers and turf indicates that the value of agriculture in Somersby is very high.

## **Chapter 1: Introduction**

### **1.1. Introduction**

Wirra Willa is an orchard located at 41 Elwins Road Somersby with a total area of 52 ha comprising three lots, each with an existing dwelling on them. The land has been growing predominately oranges for in excess of 80 years.

The owner of Wirra Willa orchard wishes to develop the property as a working and productive farm. However, citrus production is not a sustainable operation and needs to be supported by significant injection of off farm income. He wishes to also move into growing vegetables on the site in a bid to retain agriculture. This is preferable than selling the three lots which would mean it becomes a rural residential use as is happening elsewhere in Somersby.

The Wirra Willa Fresh concept is one of growing and promoting local food. The existing brand of Wirra Willa is to be used and capitalised on moving it into the vegetable market as well as keeping some of the orchard. It is also proposed to have a large protected cropping structure of around 2 ha to grow vegetable under cover in addition to the field growing of vegetables. The marketing of the produce will be to the local area. It is envisaged that local fruit and vegetable shops as well as restaurants will be the main market for the produce grown on the site as well as continuing the existing farm gate sales. This will help to promote the local area as a food producer and will also promote the Wirra Willa Fresh brand to the local community.

The change from only fruit to fruit and vegetables will require significant investment in plant and machinery, as well as preparation of the land and associated infrastructure to grow vegetables, both outdoors as well as in greenhouses. This is not possible to do on a commercial basis in a traditional agricultural sense.

The other reality for the Somersby Plateau is that its location is very attractive to the property market, and therefore people seek out large rural holdings for residential purposes. As a consequence land prices increase and as economic rationalisation impacts on the agricultural industry, farming is being pushed out of a lot of peri-urban areas like Somersby. The challenge for Planners is what to do to stop this from occurring and how to encourage valuable agricultural land to be used for agricultural production?

Planning policies can't make land owners use their land for agricultural production. Furthermore property market forces are acting in contradiction of planning policy which seeks to protect and promote the use of land for agricultural production on the Somersby Plateau.

The Wirra Willa Fresh concept is to develop a financially sustainable model for agricultural production. Instead of accepting or being ignorant to property market forces, the concept seeks to embrace the market. It will do this by offering the market a lifestyle opportunity based on agriculture and sustainable healthy living.

This report has been prepared to look at the Somersby Plateau and wider Gosford area in a strategic context and to assess the land use in the area and how it is changing.

## **1.2. Purpose of Report**

The purpose of this report is to provide a strategic overview of the land use and demography of the people living on the Somersby Plateau. This has been done at the request of Gosford City Council as part of the background reporting for the project.

## **1.3. Location and Study Area**

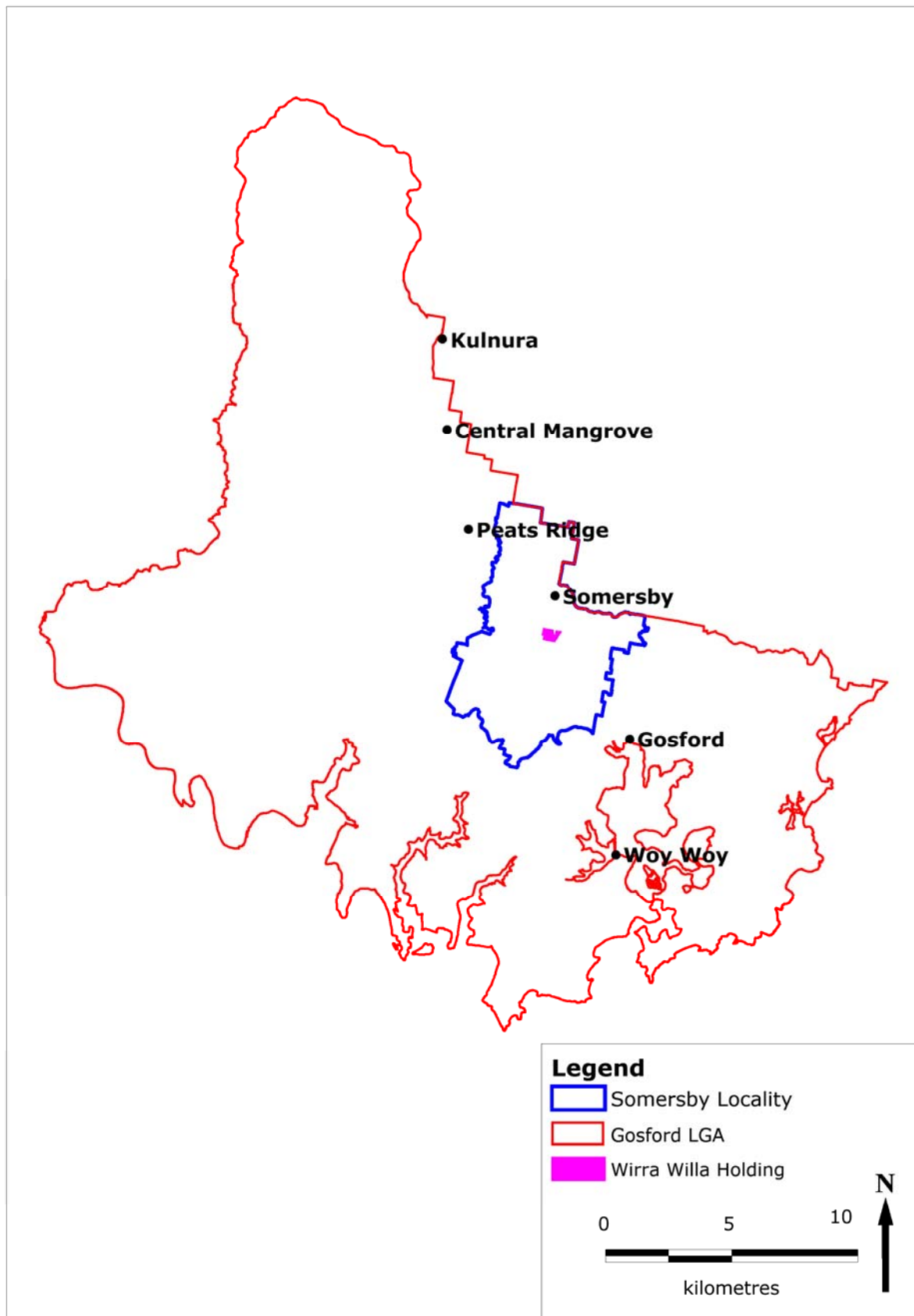
Wirra Willa holding is located at 41 Elwins Rd, Somersby and is bounded by Wisemans Ferry Rd to the east and Keighley Rd to the south.

The site is within the Somersby Locality and this report is confined to the Somersby Locality. The site and its relationship to the Somersby Locality and Gosford LGA can be seen from map 1.1. Map 1.2 shows the Wirra Willa holding.

The Wirra Willa holding has a total area of 52.375 ha and consists of three lots as follows:

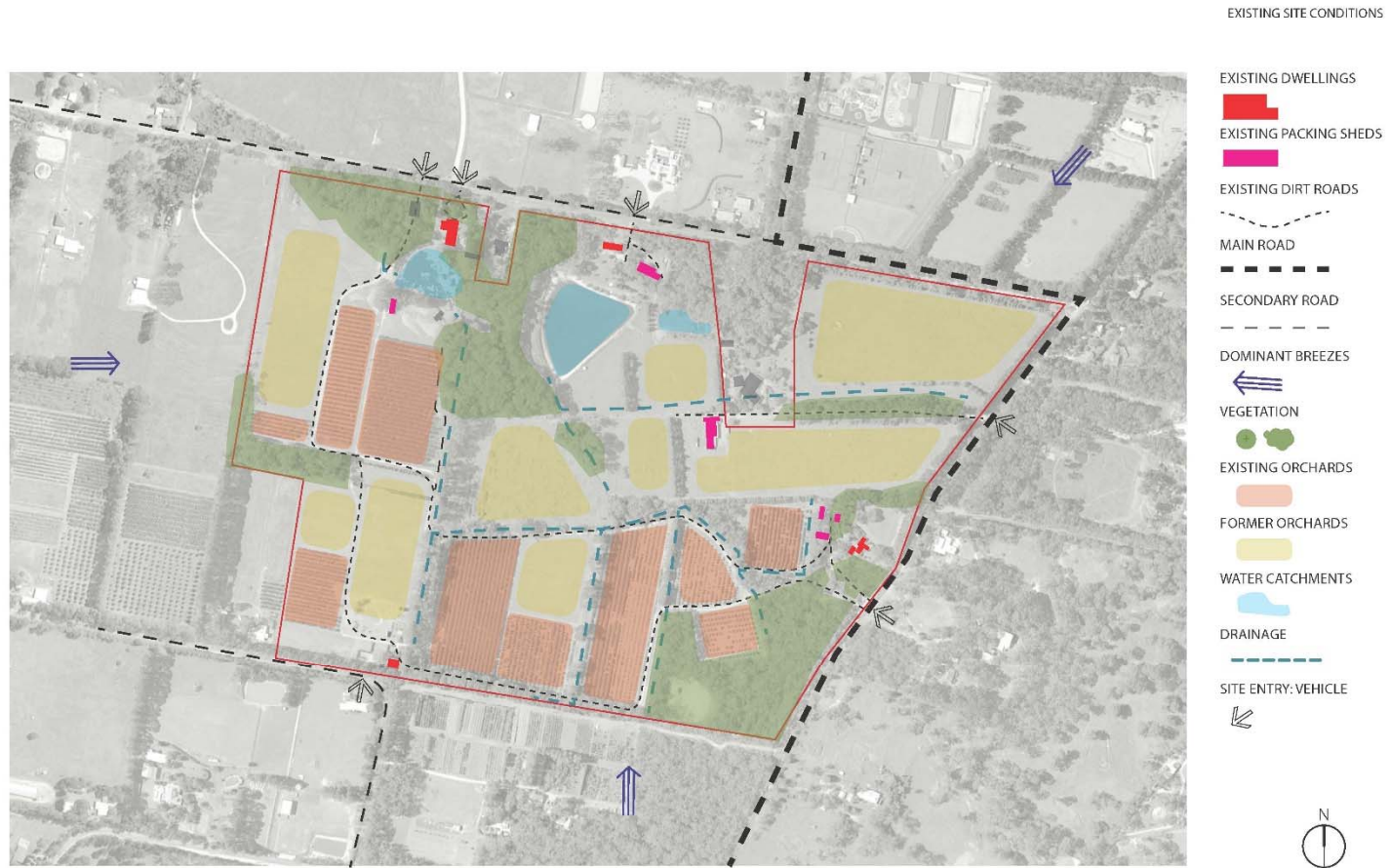
- Lot 13 DP109784
- Lot 4 DP 1027884
- Lot 45 DP 1034942

The site has been operated as two separate farms until the current owner (who has lived on the orchard since 1991) purchased the adjoining farm which had been cleared of its trees by the previous owner.



**Map 1.1: Somersby Plateau and Gosford LGA**

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URBAN DESIGN STUDY 17 & 41 ELWINS RD & 185 WISEMANS FERRY RD, SOMERSBY FOR VICTORIA COURT MANAGEMENT  
 APRIL 2014 ISSUE A

matthewwoodward\_architecture

**Map 1.2: Wirra Willa**

## Chapter 2: Strategic Context

### 2.1. Introduction

The Gosford Local Government Area (LGA) is part of Sydney's peri-urban area and is experiencing land use change similar to the other peri-urban LGAs. Sydney's peri-urban area extends from Lake Macquarie to the north, Shoalhaven to the south and Lithgow to the west. Its eastern border is the urban area of Sydney extending from Pittwater to Campbelltown.

One of the distinguishing factors of the peri-urban area is the land use and demography. This chapter will discuss the changing nature of the land use in the Sydney peri-urban area with a focus on the Gosford LGA and the Somersby Locality in particular. It will also present some demographic statistics to back up the land use data.

### 2.2. Changing Land Uses

The land use in the rural landscapes of the peri-urban area of Sydney has changed over the past 30 – 40 years from one dominated by agriculture to now being mostly rural residential with agriculture interspersed between the rural residential uses and bushland areas. This increasing trend towards the fragmentation of productive agricultural land is affecting its capability to produce agriculture in a sustainable manner. Once viable farming units are now being made into smaller less viable units and the use changed to residential type uses with no realisation about the impacts of this on such issues as land degradation, rural land use conflict or the cumulative impact of the loss to production of this good agricultural land.

One aspect of rural landscapes is the predominance of rural residential development. Rural residential development can be defined as follows which is from a recent planning text:

*"The residential use of rural land is called rural residential development; that is, people live on rural lots, but use the land primarily for residential rather than agricultural purposes. Although some engage in 'hobby farming', most derive the principal source of their income from pursuits not carried out on the land. The main distinction between urban housing and rural residential housing is bigger lot size and larger distances between dwellings. This creates a sense of openness and of living in the landscape rather than in an urban area. Rural residential dwellings are often large (up to 1000 to 2000 square metres in floor area). They can be found in clusters of new houses and are often mixed with intensive plant and animal uses, which invariably leads to rural land-use conflict (Sinclair, Docking, Jarecki, Parker, & Saville, 2004). They can have varying degrees of native vegetation cover, from totally covered to totally cleared. This has been termed 'rural sprawl' (Daniels & Daniels, 2003) because of its pervasiveness over the rural landscape, particularly adjoining the metropolitan areas as well as large cities and towns.*

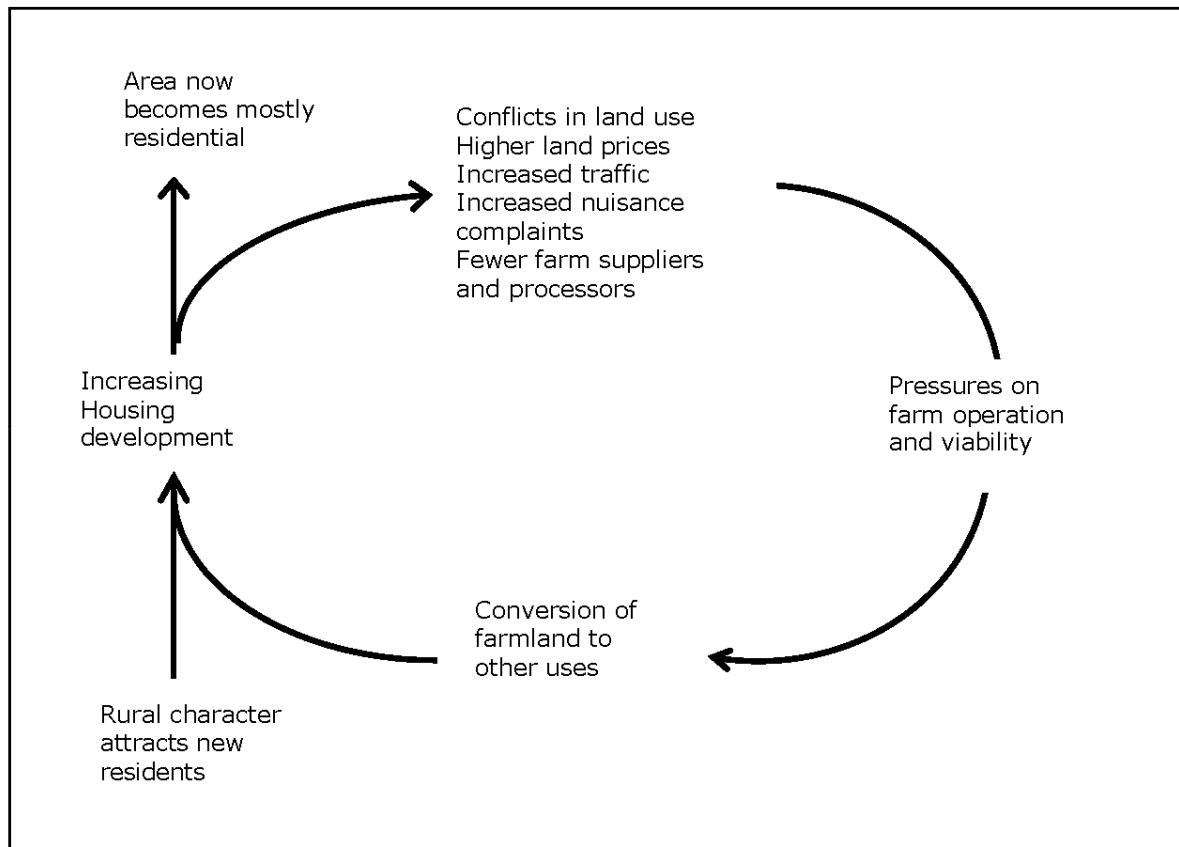
*Rural residential development can be divided into two main categories: rural fringe and rural living. Rural fringe development is characterised by single detached houses and dual occupancies on lot sizes of approximately 4000 square*

*metres to two hectares laid out in an estate. This estate usually joins or is in close proximity to an urban area.*

*Rural living, on the other hand, features single detached houses and dual occupancies on lot sizes between one hectare and 40 to 100 hectares and can adjoin farmland or vegetated areas (it should be noted that there are sometimes lots of less than one hectare). People living on these lots use the land primarily for residential purposes, although they may graze some cattle or have horses. This requires lot sizes of more than two hectares if land degradation is to be avoided. The lots do not adjoin townships or villages and are scattered throughout the rural landscape." (Sinclair & Bunker, 2012)*

A review of land use surveys conducted by Edge Land Planning over the past 15 years has shown that rural residential development comprises 50-70% of the rural land use (number of ownerships)(Sinclair & Bunker, 2012). A land use survey conducted for the Department of Planning and Environment in 2003 by Edge Land Planning shows that rural residential development comprises 78.3% of all rural holdings in Western Sydney. A land use survey has not been done for the Gosford LGA but one has been done for the Somersby Locality and as will be discussed below, it showed that the rural residential use comprised 73.9% of the total. A review of the rural land use for the Gosford LGA has been done using Google Earth and it is concluded that there are more agricultural land uses in the localities to the west of Somersby (Kulnura, Mangrove Mountain, Central Mangrove, Peats Ridge and Calga). Based on this and experience of conducting land use surveys in other similar areas it would be estimated that the whole LGA would have 60% - 70 % rural residential development. (For example, the rural residential land use in Blue Mountains is 78.8%, Hawkesbury 83.1%, Kiama 62.3% Port Stephens 78.7% and Wingecarribee is 66.2%).

Figure 2.1 shows the "Cycle of Farmland Conversion" which is taken from book on Farmland Preservation in America. It shows how land use change occurs and the drivers and impacts of it. It is significant to note that the cycle is as relevant to the Australian situation as it is in America, signifying that it is an international problem. This cycle of farmland conversion has been evident in the Gosford LGA and in Somersby in particular.



**Figure 2.1: The Cycle of Farmland Conversion**

Source: (Daniels & Bowers, 1997)

### 2.3. Land Use Survey

A detailed landuse survey has been carried out of the Somersby locality. The focus was on the rural lands and those which have been zoned as Primary Production RU1 and Rural Landscape RU2. Its purpose is to give an understanding of the landuse pattern within the locality. The survey counted the number of lots that were used. This survey was carried out in March 2015 and used aerial photography interpretation and a windscreen survey. A detailed description of the methodology used for the landuse survey is contained in Appendix 1. The landuses were categorised into the following landuse types which also have been defined in Appendix 1:

- Rural Residential
- Irrigated Plants
- Intensive Animals
- Extensive Agriculture
- Vacant Cleared (Rural Residential)
- Native Vegetation
- Extractive Industries
- Public Use
- Commercial

Within each of these categories there are a number of sub categories relating to the specific use of the land. These are also outlined in Appendix 1. It should be pointed out that the landuse survey categorised the primary use of the property and where a property had a number of uses, the dominant use was chosen.

There are a total of 372 uses within the Somersby locality that were counted in the landuse survey. The overall landuse is shown Table 2.1 which lists the total number of uses and the percentages and is shown graphically in Figure 2.2. Figure 2.3 shows the area that is taken up by each of the rural land uses. Map 2.1 shows the land use in broad terms.

**Table 2.1: Number of Primary Land Uses**

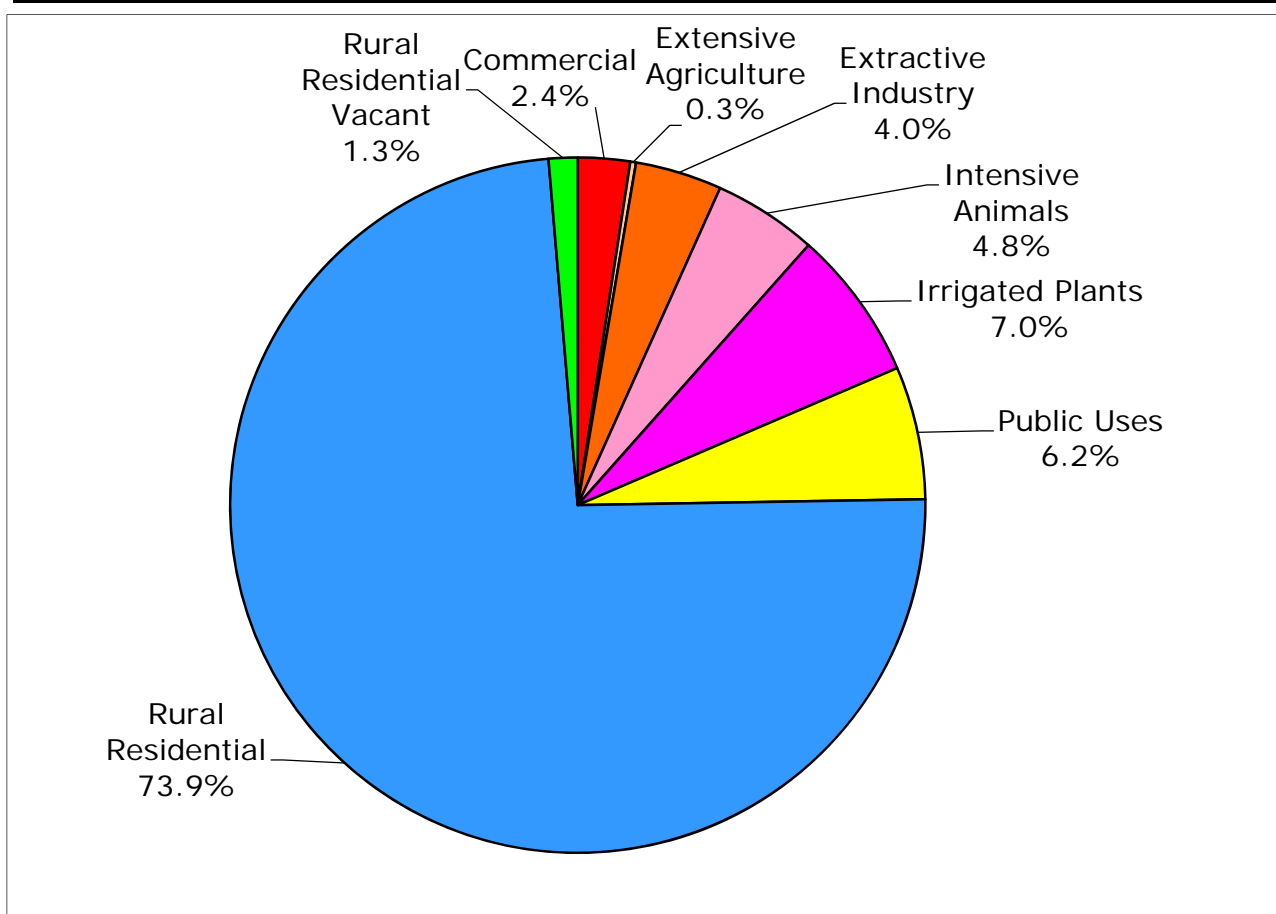
Primary Land Use	Somersby			
	Count	% of Total	Area (Ha)	% of Total
Commercial	9	2.4%	58	1.9%
Extensive Agriculture	1	0.3%	16	0.5%
Extractive Industry	15	4.0%	166	5.6%
Intensive Animals	18	4.8%	267	9.0%
Irrigated Plants	26	7.0%	349	11.8%
Public Uses	23	6.2%	143	4.8%
Rural Residential	275	73.9%	1,922	65.0%
Rural Residential Vacant	5	1.3%	38	1.3%
<b>Total Uses</b>	<b>372</b>	<b>100.0%</b>	<b>2,958</b>	<b>100.0%</b>

It can be seen from the table and graph that rural residential is the highest use with 73.9% of the uses followed by irrigated plants at 7.0%, public uses at 6.2%, intensive animals at 4.8% and extractive industry at 4.0%. One aspect of rural residential land use is that it is not just small lots – when the area of land taken up by each use is totalled it can be seen from figure 2.3 that rural residential use takes up 65.0% of the total area of the rural lands. This is followed by irrigated plants 11.8% and intensive animals (9.0%).

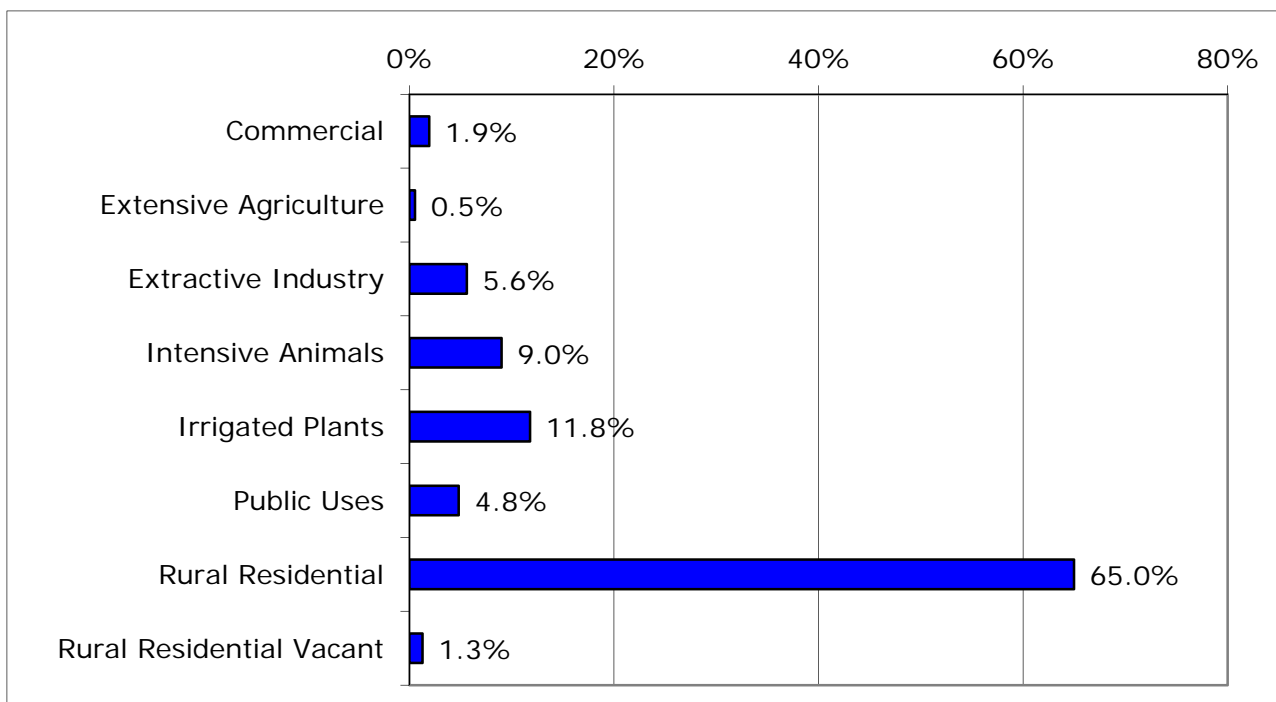
The irrigated plant uses are a mixture of nurseries, market gardens and orchards. There are 7 market gardens, 3 nurseries and 15 orchards. One noticeable aspect of this land use is the loss of orchards in the area. A review of Google Earth from 2003 to now has shown a number of orchards which have been cleared of trees and the use changes to rural residential. These are scattered throughout the area and are in Kilkenny Rd, Wisemans Ferry Rd (including part of the subject land) and Grant Rd.

The intensive animal uses are poultry farms and horse studs. There are 7 poultry farms and 11 lots with horse studs on them. Poultry is a dominant land use in the whole Gosford area with a total of 52 poultry farms. One aspect of this use is that there has been the loss of one poultry farm since 2003 and the introduction of a number of horse studs as observed from Google Earth.

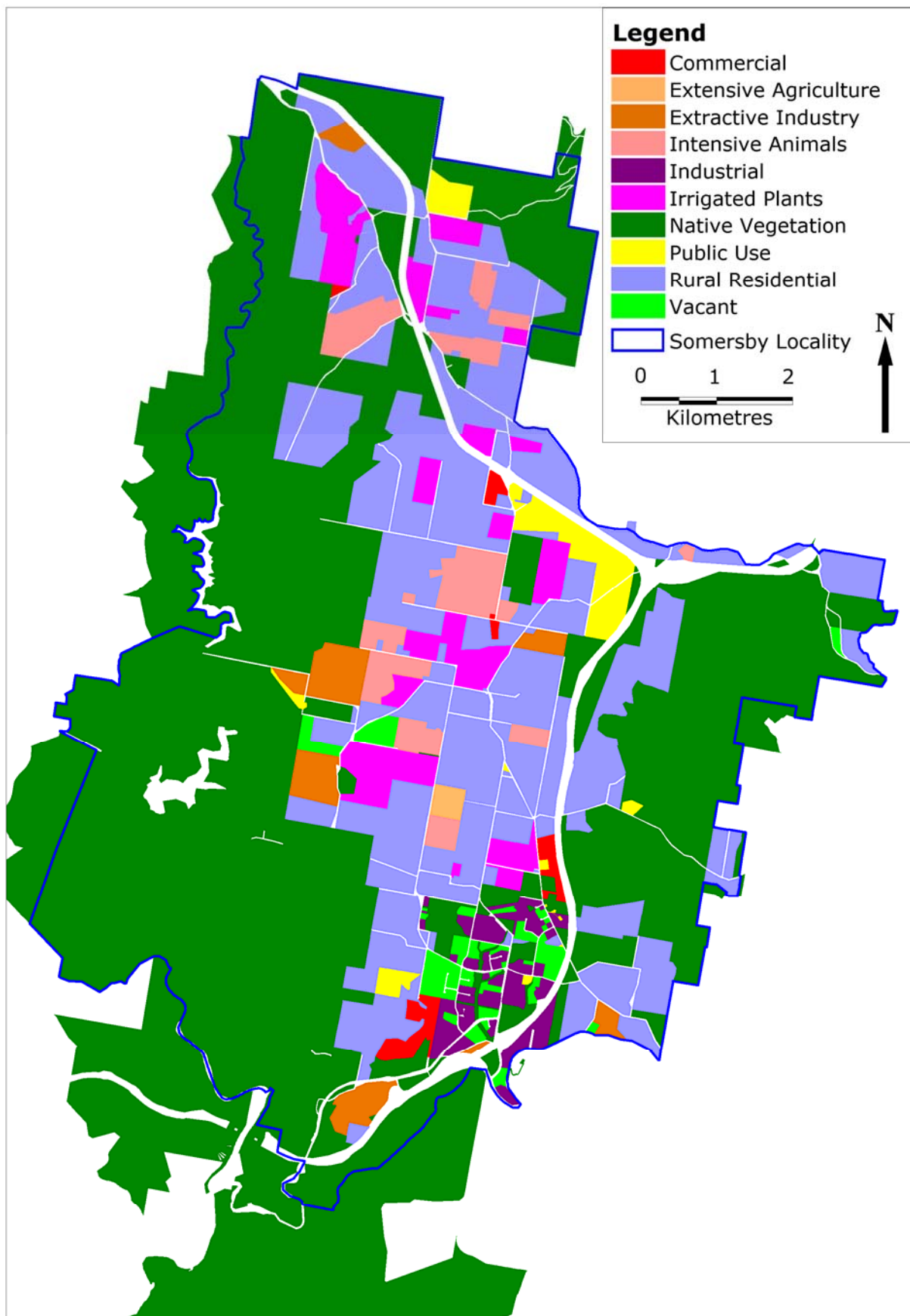
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**Figure 2.2: Rural Land Use**  
 Source: Somersby Land Use Survey



**Figure 2.3: Area of Rural Land Use**  
 Source: Somersby Land Use Survey



Map 2.1: Rural Land Use

There are a number of land uses within the area as mentioned above and they can be categorised into agriculture and non-agricultural uses. These will be discussed below.

### **2.3.1. Agriculture Uses**

The uses, which are based on agriculture, include the following:

- Nurseries
  - ⇒ Wholesale
- Fruit
  - ⇒ Citrus and Stone Fruit
- Nuts
  - ⇒ Pecan
- Market Gardening
  - ⇒ Vegetables
- Intensive Animals
  - ⇒ Poultry Meat
  - ⇒ Horse Studs

As noted in the land use survey, these are in the minority and only make up 12.1% of the land uses and cover 21.3% of the area of land use. Photos 2.1 to 2.4 show some the agricultural uses.



**Photo 2.1: Wirra Willa Orange Orchard**

Date of Photo: March 2015



**Photo 2.2: Market Garden**  
Date of Photo: March 2015



**Photo 2.3: Poultry Farm**  
Date of Photo: March 2015



**Photo 2.4: Horses**

Date of Photo: March 2015

### **2.3.2. Non-Agricultural Uses**

Uses that do not have an agricultural base include the following:

- Rural Residential
- Rural Residential horses & equestrian centres
- Rural Residential home businesses
- Rural Residential grazing animals (cattle, sheep and alpacas)
- Rural Produce Stores & Shops
- Tourist related uses
- Conference / Religious Retreats
- Light Industrial Uses

Photos 2.5 to 2.7 show some of the non-agricultural uses which dominate the landscape of the area.



**Photo 2.5: Rural Residential House**  
Date of Photo: March 2015



**Photo 2.6: Rural Residential Horse**  
Date of Photo: March 2015



**Photo 2.7: Somersby Store**

Date of Photo: March 2015

## **2.4. Demography**

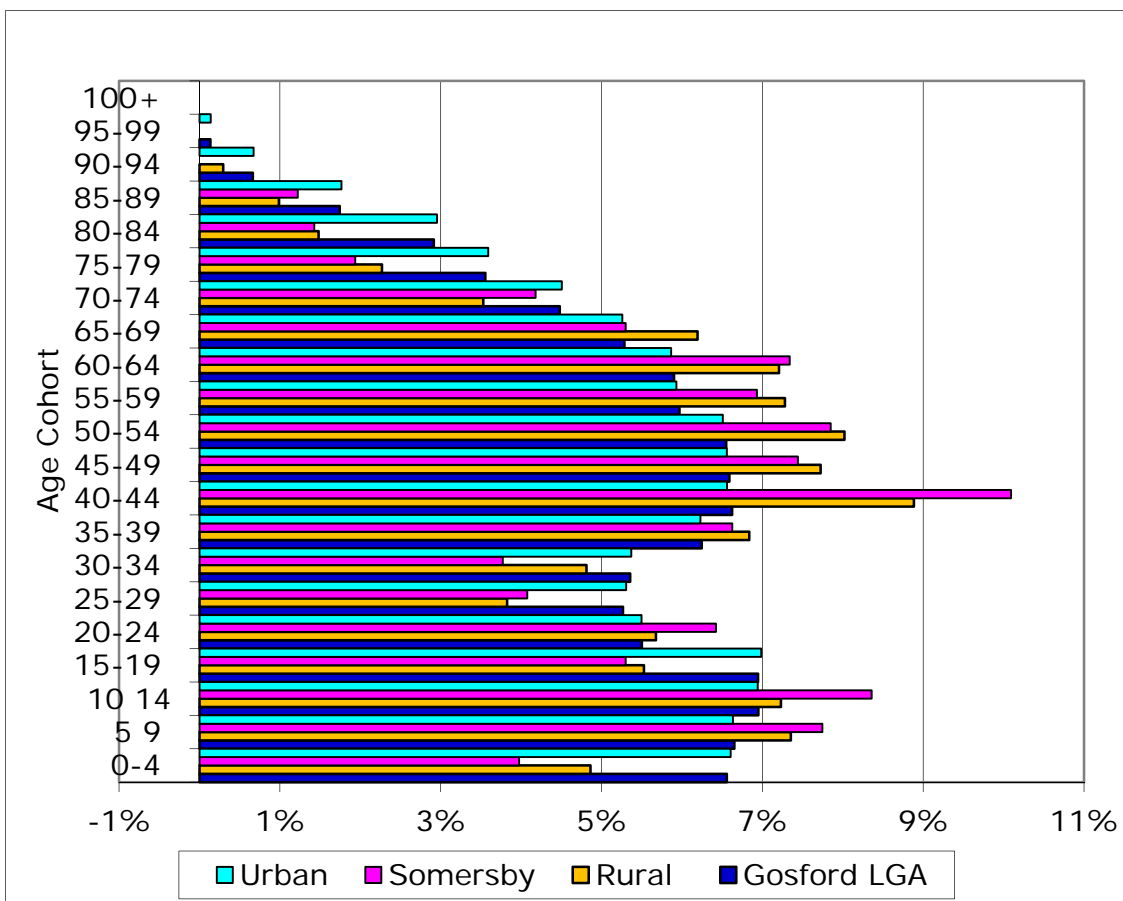
The demography of an area provides a picture of the people living there – their age and sex, marital status, education, family composition, income, dwelling tenure, where they work and the industry sector in which they work.

The 2011 Census of Population and Housing provides details of the population and housing characteristics. This analysis has included the Statistical Area 1 level of data being aggregated to identify rural areas. This has been subtracted from the Shire total to gain a picture of the urban area. This has allowed for comparison between the rural and urban parts of the LGA as well as the Somersby locality specifically. SA1 is the smallest unit for data collection and processing at the 2011 Census and contain an average of 200 dwellings. At previous censuses, the smallest area was called a Collector District. They have been changed and are now called SA1 and are not the same spatial area. It means that direct correlation between the 2001, 2006 and 2011 areas is not possible, however, it is possible when the SA1s and CDs are aggregated. (ABS, 2002, 2007, 2012d)

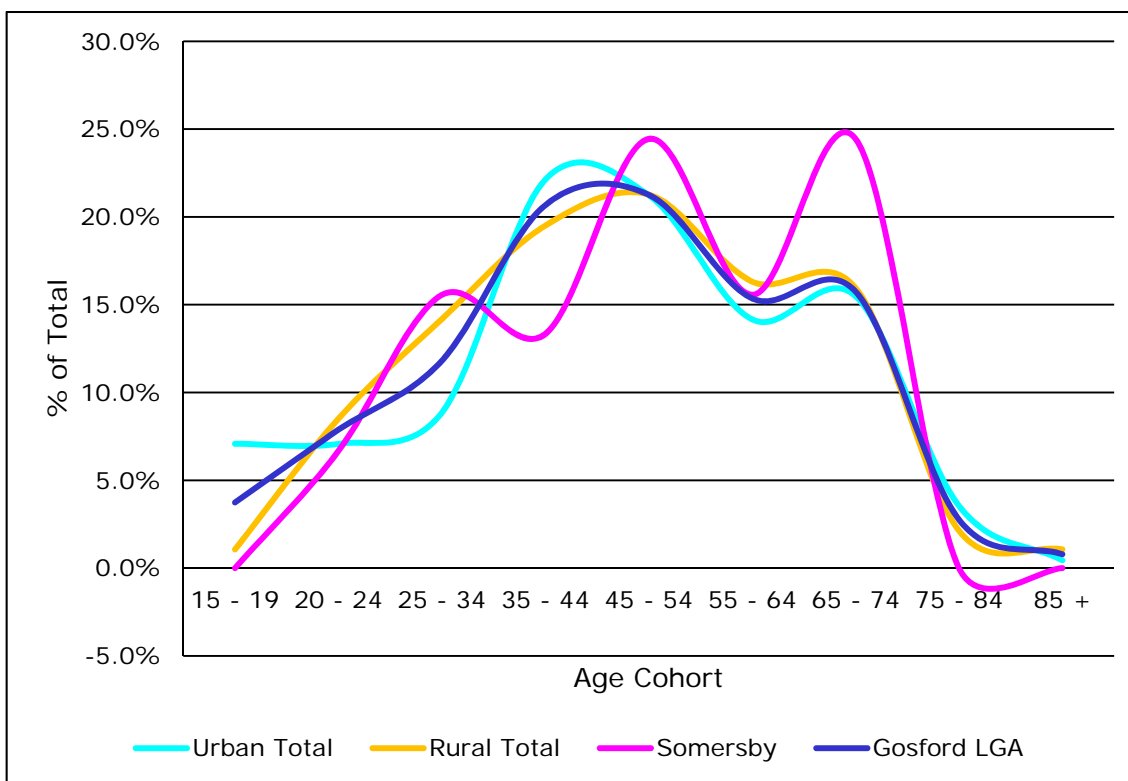
Analyses have been carried out of the 2001, 2006 and 2011 census at the CD / SA1 level to allow for the demography of the rural lands to be examined.

### **2.4.1. Age**

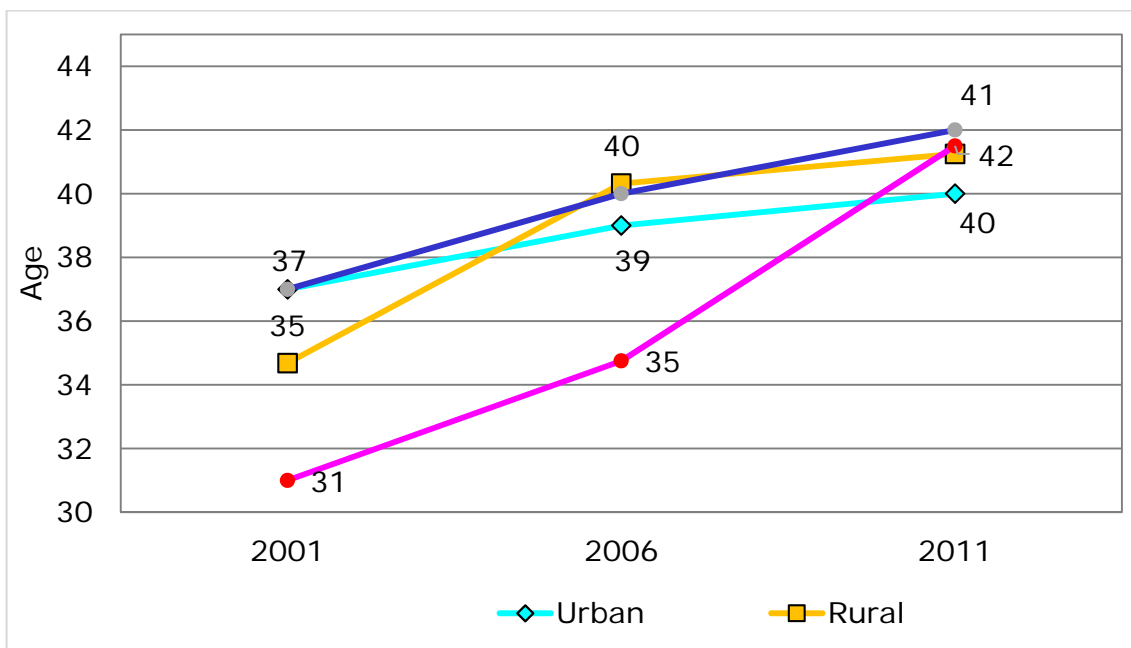
The age of the rural, urban areas as well as the LGA and Somersby can be seen from figure 2.4. It can be seen that the Somersby area is similar to the rural lands but has more children aged 5 – 14 and many more adults in the 40 – 44 age group. There are more people in the workforce (15-64) and less over 65. This is consistent with it being a mostly rural residential land area because the average age of farmers is 53 compared to 40 for other occupations (ABS, 2012a). The age of the agricultural workforce is shown in figure 2.5 and it can be seen that the age of the farmers is older than the urban, rural and LGA total. The median age has changed since 2001 and is now 42 (figure 2.6) which is the same as the rural area and slightly higher than the urban area (40) and slightly lower than the LGA (42). This all points to it being a rural residential area not an agricultural one.



**Figure 2.4: Age**  
 Source: (ABS, 2012d)



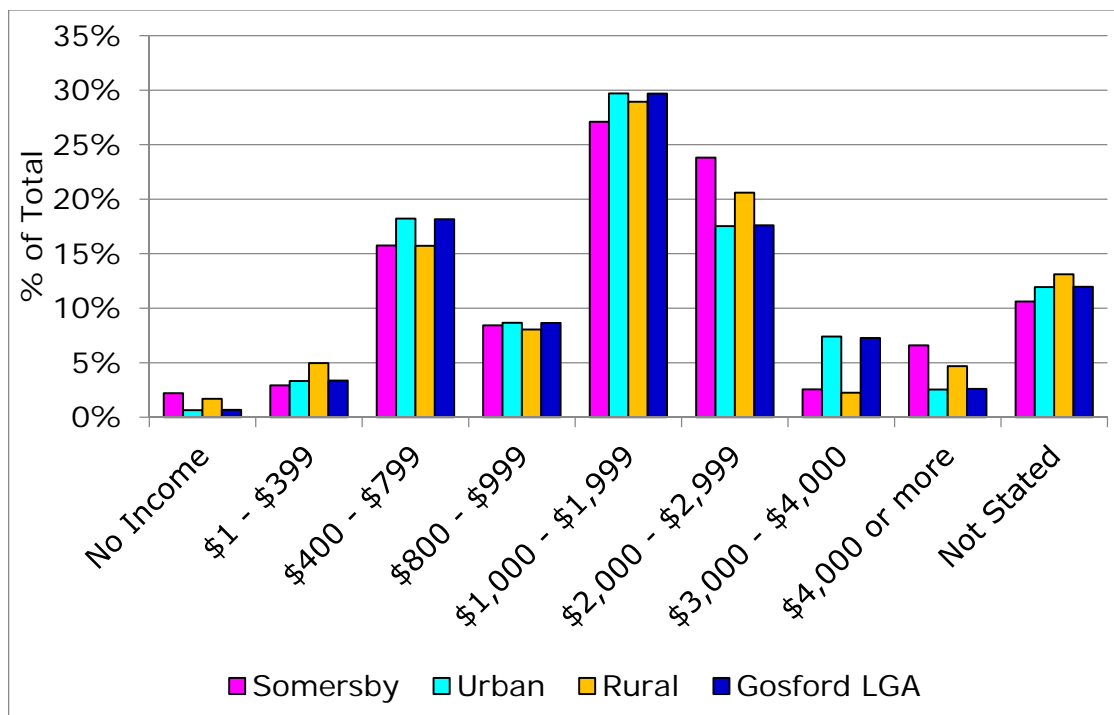
**Figure 2.5: Age of Agriculture Workforce**  
 Source: (ABS, 2012d)



**Figure 2.6: Median Age 2001 - 2011**  
 Source: (ABS, 2012d)

**2.4.2. Weekly Income**

The weekly income is shown in figure 2.7 and it can be seen that there are more families with incomes of more than \$2,000. It should be noted that the average income of farmers is \$568 (ABS, 2012a) which is much less than the income for Somersby which is \$2,588. The incomes for the urban, rural and LGA are \$1,089, \$1,252 and \$1,089 respectively (ABS, 2012d). This also points to it being mostly rural residential.

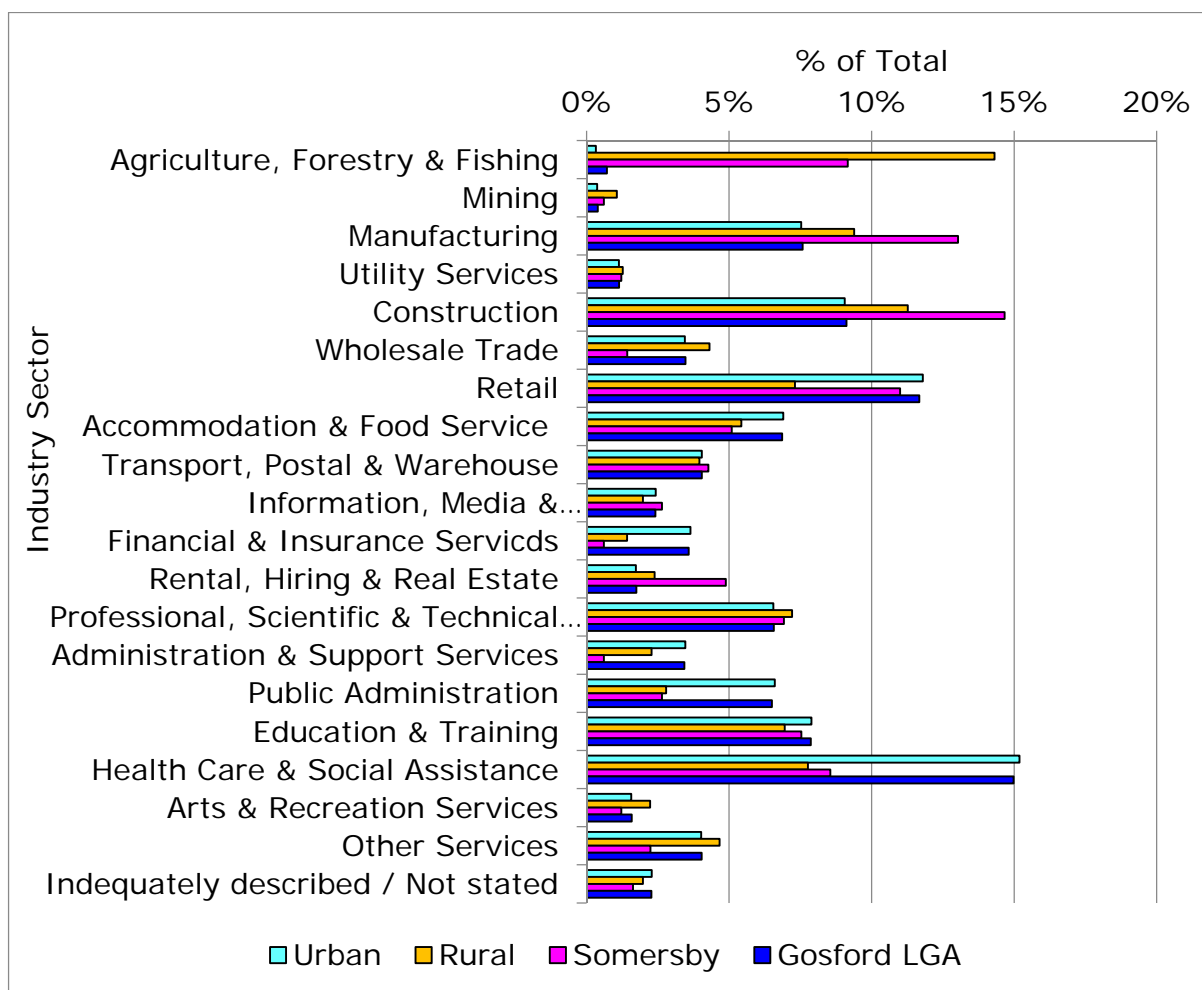


**Figure 2.7: Weekly Income**  
 Source: (ABS, 2012d)

**2.4.3. Workforce**

This dominance of rural residential development can also be determined by reference to the Census of Population and Housing and the Counts of Australian Businesses.

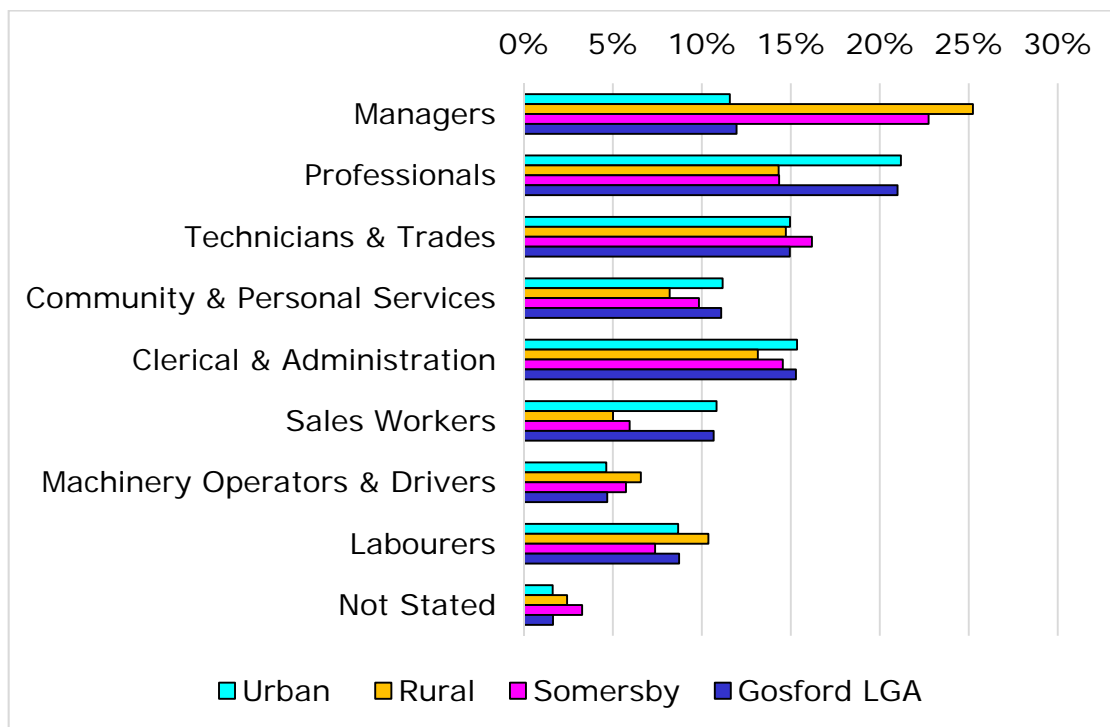
The industry sectors of the workforce is shown in figure 2.8. It can be seen that the Somersby Locality has a higher proportion of employment in Agriculture than the urban area and Gosford LGA but less than the rural area in total. It can also be seen that Agriculture (9.2%) is the number four employment sector behind Construction (14.7%), Manufacturing (13.0%) and Retail (11.0%). To put this figure of employment in agriculture into context, Moree Plains which is the number one agricultural producing LGA in Australia with a value of production at \$918 million has 65.4% of its rural workforce employed in Agriculture. The higher proportion of employment in agriculture in the rural area than Somersby also points to the larger proportion of agricultural uses in the western parts of the LGA, as discussed above.



**Figure 2.8: Industry of Employment**

Source: (ABS, 2012d)

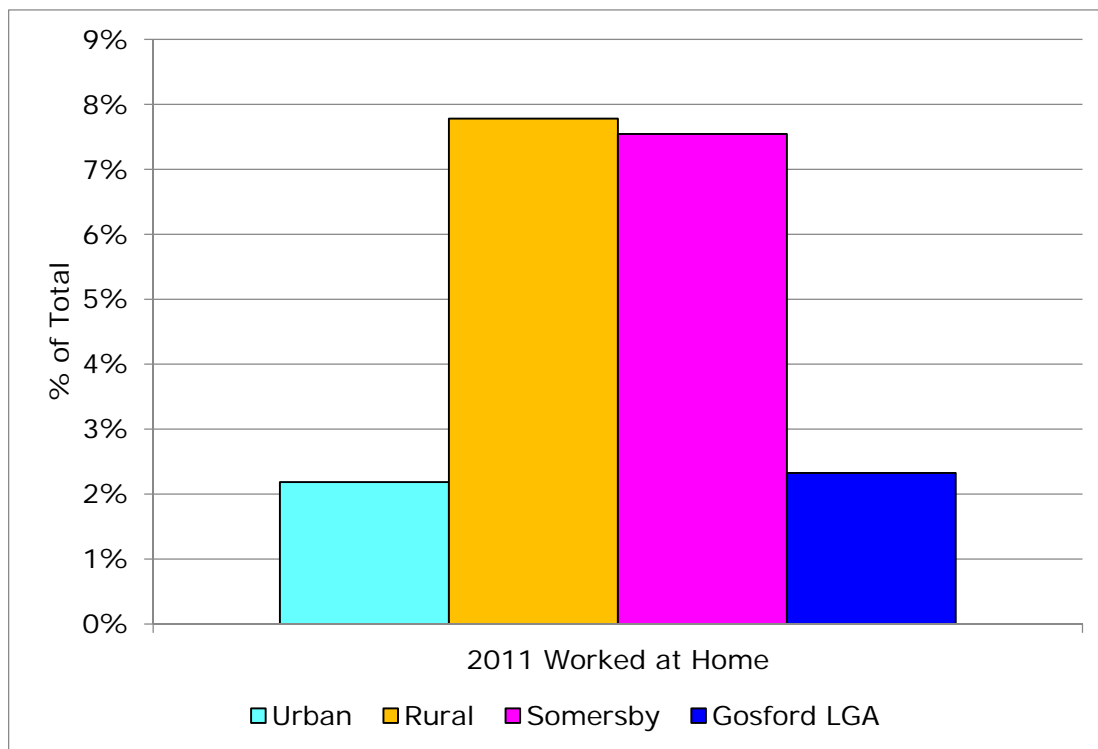
The occupation of the workforce data shows that there are more managers (figure 2.9) which is consistent with the income and workforce data and also points to the area being mostly rural residential.



**Figure 2.9: Industry of Employment**

Source: (ABS, 2012d)

The proportion of the workforce who work from home is another indicator of the demography and it can be seen that the number of people who work from home is nearly three times that of the urban and LGA as can be seen from figure 2.10.

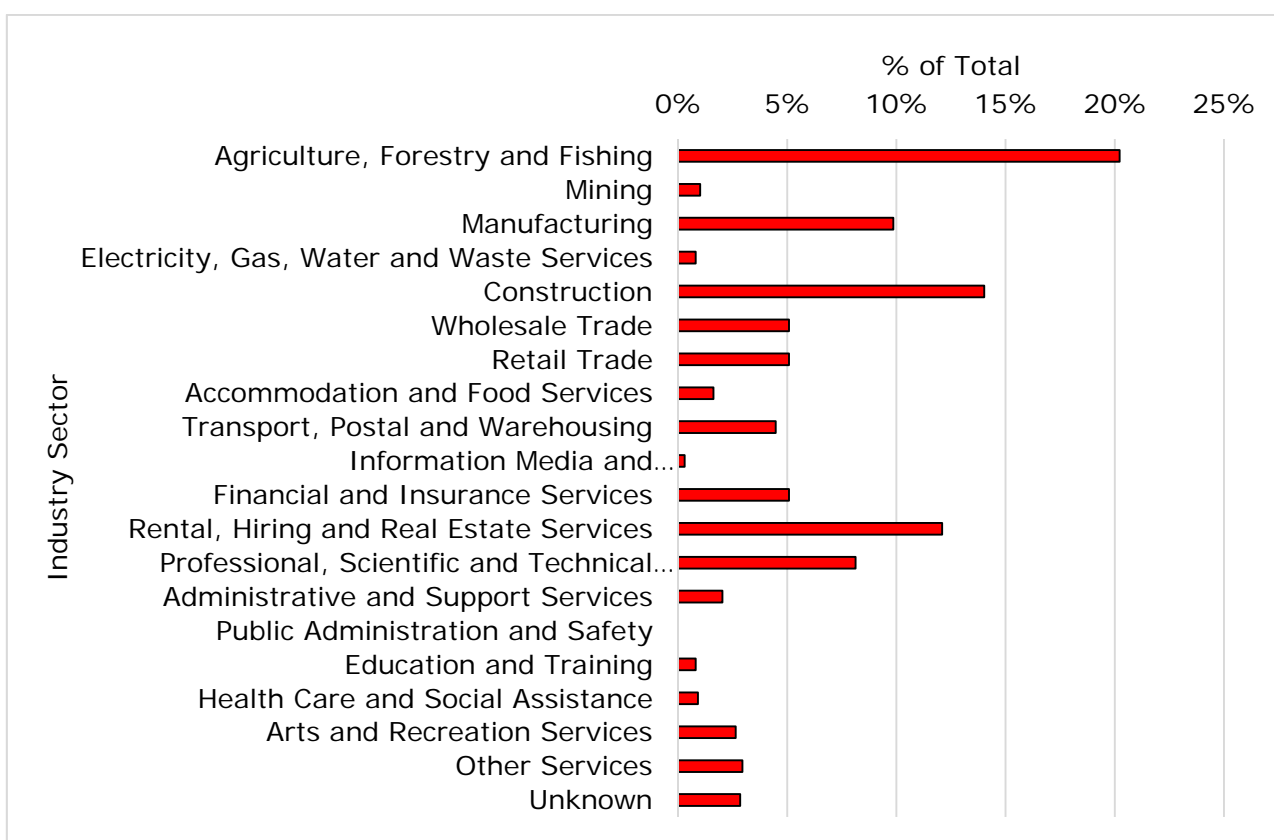


**Figure 2.10: Industry of Employment**

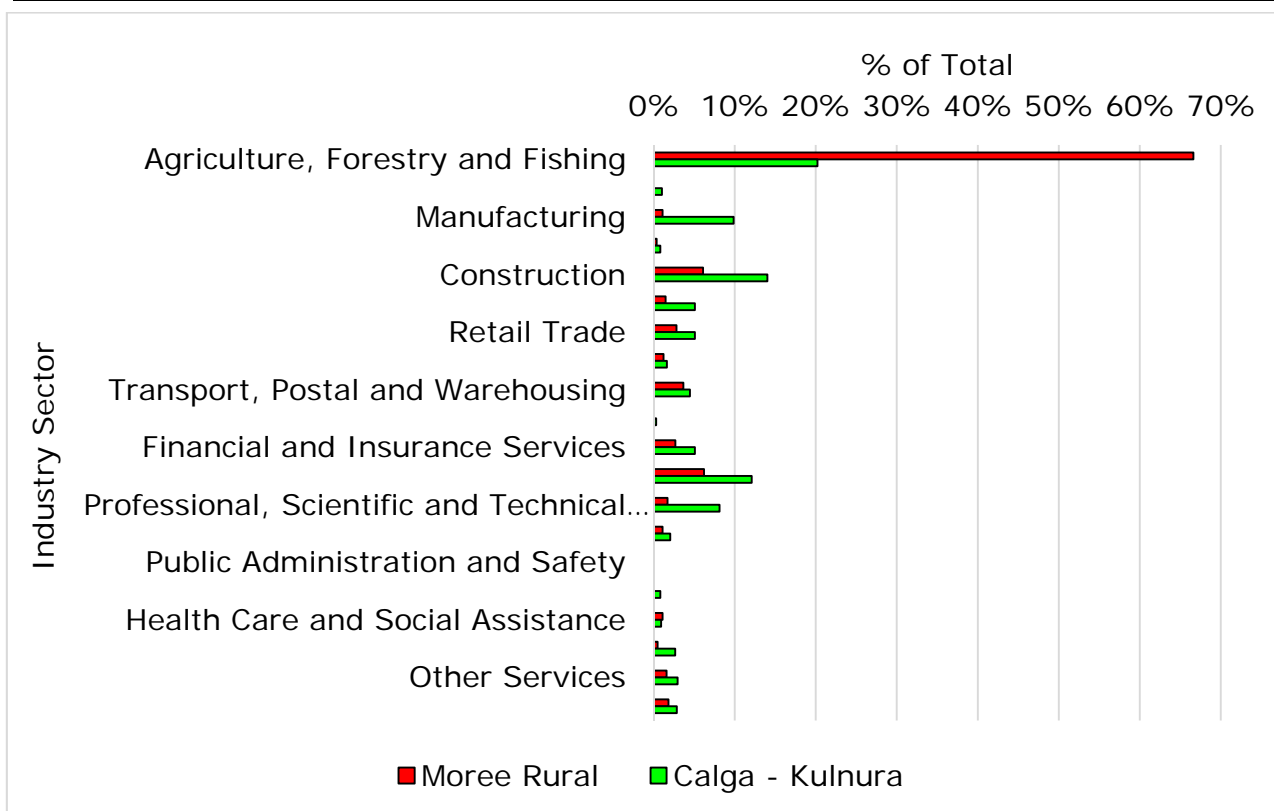
Source: (ABS, 2012d)

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The Australian Business Register shows the number of businesses registered in a specific area in 2013 and uses the same categories as the Industry of Employment data mentioned above. The Gosford LGA rural lands form part of the Calga – Kulnura region and this is shown as figure 2.11 (it is the smallest area of data gathering and so it is not possible to show the data for the Somersby Locality). This shows that agriculture makes up 20.2% of the businesses in the area followed by construction (14.0%) Rental, Hiring and Real Estate services at 12.1% and Manufacturing (9.9%) and Professional, scientific and technical services (8.1%) making up the top 5. By way of comparison, Moree Plains 66.6% of its rural businesses in the Agriculture, Forestry and Fishing Category and the second industry sector is Rental, Hiring and Real Estate Services (6.2%) followed by Construction (6.1%), Transport, Postal and Warehousing (3.7%) and Retail Trade (2.8%). This high proportion of agricultural businesses may seem significant but when it is compared to Moree Plains it shows that there are 66.6% of rural businesses are agriculture. This can be seen from figure 2.12.



**Figure 2.11: Count of Businesses Calga – Kulnura**  
 Source: (ABS, 2014)



**Figure 2.12: Count of Businesses Calga – Kulnura and Moree Plains**  
 Source: (ABS, 2014)

## 2.5. Agriculture

Agriculture in Gosford has a value of \$131.2m (ABS, 2012c), which is the second highest in the Sydney Region. It is dominated by poultry which provides \$98.3m and Nurseries, Flowers and Turf which is \$21.2m as can be seen from table 2.2. This means that two industry sectors make up 91% of the total agriculture. It should be noted that Somersby has seven out of the 52 farms in Gosford and 3 nurseries of the 46 total nurseries, flowers and turf farms. It is not possible to estimate the value of agriculture for Somersby but the fact that it only has 13% of the poultry farms and 6% of the nurseries, flowers and turf farms indicates that it would be low.

A comparison has been made between the 2006 and 2011 Agricultural Commodity production data. This is shown in table 2.3 and it can be seen that there has been a slight reduction in the area of nurseries, flowers and turf and a reduction in the number of establishments from 55 to 46. Likewise, vegetable production and number of farms has seen a very slight fall. Fruit trees have had a major reduction from 35.9% to 27.0% in 5 years with the number of growers dropping from 71 in 2006 to 47 in 2011. Poultry meat has had an increase in production and farms but eggs have halved in production, but the number of farms has increased by one.

**Table 2.2: Value of Agriculture 2011 – Gosford LGA**

Commodity	Value (\$m)	% of Sydney	% of NSW	% of Australia
Total Agriculture	131.2	17.5%	1.1%	0.3%
Total Nurseries, Flowers & Turf	21.2	12.5%	6.8%	1.7%
Total Vegetables	5.2	3.1%	1.2%	0.2%
Total Fruit	4.5	26.9%	0.7%	0.1%
Total Crops	30.9	8.7%	0.5%	0.1%
Cattle	0.7	4.6%	0.0%	0.0%
Poultry	98.3	33.1%	14.3%	4.7%
Total Livestock Slaughtered	99.0	31.4%	3.2%	0.7%
Eggs	1.1	1.8%	0.6%	0.2%
Wool	0.1	16.7%	0.0%	0.0%
Total Livestock Products	1.2	1.6%	0.1%	0.0%
Total Livestock	100.3	25.7%	2.2%	0.5%

Source: (ABS, 2012b)

Note: Not all commodities produced are displayed in the table

**Table 2.3: Agricultural Commodity Comparison 2006 - 2011**

Commodity	2006 % of Sydney	2006 Number of Establishments	2011 % of Sydney	2006 Number of Establishments
Nurseries, Flowers & Turf Area	6.9%	55	5.9%	46
Vegetable Production	3.7%	37	3.6%	33
Fruit Trees	35.9%	71	27.0%	47
Chicken Meat Birds	32.5%	29	39.2%	37
Eggs (Dozens)	3.6%	7	1.9%	8
Total		199		171

Source: (ABS, 2008, 2012b)

Note: Not all commodities produced are displayed in the table

## **Chapter 3: Conclusion**

Wirra Willa is an orchard at the corner of Wisemans Ferry Rd and Elwins Rd in Somersby. The owner is seeking to change to vegetable production as well as keeping some orchard fruit and to focus on selling to the local market. However to do this there is a need to fund the cost of changing production via a subdivision.

This report has investigated the strategic context of the land use on the Somersby Plateau. This has shown that it is mostly rural residential (73.9%) and only 12.1% being agricultural uses. This is a trend that has been occurring over the past 30 – 40 years and is also one that is occurring throughout the entire Sydney peri-urban area. This predominance of rural residential development is backed up by demographic data on the age, income and employment of the residents which shows that agriculture is not very high and that it is a predominantly rural residential area.

## **Appendix 1: Land Use Survey Methodology**

A major component of this study has been a land use survey of all of the land within the rural parts of the Shire. The purpose of the land use survey is to gain an indication of the land use trends.

The preparation of a land use survey is one of the most important components when zoning rural land. Each parcel of land within the rural parts of the Shire has been inspected and given a land use designation. This has been entered into Council's Property Information database and mapped using a GIS.

The first step was to identify a set of spatial boundaries which would form the basic level of data representation. The geographical localities were used. This has two benefits, the first being that the area is generally mapped and can be identified easily and secondly it is easier for the public to understand the data once it has been collected and published.

The next step is to identify the categorisation of the land uses to be surveyed. The land use has been categorised into primary and secondary land use categories. The primary land use categories are as follows:

- Rural Residential
- Irrigated Plants
- Intensive Animals
- Extensive Agriculture
- Vacant
- Commercial
- Extractive industries
- Public Use
- Village
- Native Vegetation

Definitions of each use which were used for the purpose of identifying the land uses are as follows:

- *Rural Residential* means a house on a lot that is greater than 1 ha generally, and is in a rural environment where the main source of income is from other sources than agriculture use of the land.
- *Irrigated plants* means the growing of vegetables and ornamental plants for commercial gain using the application of irrigated water and includes market gardening, protected cropping structures, orchards, vineyards, and other similar uses.
- *Intensive Animals* means the rearing of animals using a feeding method other than natural grazing and includes poultry and piggeries mainly.
- *Extensive Agriculture* means the growing of plants using natural rainfall or the rearing of animals using grazing as a feeding method. It also includes the growing of fodder crops and irrigated pasture.
- *Vacant* land is land that is mostly cleared of native vegetation and which does not have any dwellings or other structures on it.
- *Commercial* uses are uses that are used for a commercial or industrial type of use and which do not have any dwellings associated with them.
- *Extractive Industry* means a use that extracts material from the land and includes sand and clay mining and quarrying of sandstone and other stones.

- *Public Uses* mean a use that is commonly used and or operated by a public authority or associated body. It includes community facilities, golf courses and Government owned uses of the land
- *Native Vegetation* means a lot that has no dwellings or structures on it and which has the majority of the land covered in native vegetation.

The detailed categorisation is presented in the following table:

**LAND USE SURVEY CODES**

<b>PRIMARY</b>		<b>SECONDARY</b>	
<b>Description</b>	<b>Code</b>	<b>Description</b>	<b>Code</b>
Rural Residential	RR	Dwelling	DW
Rural Residential Vacant	VA	Cleared Land	CL
Native Vegetation	NV	Native Vegetation	NV
		Private	PR
Irrigated Plants	IP		IR
		Orchard	OR
Intensive Animals	IA	Horse Stud	HS
Village	VI	Urban	UR
Extractive Industry	EI		
Extensive Agriculture	EA	Grazing	GR
Public Use	PU	Bushfire Brigade	BF
		Church	CH
		Council	CL
		Crown Land	CR
		Electricity	EL
		Hall	HL
		School	SL
		Telstra	TL

There are 3 components to the carrying out of the land use survey as follows:

- Preliminary identification of land use.
- Study area inspection.
- Data entry and mapping.

Preliminary identification of land use occurred in the office prior to the field inspection. Aerial photography was used to identify the land use. The major things to be picked out are extensive Agriculture, irrigated plants (particularly vineyards), Horse Studs, dwellings on small lots, vacant land, lots which are totally covered with native

vegetation, and extractive industries. Only one major land use was identified. An assumption can be made that a dwelling house rural residential uses except where they are vacant. An assumption was also made that lots less than 20 ha which did not have an intensive agricultural or commercial, industry, public or government use were rural residential.

This information was entered into the database using the coding that has been identified for the primary and secondary land uses.

The study area inspection was carried out by windscreen survey of all of the roads within the rural parts of the Shire. This was done to check the primary land use categories and also to enter secondary ones that could not be identified from the aerial photos. As each road is driven on the land use is clarified against the preliminary identification. Signage, which gives an indication that the property may be use for a secondary use such as a home business or a commercial use was also noted.

The data was entered into the Council property information database using the coding. However this was not always possible because of the lack of street numbering in the database and only those uses, which could be identified from the database, were entered. This did not affect the integrity of the data as the primary uses are the ones used in the identification of the land use designations.

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