INSITE
PLANNING
ENGINEERING
ECONOMIC & SOCIAL

Our Ref.: 14022

General Manager
Hunter and Central Coast
PO Box 1226
Newcastle NSW 2300

Dear Sir/Madam

RE: DRAFT CENTRAL COAST REGIONAL PLAN

Thank you for allowing the community and industry groups and representatives to provide feedback on this very important plan. Overall we would commend the Government on the plan and generally support the submission that has been provided by the Property Council of Australia.

The only additional issue that we would like to see addressed more comprehensively in the plan relates to agriculture and rural lifestyle living. In particular Direction 3.2 which we note states as follows:

> ***DIRECTION 3.2 Manage rural lifestyles sustainably***
> *The Central Coast offers rural lifestyles surrounded by pristine natural environments within 30 minutes of the northern suburbs of Sydney and 15 minutes of the region's major centres. rural communities such as those around Mangrove Mountain and Somersby support industries that add value to rural production activities, for example, through food processing and bottling plants.*
>
> *The villages and communities of the Central Coast currently have relatively small footprints within the rural environment. Proximity to both Sydney and the employment centres of Gosford, Tuggerah and Wyong is increasing demand for rural lifestyle lots in rural areas. Around 450 hectares of land is already zoned for rural residential purposes, clustered in areas such as Yarramalong, Jilliby, Matcham-Holgate and Bensville.*
>
> *The draft Plan aims to provide greater certainty about the locations for rural housing, giving priority to the sustainable:*
>
> - *growth of existing rural communities;*
> - *economic growth of rural production and resource values;*
> - *management of high environmental values and water catchments;*

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- *provision and management of services and infrastructure; and*

- *delivery of existing and committed rural residential and urban residential land supplies.*

Strategic planning and planners have been criticised in the past in respect to its attempts to control and direct the property market. Specifically its attempts through land use zoning and minimum lot size provisions to stop agricultural and resource lands from being used for rural residential or rural lifestyle purposes and instead be used for agricultural, rural or resource purposes.

If the (property) market demands rural lifestyle opportunities, it will find them notwithstanding the land use planning framework. This means that is the planning system does not cater for that demand, the property market will bid on and take up other land resource that meets that demand, and that will be agricultural, rural and resource land.

As the document itself notes, given location factors, in particular the location of certain areas on the Central Coast to Sydney, there is demand in the property market for rural lifestyle opportunities. There is also demand for resort style living and 'tree style' living as well. If there is limited supply or no specifically zoned land available to meet market demand for rural lifestyle living, the market will take up conventional agricultural and rural land for the same purpose. This is where there is significant danger to the sustainability of the agricultural industries that have typically 'farmed' this land and it is referred to as the "***cycle of farmland conversion***" - http://www.ruralplanning.com.au/ruralplanning/preserveagland_conversion.shtml

The "*cycle of farmland conversion*" occurs where traditional agricultural and rural land is taken up for rural residential purposes, which is people buying the land to essentially live on and at most use as a hobby farm. This leads to increased demand for the land as more people are in the property market interested in buying such land. This then leads to rural land inflation (i.e. rising property prices) to the extent that it gets to a price point where it is no longer economically viable to purchase and use land for agricultural or rural purposes. It also leads to other land use conflict problems associated with environmental complaints regarding traditional farming practices and poor land management practices from the rural lifestyle property owners. These factors combine to 'push out' the agriculture from an area.

The challenge then is to identify where this demand exists or may exist and ensure that there is a supply of land to the market for this style of housing so that agricultural and rural land resource is not taken up in a broader sense.

For the Central Coast there may very well be adequate land supply available for this demand in the northern areas around Yarramalong and Jilliby, and in the eastern areas like Matcham Holgate and Bensville. However there is not a supply of this land in the southern areas around Somersby and it is impacting already on agricultural land resource.

Please find attached a copy of a report prepared by Mr Ian Sinclair from Edge Land Planning in relation to an innovative rural lifestyle and agricultural development project we have been working on in Somersby. In particular reference is made to section 2.3 of this report which details the results of a land use survey which Mr Sinclair undertook. As can be seen from the results of this land use survey, over 75% of the Somersby Plateau is being used for rural residential purposes while less than 12% is being used for active agricultural pursuits. Mr Sinclair's report also outlines the decline in economic terms of agriculture in this area:

"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 if 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."

It is also significant to note that there is no land identified in the Somersby area from a land use zoning or strategic planning document perspective for rural lifestyle purposes.

This effectively proves the point of this submission. Because no land has been zoned for rural residential or rural lifestyle purposes, agricultural land is being taken up through the market process and used for this purpose and is now lost to agricultural production. Land prices mean that it is no longer economical to purchase this land and convert it back to agricultural production and if something is not done, the remaining 12% of land currently used for agricultural purposes will eventually be squeezed out and replaced by rural residential/lifestyle use.

The challenge for the Central Coast Regional Plan is therefore to halt this land conversion process and encourage agriculture back onto the Somersby Plateau.

It is also important for the planning framework to note other economic forces that are acting on the agriculture industry in this area and more broadly across the region (state and nation). Global competition, seasonal weather patterns and climate change are all making traditional agriculture difficult to sustain on an economic basis. Expecting people to farm land and maintain a consistent income to maintain a lifestyle is also increasingly challenging.

This is obviously a complex issue, but it can in part be addressed by firstly acknowledging the challenge which is to make the local economy more sustainable. To do this there is a need to diversify the local economy and one such opportunity to tourism and importantly agri-tourism.

Please find attached also a copy of concept project report for Wirra Willa Fresh. This is a concept we have been discussing/negotiating with Council, the Department of Planning and the DPI over the last couple of years. In summary the proposal involves:

i. The property has an area of approximately 140ha. It has recently been consolidated from a number of holdings into one and was previously used for citrus farming. Due to global economic circumstances the citrus industry in Australia has largely collapsed and certainly the farming of citrus and other fruit on this land is no longer economically viable. Consequently this land is now being used for rural residential purposes.
ii. The proposal is to reintroduce agricultural production onto the property as part of an integrated rural lifestyle tourist development. While details are only at a concept stage, the intent at this stage is to develop a large scale commercial green house on the property and also develop a commercial scale market garden and orchard.
iii. The setup costs of the farm, commercial greenhouse and tourist development would be funded from the rural lifestyle lots which would be sold on a community title basis. Ongoing community title fees would then underpin the operational costs of the farm. The benefit to those living on the site would be access too and being part of an active farm.

As noted this project is still in a concept stage. One of the most significant planning aspects will be around economic sustainability of the end development. We will need to prove that the development will be sustainable and support the ongoing operation of the farm, and that the project won't, over time, fall into a rural residential estate with no agricultural production.

The best local example that we can reference would be Kelman Estate on the edge of Cessnock/Pokolbin. This is an operating vineyard that produces grapes used in the production of commercial wine within a rural lifestyle estate. It has been in operation for 25 years and as far as we are aware, has never turned a profit but operates on the basis of the community title fees underpin the cost of the vineyard and wine operations. The community is happy to persist on the basis that the losses are not significant and the vineyards and wine is the lifestyle basis on which they bought into the estate.

The Wirra Willa Fresh project will be a 21st Century response to this challenge and the project we are seeking to establish we want to be bench marked as a best practice mixed use rural development.

Our submission then is that the draft Central Coast Regional Plan be amended, and specifically in respect to Direction 3.2. We submit that the plan specifically acknowledge the challenges for agriculture in the southern areas of the Central Coast and specifically Somersby which have been identified as significant for agricultural production for not only the Central Coast, but also as a resource to the broader Sydney basin. On that basis innovative planning proposal that seek to re-introduce agriculture on a sustainable basis and develop tourism and rural lifestyle opportunities (to soak up demand) in the area should be encouraged where they meet the sustainability principles outlined under this direction.

We note the draft Hunter Regional Plan has commentary on a broad basis around this issue where it states "*as the regional population grows, and improvements to national transport networks reduce travel times to and through the region, demand for housing in rural areas is expected to increase, including rural lifestyle lots and resort-style living. This will need to be appropriately managed to protect the social, environmental and economic values of the region.*"

We look forward to the adoption of the draft Central Coast Regional Plan and working with Gosford Council, the DPI and the Department of Planning on the Wirra Will Fresh project.

Kind Regards

Stephen Leathley FPIA
PLANNING DIRECTOR

24 March 2016

WIRRA WILLA FRESH CONCEPT PROPOSAL

17 & 41 ELWINS ROAD & 185 WISEMANS FERRY ROAD, SOMERSBY - NSW, AUSTRALIA.
VICTORIA COURT MANAGEMENT
JUNE 2015 ISSUE C

WIRRA WILLA FRESH

TITLE	WIRRA WILLA FRESH - CONCEPT PROPOSAL
PROJECT	17 & 41 ELWINS RD & 181 WISEMANS FERRY RD - SOMERSBY, NSW
CLIENT	VICTORIA COURT MANAGEMENT
CONSULTANTS	INSITE PLANNING EDGE LAND PLANNING MATTHEW WOODWARD ARCHITECTURE

DOCUMENT STATUS REVISION B

Dear Mayor McKinna,

I take great pleasure in presenting to you this Concept Proposal for the creation of a new type of farming on the Somersby Plateau. As I am sure you are aware, this area is valuable in terms of providing important agricultural land locally and for the Sydney Metropolitan area. From my research this importance has been reinforced over time through various local and State based planning instruments that have sought to protect the area for agricultural production. However due to a variety of factors, including the desire for rural residential living, lack of markets for produce and property market conditions, agriculture is slowly getting pushed out of the Plateau to the point where it is now substantially a rural residential area with little farming now occurring. This is in direct contradiction to the planning policies applying to the area.

My vision seeks to change that and bring farming back to this area under a new financially sustainable model. I have lived on my property at Wirra Willa for the last 22 years and recently purchased the adjoining property with the goal of establishing a viable agricultural enterprise here, and I now have a 52ha holding in the heart of Somersby. Similar to a lot of land in the area, this property has been used for citrus production for the last 80 years or so, and I am sure it is no news to you that today's economic reality is that this form of farming is unviable.

Nevertheless, my vision is to establish a new brand for local food production to be known as Wirra Willa Fresh. I want to set up a market garden and grow fresh fruit and vegetables to supply the local market from my property. This would include local fruit and vegetable shops as well as restaurants that will be the main market for the produce grown on the site as well as continuing the existing farm gate sales. I am also exploring the potential for some greenhouse horticulture on the site. However the biggest challenge is a financial one of funding the setup costs and the financial risk associated with the ongoing production. The only means by which I can foresee agricultural production being viable is to generate other revenue from the holding to allow farm establishment and ongoing operation.

Consequently I sought out the advice of experts in this field including Mr Ian Sinclair, a rural planning expert and part-time lecturer. As I have learnt from my team, agriculture on the plateau is getting squeezed out by not only economic rationalisation of the agriculture industry, but also from the property market itself where people are seeking out a rural lifestyle and consequently farms are being turned over to nothing more than large residential holdings. So instead of fighting the property market, our model proposes to use it to achieve our agricultural objectives.

In short our concept is to set up a horticulture operation growing vegetables and fruit which would be owned by a community who would be attracted to an agricultural based lifestyle and let them own and be part of a working farm. We would undertake a Masterplanning exercise to set up the new farm. We will engage the services of a leading agricultural expert to put together a farm plan and ongoing farm operations plan. Then in a cluster form around community farm lots we would establish lifestyle lots where people would buy land and be part of the farming community of Wirra Willa. The community would employ a farm manager who would operate the farm.

The costs to establish the farm would be covered from the land sales and ongoing running costs would be underpinned by the community association levies of the people living on the farm. The pay back for the community would not only be in the lifestyle elements and the ability to be part of a working farm, but also having access to fresh fruit and vegetables.

The Wirra Willa Fresh concept will be unprecedented in Australia, and if supported by the authorities we are confident that we can set a new way of farming in the peri-urban areas around the cities. Our project team has extensive experience in rural planning and developing 'liveable' communities. We will use this expertise to deliver this new concept in farming that is integrated into a new rural community. This concept will seek to establish high sustainability goals and will be of unparalleled design and planning principles, based on the agricultural traditions of this land.

I look forward to working with Council to deliver on this vision.

Yours sincerely,

Lee Woodward

Victoria Court Management

TABLE OF CONTENTS

1.1 OUR PROJECT AT A GLANCE

- Wirra Willa is an orchard located at 41 Elwins Road Somersby with a total area of 52 ha comprising 3 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. 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.

Photo 01: Wirra Willa Sign (Ian Sinclair)

1.1 OUR PROJECT AT A GLANCE - CONTINUED

- Specifically the concept is to create a Masterplanned agricultural subdivision. In this respect a rural community which own and operate the farm would be created to provide a model that would underpin the agricultural operations. This community would be created via Community Title with the majority of the land used for fruit and vegetable growing on community land. The housing lots would be located in clusters around the property. The subdivision would generate funds to cover the farm establishment costs, and the Community Title would allow the farm to be underpinned via ongoing levies on the Community.

- The community association will employ a farm manager to grow the produce. The members of the community will also be able to participate in farm operations but it needs to be stressed that it is a farming operation owned by the lot owners and run as a commercial farm.

- The Wirra Willa Fresh community concept is unique and will be a flagship project that promotes sustainability, agriculture and healthy lifestyle and our vision is that it will be held up as benchmark agricultural project.

- A carefully designed agricultural subdivision that avoids land use conflict with agricultural operations on the property as well as on surrounding land will be critical to the sustainability of the community and the Masterplanning process.

- The Masterplan for Wirra Willa will seek to build a community with a sense of place and identity closely tied to the agricultural activities of the land.

- The highest quality building design will be enforced through Design Guidelines and Planning Controls for the community. A 'Design Review Committee' will be established as part of the Community Association to ensure compliance with the architectural design standards we establish.

- In terms of energy efficiency, the aim of Wirra Willa will be to achieve best practice in terms of self-sustaining energy usage. As much power as possible will be derived from sustainable energy sources on site (eg solar power).

- In terms of water management we will seek to establish a closed system. We will investigate the possibility of deriving all potable water on-site as well as treating and recycling water on site while achieving environmental outcomes in terms of off site release.

- A Structure Plan & Concept Masterplan have been prepared. These illustrate the Wirra Willa Fresh concept including a variety of agricultural, tourist, conservation, community and lifestyle residential options fully integrated so as to provide a sustainable model where these land uses can co-exist and support each other.

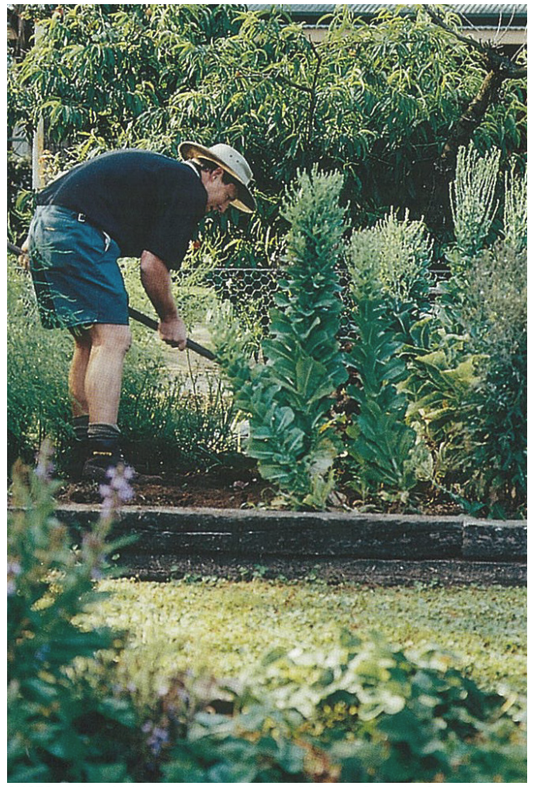

PHOTO 02: Wee, M. (2002). "*time in the garden*". Victoria: Penguine Books Ltd, 73.

1.2 VISION STATEMENT

The Wirra Willa Fresh vision is to create a financially sustainable model for fruit and vegetable production in a peri-urban setting. This will involve the creation of a lifestyle community committed to agriculture, sustainability and a healthy lifestyle so as to underpin establishment and running costs.

Our project will also incorporate sustainability principles as part of the community. This will include developing a closed water cycle management system where spring water, storm water and rainwater is collected, treated, used, retreated and used again. Solar energy will assist in powering the community and when the NBN is delivered to site residents will find it more convenient to work from home. Recycled building materials will be used in the development of the site wherever possible. A community compost facility will assist in providing the ability for organic farm production.

A site responsive Masterplan will be critical in delivering a unique, sustainability based food producing community environment. The development of site specific design requirements will be crucial to guide the built form and landscape. Our intention is to cover and develop environmental linkages and corridors throughout the site. Wirra Willa will have a series of agricultural enterprises, as well as formal and informal open spaces, providing amenity and activity within a community based environment.

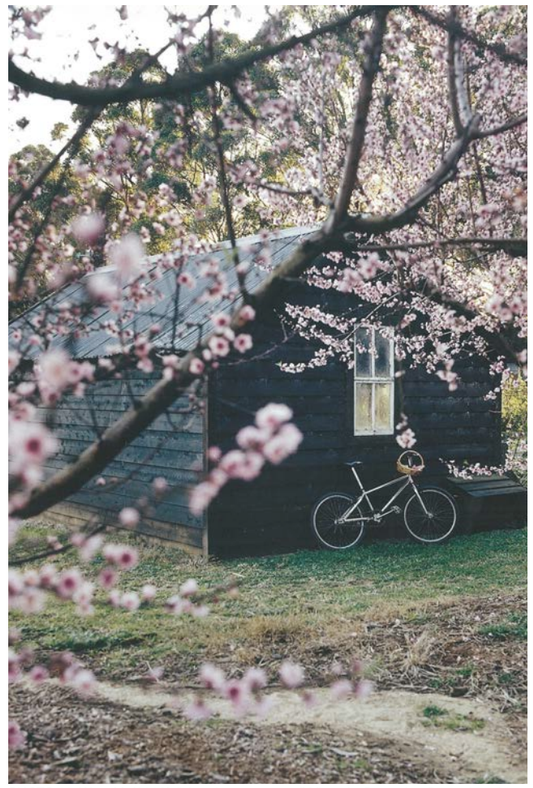

PHOTO 03: Wee, M. (2002). "*time in the garden".* Victoria: Penguine Books Ltd, 81.

1.3 PROJECT TEAM

LEE WOODWARD - WIRRA WILLA LAND OWNER

Lee Woodward is a local Dentist who has lived at and owned Wirra Willa for the last 22 years. He has managed it as a restored garden and landscape project, preserving the citrus and stone fruit orchard history. The site gardens and landscape have been developed over this period and his property has been the subject of numerous publications, including Marie Claire, Habitus 23 and 'Time in the Garden' by Michael Cooke. The most recent addition is the Wirra Willa Pavilion, which received a Commendation Award at the Australian Institute of Architects 2014 awards program.

Lee is also interested in other development and conservation projects including:

- 1997 Victoria Court at East Gosford (a community retail/commercial complex around centralised courtyard facility).
- Cessnock Central (retail/commercial development focusing on architectural preservation of an art-deco former Ambulance station).
- Boomerang Cove, Great Lakes region (6 ha medium density and tourism site currently being re master planned, after re-establishing the biological integrity of the waterway and foreshores).

STEPHEN LEATHLEY - PROJECT PLANNER

Stephen Leathley is the Planning Director at Insite Planning Services and has over 25 years' experience in both private and public sectors as a Town Planner. His passion lies in Masterplanning lifestyle communities and working in rural and peri urban environments. He has a broad planning experience in both strategic and development planning having worked on a number of lifestyle projects throughout NSW. Stephen also has a Master's in Business Management and is a Fellow of the Planning Institute Australia.

Stephen will be responsible as the lead consultant and Project Planner for the Wirra Willa Fresh development

IAN SINCLAIR - RURAL PLANNING CONSULTANT

Ian Sinclair, is one of Australia's leading rural planners and is the Principal Consultant with Edge Land Planning, a consultancy specialising in rural strategic planning for Local and State Government. Ian has more than 25 years' experience working in rural areas — in Local Government as well as consulting.

With a degree in Town Planning from UNSW Ian is also a Fellow of the Planning Institute of Australia. He is a part time lecturer at the University of NSW, Faculty of the Built Environment. He has given many presentations at conferences and universities in Australia, Canada, USA and UK on Food Security, Rural Planning, Urban Agriculture, and Economic Development Issues.

Ian has recently embarked on a PhD at Sydney University where he is investigating the tensions of land use planning and strategic agricultural regions on Australia's eastern seaboard, which is creating contested landscapes. He is focusing on the fresh fruit and vegetable sectors and the impact of rural residential development and urbanisation.

Ian's role in the project is to ensure that the agricultural outcomes central to the success of Wirra Willa fresh are achieved. This is an innovative project and requires the specialist input that only Ian can provide.

1.3 PROJECT TEAM - CONTINUED

MATTHEW WOODWARD - ARCHITECT & URBAN DESIGN

Matthew is an award winning Architect and a member of the Australian Institute of Architects. He graduated in 2010 from The University of Newcastle with a Masters in Architecture (with honours), following a Bachelor of Design (Architecture), which he received in 2007. His practical experience has been closely associated with BVN Donovan Hill, a leading Australian Architectural practice, where he has worked on a number of residential projects including large scale mixed use developments, and draft planning proposals.

Matthew established Matthew Woodward Architecture in 2012 after he was presented with the opportunity to design and execute a project at Wirra Willa, on the NSW Central Coast. The project consisted of an ancillary guest pavilion and other structures to complement the existing residence. It was a great opportunity to integrate modern architecture with a site that is fundamental to his heritage and personal development. The project received a Commendation Award at the Australian Institute of Architects (NSW Chapter) awards program 2014 and has been internationally published.

Matthew will be responsible for the Masterplanning process in consultation with our project team. He will also develop the architectural guidelines that will guide the future development of the site.

BRIONY MITCHELL - TOWN PLANNER

Following 6 years of University education in both Sydney and Vancouver, Canada Briony graduated with First Class Honours in a Bachelor of Town Planning from UNSW in 2002. Briony was accepted into the Planning Institute of Australia in 2003 and has continuous accreditation as a Certified Practicing Planner throughout her career. Briony has over 15 years experience as a Town Planner and for the past 5 years she has been a Planning and Project Manager for residential and commercial projects in both the United Kingdom and Australia.

Her combination of project management and planning skills makes her particularly adept at negotiating her way through planning law, plan making and development approval processes and managing interdisciplinary teams to deliver planning projects. Briony has an extensive skill base spanning local government, public utility, private consultancy and development companies and she has a particular interest in sustainable development reaching as far back to her time in Canada working with Prof Bill Rees (the founder of the 'Ecological Footprint'). She approaches every challenge with tenacity and industriousness and combined with her friendly, positive and open approach she has proven to be very effective.

DR DANIEL MARTENS - ENVIRONMENTAL ENGINEER

Dr Martens is a leading civil and environmental engineer with 25 years' experience across Australia. He is routinely called upon by developers and Government to provide specialist engineering services and advice in matters relating to stormwater control, flood modelling and mitigation strategies and a range of related areas such as water supply and sewage management. He has acted as an independent expert for the courts in NSW, QLD, the ACT and New Zealand over the past 15 years and has worked on numerous major housing release and industrial projects in NSW. He currently sits on a number of Australian Standards committees and expert panels.

Dr Martens and his team will be responsible for all environmental and civil engineering on site specifically water management.

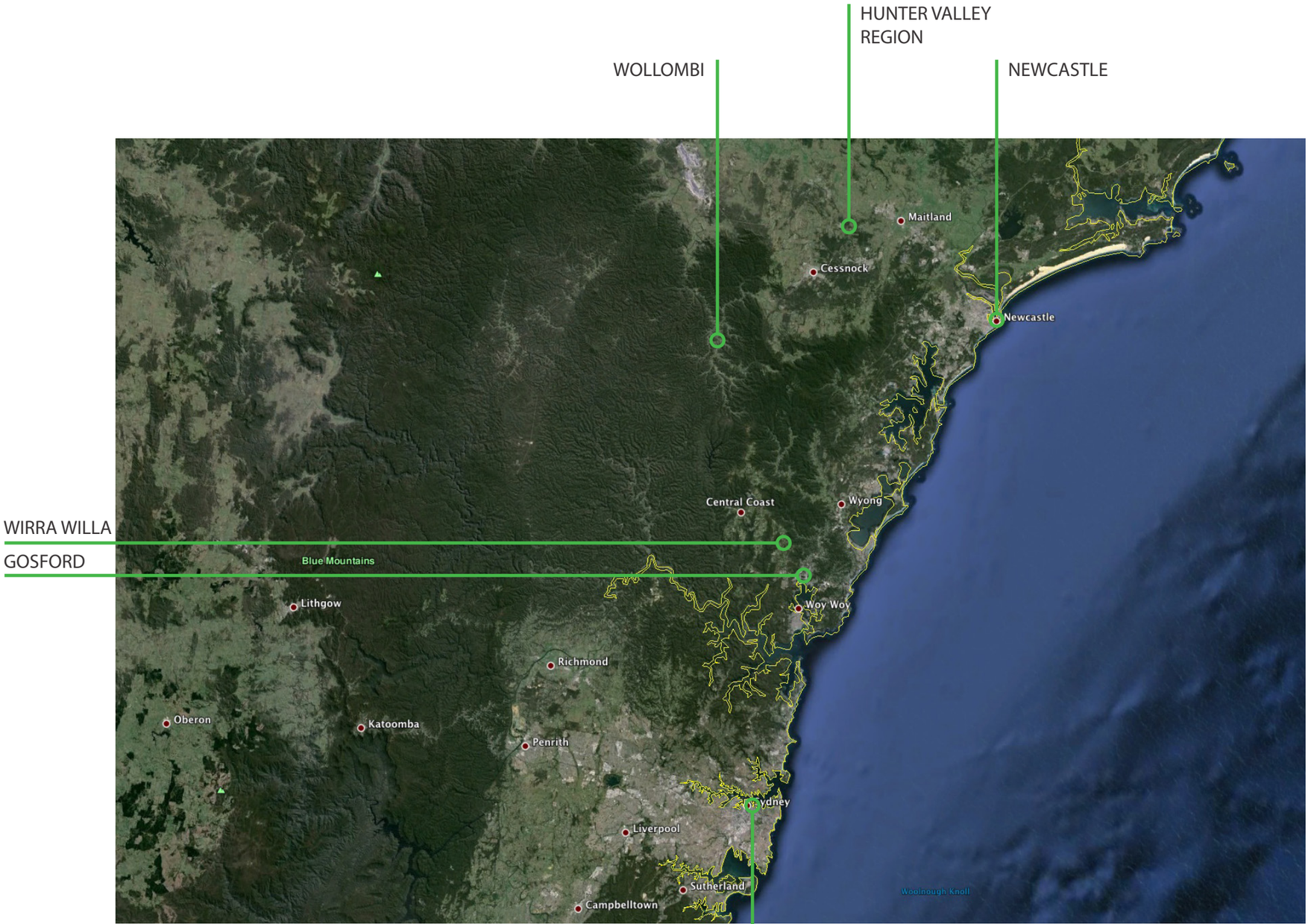

IMAGE 01: Google Earth 2014

2.1 REGIONAL CONTEXT

LOCATION
The site is located in Somersby locality which is 77km from Sydney CBD and 88km from Newcastle CBD.

It is located 26km inland from the coast and has an altitude in excess of 200m + AHD.

TRANSPORT AND ACCESS TO SITE
The site is serviced by public transport in means of the local Bus (Route 32) from Gosford to Spencer, via Mangrove Mountain and Somersby.

Vehicular access is by the main arterial road being Wiseman's Ferry Road which intersects with the F3 freeway at the Somersby Interchange.

2.2 LOCAL CONTEXT

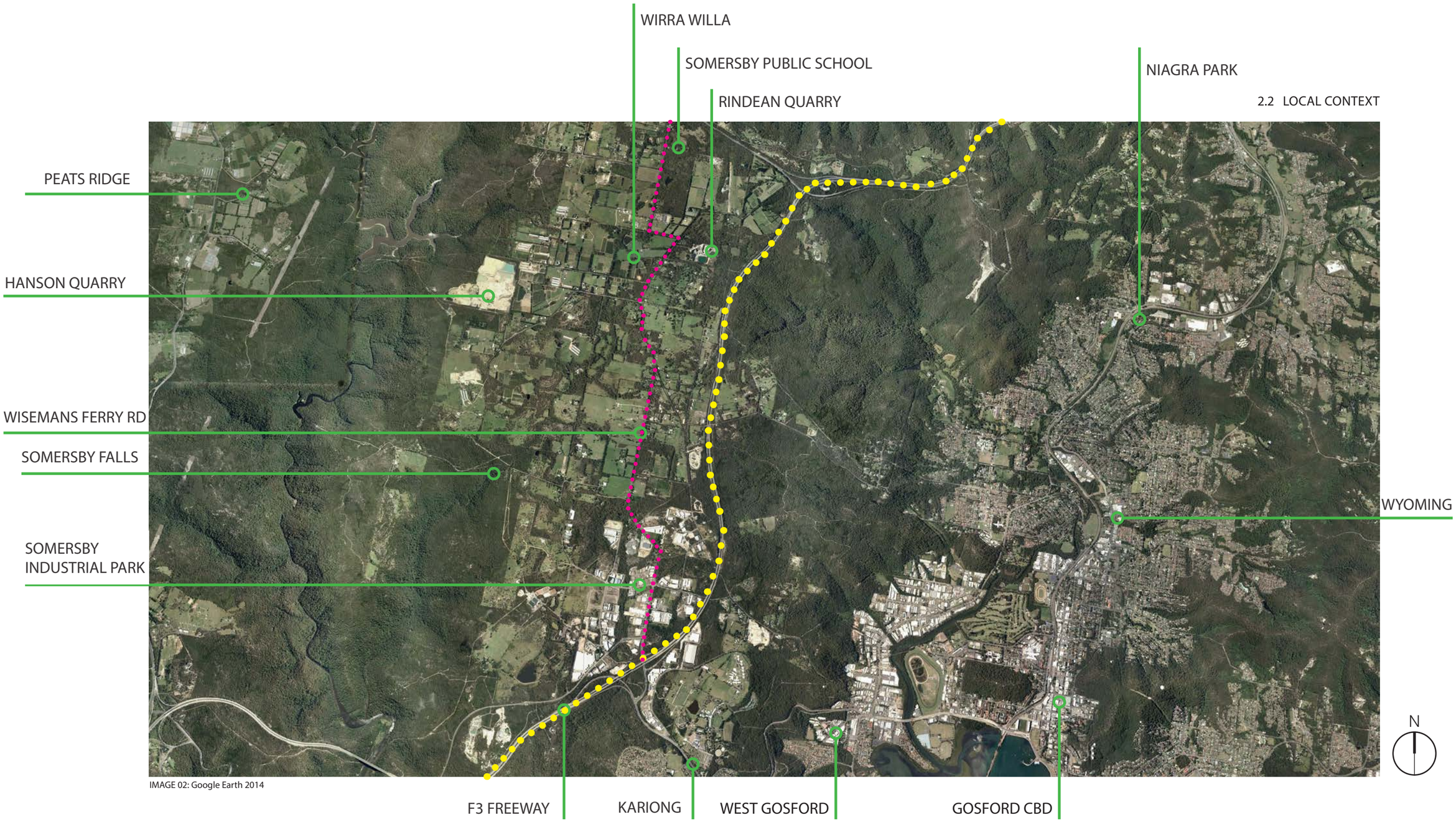

IMAGE 02: Google Earth 2014


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PHOTO SHEET 01: LOCAL CONTEXT

1. ELWINS ROAD CHARACTER
2. WISEMANS FERRY ROAD CHARACTER
3. KEIGHLEY AVENUE CHARACTER
4. TYPICAL PAINTED WEATHERBOARD HOUSING TYPE ON KEIGHLEY AVENUE
5. VERNACULAR CORRUGATED IRON SHED
6. FRUIT STALL ON WISEMANS FERRY ROAD

2.2 LOCAL CONTEXT - CONTINUED

The context immediately surrounding the site comprises of a rural character with dwellings located within the existing landscape.

The Somersby locality has a mix of land uses. The dominant one is rural residential with some scattered orchards and poultry farming. The rural residential uses have some livestock which includes cattle, horses and alpacas.

There is also land zoned as RU5 Village and RE1 Public Recreation in conjunction with the Somersby Public School and General Store.

In the early 1900's, the land surrounding and including the site was originally used for farming of stone and citrus fruit with particular reference made to oranges and peaches. The 'Mountain' was famous to the region for the quality of the produce with road side stalls in abundance all the way to Kulnura. The Central Coast was one of the largest commercial citrus producing areas in the Sydney Newcastle Region. Overtime, the industry in the region has diminished due to economic constraints and competition.

Today, there are still orchards present on the site and within the surrounding context which produce good quality produce. However, they are not operating as primary producing farmlands.

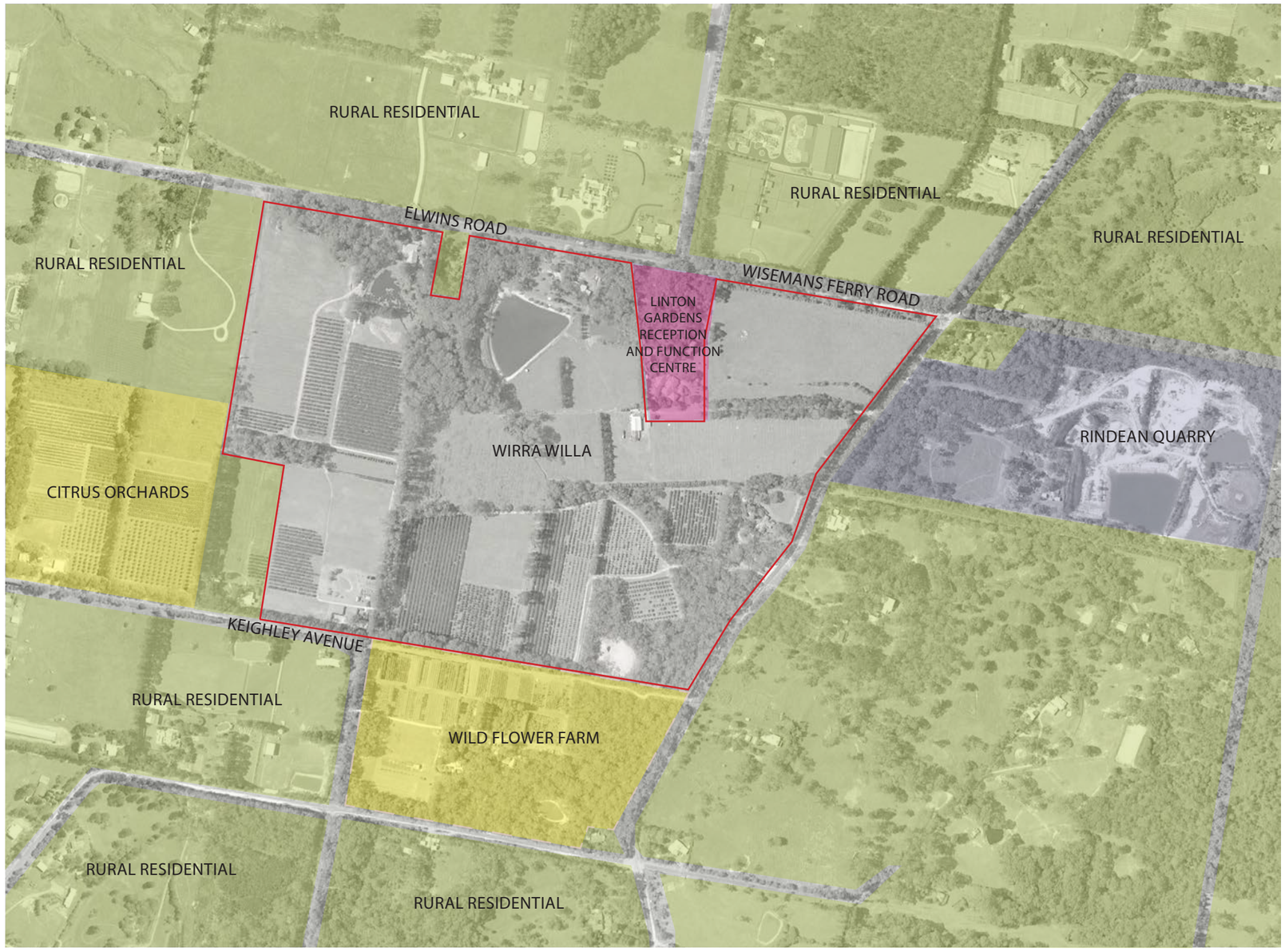
The site and surrounding lots are zoned as RU1 - Primary Production.

The road network consists of the main arterial road, Wisemans Ferry Road which has secondary roads running off it and intersecting with it to service independant land holdings. They are rural in character with grassy swales managing stormwater.

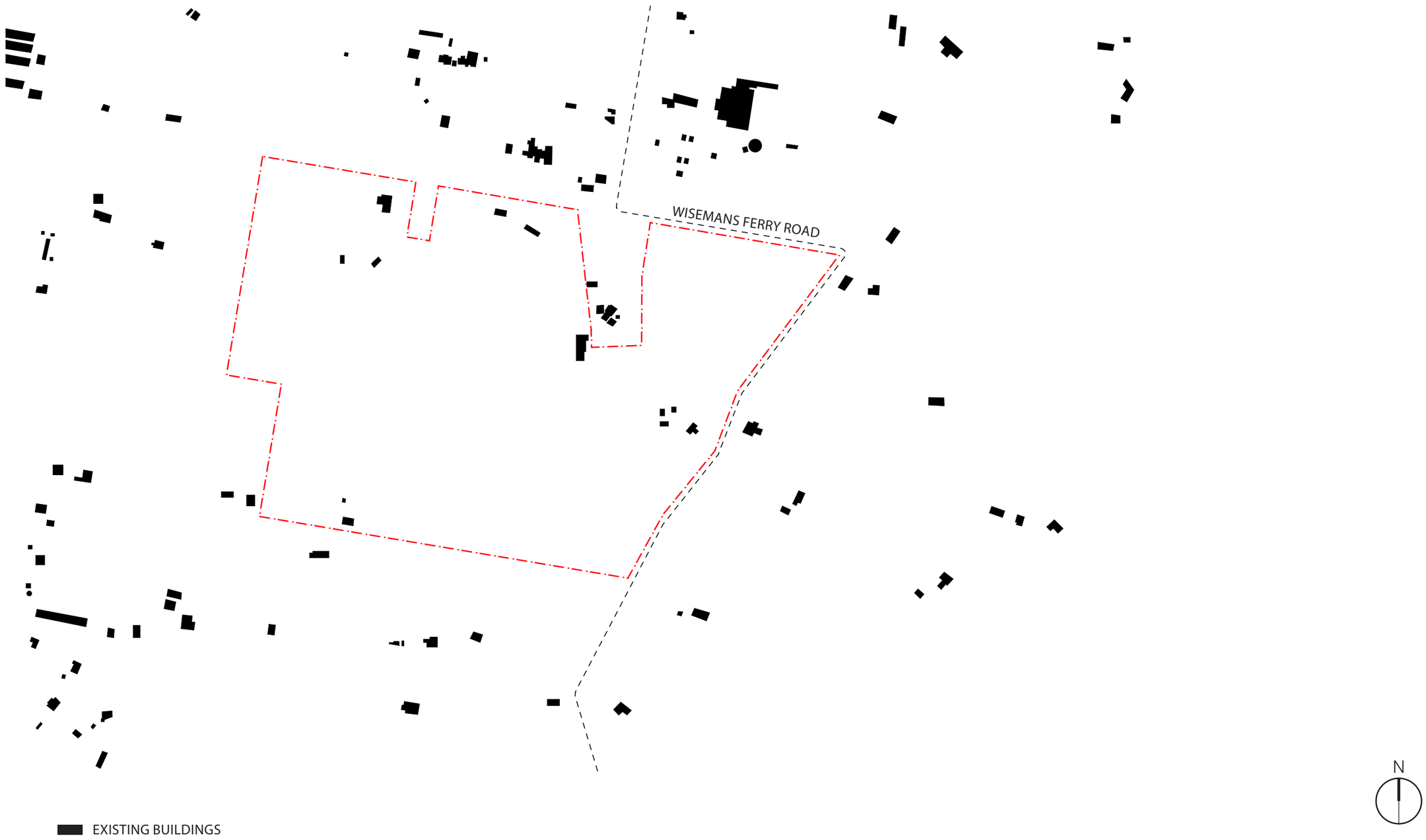
The architectural character of existing dwellings is quite mixed. Common housing typologies include brick, timber and 'fibro' clad farm cottages, to larger residences constructed of rendered masonry and painted weather board.

Corrugated iron and sheet metal sheds are still relatively common to the area reminiscent of the previous land use history.

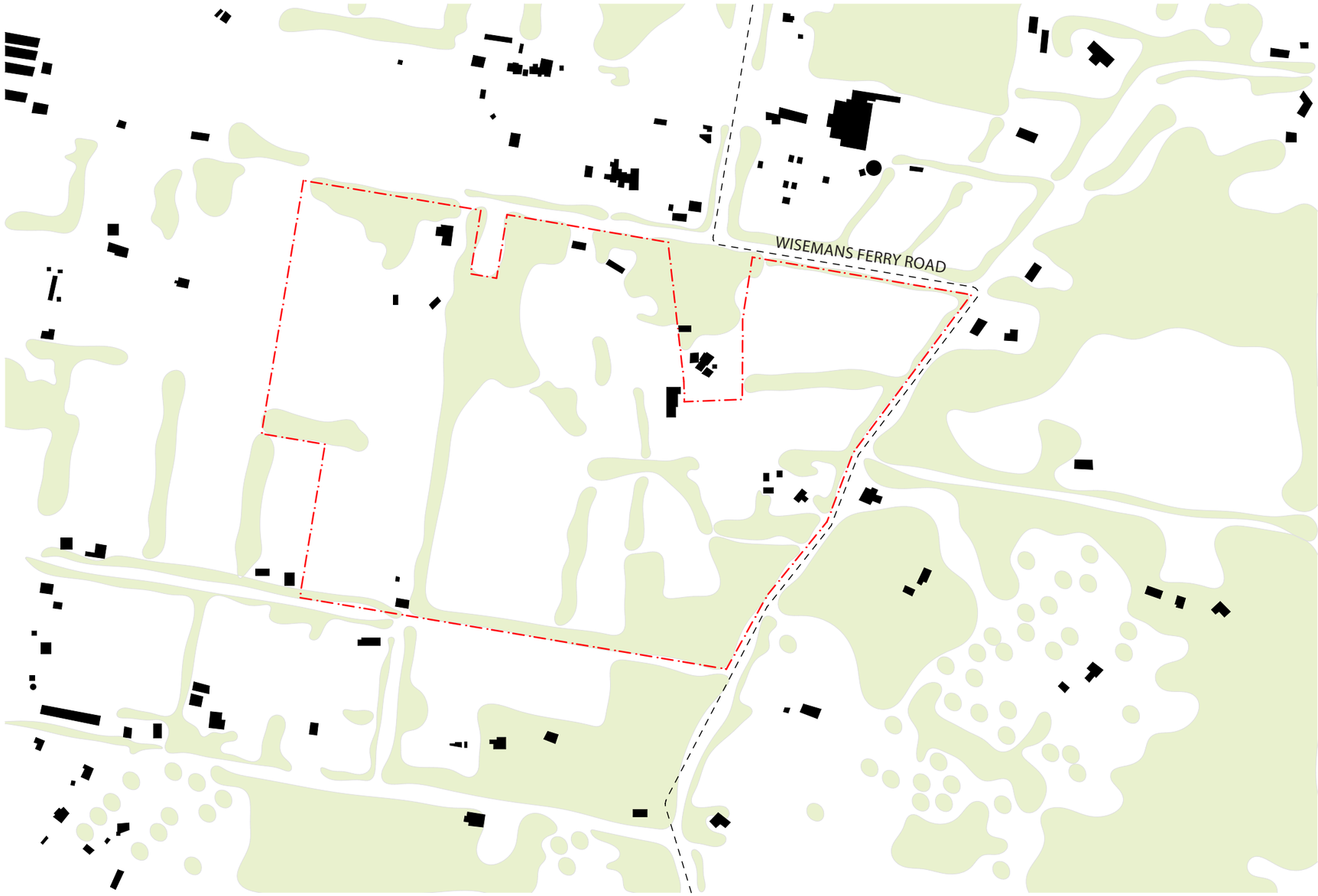
The Somersby Plateau is also underlain by large resources of friable, fine - medium grained sandstone, which breaks down readily to provide a valuable sand resource for the regional construction industry. The importance of this sand resource is recognised in a number of strategic plans, including Sydney Regional Environmental Plan No. 8 (Central Coast Plateau Areas) (SREP 8) and Sydney Regional Environmental Plan No. 9 – Extractive Industry (SREP 9). A number of existing and planned quarries are located in the locality. Of particular note is the adjoining Rindean Quarry, which is located to the east of the site on the opposite side of Wiseman Ferry Road (refer figure 2.2 pg 11).



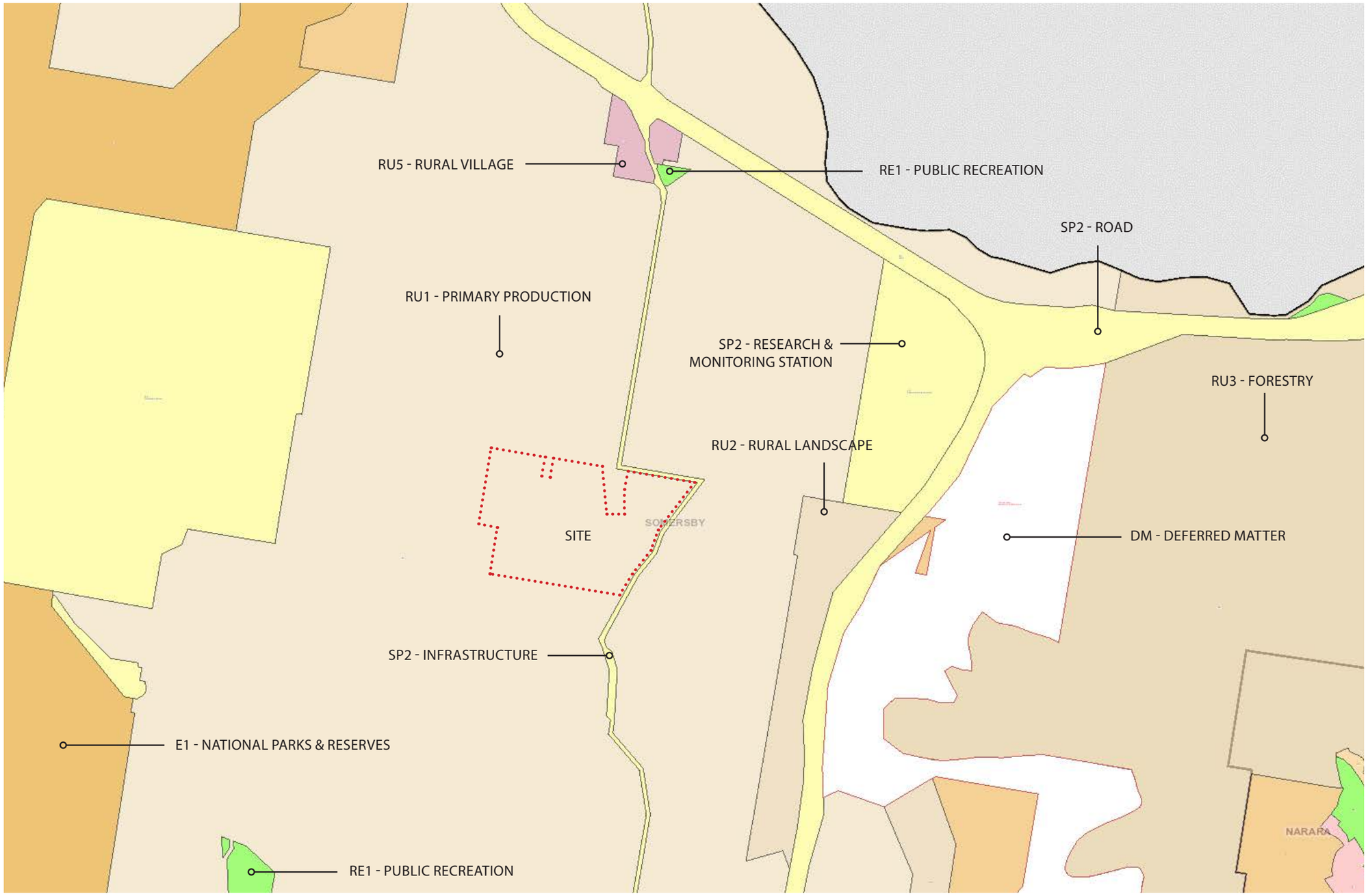
C FIGURE 2.2.1 - LOCAL CONTEXT PLAN



C FIGURE 2.2.2 - FIGURE GROUND PLAN



C FIGURE 2.2.3 - FIGURE GROUND PLAN - WITH NATIVE VEGETATION



C FIGURE 2.2.4 - EXISTING LAND USE ZONING

C FIGURE 2.2.5 - EXISTING LOT BOUNDARIES

1

2

3

4

5

6

PHOTO SHEET 02

2.3 PHYSICAL CHARACTERISTICS OF THE SITE

SITE DESCRIPTION

The site has a road frontage to two secondary roads and one main arterial road. The northern boundary road frontage consists of approximatley 574m to Elwins Road and 347m to Wisemans Ferry Road. The eastern boundary has an approximate frontage to Wisemans Ferry Road of approximatley 699m. To the South-west of the site there is frontage to Keighley Avenue of approximatley 174m.

The site is known as 17 & 41 Elwins Road, and 185 Wisemans Ferry Road, Somersby. Lot 31 in DP 109784, Lot 4 in DP 1027884, and Lot 45 in DP 1034942.

The combined total site area is 52.375 Ha.

CURRENT LAND USE AND EXISTING STRUCTURES

The site is currently used as a citrus orchard and residence. The most recently acquired lot (Lot 4 - DP 1027884) has had its orchard trees grubbed by the previous owner. There are currently four houses situated on the property. There are two located to the north of the site fronting Elwins Road, one timber clad cottage to the south fronting Keighley Avenue, and one to the east accessed off Wisemans Ferry Road. The existing structures consist of a mix of domestic building materials consisting of face brick, timber cladding, metal roof sheeting, tile roof products and painted weatherboard. There is no consistency in the architectural language of the exiting structures.

TOPOGRAPHY

The site is generally low-lying with a consistant fall from the south-east to north west. The highest point is approximatley 268m AHD which is located at the south eastern corner of the site. The lowest point found at the north-west corner is approximatley 230m AHD.

GEOLOGY

The local geology consists of deep, well drained sandy top soils ontop of clay based subsoil. The bottom layer is likely to consist of a sandstone bedrock. This will be clarified through geotechnical investigation.

1. INTERFACE BETWEEN ELWINS ROAD AND SITE
2. EXISTING SHED ON 17 ELWINS ROAD
3. EXISTING FARM COTTAGE FRONTING KEIGHLEY AVENUE
4. EXISTING DWELLING AT 17 ELWINS ROAD
5. EXISTING DWELLING AT 185 WISEMANS FERRY ROAD
6. LANDSCAPE LOOKING SOUTH-WEST FROM 41 ELWINS ROAD

1

2
PHOTO SHEET 03

WIND

Three principle wind directions affect the site. The winds prevail from the north-east, east in the summer and west in the winter months. The site experiences the hot north-westerly winds that regularly occur during the summer months. Southerly winds are constantly occuring throughout the year.

VEGETATION

There are approximatley 9 blocks of citrus fruit orchards situated on the property consisting primarily of orange trees. There is also stone fruit present, with one orchard block designated as peach trees. These blocks predominantly have a north-south orientation and are located to the south and west of the site.

Areas of dense native bushland are scattered throughout the property with particular densities to the north-west of the site, near the dams and the dwellings at 17 and 41 Elwins Rd, and to the south-east along Wisemans Ferry Road.

These areas are classified as Somersby Plateau Forest which is an Endangered Ecological Community.

BUSHFIRE

The site is categorised as bushfire prone land. There is a mixture of Categorey 1, Category 2 and Buffer zone. Any development proposed will be designed to meet the Australian Standards for construction within bushfire prone areas. A bushfire report has been prepared to determine appropriate asset protection zones (APZ's) to inform the structure plan & concept masterplan process. A copy of this plan is provided in this report at Figure 2.4.3.

FAUNA

There are no known endangered fauna resident on the site or on adjacent sites. This issue will be further investigated as part of an ecological study of the site.

ACCESS

The site currently has vehicular entry points at each of the road frontages. There are three existing entrances at Elwins Road, two to the primary residence at 41 Elwins Rd, and another to 17 Elwins Rd.

Vehicle access from Keighley Avenue services the existing farm cottage located on lot 31.

There are a further two existing vehicular entry points at the east boundary line along Wisemans Ferry Road. There is a 'right of carriageway & easement for services' that services Linton Gardens Reception and Function Centre (Lot 3 DP 1027884) and another access point for the residence at 185 Wisemans Ferry Road and for servicing operations of the farm.

WATER

Natural drainage across the site falls slightly from south-east to north-west towards the water catchments bodies.

Stormwater runoff currently drains to approximatley 2m wide easements that traverse throughout the site, and transfers stormwater to the water catchment bodies located at the north-west.

HERITAGE

There are no heritage items located on the site. The adjoining site at Lot 3 DP 1027884 - Linton Gardens Reception and Function Centre is classified as a Heritage item.

UTILITY SERVICES

The site is self sufficient in servicing the needs of water. Rainwater is collected and harvested for household usage, whilst natural spring water is utilised for irrigation. Sewer is managed on-site by individual households. The site is well serviced with power and telecommunications. Gas is supplied by truck and delivered as required.

Any new development on the site will need to explore economically efficient and environmentally sustainable ways of providing these services.

GRASS PADDOCK LOOKING TO SOUTH BOUNDARY

GRASS PADDOCK LOOKING NORTH

GRASS PADDOCK LOOKING EAST TOWARDS WISEMANS FERRRY ROAD

(A) - RIGHT OF CARRIAGEWAY & EASEMENT FOR SERVICES 15 WIDE & VARIABLE WIDTH (DP 1027884)
(B) - RIGHT OF CARRIAGEWAY & EASEMENT FOR SERVICES 6 WIDE (DP 1027884)
(C) - EASEMENT FOR ELECTRICITY PURPOSES OVER EXISTING LINE OF CONDUIT (APPROXIMATE POSITION) (DP 1027884)
(D) - EASEMENT FOR WATER SUPPLY OVER EXISTING LINE OF PIPE (APPROXIMATE POSITION) (DP 1027884)
(R) - RIGHT OF ACCESS 20 WIDE (AE586651)
(S) - RIGHT OF CARRIAGEWAY 6 WIDE (DP 1058577)
(W) - EASEMENT FOR WATER SUPPLY 2 WIDE (DP 1034942)
(X) - BENEFITED BY RIGHT OF CARRIAGEWAY & EASEMENT 3.05 WIDE - D24024

NOTES:
1. Survey was undertaken for 'Master Plan' concept only.
2. Only Preliminary boundary fixation has been undertaken.
3. Contours are indicative only. Areas of dense vegetation exist on the site and contours may not reflect ground levels in inaccessible locations.
4. Building locations in relation to boundaries are approximate.
5. Irrigation services within the site have not been determined
6. Underground services within the site have not been determined

www.dialbeforeyoudig.com.au
DIAL 1100 BEFORE YOU DIG

Origin of Levels : PM 129107 fd.
Location : Elwins Road, Somersby
R.L. : 228.346m A.H.D.

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revision	description:	date:

client: **WOODWARD**

approved: Registered Surveyor

assessed: A.W.C.
drawn: B.W.
surveyed: M.B.

Clarke Dowdle & Associates
Development Consultants
surveyors - planners - ecologists - bushfire consultants
#1 OSCAR STREET
UMINA BEACH NSW 2257
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email admin@cdasurveys.com.au
Po Box 3122 Umina NSW 2257

project: **#17 & 41 ELWINS ROAD and # 185 WISEMANS FERRY ROAD SOMERSBY**
details: **LOT 31 in DP109784, LOT 4 in DP 1027884, and LOT 45 in DP 1034942**
drawing: **PLAN SHOWING CONTOUR AND DETAIL FOR SOMERSBY RURAL VILLAGE CONCEPT MASTER PLAN**

red. ratio:	1:4000	datum:	A.H.D.
reference #Go:	17957	ref oct:	
contour interval:	1m	DA #:	
job date:	09/04/14	number in set:	1 of 11
LGA:	GOSFORD		
Parish:	NARARA		
County:	NORTHUMBERLAND		

-all dimensions are in metres unless otherwise shown.
-check and confirm all areas & dimensions on site prior to the commencement of any works.
-Do not scale from face of plan.
-If any construction is planned on or close to the boundaries further survey work will be required.
-a complete investigation of services has not been undertaken for this survey.
-services shown hereon have been located by visible features only.
-tree spreads, trunk & height dimensions are approximate only.
-floor levels displayed on buildings are approximate only.
-underground utility mains locations are provided by Council diagrams & are approx positions only.

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-tree trunk & height dimensions are approximate only.
-tree spreads are approximate only but have been drawn to scale.
-ridge& gutter levels displayed onbuildings are approximate o nly.
-underground utility mains locations are provided by Council diagrams & are approx positions only.

EXISTING DWELLINGS

EXISTING PACKING SHEDS

EXISTING DIRT ROADS

MAIN ROAD

SECONDARY ROAD

DOMINANT BREEZES

VEGETATION

EXISTING ORCHARDS

FORMER ORCHARDS

WATER CATCHMENTS

DRAINAGE

SITE ENTRY: VEHICLE

N

PRIMARY CONSERVATION AREAS

1. DENSE NATIVE BUSHLAND

2. DAMS

3. SIGNIFICANT TREES

N

C FIGURE 2.4.2 - PRIMARY CONSERVATION AREAS

FIGURE 1-1: ASSET PROTECTION ZONES MAP
BASED ON RETENTION OF VEGETATION WITHIN SITE

CLIENT Client
SITE DETAILS Elwins & Wisemans Ferry Roads Somersby
DATE 3 March 2015

Legend
- Subject Site
- 140m Buffer
- 25m APZ
- 20m APZ
- 10m APZ
- Remnant Vegetation
- Rainforest Vegetation (<20m in width or <1ha)

NORTH
0 50 150 250
SCALE 5000 @ A3

PIXELDRAFTING

Ref No 1438

Firebird ecoSultants Pty Ltd
ABN - 16 105 985 993
Level 1, 146 Hunter Street, Newcastle NSW 2300
P O Box 354 Newcastle NSW 2300

N

2.5 SITE HISTORY

Before Lee Woodward purchased the property in 1991, Wirra Willa was owned by the Dornan family. It was set up approximately 60-80 years ago as a citrus and stone fruit orchard utilising an annual cash crop (usually tomato varieties) to supplement income.

The Dornan family were responsible for the later irrigation systems applied to the site (under irrigation licence).

Prior to their ownership, handmade rubble drains approximately 2m deep were placed approximately 20 metres apart over the bulk of the citrus bearing area to ensure adequate drainage.

When Lee took over the farm in 1991 stone fruit varieties included Florida gold's and Maravilla's, and citrus varieties included Washington Navels and Valencia's (early and late lane), Seville's, Tangelo's, mandarin varieties and rough lemons.

Most of the citrus was either on rough lemon or trifoliata root stock.

Since purchasing the site Lee has undertaken the following work on the property:

- Removed some of the very old unworkable Valencia blocks, replacing these with late lane Navels
- Hedged blocks of old Navels to bring them back into production
- Re-established the Seville's and grapefruit blocks
- Improved and replaced irrigation systems on existing blocks to fine jet spray irrigation
- Taken the management of the farm to a more environmentally friendly (organic) form of farming with less chemical use
- Provided new shedding for chemical, tractor and farm equipment storage
- Replaced the stone fruit blocks with later varieties

PHOTO 04: Wee, M. (2002). "*time in the garden".* Victoria: Penguine Books Ltd, 73.

PHOTO 05: Existing Cottage on Keighley Avenue

2.5 SITE HISTORY - CONTINUED

- Used tomatoes as a cash crop (Cutlass, Egg and regular tomatoes) which was farmed for approximately 5-7 years, using rotation block systems for farming,
- The farm employs two full time employees including a manager and various picking crews throughout the year,
- Roads have been improved,
- Landscape and general amenity have been greatly upgraded,
- Water supply and storage upgraded and expanded.

Whilst the owner has retained the citrus and stone fruit orchards in their present form, the orchard since takeover in 1991 has never been cash positive and is taking an increasing amount of finance to maintain. Basically the farm has been funded from other income sources as a preservation/ heritage landscape operation, but this is not sustainable.

It is also important to note that four of the farm sheds are either new or have been upgraded and all irrigation has been upgraded. The main farm house was architectural re-built in 2000. Pavilions and garages have also been added more recently.

There are three additional houses on the property and they have all undergone various levels of restoration and upgrading.

The Somersby Pavilion is an award winning structure, recognised by the Australian Institute of Architects in the 2014 awards. The property has also been the subject of numerous articles including Habitus and Marie Claire.

PHOTO 06: Wee, M. (2002). "*time in the garden".* Victoria: Penguine Books Ltd, 61.

PHOTO 07: Wirra WIlla Pavilion (Photographer: Murray Fredericks)

3.0 PLANNING CONTEXT

Over the past four decades, the NSW government and Gosford Council have sought to protect the agricultural lands of the Central Coast plateau through various state and local land use planning strategies and policies with the objective of providing land for food production. The Somersby Plateau is also an important resource base for sand and sandstone and this is also acknowledged in relevant planning documents. In this respect the following strategies, environmental planning instruments, policies and documents are of relevance:

- NSW 2021: A Plan to Make NSW NO 1.
- Draft Sydney Metropolitan Strategy
- Sydney Regional Environmental Plan No 9 – Extractive Industry (No 2 – 1995) (Deemed SEPP)
- Sydney Regional Environmental Plan No 20 – Hawkesbury-Nepean River (No 2 -1997) (Deemed SEPP)
- Sydney Regional Environmental Plan No 8 (Central Coast Plateau Area) (Deemed SEPP)
- Central Coast Regional Strategy 2006 (Released 2008)
- Gosford 2025: Community Strategic Plan (Updated July 2013)
- Draft Gosford Land Use Strategy 2031 (2008)
- Gosford Local Environmental Plan (LEP) 2014

The consistent strategic line is that there is to be no residential or rural residential development west of the M1 Motorway. The Central Coast Regional Strategy and other documents above, however, do encourage initiative and facilitate what they refer to as "unique planning proposals" where certain sustainability criteria can be satisfied. In response we are confident that a Planning Proposal for the Wirra Willa concept will:

- Result in a real and more agriculturally productive outcome for the land than exist on the site currently. Agriculture is a fundamental component of the Wirra Willa proposal and the goal is to develop an agricultural base on the site that produces food to be sold to the local community as well as further afield.

- Result in a more productive and a better economic utilisation of the land satisfying one of the fundamental objectives of the Environmental Planning and Assessment Act - the promotion and co-ordination of the orderly and economic use and development of land. It is considered that at present and into the foreseeable future, there is limited utility in pursuing only citrus production on the site given the state of the citrus market in Australia. A better agricultural outcome for the land would be achieved by diversifying into fresh vegetables as well as fruit.

- Satisfy sustainability criteria given sustainability is a fundamental component of the Wirra Willa proposal.

In respect to SREP 9, Extractive Industries, the site has not been identified as containing relevant resource material.

Other than achieving sustainability and agricultural initiatives, the proposal will also achieve economic development and housing initiatives that the government is pursuing through various strategy documents. The residential property market has demand for lifestyle opportunities, and not just providing conventional residential housing stock.

Wirra Willa will satisfy demand by those people looking for a more sustainable way of living, and we are of the view that given the site is located on the edge of Sydney, there is significant market for this type of lifestyle opportunity.

IMAGE 03: The Central Coast Regional Strategy, (2008), p16.

4.0 PROJECT DESCRIPTION - SUSTAINABLE AGRICULTURAL SUBDIVISION

Wirra Willa is at this stage a concept and a vision. A lot of work will need to be done to realise the aspirations for the site and this will need to be done in conjunction with the local community, the traditional aboriginal landowners, Council and relevant Government Departments. This is going to be a journey that will realise a benchmark development of some significance. The different elements of the site which are envisaged are set out below.

Before providing a description of the Wirra Willa proposal, it is worth noting what Wirra Willa is not:

- A traditional farm; or
- A rural residential subdivision; or
- A traditional residential estate.

It is proposed to be an agricultural subdivision, that will produce food as well as incorporating a number of dwelling houses, which will create a community that owns the farm and also underpins the financial aspects of the operation.

PHOTO 08: Vegetable Crops (Ian Sinclair)

4.1 AGRICULTURAL SUBDIVISION

The proposal is to move the farm from a citrus only operation to one that also grows vegetables. The model being pursued is one of growing and promoting local food. The existing brand of Wirra Willa is to be used and capitalised on to move it into the vegetable market as well as keeping some of the orchard. 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 fruit only to fruit and vegetables will require a significant investment in plant and machinery as well as preparation of the land to grow vegetables. It is envisaged that the vegetables will be grown in open fields as well as in protected cropping structures / greenhouses for specific types of vegetables and herbs. This type of operation is not possible to do on a commercial basis taking into account all of the costs such as land, moving the irrigation infrastructure, constructing greenhouses and the associated plant and machinery. However, such a change in operation will be possible with a cluster subdivision of the property. It would use community title and the majority of the land will be used for fruit and vegetable growing on the community lot. The housing lots would be located in clusters around the property. The community association will employ a farm manager to grow the produce. The members of the community will also be able to participate in some of the farm operations, but it needs to be stressed that it is a farming operation owned by the lot owners and run as a commercial farm.

PHOTO 09: Greenhouse Agriculture (Ian Sinclair)

The proposed subdivision will mirror the best practice of other farming based subdivisions that exist in Australia and overseas. However, a project such as the one being proposed is not one that is common and it will be a flagship project that promotes sustainability and agriculture developed for Gosford. It will enable the farm to continue by using a market based mechanism to intervene in the cycle of farm land conversion and keep the land producing agriculture rather than just being changed to rural residential use as is happening in peri-urban areas in Australia and worldwide. This will help to meet the objectives of the Central Coast Plateau REP deemed SEPP as well as the Central Coast Regional Strategy.

4.1 AGRICULTURAL SUBDIVISION - CONTINUED

This proposal does not envisage the types of rural subdivision which Central Coast Plateau REP deemed SEPP is trying to avoid and would enhance the use of prime agricultural land. Uses will be located within a footprint guided by the utility and special characteristics of the land within a community title scheme. The land will be reserved for food production as well as conservation, housing areas, and a community centre / farm stall which is proposed to utilise the existing packing shed adjacent to the Linton Gardens Reception and Function centre. The proposal is an innovative solution to revitalising the agricultural use of the land in a productive and viable means.

In 2011, the National Heart Foundation in conjunction with Victorian Health commissioned the Victorian Eco Innovation Lab and David Locke and Associates to prepare a conceptual framework for achieving a sustainable and healthy food system.

Food-Sensitive Planning and Urban Design (FSPUD) looks at how planning and urban design can address the way food is produced, moved, processed and consumed to create places to make it easy for the community to meet their individual and collective food needs. It recognises that food is an essential part of life and provides ways that it can be integrated into the urban system.

There are ten principles that underpin FSPUD which are as follows:

1. Support secure and equitable access to the food necessary for a healthy and fulfilling life.
2. Make healthy and sustainable food choices easy and convenient choices.
3. Encourage use of spaces and places to meet many diverse needs, reconciling food production and exchange with housing, enjoyment of open spaces and recreational areas, urban cooling, skills and jobs, socialising and community celebration.
4. Provide opportunities for those who wish to participate in growing, exchanging, cooking and sharing food.
5. Identify and invest in the safe use and re-use of urban resources (soil, water, nutrients, 'waste') that can support viable and sustainable food production.
6. Protect and/or enhance urban and surrounding ecosystems and increase biodiversity (including, but not limited to, bees, open pollinating fruit trees, native vegetation).
7. Ensure decisions reflect the long-term value and broader community benefits of access to productive land and experienced producers.
8. Encourage investment and innovation, through secure tenure and supportive operating environments for both community and commercial food enterprises.
9. Increase resilience, by designing to keep options open for future use of space and resources.
10. Acknowledge and support diversity and sovereignty (the right to have informed choices) over what, how and where people produce and eat food.

These principles will be included in the design of the site where relevant.

PHOTO 10: Vegetable Crops (Ian Sinclair)

PHOTO 11: Vegetable Crops (Ian Sinclair)

4.1 AGRICULTURAL SUBDIVISION - CONTINUED

A horticultural expert, Stephen Gell, has been brought onto the project team and his role is to:

- Undertake an agricultural land capability assessment of the site to identify the best parts of the site for agricultural production - Completed.
- Prepare a feasibility study for the agricultural operation including the opportunities and constraints of undertaking such a venture.
- Prepare a business case to prove that the proposal will be financially viable and prepare a business plan for the operation of the site.
- Assist in the Masterplanning of the site designing the location of the various elements of the farm - Involved in the Structure Planning process.
- Provision of a community management regime as a framework for the future working of the land for agricultural production.

PHOTO 12: Francis, M. (2002). '*Village Homes: A Case Study in Community Design.*' Landscape Journal, 30.

4.2 MASTER PLANNED ENVIRONMENT

Wirra Willa will be a Masterplanned community that will provide a unique sense of community based on a shared value of sustainability principles and agricultural production from the land.

It is proposed that the dwelling lots and community land for agriculture, open space, connectivity network and environmental protection will be created using Community Title subdivision. This will provide a means for community management and ongoing funding of infrastructure and agriculture activities.

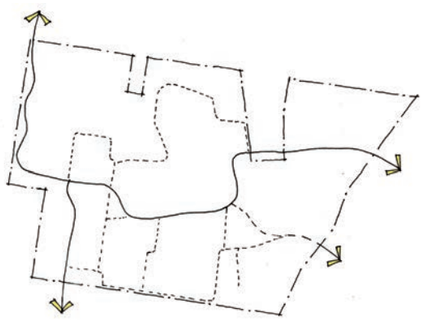
PHOTO 13: Francis, M. (2002). '*Village Homes: A Case Study in Community Design.*' Landscape Journal, 36.

4.3 DESIGN PRINCIPLES

HYBRIDITY & CONNECTIVITY

Hybridity and connectivity bring activities and people together. People and place have a symbiotic relationship, as too buildings and landscape.

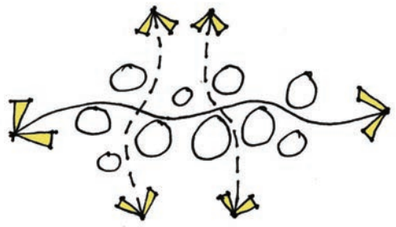
The proposed design response to preserve the site's natural characteristics reinforces the relationship between the project, the site, the community, and the ecology. This allows for a long life, loose fit community with the ability to adapt for future generations.



POROSITY & PERMEABILITY

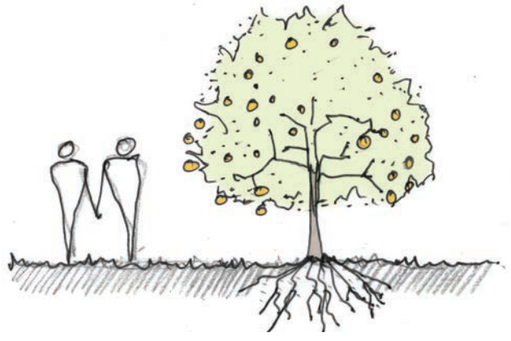
Porosity and permeability can allow fluid connections between spaces. These can be visual or physical and help to break down the barriers that may divide a community or neighbourhood.

The proposed design will facilitate and encourage permeability between spaces for the mutual benefit of residents within the community. This allows for experiential opportunities to be fulfilled associated with place.



AUTHENTICITY

Local character with global forces. Authenticity is about preserving and fostering a sense of place and with it a sense of interest, meaning, security and community. Likeminded people with similar interests can create a neighbourhood identity with it's own unique character. This can enhance the walking environment and create pride within the community.



4.3 DESIGN PRINCIPLES - CONTINUED

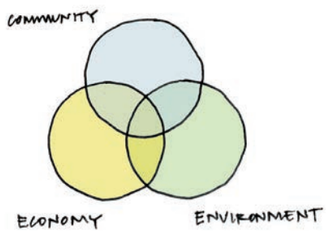
SUSTAINABILITY

Sustainable design creates solutions that solve economic, social and environmental challenges of a project simultaneously, and these solutions are powered by sustainable energies.

Orientation of the dwelling sites will be positioned to maximise opportunities for solar access and to take advantage of prevailing winds. Natural cross ventilation and solar heating will be a priority for each dwelling.

Rainwater harvesting will be utilised to supply water throughout the development.

Dwelling sites will be orientated to follow the natural fall of the land to minimise the need for cut or excavation into the earth's surface.



PRESERVE LANDSCAPES & ECOSYSTEMS

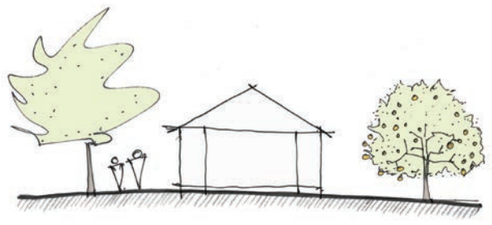
The agricultural production areas of the site will be enhanced with the introduction of vegetables and herbs which are to be grown in the open air as well as in greenhouses. This agricultural production will be sensitively designed so as to provide a character of food production as well as other components of the site so that it evokes a sense of design excellence.

Protection of environmental resources is critical to the success of the development.

BUILT FORM SCALE

The built form scale of the proposed development will be complimentary to the existing landscape to minimise the visual impact on senic amenity. The rural character of the place will be maintained and exploited in the architectural language of individual dwellings.

Compact, pedestrian friendly communities can benefit people's health and provide a greater sense of community.



MANAGING LAND USE INTERACTION

In the design of Wirra Willa, and in particular the residential lifestyle elements of the project, the adjoining quarry and other adjoining land use activities will need to be taken into consideration.

This will be achieved by identifying potential conflicting activities on adjoining lands and establishing appropriate buffers, setbacks and vegetated corridors and other physical elements to manage potential conflict in the Masterplanning process.

It will also be necessary to address, as part of the farm management plan and Masterplan, potential on site amenity impacts.

Whilst this will be achieved to some extent by education of on-site owners and occupiers as to the activities of the farm so that the community has a level of acceptance of their own farm based activities, it will also be achieved through the types of crops grown on site, how the site is farmed and the Masterplan itself which will also use a combination of setbacks and landscaped buffers.

4.4 UNIQUE COMMUNITY AND LIFESTYLE OPPORTUNITIES

Wirra Willa will be about building community – sense of place, ownership, support and pride. It will promote a self-sufficient food production lifestyle and provide an environment for healthy living. In addition to the commercial farming operation, there will be the opportunity for residents to grow their own fresh vegetables either in their own backyards or within the community farm lots.

Aboriginal heritage and culture will be embraced through not only the acknowledgement of traditional landowners, but also by using names for community assets that reflect the aboriginal heritage of the area.

Recreational opportunities will be an integral part of the Masterplan. Wirra Willa already contains significant landscape elements and these will be retained and added to in order to provide an attractive and pleasing amenity. The Masterplan will therefore include along with the food growing areas, landscaped parklands, as well as walking and cycling trails through site so as to provide a holistic healthy lifestyle community.

4.5 VEGETATION AND HABITAT CORRIDORS

Wirra Willa will maintain a principle of net ecological gain as part of its development. All existing native vegetation will be retained and where necessary re-habilitated. As part of the Planning Proposal process we will identify all habitat and native species on site and ascertain where it is important to enhance and create new habitat and this will form part of the ecological core of the Masterplan. Through the community title management system we will identify all native land as community land. The system will also require the future community to be responsible the management and conservation of these areas of the site.

4.6 WATER CYCLE MANAGEMENT PRINCIPLES

The guiding design principle for water cycle management at Wirra Willa is that there should be no net impact downstream of the development, in respect of the Mooney Mooney creek catchment. This is achieved by ensuring that where losses in the pre-development water cycle are caused, that these are balanced by increases to other components in the post-development water cycle.

The existing dams will be used to irrigate the food production. There will need to be a redesign of the reticulation system and this will be done in association with the layout of the subdivision. Reuse of the effluent will also be considered for irrigation of some of the food grown on the site.

IMAGE 04: Francis, M. (2002). '*Village Homes: A Case Study in Community Design'.* Landscape Journal, 28.

PHOTO 14: Wee, M. (2002). "*time in the garden".* Victoria: Penguine Books Ltd, 49.

4.6 WATER CYCLE MANAGEMENT PRINCIPLES - CONTINUED

Guiding water cycle management principles are as follows:

PRINCIPLE 01 - WATER BALANCE

The site's water balance should remain unchanged from its pre-development condition. In this way, site discharges, including both surface runoff (stream flows) and groundwater flows will remain unchanged.

PRINCIPLE 02 - STREAM FLOWS

Stream flow characteristics are to be maintained and enhanced (by way of increased flow rates) where possible.

PRINCIPLE 03 - SURFACE WATER QUALITY

Surface water quality should be maintained or improved where possible. Stream water quality objectives would be in accordance with the National Water Quality Management Strategy (NWQMS 2000).

PRINCIPLE 04 - PROTECT GROUNDWATER RESOURCES

Groundwater resources should not be diminished by the development. Groundwater recharge rates, although re-distributed on the site, should not be reduced. In this way, downstream users will not be detrimentally affected.

PRINCIPLE 05 - PROTECT GROUNDWATER QUALITY

Any deep drainage to groundwater should not detrimentally affect existing groundwater quality. The development would seek to meet or improve the quality of drainage waters to groundwater.

PRINCIPLE 06 - ENHANCE AND INTEGRATE NATURAL WATERCOURSES

Existing natural water courses should be integrated both into the developed environment and suitably interfaced into the remaining natural environment. Where possible, natural features should be enhanced and remediated in order that they present a net long-term amenity to the site.

PRINCIPLE 07 - WATER SUPPLY

The development should seek to be self-sufficient in terms of generating and supplying all potable and non-potable water supplies internally from the site.

PHOTO 15: Wee, M. (2002). "*time in the garden*". Victoria: Penguine Books Ltd, 59.

4.6 WATER CYCLE MANAGEMENT PRINCIPLES - CONTINUED

PRINCIPLE 08 - PUBLIC SAFETY
Management of the water cycle should be undertaken in such a way as to ensure that public safety is maintained at all times.

PRINCIPLE 09 - WASTEWATER MANAGEMENT
All wastewater generated from the development shall be suitably treated and beneficially re-used on site so that there are no off-site discharges.

PRINCIPLE 10 - ECOLOGICAL SUSTAINABILITY
The water cycle shall be managed in such a way ensuring that it is ecologically sustainable.

PRINCIPLE 11 - ECONOMIC SUSTAINABILITY
The water cycle shall be managed in such a way ensuring that it is economically sustainable for the future community.

PROPOSED WATER CYCLE OVERVIEW

As part of the project development, we will investigate and seek to introduce a water cycle management system, if viable, that contains the following elements:

- POTABLE WATER - All roof water is collected through a centralised reticulation scheme and held in a (or a number of) water storage facilities. Water is treated by an on-site water treatment plant and pumped to a site potable water reservoir.
- WASTEWATER - All wastewater is collected on site through a reticulation scheme and treated centrally. Reclaimed water is temporarily held in the reclaimed water storage prior to being pumped to the site reclaimed water reservoir. Reclaimed water is re-used for landscape and agricultural irrigation purposes, toilet flushing and other non-potable re-use requirements such as car washing.
- STORMWATER - All stormwater, including both impervious and pervious runoff is collected, treated and temporarily stored prior to release to receiving waters.
- STREAM FLOW - Stream flow is maintained and enhanced through water quality improvement and increased low flows.

PHOTO 16: Photograph: Taunton, J. Retrieved 27 July 2014, From NSW Office of Environment & Heritage. http://www.environment.nsw.gov.au/NationalParks/parkPicnics.aspx?id=N0006

4.7 RENEWABLE ENERGY PRODUCTION

Generating enough electricity from non-polluting sources to supply communities, cities and whole nations will be one of our biggest challenges over the next decade. Wirra Willa has a unique opportunity to 'detach from the grid' and become entirely self-sustainable for the energy needs of the community as well as making a contribution to the reduction of carbon emissions and reduction in Australian's reliance on fossil fuels.

There are numerous renewable energy technologies, which have been in the Australian market for many years. These are now up and running in sustainable communities across the country and have been proven to be viable and effective at the community wide scale including:

- Solar thermal or solar photovoltaic systems
- Wind turbines
- Biomas digesters

The project team will be investigating the world's most effective renewable energy technologies that can be installed at Wirra Willa to be operated by individuals and the community. Renewable energy, derived from natural processes, can be variable in supply and therefore it is important that a diversity of energy sources and at-source reduction methods are utilised to ensure a viable and consistent power supply.

We will hand pick the best or a combination of renewable energy production methods, which are best suited to the site characteristics, microclimate and proposed demand.

Wirra Willa aims to become a benchmark and tangible example for future generations of a 100% renewable energy sustainable development on the Central Coast.

PHOTO 17: York Shire Renewable Systems, Retrieved 23 July 2014.
http://www.yorkshirerenewablesystems.co.uk/WindTurbines.aspx

PHOTO 18: York Shire Renewable Systems, Retrieved 23 July 2014.
http://www.yorkshirerenewablesystems.co.uk/Solar.aspx

4.8 WASTE RECYCLING AND REUSE

Waste management is a significant issue for society and our environment. The Wirra Willa proposal will seek to minimize waste generation and provide strategies to recycle, reprocess and reuse waste. As part of the Masterplan process a framework will be provided for the future community to achieve these goals. It is likely we would be providing a recycling centre within the community, as well as a composting or Biomas digester facility.

4.9 ECONOMIC SUSTAINABILITY

There are two elements to economic sustainability; the sustainability of developing Wirra Willa itself, and the ongoing costs to the future community.

Once the Masterplanning process has been completed we will undertake a detailed feasibility analysis of the project to ensure the project is viable (this has been outlined in section 4.1). As part of this process we will also cost ongoing management of the community facilities and infrastructure to ensure that it is cost effective for the future community. This will include a financial strategy in respect to how ongoing costs and potential revenues will be financially managed within the community. This will provide financial transparency to future community members.

4.10 DESIGN EXCELLENCE

ARCHITECTURAL DESIGN GUIDELINES

The 'Vision' for Wirra Willa Fresh - housing is to establish an energy efficient community, where residents will benefit from architectural design guidleines enforcing 'Good' design. The aim is to maximise environmental amenity by taking advantage of the unique characteristics of the site and the environment. There is a unique opportunity to establish a rural character identity specific to place by harmonising built form with the natural environment. The following is an overview of the type of Architectural Guidelines considered for the project:

- BUILT FORM SCALE - The size and scale of the individual housing types are to be sympathetic to the setting and the natural environmnent. Bigger is not always better!
- ORIENTATION AND SITING - Individual dwellings are to be positioned and orientated to maximise opportunites of the site. This will seek to avoid prolonged exposure to summer heat, capture winter sun, maximise natural lighting in living areas, enhance solar access to private open space, and maintain privacy.
- NATURAL CROSS VENTILATION - Reducing heat load by encouraging pleasant, cooling, prevailing breezes within the internal atmosphere of individual dwellings.
- SOLAR AMENITY - Encourage north facing windows to allow winter sun to enter the dwelling. Provide shade structures and roof overhangs to reduce the impacts of harsh summer sun. Minimise window exposure to the west to avoid heat gain duringing the warmer summer months.
- THERMAL COMFORT - Materials containing thermal mass to be exposed to winter sun to conduct heat for a pleasant internal climate. Provide cavities and insulation to building skins to help maintain a constant internal temperature.
- WATER HEATING - Energy savings can be achieved by incorporating renewable energy resources to heat water.
- RURAL CHARACTER IDENTITY - Integrating an authentic and rural housing type sympathetic to the natural surroundings. Encouragement of the use of local Australian materials that are familiar to the area, including recycled materials.
- PRIVACY, VIEW SHARING & OVERSHADOWING - The dwellings will be located to minimise privacy impacts, maximise view sharing opportunities and negate the chance of overshadowing.

PHOTO 19: Fredericks / White House, by Glenn Murcutt. Photograph by Anthony Browell. Image source: www.ozetecture.org.

PHOTO 20: Mann House, Paroa Bay by Grose Bradley. Photographer: John Gollings. Image source - BVN Donovan Hill.

LANDSCPE DESIGN PRINCIPLES

The landscape design guidelines will be established with a suitably qualified Landscape Architect or Consultant. The following items will be considered as part of the process:

- MAINTAINING SCENIC AMENITY - This will be achieved through setbacks and buffer zones from arterial roads with considered planting.
- EMBRACING NATIVE LANDSCAPE - Encourage and foster native landscapes within the community grounds.
- SELECTIVE EXOTIC PLANT SPECIES - Considered inclusion of exotic plant species.

5.0 CONCEPT STRUCTURE PLAN AND MASTERPLAN

Following submission of this Concept Proposal Report in August 2014, a number of meetings were held with Council including an on-site inspection in January 2015. The outcome of that process was that Council requested that the proponent provide more indicative concept detail on the proposal as well as strategic justification for the project proceeding. Consequently the proponent undertook to:

- Undertake bushfire analysis of the site so as to determine the required Asset Protect Zones (APZ's) to inform the structure plan and concept Masterplan process.
- Undertake a Preliminary Traffic Assessment to determine the capacity of the local road network to absorb traffic from the development of the site and ascertain suitable locations for access into the site.
- Undertake an agricultural soils analysis of the property for the purposes of determining the site's capabilities and suitability for agricultural production.
- Consult with the NSW Department of Primary Industries.
- Engage the services of Ian Sinclair to prepare a strategic review of the site in the context of the agricultural industry within the Somersby Plateau and the Gosford LGA.
- Prepare a Structure plan for the site outlining land uses, site access and movement corridors.
- Prepare a Concept Masterplan based on the Structure Plan.

5.1 ENVIRONMENTAL CONSTRAINTS AND OPPORTUNITIES ANALYSIS

The bushfire analysis and traffic assessment have been undertaken by Firebird Ecosultants and Intersect Traffic respectfully. The outcome of those reports have been included in this report at section 2.4.

5.2 AGRICULTURAL SOILS ANALYSIS

An agricultural soils analysis, or soil survey, was undertaken by Mr Steve Gell of Allynbrook Consulting. The purpose of the soil survey was to determine whether the surveyed area contains prime agricultural soils. Mr Gell's report states that:

"Prime agricultural land should contain soils that are well-drained with good aeration and adequate nutrition. They should have good water holding capacity with Readily Available Water (RAW) values greater than 50mm and predicted vine and tree rootzones to a minimum depth of 70cm. These prime soils should have a neutral to slightly alkaline soil reaction trend (pH 7 to 8 in calcium chloride) and be free of plant pathogens such as nematodes and toxic levels of salt, aluminium and manganese."

The report concludes as follows:

"The soil survey results clearly show that the surveyed area does not consist of prime agricultural soils. The field survey shows the soil profiles are reasonably uniform with very shallow sandy clay loam topsoils that are moderately to strongly acidic and weakly structured. The subsoils are sandy clay loams, clayey sands and sandy clays, which are free-draining to 70cm to 100cm. They are moderately to strongly acidic. These subsoils are slightly mottled and weakly structured. The soils below 70cm to 100cm are hard and quite compacted, therefore they are poorly drained and aerated during wet periods. However these drainage problems have been solved by the installation of sub-surface tile drainage pipes in the various blocks. These pipes drain into a network of open ditches located around the orchard blocks and other grassed blocks."

5.3 CONSULTATION WITH NSW DEPARTMENT OF PRIMARY INDUSTRIES

As part of his 'Strategic Justification Report', Mr Sinclair undertook consultation with Andrew Docking from the NSW Department of Primary Industries. In summary the outcome of that consultation was that:

- The Somersby Plateau is an important strategic agricultural resource for the Central Coast and great Sydney basin. For this reason the land use planning system needs to protect it from unsuitable forms of development.
- Acknowledgement that the traditional agricultural industries (orchards and market gardens) are under significant pressure and that the area would appear to be reducing in use from an agricultural one, to a one dominated by rural residential development.
- A market based mechanism such as cluster subdivision with approximately 4-5 ha of field cropping and a protected cropping structure could be a suitable option for this site, it being noted that it is the result of a consolidation of two properties.

Mr Docking advised that while the Departments primary concern was with ensuring land use planning mechanisms protected prime agricultural land for agricultural production, it was also prepared to consider innovative planning mechanisms, such as lifestyle agricultural communities concept proposed by this proposal provided they had a significant agricultural outcome.

5.4 WIRRA WILLA FRESH STRATEGIC JUSTIFICATION REPORT

A separate Wirra Willa Fresh Strategic Justification Report has been prepared by Mr Ian Sinclair to accompany this concept proposal. This report notes that:

"*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 4th 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 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."

6.0 NEXT STEPS

The purpose of this document is to specifically confirm Council requirements in terms of the scope of work required before the project team moves forward into a Masterplanning and Planning Proposal process.

As highlighted previously, there are a number of existing strategic and policy documents that seek to 'lock up' the Somersby Plateau for agricultural and resource based uses only and not allow any form of residential or rural residential development. We believe that we can achieve the agricultural objectives of these documents as well as provide tourism opportunities and housing within a lifestyle environment based around the principles of producing food in a sustainable manner that would make the project a unique and innovative Planning Proposal worthy of Council and government support.

If Council and the government agree that the project has potential merit we would then undertake the following process:

- Prepare a farm plan and an agricultural economic assessment addressing set up costs, ongoing farm management costs and farm revenues.
- Appoint further consultants to the Project Team including experts in the following fields and others as recommended by Council and the Department:

  - Aboriginal Archaeology,
  - Horticulture,
  - Ecology,
  - Environmental Engineering (ie water management),
  - Landscape,
  - Sustainability,

- Engage with and commence an ongoing process and of consultation and involvement in the project with the traditional land owners, the Darkinjung LALC (and others as recommended by Council).
- Discuss the concept further with relevant Government Departments,
- Develop a Concept Masterplan/ Structure Plan
- Undertake project feasibility analysis
- Prepare a Social & Economic Impact assessment including nett social benefit analysis and economic sustainability in terms of project setup and ongoing farm operation.
- Commence a consultation process with the local community,
- Prepare a Planning Proposal and lodge with Council,
- Council support for Planning Proposal to proceed to the Gateway,
- Consideration of the proposal at the Gateway and conditional determination issued.

PHOTO 21: Kranz, J. (2012) Kranz Communications, Retrieved 27 July 2014. http://www.kranzcom.com/blog/content-execution-excellence-part-9-plot-the-next-step

6.0 NEXT STEPS - CONTINUED

- Undertake further consultation with Darkinjung LALC, the local community and relevant government agencies as required by the Gateway determination
- Finalise environmental constraints in accordance with Gateway Determination
- Modify Concept Masterplan/Structure Plan following finalisation of environmental constraints analysis and further consultation
- Finalise Planning Proposal
- Exhibit Planning Proposal
- Council consider submissions to Planning Proposal and whether to proceed with Planning Proposal
- Rezoning gazetted
- Undertake further consultation with Darkinjung LALC, the local community and relevant government agencies to finalise Masterplanning process.
- Masterplanning process
- Lodgement of Development Application

6.1 CONSULTATION

Consultation will be critical in the process of developing the Wirra Willa Fresh concept. To date we have consulted with Gosford City Council, the Department of Planning and Environment, and also the NSW Department of Primary Industries. These discussions will be ongoing as the concept and Masterplan proceeds.

We also plan on engaging with other stakeholders through the development of the Wirra Willa proposal and that will include the local Aboriginal community and local residents of Somersby as well as other Government Departments as necessary.

7.0 CONCLUSION

It is proposed to develop an innovative food producing subdivision at Wirra Willa, which is an existing 52 ha orchard located on the Somersby Plateau. It will reinvigorate a loss making citrus farming operation into a vegetable producing operation that will have its primary markets as the fruit and vegetable shops and restaurants / cafes in the Gosford and surrounding areas.

The agricultural subdivision will be designed so that the majority of the land will be set aside for food production – fruit and vegetables including some green-houses and traditional market gardens. The housing will be sensitively located so as to minimise land use conflict but also to give the owners a sense of living on an operating food producing operation.

We are in the first stages of preparing a Planning Proposal to develop the vision into reality. The current planning team will be enlarged to include a number of other experts to help to deliver the planning proposal. We intend to prepare the Planning Proposal in consultation with Gosford City Council, and the Depart-ments of Planning and Environment and Primary Industries.

PHOTO 22: Wirra Willa Picking Bin (author)

8.0 LIST OF PHOTOS/ IMAGES & FIGURES

Wirra Willa Fresh Agricultural Subdivision

Strategic Justification Report






EDGE
LAND PLANNING

June 2015

Wirra Willa Fresh Agricultural Subdivision

Strategic Justification Report

Prepared for Victoria Court Management
by

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Rural and Environmental
Planning Consultants

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June 2015

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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.

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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

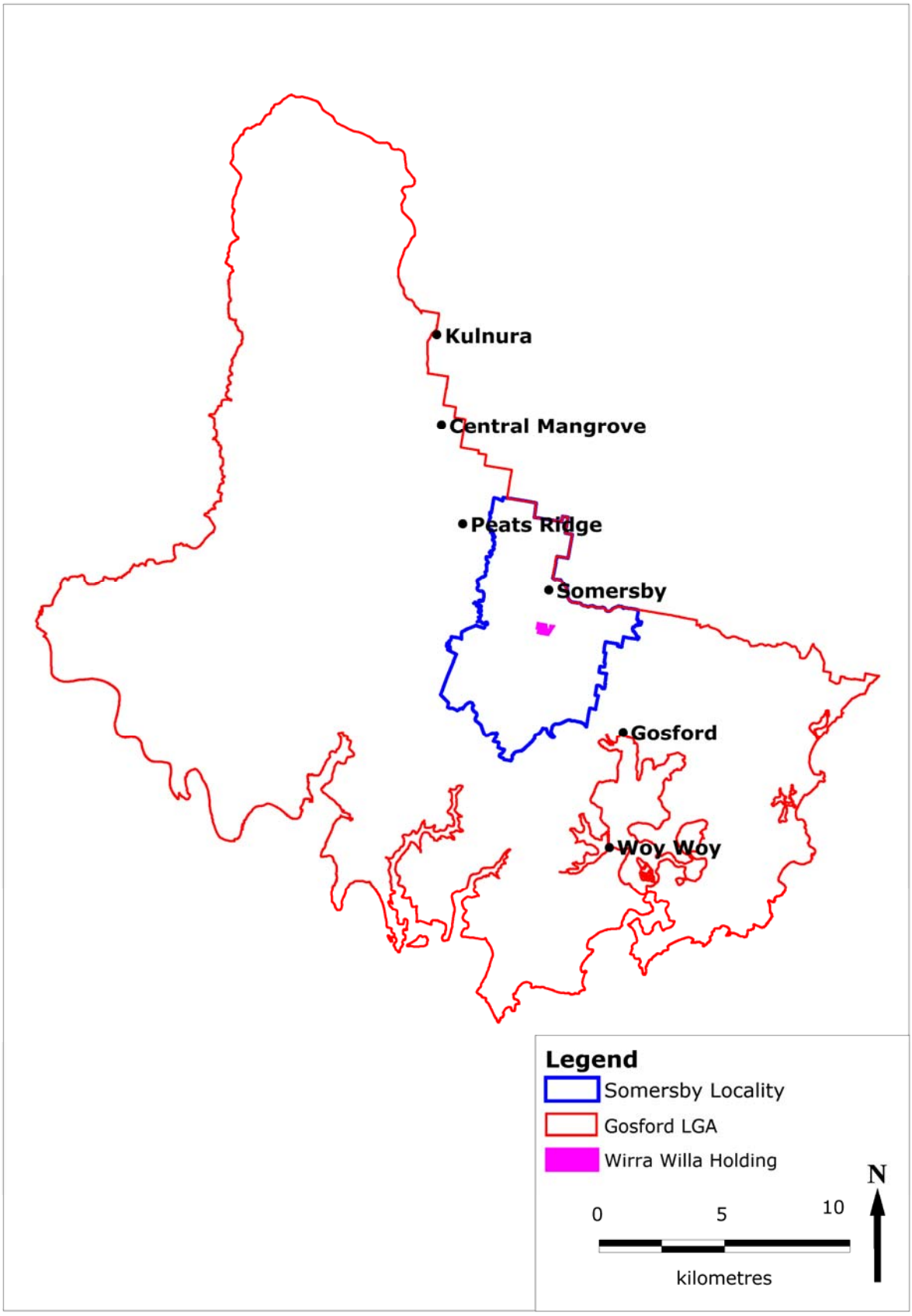
Wirra Willa holding is located at 41 Elwins Rd, Somersby and is bounded by Wisemans Ferry Rd to the east and Keighley Rd to the south.

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

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.

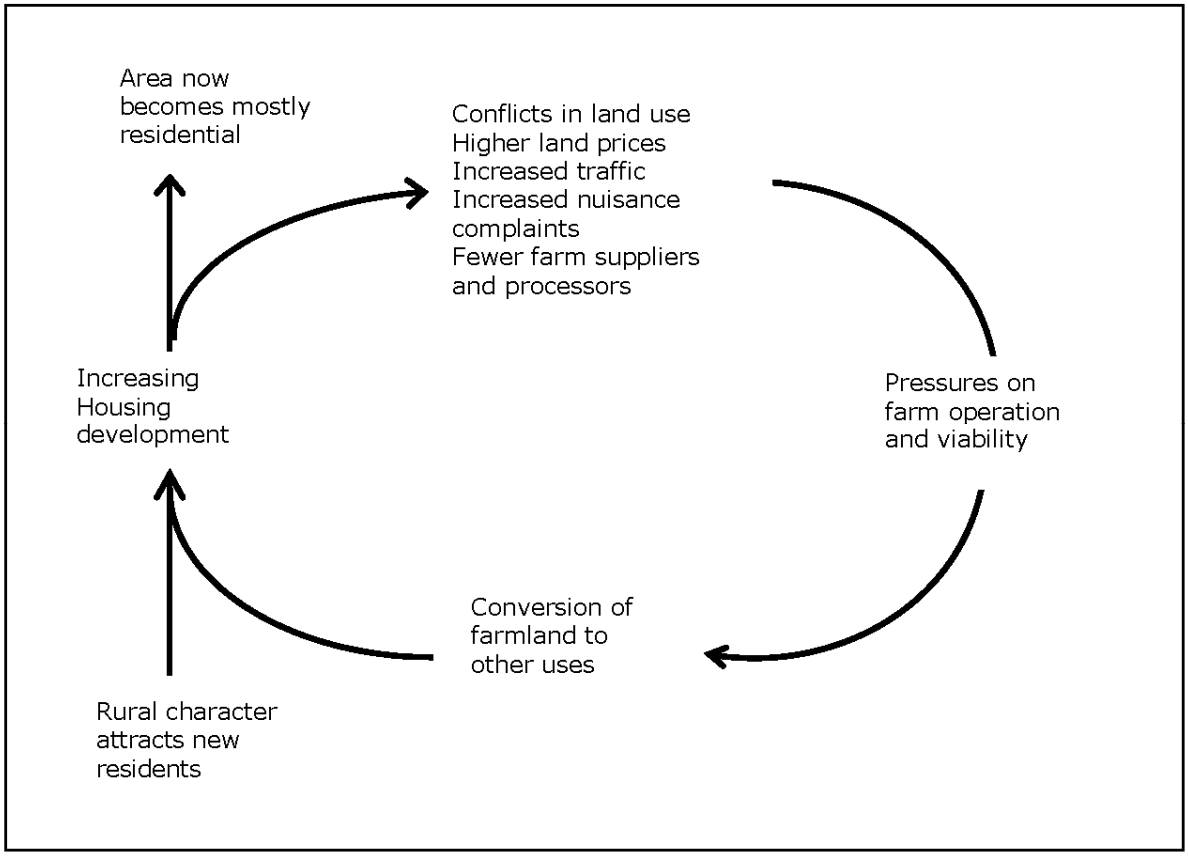


Figure 2.1: The Cycle of Farmland Conversion
Source: (Daniels & Bowers, 1997)

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%
Total Uses	**372**	**100.0%**	**2,958**	**100.0%**

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 are 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.

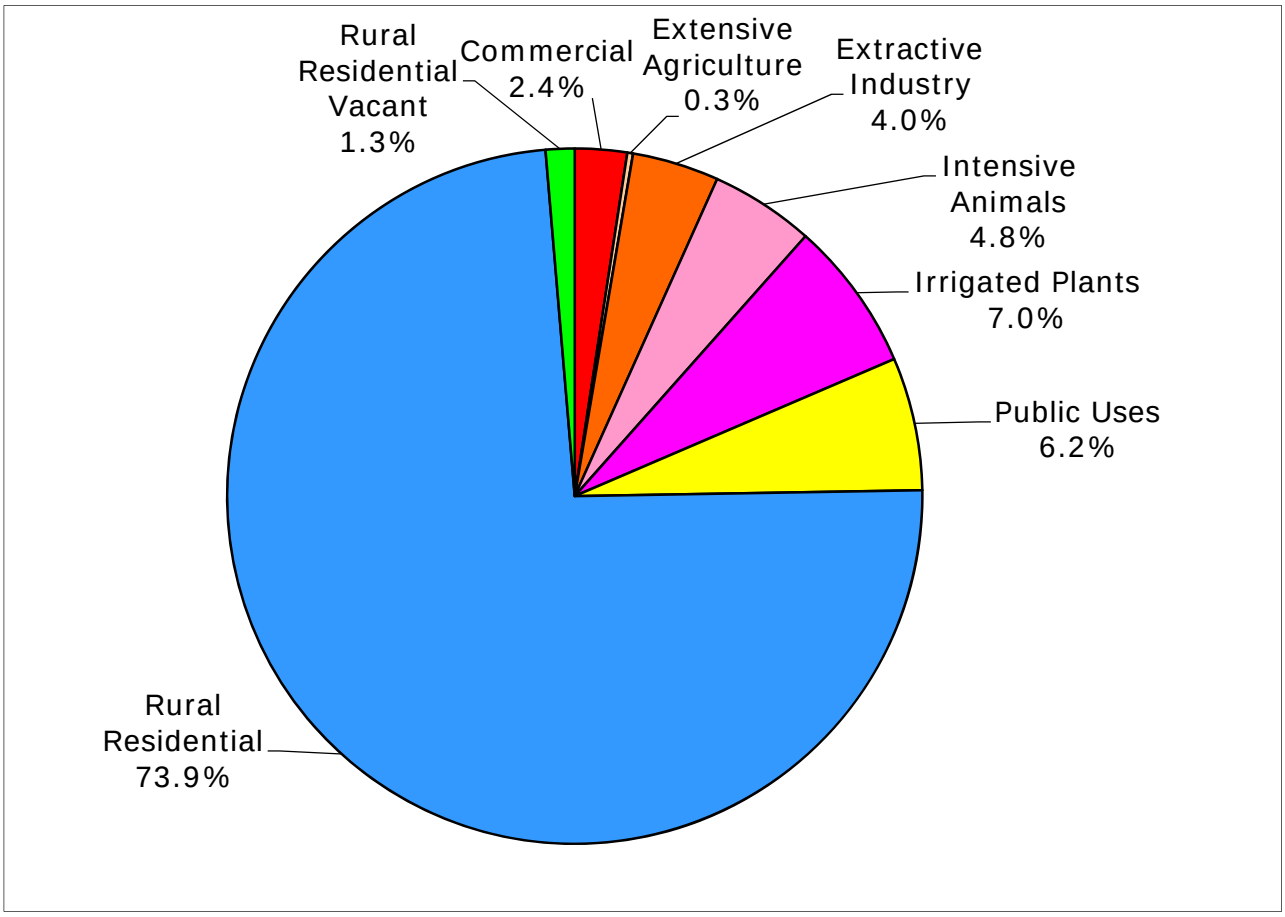


Figure 2.2: Rural Land Use
Source: Somersby Land Use Survey

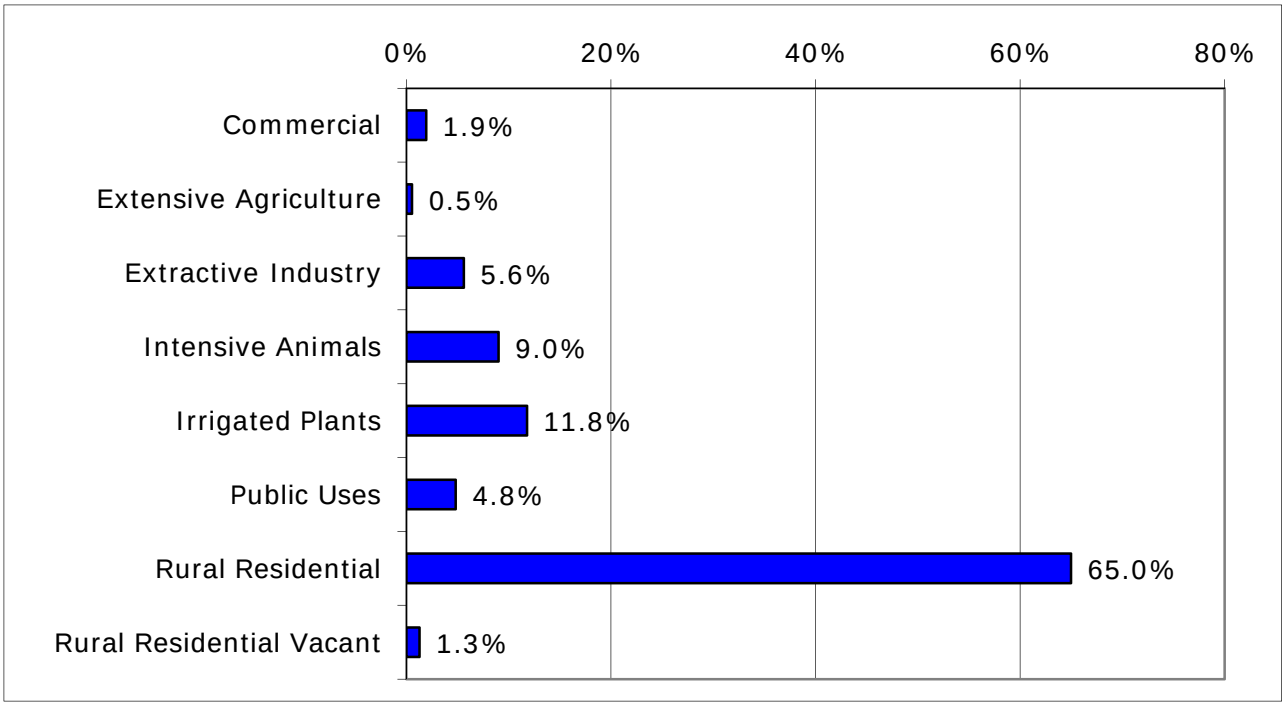
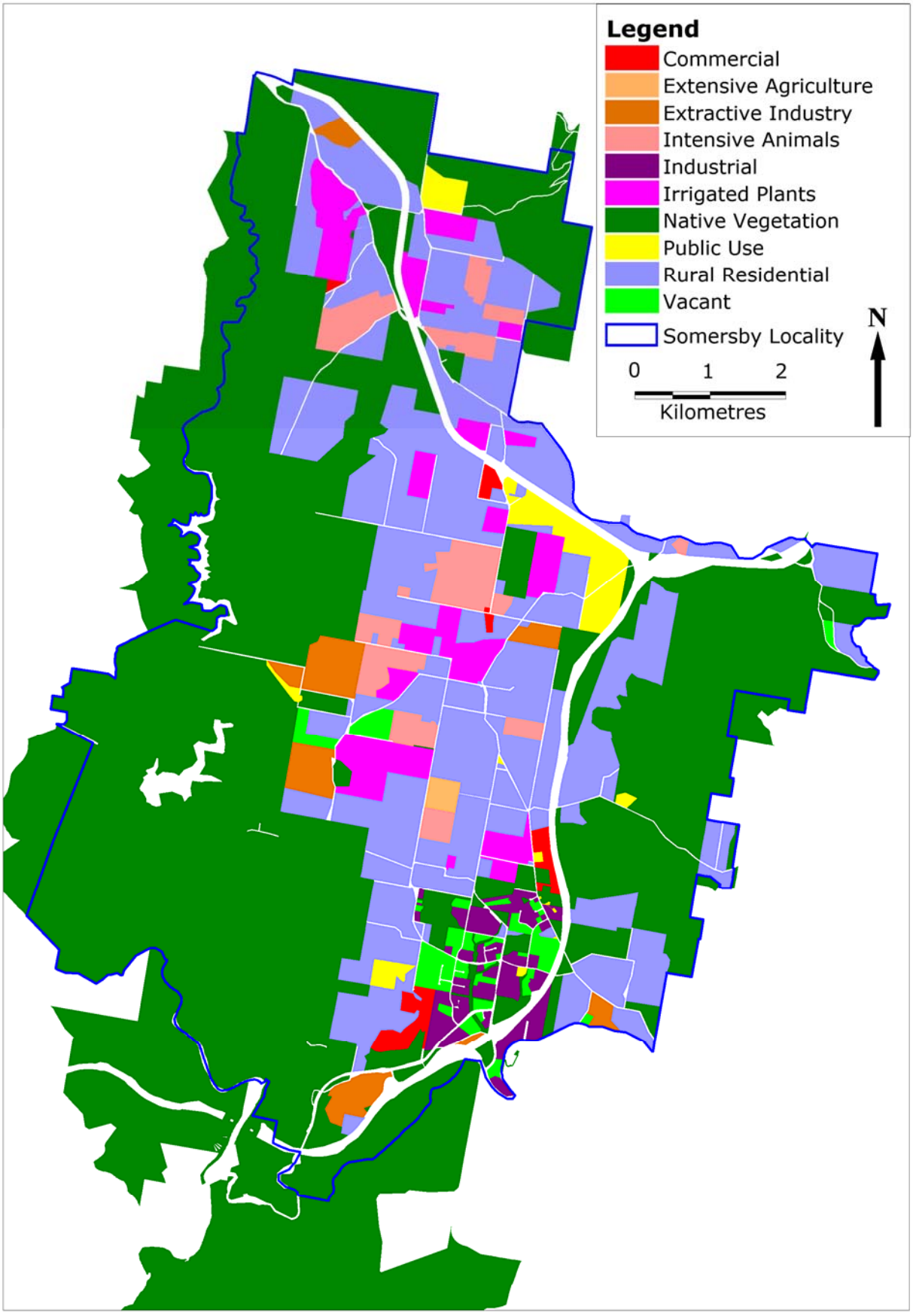


Figure 2.3: Area of Rural Land Use
Source: Somersby Land Use Survey



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

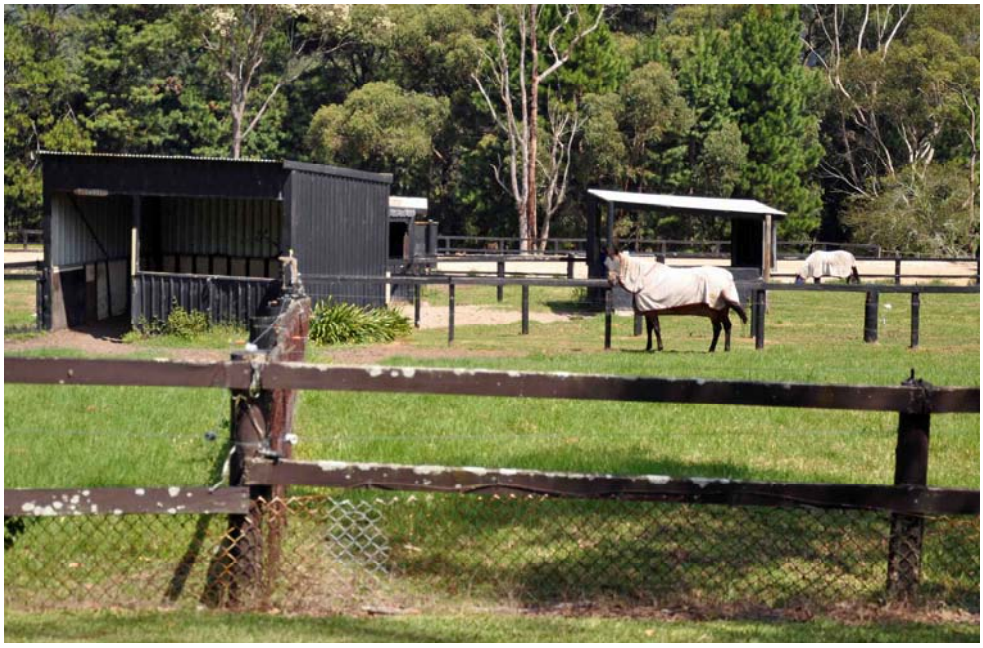


Photo 2.6: Rural Residential Horse
Date of Photo: March 2015

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 censes, 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 / SA1level 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.

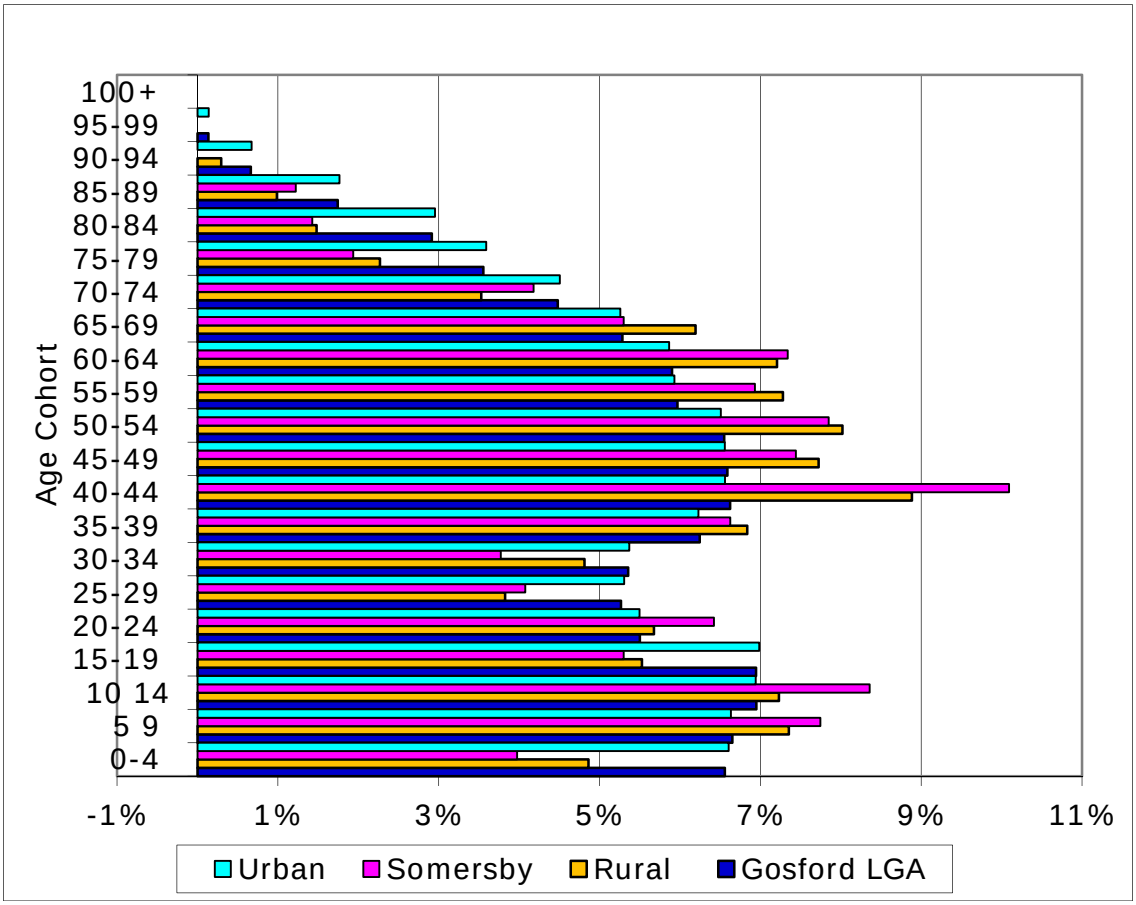


Figure 2.4: Age
Source: (ABS, 2012d)

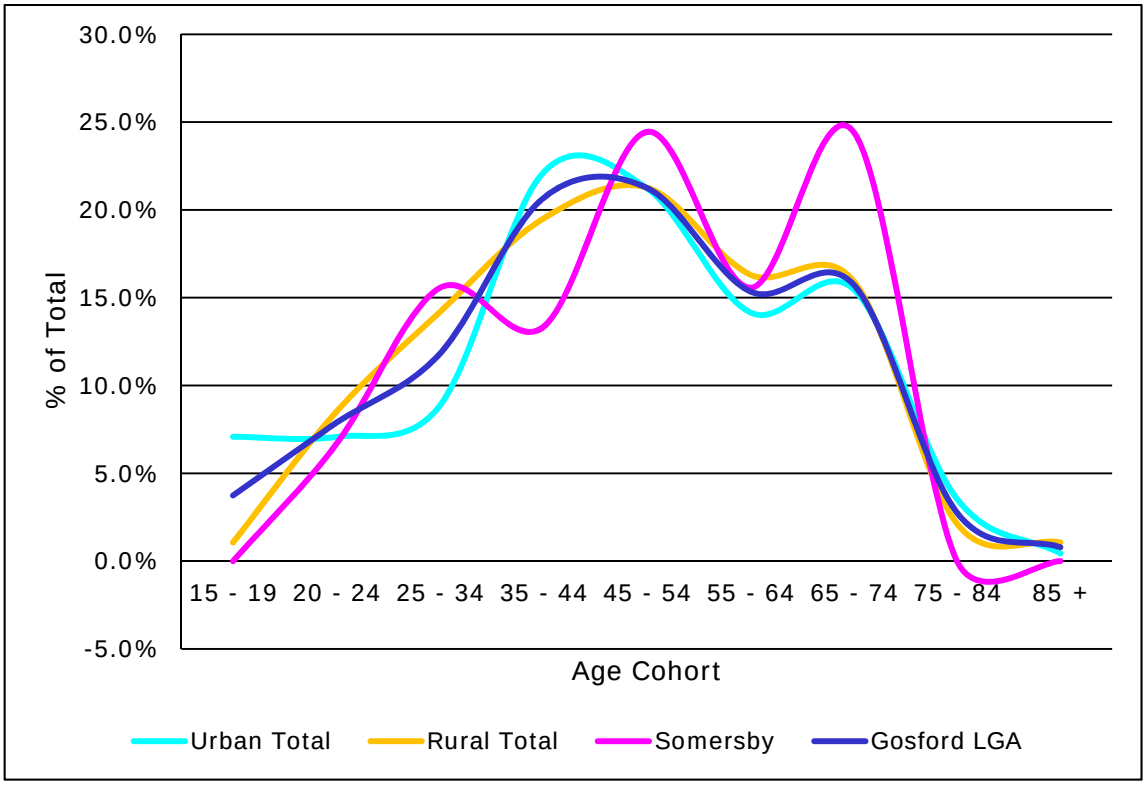


Figure 2.5: Age of Agriculture Workforce
Source: (ABS, 2012d)

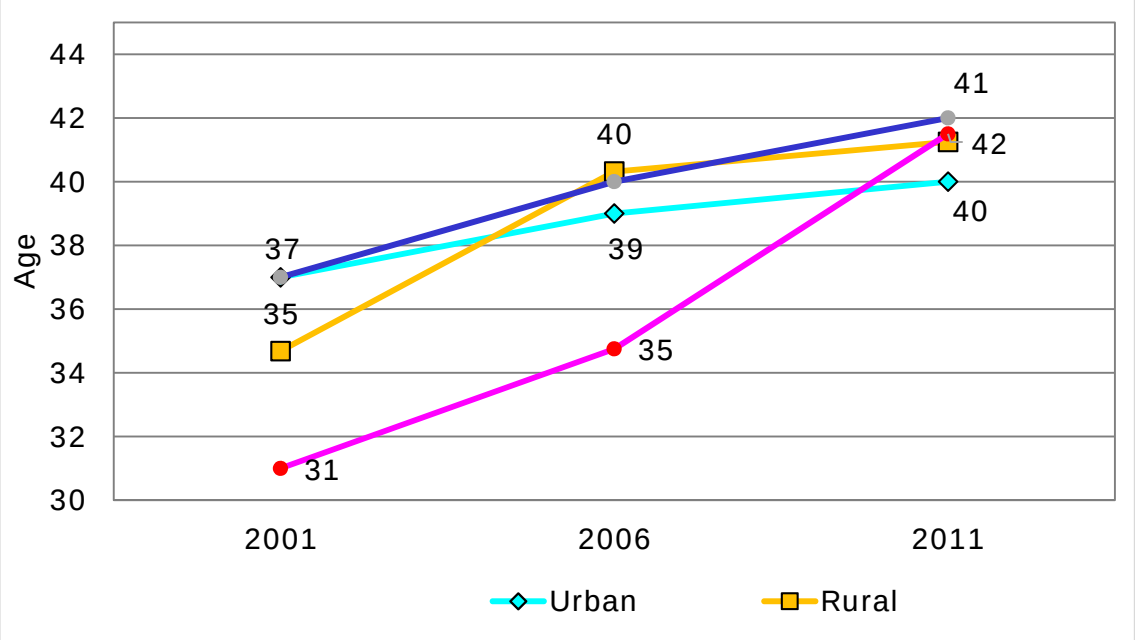


Figure 2.6: Median Age 2001 - 2011
Source: (ABS, 2012d)

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.

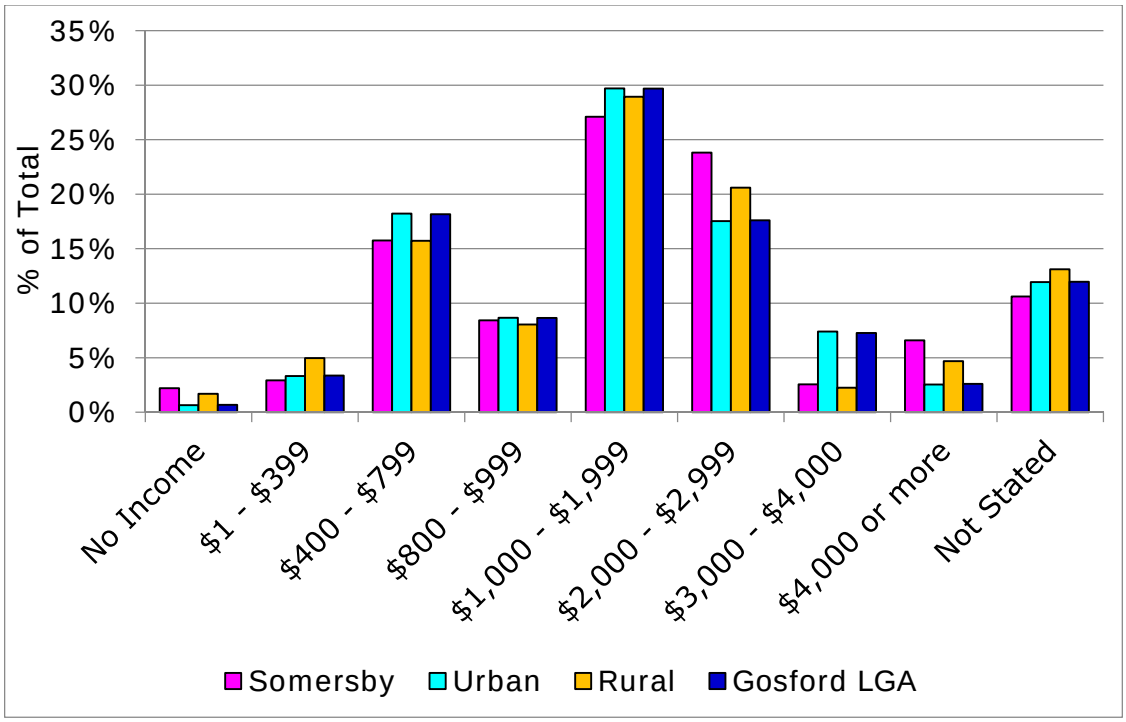


Figure 2.7: Weekly Income
Source: (ABS, 2012d)

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.

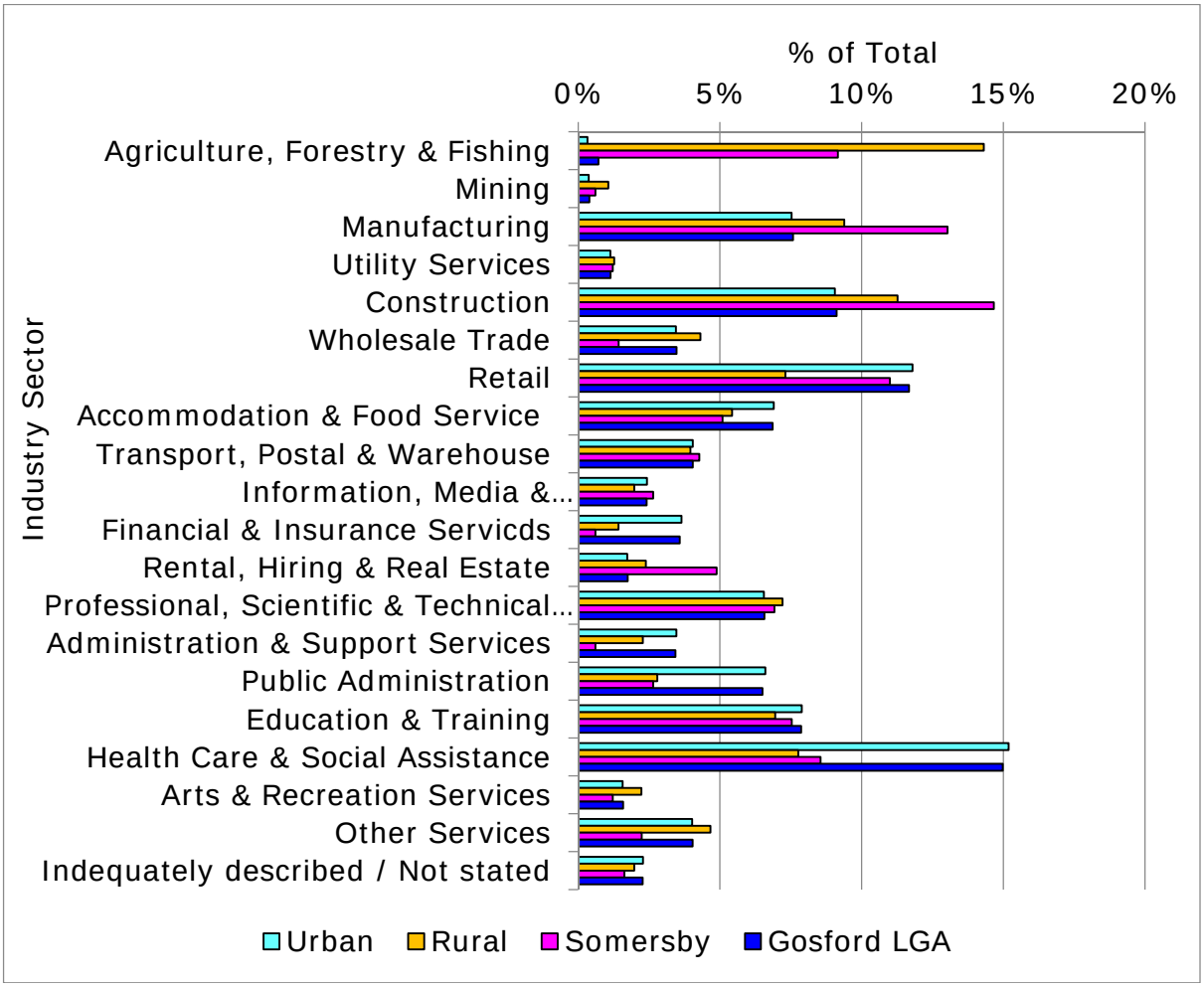


Figure 2.8: Industry of Employment
Source: (ABS, 2012d)

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.

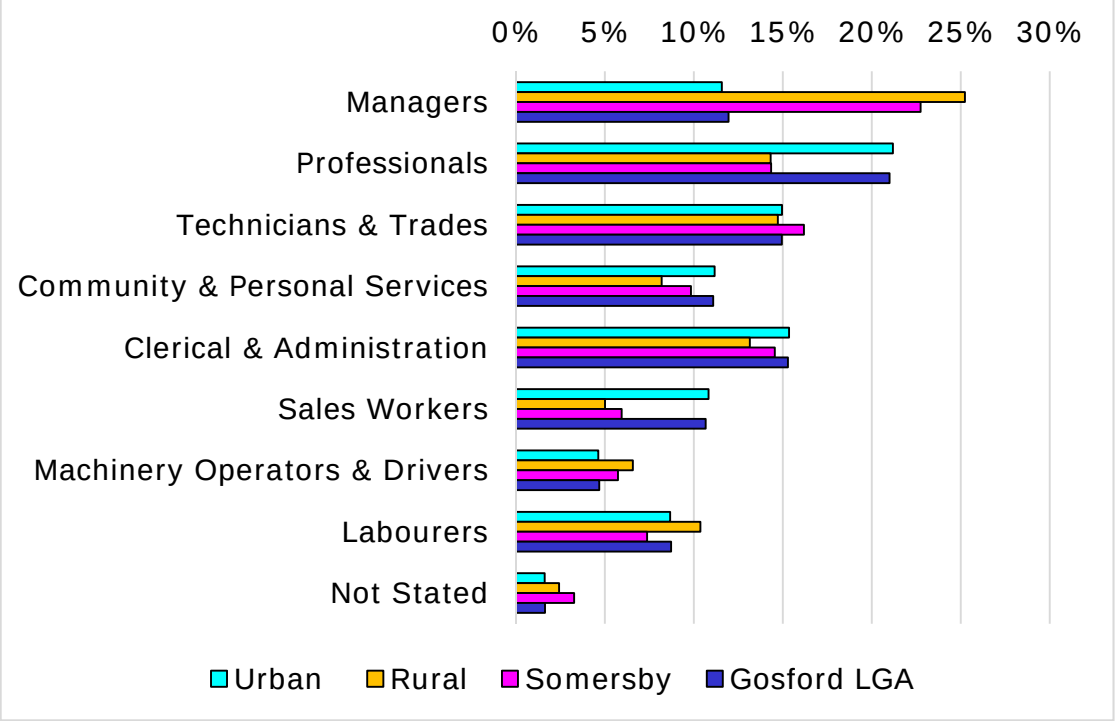


Figure 2.9: Industry of Employment
Source: (ABS, 2012d)

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.

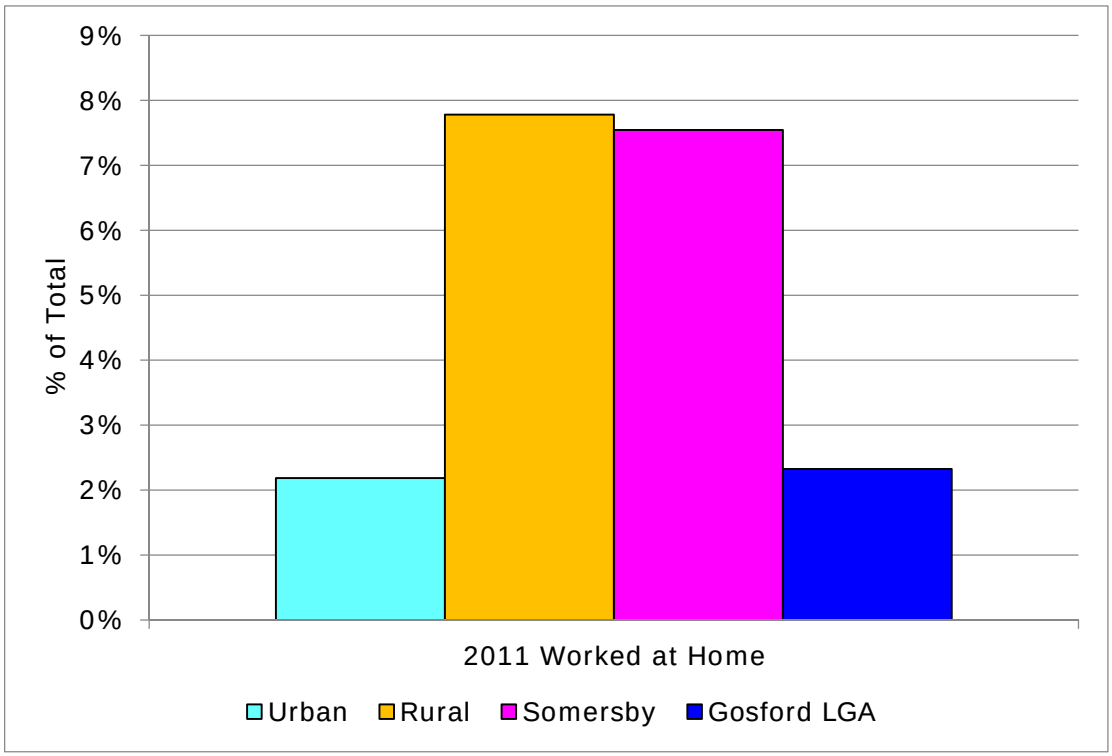


Figure 2.10: Industry of Employment
Source: (ABS, 2012d)

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.

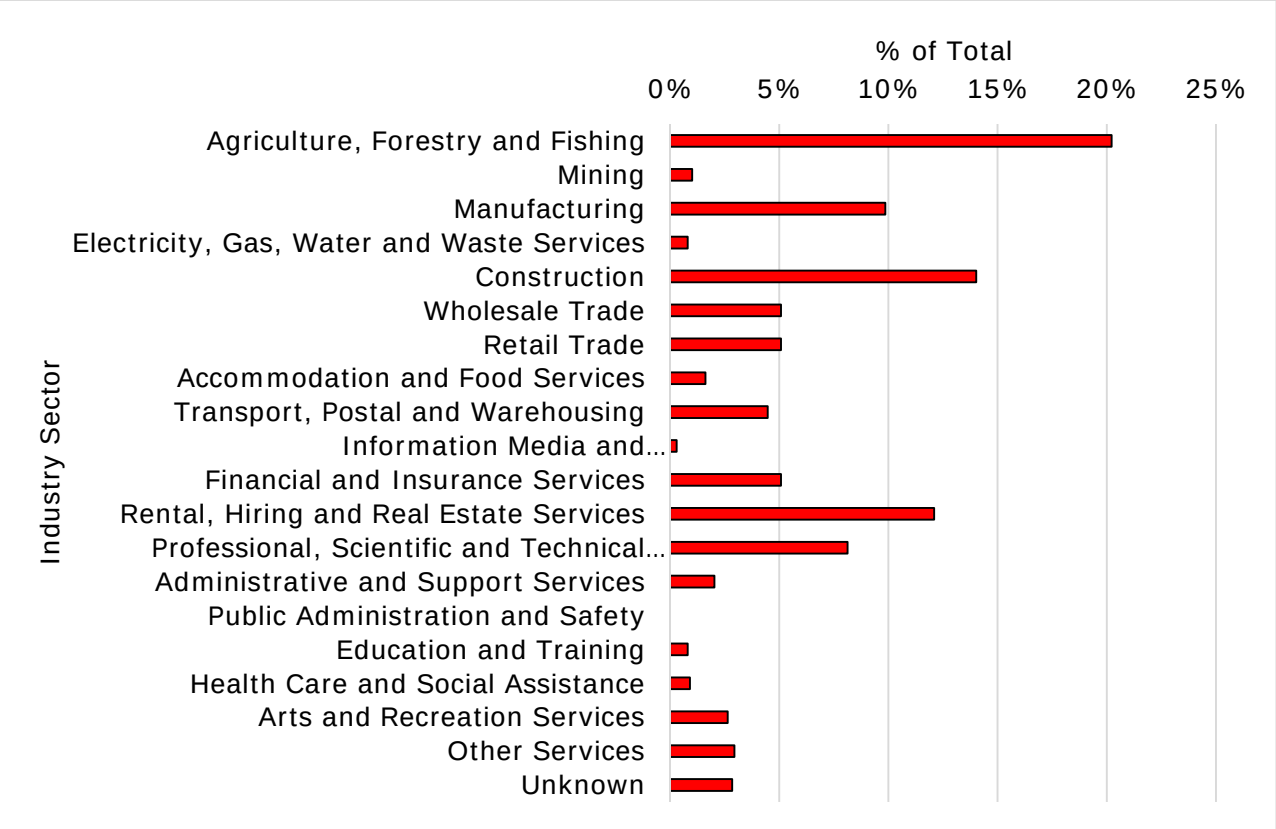


Figure 2.11: Count of Businesses Calga – Kulnura
Source: (ABS, 2014)

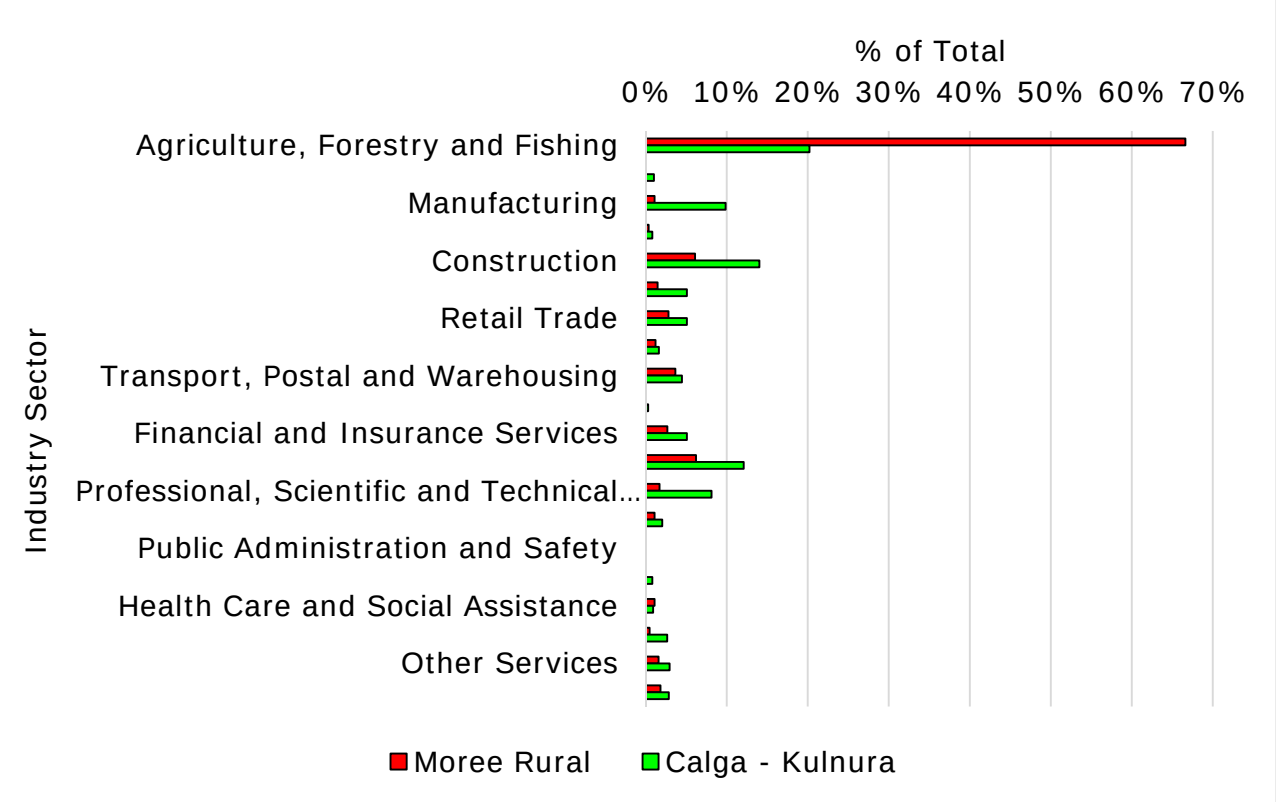


Figure 2.12: Count of Businesses Calga – Kulnura and Moree Plains
Source: (ABS, 2014)

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 Establish-ments	2011 % of Sydney	2006 Number of Establish-ments
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

PRIMARY		**SECONDARY**	
Description	**Code**	**Description**	**Code**
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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