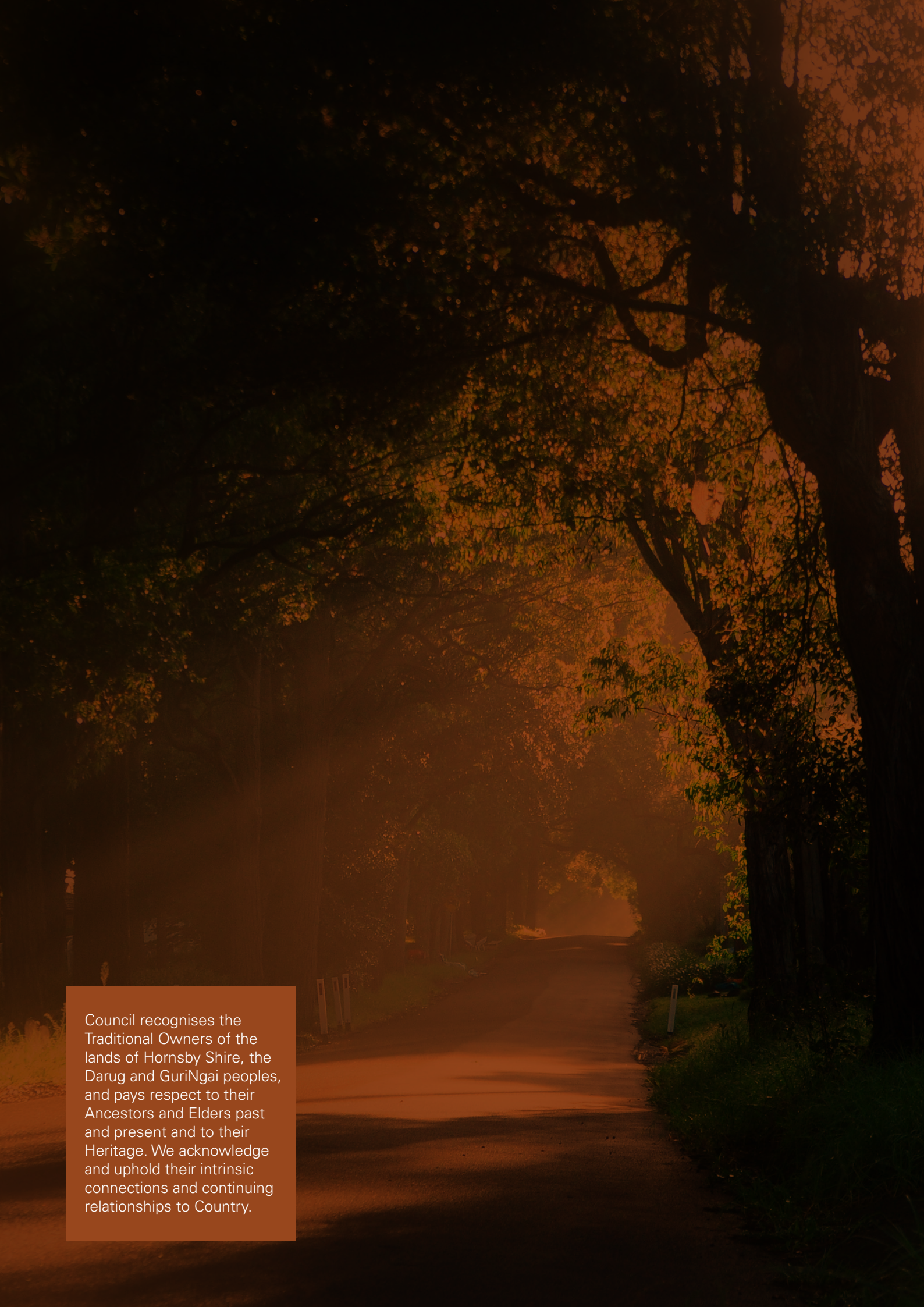


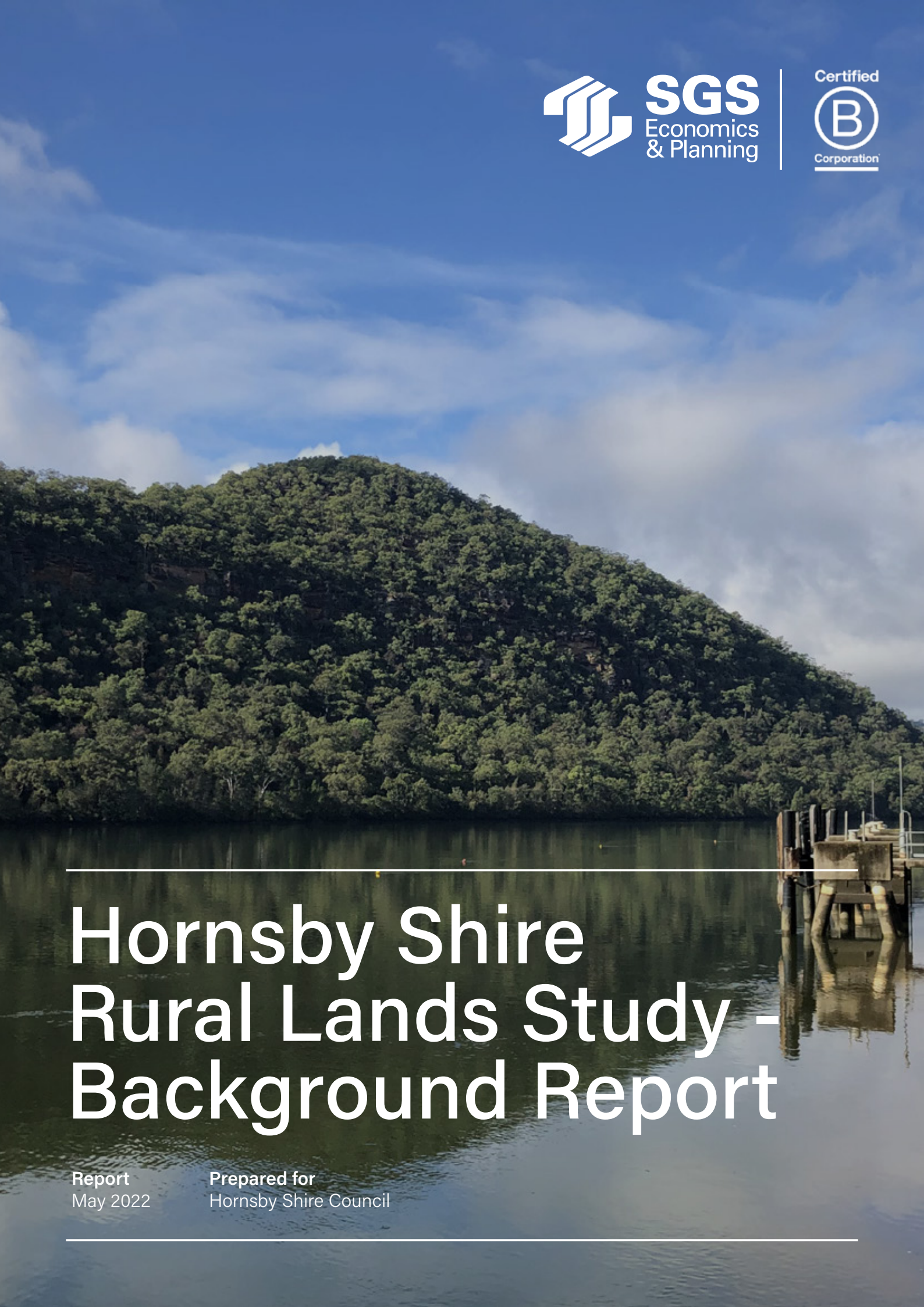
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Hornsby Shire Rural Lands Study – Background Report

HORNSBY
SHIRE COUNCIL



Council recognises the Traditional Owners of the lands of Hornsby Shire, the Darug and GuriNgai peoples, and pays respect to their Ancestors and Elders past and present and to their Heritage. We acknowledge and uphold their intrinsic connections and continuing relationships to Country.



SGS Economics & Planning

Certified B Corporation

Hornsby Shire Rural Lands Study - Background Report

Report
May 2022

Prepared for
Hornsby Shire Council

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This report was prepared in September 2020 and addresses the policy context that applied at that time. Minor amendments have been made for finalisation in May 2022.

TABLE OF CONTENTS

1. INTRODUCTION 8

1.1 Project overview 8
1.2 Methodology 9
1.3 How to read this report 10
1.4 The Metropolitan Rural Area 11
1.5 Community feedback and values 13
1.6 Preparing the Rural Lands Study 14

2. POLICY CONTEXT 16

2.1 State government strategic plans 17
2.2 State Environmental Planning Policies 24
2.3 Other documents 26
2.4 Hornsby community and council plans 29
2.5 Hornsby Local Environmental Plan (2013) 34
2.6 Hornsby Development Control Plan (2013) 43
2.7 Previous Rural Studies 45
2.8 Other Approaches 47
2.9 Insights from the policy review 53

3. HORNSBY SHIRE LOCAL CONTEXT 56

3.1 Introduction 56
3.2 Demographic profile 58
3.3 Dwelling structure 70
3.4 Infrastructure and servicing 71
3.5 Economic profile 73
3.6 Environmental profile 84
3.7 Market trend analysis 100
3.8 Insights from the local context analysis 104

4. THE VALUE OF AGRICULTURE 106

4.1 Values of the Metropolitan Rural Area 106
4.2 Overview of RMCG agricultural assessment 112
4.3 Key industries 115
4.4 Industry engagement 124
4.5 Assessment of agricultural land 124
4.6 Insights from the agricultural assessment 128

5. SUMMARY OF INSIGHTS FROM THE BACKGROUND REVIEW 131

5.1 Policy context 131
5.2 Local context 132
5.3 Value of agriculture 134

APPENDIX 1 137

APPENDIX 2 143

APPENDIX 3 147

LIST OF FIGURES

FIGURE 1: REPORT CONTEXT 10
FIGURE 2: RURAL LANDS STUDY AREA AND METROPOLITAN RURAL AREA 11
FIGURE 3: STUDY AREA AND LAND NOT INCLUDED 12
FIGURE 4: NORTH DISTRICT STRUCTURE PLAN 20
FIGURE 5: STRATEGIC PLANNING CONTEXT 24
FIGURE 6: FUTURE HORNSBY LSPS AND SUPPORTING STRATEGY STRUCTURE 30
FIGURE 7: LAND USE ZONES IN HORNSBY SHIRE'S RURAL AREA 35
FIGURE 8: SECONDARY DWELLING DEVELOPMENTS IN THE RURAL AREA (2013-2020 APPROVALS) 38
FIGURE 9: MINIMUM LOT SIZES FROM THE HORNSBY LEP, 2013 39
FIGURE 10: ACTUAL LOT SIZES ACROSS THE HORNSBY RURAL AREA 41
FIGURE 11: ACID SULFATE SOILS HORNSBY LEP MAP (LAND CLASSES) 42
FIGURE 12: PROFILE AREAS USED IN DATA ANALYSIS 57
FIGURE 13: PAST AND FORECAST POPULATION GROWTH, AND SHARE OF POPULATION IN HORNSBY LGA URBAN AND RURAL AREAS
FIGURE 14: AGE PROFILE IN THE HORNSBY LGA COMPARED TO GREATER SYDNEY AND NSW AVERAGES 60
FIGURE 15: RURAL/URBAN AGE PROFILE BY LOCATION, COMPARED TO NSW AND THE LGA AVERAGE (2016) 61
FIGURE 16: HORNSBY RURAL AREAS AGE PROFILES PERCENTAGE SHARE (2016) 62
FIGURE 17: HORNSBY RURAL AREAS AGE PROFILES PROPORTIONAL CHANGE (2006-16) 62
FIGURE 18: HORNSBY AGE PROFILES PERCENTAGE SHARE (2036) 63
FIGURE 19: HORNSBY FUTURE AGE PROFILES PROPORTIONAL CHANGE (2016-36) 64
FIGURE 20: HORNSBY RURAL AREAS FUTURE AGE PROFILES PROPORTIONAL CHANGE (2016-36) 64
FIGURE 21: HORNSBY HOUSEHOLDS BY HOUSEHOLD TYPE PERCENTAGE SHARE (2016) 65
FIGURE 22: HORNSBY HOUSEHOLDS BY HOUSEHOLD TYPE PROPORTIONAL CHANGE (2006-16) 66
FIGURE 23: HORNSBY RURAL AREA HOUSEHOLDS BY HOUSEHOLD TYPE PERCENTAGE SHARE (2016) 66
FIGURE 24: HORNSBY RURAL AREAS: PROPORTIONAL CHANGE IN HOUSEHOLD TYPE (2006-16) 67
FIGURE 25: HORNSBY FUTURE HOUSEHOLDS BY HOUSEHOLD TYPE PERCENTAGE SHARE (2036) 67
FIGURE 26: HORNSBY HOUSEHOLDS BY HOUSEHOLD TYPE FUTURE PROPORTIONAL CHANGE (2016-36) 68
FIGURE 27: HORNSBY RURAL AREAS FUTURE HOUSEHOLDS BY HOUSEHOLD TYPE PERCENTAGE SHARE (2036) 68
FIGURE 28: HORNSBY RURAL SUBURB HOUSEHOLDS BY HOUSEHOLD TYPE FUTURE PROPORTIONAL CHANGE (2021-41) 69
FIGURE 29: PROPORTION OF DWELLING TYPES IN HORNSBY LGA, RURAL AND URBAN PROFILE AREAS 70
FIGURE 30: HORNSBY RURAL AREAS - DWELLING STRUCTURE PROPORTIONAL CHANGE (2006-16) 71
FIGURE 31: HORNSBY EMPLOYMENT BY 1-DIGIT ANZIC EMPLOYMENT PERCENTAGE SHARE (2016) 74
FIGURE 32: HORNSBY RURAL AREAS EMPLOYMENT BY 1-DIGIT ANZIC EMPLOYMENT % SHARE (2016) 75
FIGURE 33: HORNSBY EMPLOYMENT BY 1-DIGIT ANZSIC EMPLOYMENT PROPORTIONAL CHANGE (2011-16) 77
FIGURE 34: HORNSBY RURAL AREAS EMPLOYMENT BY 1-DIGIT ANZSIC EMPLOYMENT PROPORTIONAL CHANGE (2011-16) 78
FIGURE 35: EMPLOYMENT FLOORSPACE ESTIMATES FOR RURAL CENTRES (SQM) 80
FIGURE 36: ESTIMATED FLOORSPACE IN RURAL CENTRES 2016-2056 82

FIGURE 37: ESTIMATED JOBS IN RURAL CENTRES 2015-2056 82
FIGURE 38: ESTIMATED CHANGE IN JOB NUMBERS 2016-2036 83
FIGURE 39: SYDNEY BASIN BIOGEOGRAPHIC REGION 85
FIGURE 40: IBRA SUB-REGIONS IN THE SYDNEY BASIN 86
FIGURE 41: THE SANDY SOILS OF THE MAROOTA LAND SYSTEM SUPPORT A DIFFERENT, HEATHY VEGETATION PROFILE THAN ELSEWHERE IN THE LGA 87
FIGURE 42: LANDFORM OF GREATER SYDNEY 89
FIGURE 43: GEOLOGY IN THE HORNSBY LGA 90
FIGURE 44: MAJOR CATCHMENTS IN HORNSBY SHIRE 92
FIGURE 45: TURPENTINE-IRONBARK FOREST, CHERRYBROOK 93
FIGURE 46: PEPPERMINT-ANGOPHORA FOREST, BROOKLYN 93
FIGURE 47: GREY-GUM SCRIBBLY GUM WOODLANDS, CANOELANDS 93
FIGURE 48: SHALE GRAVEL TRANSITION FOREST, ARCADIA 93
FIGURE 49: NARROW-LEAVED APPLE SLOPES FOREST, SINGLETONS MILL 94
FIGURE 50: BLOODWOOD-SCRIBBLY GUM WOODLAND, DURAL 94
FIGURE 51: VEGETATION COMMUNITIES WITHIN THE STUDY AREA 96
FIGURE 52: BUSHFIRE PRONE LAND 98
FIGURE 53: VIEW OVER THE HAWKESBURY RIVER FROM HAWKINS LOOKOUT 99
FIGURE 54: NSW LONG TERM LAND VALUE TRENDS BY CATEGORY (VALUES INDEXED TO 1996 VALUES) 101
FIGURE 55: LAND VALUES IN 2018, PER SQM, BY PROFILE AREA AND ZONE 102
FIGURE 56: PROFILE AREAS PER ANNUM LAND VALUE CHANGE BY ZONE SINCE 2014 102
FIGURE 57: PER ANNUM LAND VALUE CHANGE BY ZONE SINCE 2014, BY SUBURB 103
FIGURE 58: FOUR MAJOR LANDSCAPE TYPES OF GREATER SYDNEY 107
FIGURE 59: PROTECTED NATURAL AREA AND METROPOLITAN RURAL AREA IN THE NORTH DISTRICT 108
FIGURE 60: MAJOR COMMODITY GROUPS, HORNSBY SHIRE 2005 – 2006 AND 2015-16 113
FIGURE 61: RESIDENTIAL LOCATION OF HORNSBY AGRICULTURAL WORKERS 113
FIGURE 62: LAND USE 2013 114
FIGURE 63: ORNAMENTAL HORTICULTURE GVAP AS A PROPORTION OF SYDNEY BASIN INDUSTRY, BY LGA 116
FIGURE 64: ORNAMENTAL HORTICULTURE GVAP AS A PROPORTION OF NSW INDUSTRY, BY LGA 117
FIGURE 65: NURSERY INDUSTRY TRENDS, HORNSBY SHIRE 118
FIGURE 66: OUTDOOR AND UNDERCOVER NURSERY INDUSTRY TRENDS, HORNSBY SHIRE 119
FIGURE 67: AREA OF HOLDING TREND 119
FIGURE 68: PROPERTY ESTIMATED VALUE OF OPERATIONS TREND (2016) 120
FIGURE 69: INDUSTRY ESTIMATED VALUE OF OPERATIONS TREND (2016) 120
FIGURE 70: CUT FLOWER INDUSTRY TRENDS, HORNSBY SHIRE (2016) 121
FIGURE 71: OUTDOOR AND UNDERCOVER CUT FLOWER PRODUCTION TRENDS, HORNSBY SHIRE 122
FIGURE 72: AREA OF HOLDING TREND 122
FIGURE 73: PROPERTY ESTIMATED VALUE OF OPERATIONS TREND 123
FIGURE 74: INDUSTRY ESTIMATED VALUE OF OPERATIONS TREND 123
FIGURE 75: LAND AND SOIL CAPABILITY 126
FIGURE 76: LAND PROPERTY OWNERSHIP 127

LIST OF TABLES

TABLE 1: PROJECT METHOD 9
TABLE 2: DEVELOPMENT CONSENT REQUIRED WORKS ON LAND IN THE ACID SULFATE SOILS 42
TABLE 3: RURAL ZONE APPLICATION ACROSS SELECTED COUNCILS 50
TABLE 4: FORECAST POPULATION CHANGE, 2016-36 60
TABLE 5: HORNSBY HOUSEHOLD TOTALS BY HOUSEHOLD TYPE (2016) 65
TABLE 6: HORNSBY RURAL AREAS AGE PROFILE IN LONE PERSON HOUSEHOLDS (2016) 69
TABLE 7: DWELLING STRUCTURE IN HORNSBY LGA AND RURAL PROFILE AREAS (2016) 70
TABLE 8: NON-RETAIL FLOORSPACE DEMAND BY PRECINCT 80
TABLE 9: FLOORSPACE IN SPACE RURAL CENTRES 81
TABLE 10: LAND USES IN THE MIDDLE DURAL, GALSTON AND ARCADIA AGRICULTURAL CLUSTER 111
TABLE 11: GVAP ($ MILLION) ORNAMENTAL HORTICULTURE 115
TABLE 12: LAND AND SOIL CAPABILITY CLASS DEFINITIONS 125



01 Introduction

1. INTRODUCTION

Hornsby Shire Council is preparing a Rural Lands Study to identify and address existing and emerging rural land use issues and trends. The project involves reviewing current land uses, rural activities, development patterns and landscape values across rural land in the Shire. The aim of the Study is to set a strategic direction to ensure the environmental, social and economic values of rural areas are protected and enhanced.

1.1 Project overview

The Greater Sydney Commission recently prepared a *North District Plan* for councils in Sydney's northern metropolitan region. It includes planning priorities and actions to better manage rural areas. Hornsby Shire Council seeks to develop a strategy that:

- Sets out the current land use pattern of the rural areas
- Identifies landscape areas and village areas and establishes a preliminary character statement for each
- Reports on community engagement activities with key stakeholders of landscape areas and villages to confirm the landscape character and values of each place
- Identifies, through a comparison with development controls of other local government areas (LGAs), recommendations for improvements to Hornsby Shire's development controls
- Reports on consultation with The Hills Shire Council on the development controls, permissible land uses, lot sizes and future vision for land near the boundary interface and shared villages
- Provides recommendations for Hornsby Shire's Local Strategic Planning Statement (LSPS), and
- Identifies anomalies / opportunities for villages and landscape areas.

Core aims of the *North District Plan* of relevance to the Hornsby Shire Rural Lands Study and the LSPS are:

- 'Sustaining local centres to provide jobs, services and amenity
- Providing fast and efficient transport connections to achieve a 30-minute city
- Creating and renewing great places, while protecting heritage and local character and improving places for people
- Enhancing the quality and improving access to open space, and increasing urban tree canopy
- Retaining the environmental, social and economic values of the Metropolitan Rural Areas, and
- Protecting and enhancing the District's unique natural assets including waterways, coastlines and bushland.'

Two actions from the *North District Plan* are directly relevant to this project:

- Action 69: Maintain or enhance the values of the Metropolitan Rural Area using place-based planning to deliver targeted environmental, social and economic outcomes.
- Action 70: Limit urban development to within the Urban Area.

1.2 Methodology

The project has been undertaken in five stages, as outlined below.



An overview of the project method and timing is set out below.

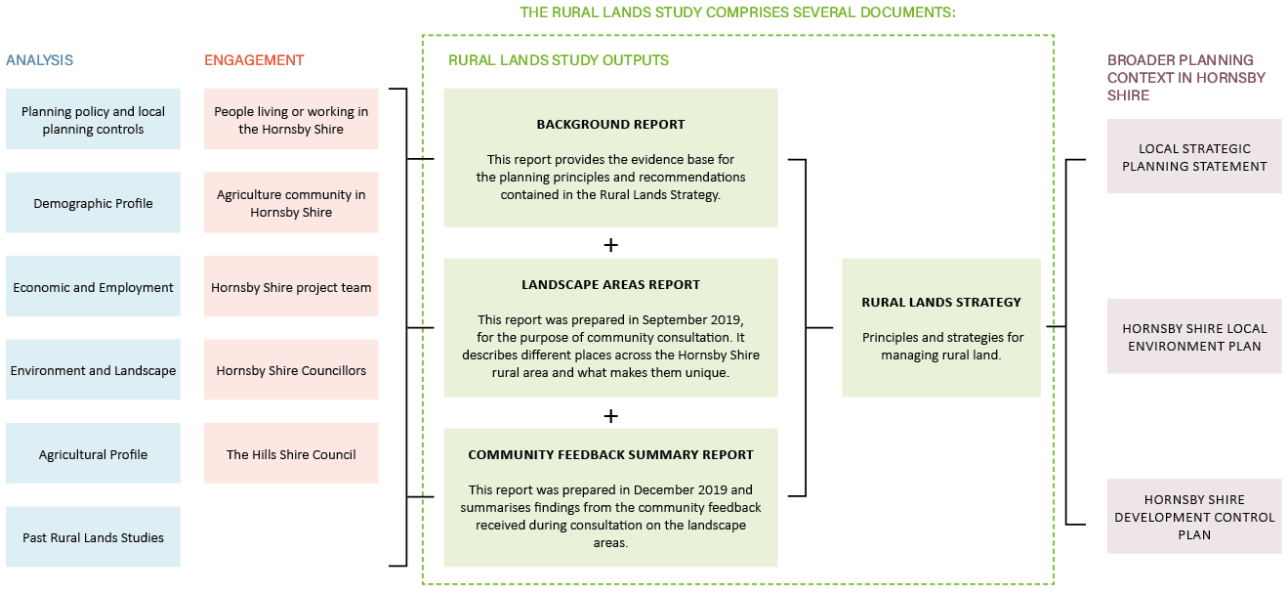
TABLE 1: PROJECT METHOD

Stage 1 Existing situation March to August 2019	The consultant team have undertaken a detailed site inspection with Council to visit key rural locations across Hornsby Shire. A review of relevant background policy documents has informed this report, alongside information about Hornsby Shire's geomorphology and ecology, the characteristics of rural settlements and the visual characteristics that make landscapes across the local government area (LGA) unique. Findings from the Stage 1 review are presented in this report.
Stage 2 Draft landscape character July to September 2019	Based on the site visit and a detailed desktop review of existing information, draft landscape areas were identified within the Hornsby LGA rural areas. The draft landscape areas were mapped and a character statement was prepared for each. The draft Landscape areas report was prepared and published on Council's website.
Stage 3 Community feedback Oct to Dec 2019	Draft landscape areas and character statements were shared with the community. The purpose of the engagement was to obtain community feedback on the appropriateness of the draft landscape areas and character statements. Community input was sought on the values, issues and opportunities for each landscape area, and the rural area as a whole. Consultation activities included an online survey and community workshops. The Feedback summary report was published on Council's website.
Stage 4 Review Jan - July 2020	A review was conducted on the economic and social viability of villages, along with a review of other Council zones, land uses and LEP clauses and collaboration with The Hills Shire Council on boundary interface issues. The background report (this document) was prepared which contains the technical review to support the strategy.
Stage 5 Findings & Recommendations Mid 2020	Draft strategy prepared which contains updates to landscape areas, a vision for rural lands, principles for managing rural lands and draft recommendations for each landscape area, for villages and general recommendations for the rural area as a whole. The background report (this document) contains the technical review to support the strategy.

1.3 How to read this report

This report presents findings from the background technical review, regarding Hornsby Shire's rural population, employment and economic profile. It examines the profile of rural villages in each of those contexts and examines the LGA through environmental and agricultural perspectives.

FIGURE 1: REPORT CONTEXT



Source: SGS Economics and Planning, 2020.

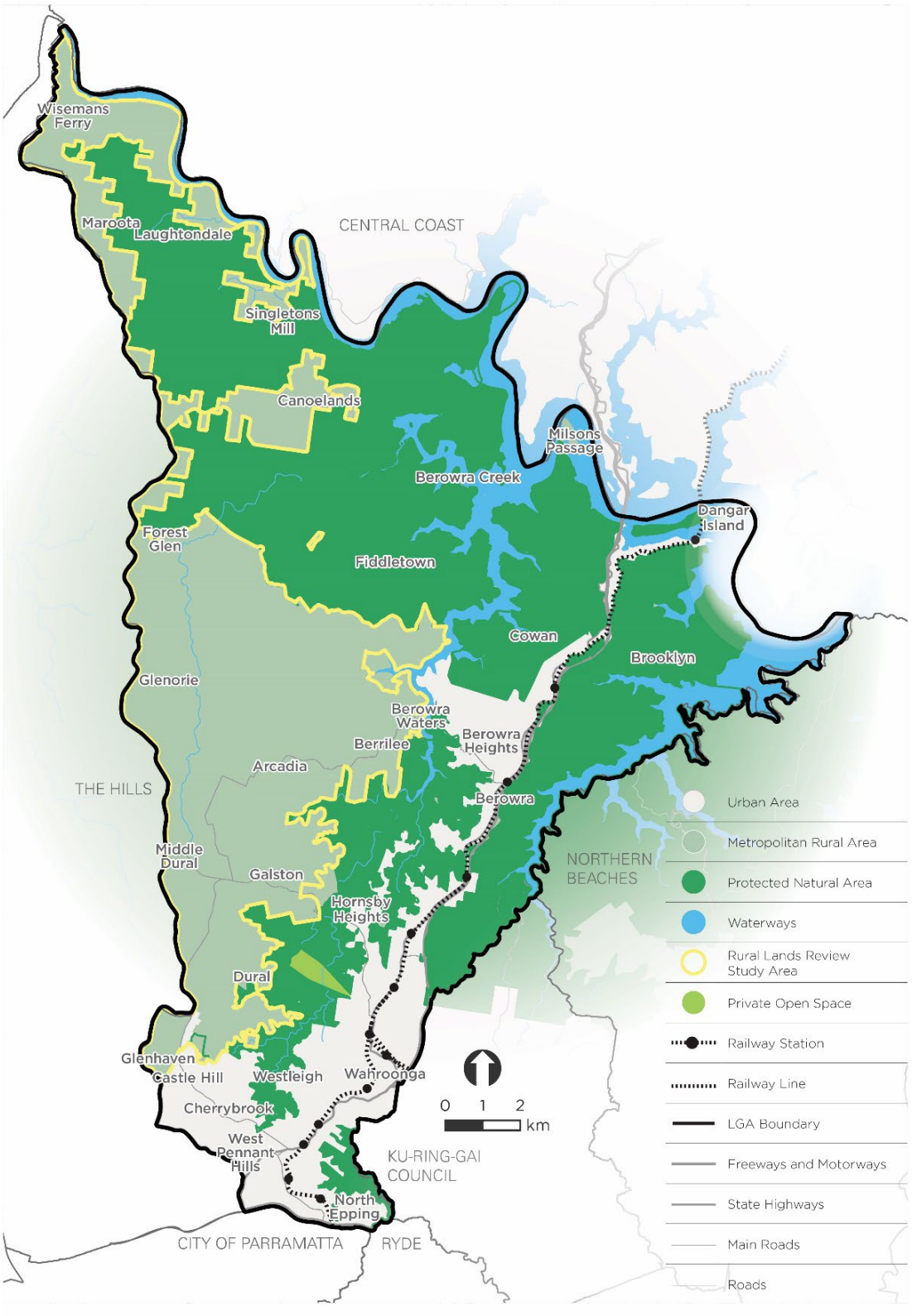
The Rural Land Study is one of several technical investigations which form Council's Accelerated Local Environmental Plan (LEP) Review Program. These include policies which apply to: biodiversity, sustainability, housing, transport, employment and the local economy, town centres, community and cultural facilities, heritage, tourism, bushfire, waste management and the public realm. Some recommendations or actions from these other reports will affect the Rural Lands Study and all will form the basis of Council's Local Strategic Planning Statement (LSPS).

1.4 The Metropolitan Rural Area

The *Metropolitan Rural Area* was identified by the Greater Sydney Commission in it's *Greater Sydney Region Plan*.

The Study area for the project is consistent with the area defined under the State Government's North District Plan as the Metropolitan Rural Area within Hornsby Shire.

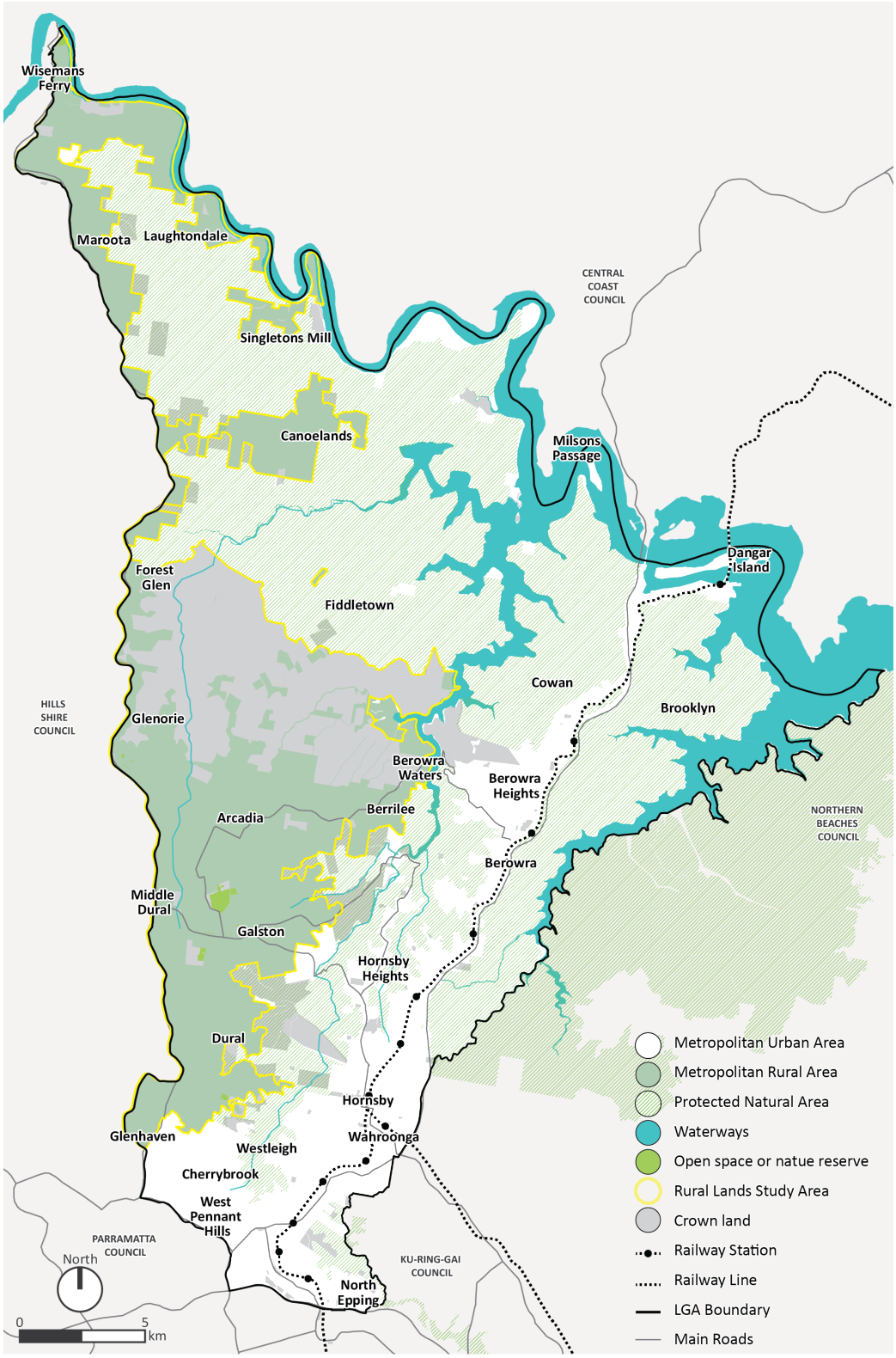
FIGURE 2: RURAL LANDS STUDY AREA AND METROPOLITAN RURAL AREA



Source: *Hornsby Local Strategic Planning Statement, Hornsby Shire Council, 2020.*

The study area for this project is the rural land within the Hornsby LGA, containing the suburbs of Wisemans Ferry, Laughtondale, Singletons Mill, Canoelands, Maroota, Forest Glen, Fiddletown, Glenorie, Arcadia, Berilee, Middle Dural, Galston, Dural and Glenhaven.

FIGURE 3: STUDY AREA AND LAND NOT INCLUDED



Source: SGS Economics and Planning, 2020.

1.5 Community feedback and values

The future of Hornsby Shire's rural lands is a very important issue for the community in the LGA. Since the Council announced its decision to commence the study in November 2018, there has been a steady influx of informal submissions. From November 2018 until September 2019 (when the formal consultation period commenced), 40 people made 88 submissions. These were made available to the project team as background material.

A summary of the matters raised in these informal submissions plus a comprehensive review of the matters raised in feedback collected during the community engagement over September-November 2019 is outlined within the *Feedback Summary Report*.

Engagement purpose and activities

The purpose of the extensive community engagement undertaken over September-November 2019, as part of the preliminary Stages of the Rural Lands Study, was to obtain feedback from the community on the appropriateness of the draft landscape areas.

This feedback was sought to understand how people living, working and visiting Hornsby Shire's rural area view their local places. Feedback was sought to test the accuracy of the draft landscape area boundaries and character descriptions (that is, "do they make sense as a community") and to identify any improvements that could be made. Several activities were undertaken, and people could provide feedback online and in-person.

The following is a snapshot of how the community were engaged during the formal exhibition period of the draft landscape areas.

3,320
Letters sent to rural landowners

987
Unique visits to the Rural Lands Study webpage

269
Online survey responses

4
Community workshops

223
Workshop attendees

93
People wrote submissions at workshops

38
People made 50 submissions

46
Photo competition entries

420
Facebook clicks

2,257
Comments received about landscape areas (from online survey and community workshop)

730
Comments received about the landscape areas, in the community workshops

1,527
Comments received in the online survey

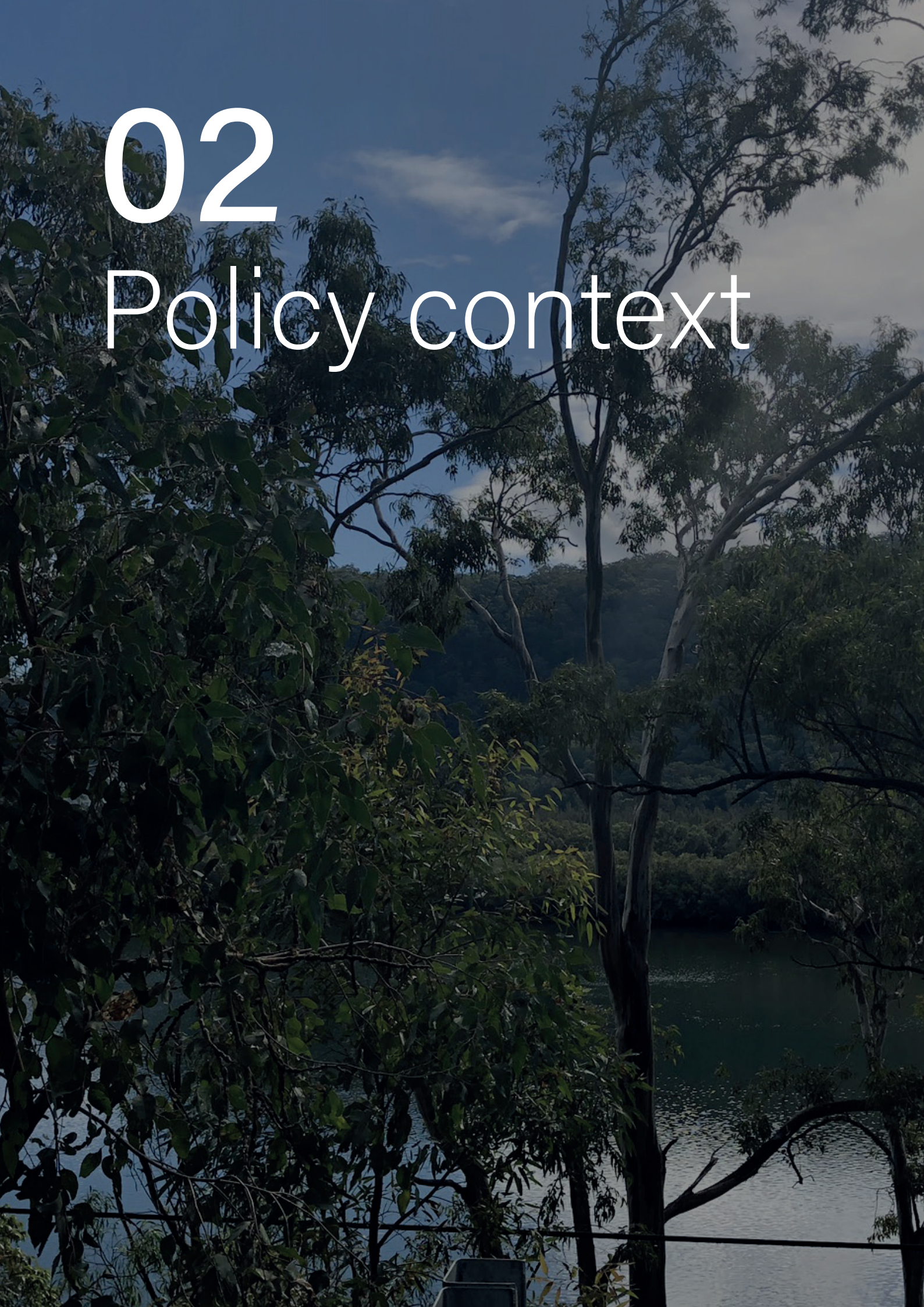
The feedback has been used to refine the landscape area character statements and boundaries, as the basis for the draft *Rural Lands Strategy*.

1.6 Preparing the Rural Lands Study

The Rural Lands Study is an important step towards identifying a long-term strategy for Hornsby Shire's rural areas and resolving how rural lands might be managed and used. The context for this planning is the Greater Sydney Regional Plan prepared by the Greater Sydney Commission, as well as the relevant District plans. Council's planning for the rural area is required to comply with the planning directions set at a regional and district level.

The Study will outline the evidence base and data required to identify rural landscape areas, the future economic and social profile of Hornsby Shire's rural villages, the capability and capacity of agricultural lands, and future planning mechanisms for rural lands. Council is seeking a holistic document to address these challenges and opportunities. The study is being conducted in a context where the community has clear and sometimes opposing views on the future of rural lands, and the intention will be to assist in identifying an appropriate way forward for the Council.

This background report presents information that has been reviewed and analysed, to establish an evidence base for the Rural Lands Study.



02
Policy context

2. POLICY CONTEXT

This chapter presents the policy context within which the Hornsby Rural Lands Study will be prepared. It summarises relevant policy from both the State and local government levels. The Greater Sydney Regional Plan includes planning priorities and actions to better manage rural areas. These priorities and actions and other planning policy influences how the rural study is prepared.

A review of the key studies, strategies and plans relevant to Hornsby Shire's rural lands has been undertaken. The information in this chapter has been used to demonstrate how current policies shape land use and development across Hornsby Shire's rural area. The primary focus of this chapter is to analyse the strategic implications of these documents for rural areas, and as such development guidelines have also been considered.

The following State policy documents were reviewed:

State government strategic plans	▪ Greater Sydney Regional Plan, A Metropolis of Three Cities – connecting people (2018) ▪ Our Greater Sydney 2056, North District Plan – connecting communities (2018)
State Environmental Planning Policies (SEPPs)	▪ State Environmental Planning Policy (Housing for Seniors or People with a Disability), 2004 ▪ Sydney Regional Environmental Plan No. 20 -- Hawkesbury-Nepean Catchment (1997) ▪ State Environmental Planning Policy (Koala Habitat Protection) 2019 ▪ State Environmental Planning Policy No. 19 – Bushland in Urban Areas
Other documents	▪ Right to Farm Policy (2015) ▪ Agricultural Advice for Local Strategic Planning Statements, and ▪ Agricultural Industry Action Plan and International Engagement Strategy ▪ Values of Metropolitan Rural Area (AgEcon Plus) 2017 ▪ Sydney Peri-Urban Network Action Plan 2020 ▪ Investigation into the cumulative impacts of Seniors Housing in The Hills and Hornsby local government areas

The following key strategic documents have been reviewed, from Hornsby Shire Council:

Community and Council plans	▪ Community Strategic Plan 2018-2028 ▪ Hornsby Local Strategic Planning Statement (2019) ▪ Hornsby Local Environmental Plan (2013) ▪ Hornsby Development Control Plan (2013)
Selected draft studies and strategies undergoing preparation as part of the Accelerated LEP Review, as relevant to preparation of the Rural Lands Strategy	▪ Draft Hornsby Economic Development and Tourism Strategy (2019) ▪ Draft Employment Land Use Study (2019) ▪ Draft Biodiversity Conservation Management Plan (2019) ▪ Draft Urban Forest Strategy (2019) Draft Housing Strategy (2020)
Previous Rural Studies	▪ Rural Lands Study (1995) ▪ Rural Resource Lands Study (2006) ▪ Rural Lands Planning Provisions (2009), and ▪ Rural Planning Community Issues Survey Report (2014)

2.1 State government strategic plans

Greater Sydney Regional Plan - A Metropolis of Three Cities (2018)

The Greater Sydney Regional Plan - A Metropolis of Three Cities (GSRP) prepared by the Greater Sydney Commission is the NSW Government's plan for Greater Sydney. It provides a 40-year vision to transform Greater Sydney into a metropolis of Three Cities: The Western Parkland City, the Central River City and the Eastern Harbour City. The high-level directions from the GSRP inform how Hornsby Shire Council will go about preparing its strategic plans into the future.

The Eastern Harbour City and North District Plan

The Hornsby LGA forms part of the Eastern Harbour City region of the plan and falls within the North District (alongside the Hunter's Hill, Ku-ring-gai, Lane Cross, Mosman, North Sydney, Northern Beaches, Ryde and Willoughby LGAs). The plan's objectives are themed and divided into infrastructure, collaboration, liveability, productivity and sustainability.

The GSRP identifies 'Metropolitan Rural Areas' (see structure plan, below). This includes the rural areas in the Hornsby LGA (henceforth referred to as rural areas). These lands contain farmland and mineral resources. The plan recognises that there are distinctive towns and villages in rural and bushland settings. It sets out four major landscape types:

- **Protected Natural Area:** this includes the Greater Blue Mountains World Heritage Area, the coastal sandstone plateaux and estuaries of the Royal National Park, and Ku-ring-gai Chase National Park (partly within the Hornsby LGA).
- **Metropolitan Rural Area:** farmland, mineral resources, and distinctive towns and villages in rural and bushland settings. In the Hornsby LGA, it includes the floodplains of the Hawkesbury-Nepean Valley, and areas of high biodiversity value including national parks and reserves, as well as scenic and cultural landscapes.
- **Urban Area:** business districts, industrial areas, quiet neighbourhoods, parks and reserves, waterways and local parks.
- **Coast and Harbours:** this extends from Broken Bay and Pittwater in the north to Port Hacking in the south.

Policy affecting rural areas

Directions for the rural areas are contained within the productivity and sustainability sections of the GSRP. These directions contain objectives and actions that recognise the importance of retaining the environmental, social and economic values of the rural areas. The plan highlights a key tension in planning for rural areas near metropolitan areas, balancing their important role for resource extraction and mining (especially for construction), agriculture production (especially food), with rural residential settlements and biodiversity values which have intrinsic ecological importance as well as providing a natural, scenic break for people to engage with their local landscapes.

Several of the GSRP's directions, objectives and strategies relate directly to the planning of rural areas. Through these directions and associated objectives, the GSRP identifies the importance of retaining the environmental, social and economic values of these rural areas.

The most relevant of the GSRP rural lands objectives are summarised below.

Key policy directions from the GSRP: Planning for rural areas

> Planning Direction: Sustainability – A city in its landscape – Valuing green spaces and landscape
>
> Objective 29: Environmental, social and economic values in rural areas are protected and enhanced.

GSRP

Maintaining the distinctive character of rural villages is a high priority (refer to Objective 29).

Growth and intensification of business activity within rural villages is supported where they maintain or enhance local character.[1]

Rural lands or Metropolitan Rural Areas play a multifunctional role: they contribute to agricultural industry, tourism, cultural

landscapes and environmental values. This objective also includes commentary on the importance of using place-based planning to identify and enhance the environmental social and economic values that are found in rural lands. Place based planning is said to achieve and deliver targeted environmental, social and economic outcomes.

Strategy 29.1

- Maintain or enhance the values of the Metropolitan Rural Area using place-based planning to deliver targeted environmental, social and economic outcomes.

Strategy 29.2

- Limit urban development to within the Urban Area, except for the investigation areas at Horsley Park, Orchard Hills, and east of The Northern Road, Luddenham.

> Planning Direction: Sustainability – A city in its landscape – Valuing green spaces and landscape
>
> Objective 28: Scenic and cultural landscapes are protected

Scenic and cultural landscapes are symbols of Greater Sydney and connect the contemporary urban environment with natural and historic urban landscapes.

Their continued protection is important for their aesthetic, social and economic values and for the character of the region.

They create a sense of identity, preserve links to Aboriginal, colonial and migrant era heritage and culture, and create opportunities for tourism and recreation. Views and vistas of ridgelines, waterways and the urban skyline help foster distinctive local character and can strengthen an appreciation of Greater Sydney's landscape.

The rural area and Protected Natural Areas create a range of attractive visual settings to the north, west and south of Greater Sydney.

At a finer grain, areas have been recognised as important scenic and cultural landscapes. With rising demand for biodiversity offsets and continuing support for traditional forms of agriculture within the Metropolitan Rural Area, more opportunities can be realised to protect and enhance natural landscapes.

Strategy 28.1

- Identify and protect scenic and cultural landscapes.

Strategy 28.2

- Enhance and protect views of scenic and cultural landscapes from the public realm.

> Planning Direction: Sustainability – A city in its landscape – Valuing green spaces and landscape
>
> Objective 27: Biodiversity is protected, urban bushland and remnant vegetation is enhanced

For Metropolitan Rural Areas, the GSRP suggests providing incentives for landowners to protect and enhance the environmental values of their land and connect fragmented areas of bushland to deliver improved biodiversity outcomes.

> Planning Direction: Productivity – Jobs and skills for the city – Creating the conditions for a stronger economy
>
> Objective 24: Economic sectors are targeted for success

Tourism and agriculture are economic sectors which are targeted for success.

Strategy 24.2

- Consider the following issues when preparing plans for tourism and visitation: …protecting heritage and biodiversity to enhance cultural and eco-tourism.

Strategy 24.3

- Protect and support agricultural production and mineral resources (in particular, construction materials) by preventing inappropriately dispersed urban activities in rural areas.

> Planning Direction: Productivity – Jobs and skills for the city – Creating the conditions for a stronger economy
>
> Objective 22: Investment and business activity in centres

Rural villages in the Metropolitan Rural Area play an important role in local economies, as centres for rural industries, tourism and businesses, providing for communities' daily needs. Maintaining the character of rural villages is a high priority in the Plan.

Any business growth within rural villages is supported, provided the local character is maintained or enhanced.

- Rural villages provide important centres for rural industry, tourism, local character and local services.
- The Plan identifies the importance of retaining local rural or bushland character.

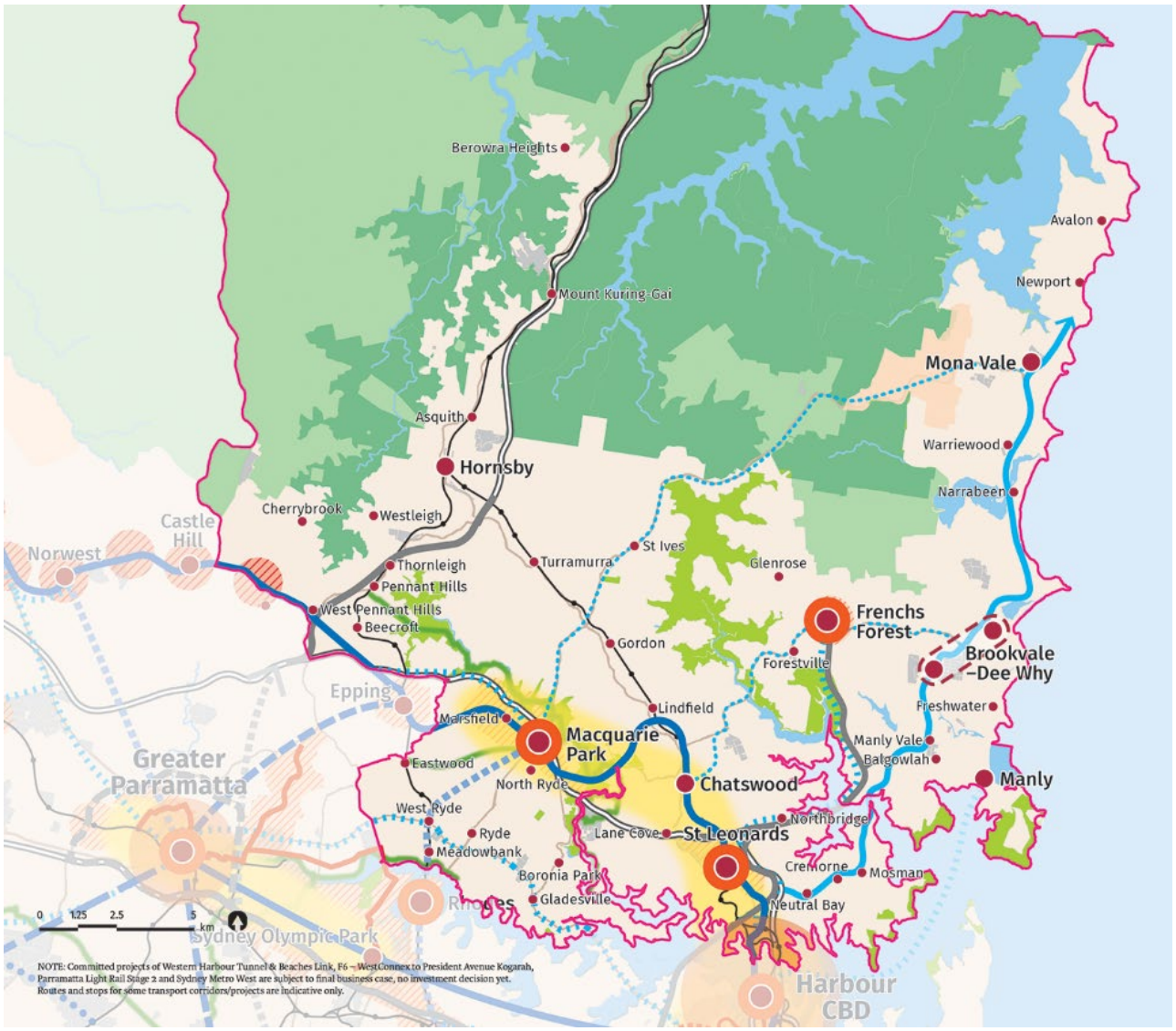
North District Plan

The Greater Sydney Commission's North District Plan (NDP) is a 20-year strategy, which sets out actions that will guide State and local government activities to implement the GSRP for the North District. Local strategic planning and amendments to local planning controls of the Hornsby LGA must be consistent with the NDP. It is also intended to guide strategic land use planning for the Northern District more broadly. This is the key guiding document that sets the parameters for how Council must plan to manage and grow change, including in the rural area. Figure 4 reflects the North District Plan and its proximity to the Harbour CBD and Greater Parramatta area.

The NDP sets key directions, priorities and actions for zoning in the MRA. Several planning priorities and associated actions in the NDP relate to the planning of rural areas.

The most relevant priorities and objectives are summarised throughout the discussion below.

FIGURE 4: NORTH DISTRICT STRUCTURE PLAN



Source: *North District Plan*, Greater Sydney Commission, 2018.

Policy affecting rural areas

> Planning Priority N18
> *Better managing rural areas*
>
> Objective 29: Environmental, social and economic values in rural areas are protected and enhanced.

Planning Priority N18 highlights that rural areas play a multifunctional role: they contribute to the agricultural industry, tourism, cultural, extractive industries, landscapes and environmental values.

The policy emphasises that Greater Sydney has enough existing urban land to accommodate housing needs within the current Urban Area boundary, and therefore sets direction to better manage development, and protect scenic qualities, within the rural area. It contains the following considerations, which will inform the Hornsby Rural Land Study:

Rural residential development is not an economic value of the District's rural areas and further rural residential development is generally not supported.

Limited growth of rural residential development could be considered where there are no adverse impacts on the amenity of the local area and the development provides incentives to maintain and enhance the environmental, social and economic values of the Metropolitan Rural Area. This could include the creation of protected biodiversity corridors, buffers to support investment in rural industries and protection of scenic landscapes.

Other considerations include:

- Bushland and farmlands are important for the contribution they make to an area's sense of history and character.
- Mineral resources supply construction materials that are vital to building housing infrastructure across Greater Sydney. Local extraction points are therefore of great importance to reduce the cost of infrastructure and construction in Sydney.
- It is also important to have a plan for rehabilitation and redevelopment of extractive sites once the uses cease.
- Planning in the rural areas should have a place-based approach (see box above), that uses landscape areas to help manage environmental, social and economic values, and maximise the productive use of the land.

The Plan acknowledges that the North District's rural areas contribute to habitat, biodiversity, and agriculture. They also provide mineral and energy resources and sustain local rural villages.

Definition: A place-based approach to planning

The NSW Government encourages a placed based planning to be implemented by the state government and local government across NSW. A place-based planning approach ensures that strategic planning recognises the local character and community values of an area.

The NSW Government defines a place-based planning approach as "a design-led and collaborative way of examining the complexity of the city by viewing it as a mosaic of different places, each with unique sense of place." It has been developed to prioritise an inclusive discussion of the built environment, social infrastructure and urban form in specific locations.

A place-based approach to planning as per the GSRP must be applied to the Metropolitan Rural Area. This requires a detailed understanding of how rural areas work, based on input from many stakeholders including the local community. This knowledge is then incorporated into a vision and strategies about how to manage change, or protect and enhance valued assets. The vision should be developed with people with local expertise, knowledge and responsibility, including with the local community.

Hornsby Shire Council and other State planning agencies are responsible for Actions 69 and 70: enhancing and maintaining the multifaceted values that are contained within rural areas.

> Planning Priority N17
> Protecting and enhancing scenic and cultural landscapes
>
> Objective 28: Scenic and cultural landscapes are protected.

This planning priority sets a strategic basis for Council to identify, and protect, its scenic and cultural landscapes. It explains that scenic and cultural landscapes are symbols of Greater Sydney and connect the contemporary urban environment with natural and historic landscapes. Their continued protection is important for their aesthetic, social and economic values and for the character of the region. They create a sense of identity, preserve links to Aboriginal, colonial and migrant era heritage and culture, and create opportunities for tourism and recreation. Views and vistas of ridgelines, waterways and the urban skyline help foster distinctive local character and can strengthen an appreciation of Greater Sydney's landscape.

The rural area and the Protected Natural Area create a range of attractive visual settings to the north, west and south of Greater Sydney. With rising demand for biodiversity offsets and continuing support for traditional forms of agriculture within the MRA, more opportunities can be realised to protect and enhance natural landscape.

Actions 67 and 68 make the Hornsby Shire Council and other State planning agencies responsible for protecting and enhancing scenic cultural landscapes. Scenic views must be protected from the public realm.

> Planning Priority N16
> *Protecting and enhancing bushland and biodiversity*
>
> Objective 27: Biodiversity is protected, urban bushland and remnant vegetation is enhanced.

For rural areas, the NDP suggests incentives for landowners to encourage them to protect and enhance the environmental values of their land and connect fragmented areas of bushland to deliver improved biodiversity outcomes (related to Objective 29).

> Planning priority N13
> *Supporting growth of targeted industry sectors*
>
> Objective 24 – Economic sectors are targeted for success.

This priority sets the framework for growing and supporting industry sectors within the North District and within the Hornsby LGA. Middle Dural, Galston and Arcadia are identified as key horticultural industry clusters. The LGA is also defined as having a substantial equine and nursery industry. The plan identifies nurseries as the most productive industry within the agricultural sector. Cut flowers and stone fruit farms are also identified as other main agricultural activities.

The plan includes actions which are associated with Objective 24. Of relevance to the study are Actions 54 and 56, which require Hornsby Shire Council to consider heritage and biodiversity when considering new land uses in the rural area, such as eco-tourism. The plan also makes Council responsible for supporting and protecting agricultural production and mineral resources, by ensuring that urban activities are not dispersed in rural areas. Other State planning agencies also share responsibility for Actions 54 and 56.

North District Plan: Actions

Council is required to consider the following actions when it is planning for rural lands:

Action 70

Limit urban development to within the Urban Area.

Action 69

Maintain or enhance the values of the Metropolitan Rural Area using place-based planning to deliver targeted environmental, social and economic outcomes.

Action 68

Enhance and protect views of scenic and cultural landscapes from the public realm.

Action 67

Identify and protect scenic and cultural landscapes.

Action 56

Protect and support agricultural production and mineral resources (in particular, construction materials) by preventing inappropriately dispersed urban activities in rural areas.

Action 55 (e)

When preparing plans for tourism and visitation, protect heritage and biodiversity to enhance eco-tourism.

2.2 State Environmental Planning Policies

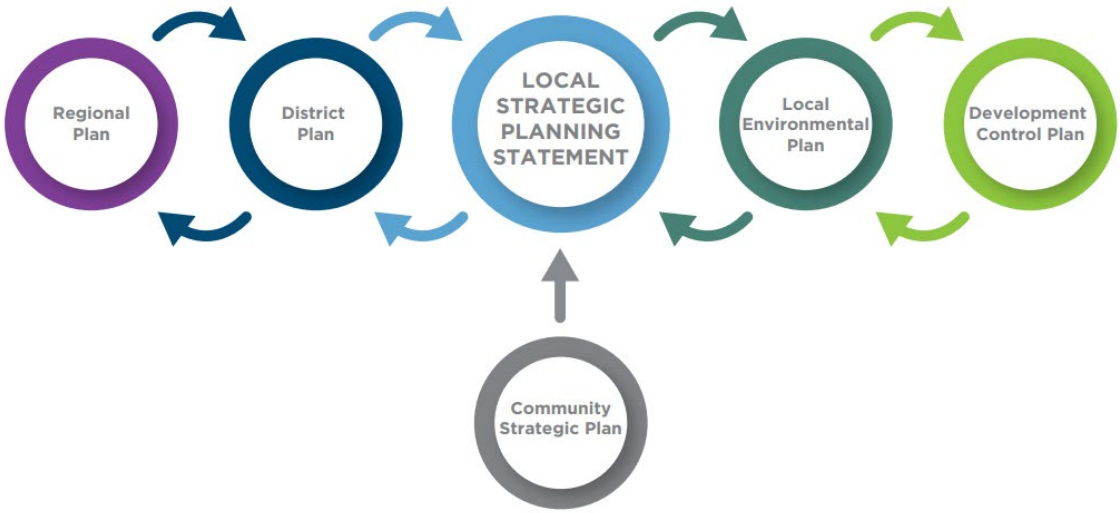
At the State level, planning is guided by State Environmental Planning Policies (SEPPs: Although there are a number of SEPPs in force, the following SEPPs are most relevant to the Study as they have implications for the rural areas of Hornsby Shire.

- State Environmental Planning Policy (Housing for Seniors of People with a Disability) 2004 (Seniors SEPP)
- Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean Catchment (SREP 20)
- State Environmental Planning Policy (Koala Habitat Protection) 2019 (Koala SEPP)
- State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Mining SEPP).

A map showing the extent of SREP 20 (as it applies to limited areas and not the whole LGA) is included in Appendix 1.

The context of the LSPS in other State and local strategies is shown below.

FIGURE 5: STRATEGIC PLANNING CONTEXT



Source: *Hornsby Local Strategic Planning Statement, Hornsby Shire Council, 2020.*

The State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004

The Seniors SEPP permits the provision of housing for seniors and people with disabilities on rural land that adjoins "land primarily for urban purposes." This SEPP overrides the Hornsby Shire's LEP and allows rural land adjoining urban land to be developed for seniors housing.

There has been a recent increase in applications for seniors housing developments in or near rural areas, creating tension between light industrial and agricultural use, and these new and more sensitive residential uses. Due to the urban nature of seniors housing, there is a risk that further development may undermine agricultural activities and exacerbate interface issues in land that has been designated for rural use within the Hornsby LGA.

While some seniors housing developments have occurred in recent years as a result of State Policy overriding local controls within the rural area, the current planning policy setting under the Greater Sydney Regional Plan and North District Plan (discussed in Chapter 2) discourages residential development for population growth in locations not well-serviced by infrastructure.

Council has been advocating to the state government for changes to state policy to ensure seniors living developments are not permitted on rural land which is inconsistent with the objectives of the GSRP and NDP.

Sydney Regional Environmental Plan No. 20-Hawkesbury-Nepean Catchment (1997)

SREP 20 applies in Hornsby Shire. It includes a planning policy on riverine scenic quality and maps areas of scenic significance. Environmentally sensitive areas in the Hawkesbury-Nepean catchment include "the river, riparian land, escarpments and other scenic areas, conservation area sub catchments, national parks and nature reserves, wetlands, other significant floral and faunal habitats and corridors, and known and potential acid sulphate soils".

SREP 20 sets out that the scenic quality of the riverine corridor must be protected. Strategies include:

- maintaining areas of extensive, prominent of significant vegetation to protect the character of the river;
- minimising adverse water quality impacts; conserve and enhance the diversity of flora and fauna species; and,
- considering the siting and size of proposed buildings or works.

Three key policy areas of the SREP 20 that directly impact rural land planning are: agriculture must be protected from other development and minimise adverse environmental impacts; residential development should not reduce agricultural sustainability, adversely impact the environment or contribute to urban sprawl; and, the recreational value of the riverine as a significant tourism asset must be protected.

The *Scenic Protection Area* is identified in the Environmental Planning Instrument (EPI). The instrument classifies land that has important scenic qualities. Development on this land must not have implications for visual impacts and scenic values of landscapes.[1] An area of Hornsby's LGA is identified as a scenic protection area, this ensures that scenic protection is required, and that development will not impede on visual and scenic values of the landscape on land to which this policy applies (see Appendix 1).

State Environmental Planning Policy (Koala Habitat Protection) 2019

This policy was released on 1 March 2020 and updated the previous 1995 legislation for koala habitat protection in NSW. The policy applies to land in Hornsby Shire and encourages the proper conservation and management of areas of natural vegetation that provide habitat for koalas.

The policy is based around *core koala habitat*, meaning:

- 'an area of land where koalas are present, or
- an area of land -
    - which has been assessed by a suitably qualified and experienced person in accordance with the Guideline as being highly suitable koala habitat, and
    - where koalas have been recorded as being present in the previous 18 years.'

The NSW Government maintains a koala habitat map, identifying areas where environmental conditions are suitable for koalas, and where they are likely to be found.

Under the new regulations, councils are required to identify areas of core koala habitat and either zone the land for Environmental Protection or include provisions that control development of the land to consider impacts on koalas and their habitat.

There are two types of mapping for koala habitat in Hornsby LGA:

- Koala Development Application Map:
    - Applies to land where vegetation is found across the rural area.
- Site Investigation Area for Koala Plans of Management:
    - Applies to hillier, more vegetated areas where land is often also zoned for Environmental Protection (E3).

If a koala plan of management applies, proponent-led development must comply with that plan. Where no plan applies, a council's determination of the development application must be consistent with the approved koala plan of management that applies to the land.

[1] Department of Planning Industry and Environment, 2019, *Environmental Planning Instrument – Scenic Protection*, https://researchdata.ands.org.au/environmental-planning-instrument-scenic-protection/1342487?source=suggested_datasets, date accessed 12/07/2019.

State Environmental Planning Policy No.19 - Bushland in Urban Areas

SEPP 19 aims to protect and preserve bushland within urban areas. This policy applies to all land in the LGA except land dedicated or reserved under the National Parks and Wildlife Act 1974 or the Forestry Act 1916. For land adjoins bushland zoned or reserved for public open space purposes, Council needs to consider the need to retain bushland, the impact of the proposed development on the nearby bushland area and any other matter that are relevant to the protection and preservation of bushland area.

State Environmental Planning Policy-Mining, Petroleum Production and Extractive Industries (2007).

This SEPP applies to land around Maroota, where some mineral sands extraction is currently occurring. The policy seeks to manage:

- Land used for extractive material resources, for the purpose of promoting the social and economic welfare of the State
- Orderly land use where mining, petroleum extractive activities are occurring
- Encourage ecologically sustainable development where mining, petroleum or extractive material resources are being collected
- Important agricultural land and water resources, and other potentially competing industries, are protected in the context of certain mining and petroleum development.

The policy includes conditions regarding noise and other pollutant management, and land rehabilitation once mining activities cease.

2.3 Other documents

Right to Farm Policy (2015) and Right to Farm Act (2019)

The Right to Farm (2015) was a policy developed by the NSW Department of Primary Industries (DPI) to introduce a state-wide approach to mitigate land use conflict in rural areas. The aim of the policy is to protect farmers from complaints that may affect their ability to farm effectively when they are undertaking agricultural activities that relate to the operations of farming. This policy has no statutory power as it does not overwrite legislation and regulations that govern land uses, uses of chemicals, intensity and timing of lights and noise and management of odours. DPI works with councils at the strategic level to plan for agricultural industry development and to maintain access to agricultural resources.

The Right to Farm policy is particularly important in peri-urban areas, especially where there is an interface between rural and urban lands. These interfaces are where inherent conflicts and tensions arise. The policy recognises the important contribution that rural/agricultural lands make to the economy and thus gives the right to the farmer. The NSW Government will work with councils to identify measures to address land use conflict issues.

The *Right to Farm Act* [NSW] was introduced in November 2019. Regarding land use and planning activities, the Act does not bear statutory weight in a planning setting. Rather, it sets out how trespassing will be managed. It does ratify concepts to protect farmers from complaints about normal farm practices, intended particularly for areas where land use conflicts and interface challenges arise (for example, on the peri-urban interface).

Agricultural Industry Action Plan and International Engagement Strategy (DPI) 2014-15

The Department of Primary Industry's *Agriculture Industry Action Plan and International Engagement Strategy* provides the direction for the Department of Industries to accelerate growth, productivity and innovation. The strategy supports agribusinesses within rural areas and identifies the important contribution that the agricultural sector contributes to the Australian economy and food security. The strategy encourages all levels of government including councils to support agribusinesses.

Agricultural Advice for Local Strategic Planning Statements (DPI) 2019

The Department of Primary Industries released *Agricultural advice for Local Strategic Planning Statements*. Overall, the advice is for councils to "coordinate and set the broad context for the ongoing protection and growth of agriculture and the resources it relies on" in their Local Strategic Planning Statements (LSPS). The advice recognises the inherent conflict that exists between rural and urban land and states that the MRA should be retained as they play an important role in food production. It recommends LEPs and DCPs to be revised to reflect this strategic intent.

Values of the Metropolitan Rural Area (AgEcon Plus) 2017

This study was prepared as background input into the Greater Sydney Region Plan, in 2017. The report provided an evidence base for identifying the extent and economic values within rural areas in Greater Sydney, termed the *Metropolitan Rural Area.* The report built on past planning efforts that set out considerations for rural land use planning, including to:

- Minimise the adverse economic impacts on existing primary industry and productive agriculture
- Consider critical natural resource constraints
- Provide open space and recreational activities within Crown Land reserves and State forests
- Consider natural hazards, how evacuation may be managed in flood/fire prone areas and not worsened as a result of development activity
- How to protect natural resources including water quality, riparian and aquatic habitats and marine estates.[2]

The AgEcon Plus report examined each of Sydney's districts, the agricultural activities and other land uses occurring within their rural areas, and identified economic, social and environmental values in line with the considerations above. It found:

- 73 percent of the Metropolitan Rural Area is public land which is protected for its biodiversity, conservation, open space/recreation and drinking water catchment values. That land also contains some defence activities.
- 27 percent of the Metropolitan Rural Area is made up of privately-owned land, where its value is determined by the interaction of supply-demand in the market, but where public values to the community are also added—biodiversity or scenic landscapes.

For the North District (containing the Hornsby, Ku-ring-gai and Northern Beaches LGAs), key findings were[3]:

- Public land makes up most of the Metropolitan Rural Area (National and State parks, and nature reserves) (81 percent).
- Private land in the rural area is highly fragmented with the majority of privately-owned lots (95 percent) being less than 20 hectares and 60 percent being less than 5 hectares.
- There is part of one agricultural cluster in the North District: the *Multi-Use Cluster Horticulture (Vegetable and Tree Fruits)*, around Middle Dural, Galston and Arcadia. Here, nurseries are the largest agricultural activity, accounting for half of the grow value of agricultural commodities produced. Some seasonal horticulture is dispersed throughout, including beans, broccoli, herbs, capsicum, pumpkins and tomatoes. Perennial horticulture (fruit trees and nurseries) is predominantly clustered along Old Northern Road, and a large stone fruit region is found around Canoelands. Equine facilities are common across the Multi-Use Cluster, with horse numbers estimated at over 400.
- The gross value of agriculture in the Dural-Kenthurst-Wisemans Ferry and Galston-Laughtondale Statistical Area was $57 million.
- The Hawkesbury-Nepean River System is a significant landscape feature for tourism and recreation, however Hornsby-specific tourism data is not collected due to the local industry scale (applies across the North District).

[2] AgEcon Plus, *Values of the Metropolitan Rural Area*, 2017, p. 5, based on *A Plan for Growing Sydney*, 2014. Available online: https://gsc-public-1.s3.amazonaws.com/s3fs-public/Values_of_the_Metropolitan_Rural_Area_of_the_Greater_Sydney_Region_(Ag_Econ_Plus).pdf.
[3] Ibid., pp. 102—107.

- The North District contains several areas with high environmental values, including some places on private land.

These findings underpin many values of the North District's agricultural area identified in the North District Plan. The report emphasises that while it may be appropriate for some minor housing change to occur within the footprint of rural villages (for example, to enable people of all ages and life stages to remain in their local community in housing that suits their needs) the rural areas are not identified to accommodate broadscale population growth. The report is further examined in Chapter 4.

Sydney Peri-urban Network Action Plan 2020

The Sydney Peri Urban Network (SPUN) represents twelve Councils that border metropolitan Sydney. SPUN was established in 2013 to advocate for a broader understanding and awareness of the challenges for communities within the Sydney Peri Urban Area. Hornsby Shire Council has been a member of the network since it was established. The network consists of the following other member Councils:

- Blue Mountains
- Camden
- Central Coast
- Hawkesbury
- Kiama
- Penrith
- Shellharbour
- Shoalhaven
- The Hills
- Wingecarribee
- Wollondilly.

SPUN is a platform for Peri Urban Councils to share knowledge and good practice and has enabled strengthening of the strategic capacity of local government through regional resource sharing and solution focused initiatives. SPUN has also become a strong advocate for a broader understanding and awareness of the challenges communities in NSW PeriUrban areas are facing and has had an impact in resilience planning, particularly in relation to productivity, economic outcomes and climate impact initiatives.

SPUN recently released its 2020 Action Plan, which includes that the aim of SPUN is to be a leader in advocating for solutions to peri-urban issues, by:

- Working together to promote better recognition of the unique values of peri-urban lands and the challenges affecting those areas.
- Acting as a forum for peri-urban Councils to share knowledge and best practice.
- Building opportunities for partnerships, collaborative approaches and resource sharing in relation to solutions and responses to peri-urban issues.
- Continuing to provide a source of primary food production and raw materials.

The Action Plan identifies that peri-urban areas face significant challenges relating to:

- Urban growth pressures
- Loss of agricultural lands
- Land use conflict
- Impacts on environmental values
- Climate change and severe weather events
- Inadequate transport and other infrastructure
- Inadequate social infrastructure and affordable housing
- Insufficient employment opportunities
- Funding and policy 'limbo'
- Community expectations

The Plan identifies the following examples for opportunities for peri-urban areas:

- Expanding the role they play in providing fresh agricultural produce.
- Providing areas to develop innovative and sustainable agriculture supported by institutional research and development.
- Supporting further recreation and tourism opportunities. Recognising and promoting the cultural heritage and landscape values of the peri-urban areas.
- Continuing to promote and strengthening their role in providing important environmental values including air quality, healthy waterways and biodiversity.
- Continuing to protect Sydney's drinking water.

The actions of the Plan have been reviewed as part of this Study. One of the actions of the Plan that is relevant to the Rural Lands Study is Action 6 – 'Sustainable balanced growth and protection of agriculture and rural character', which includes the following:

- Develop a policy framework regarding agriculture in the Sydney Region, e.g. establish a "fence line in the paddock" (Action 6.1)
- Advocate for and provide more certainty regarding the protection and enhancement of the metropolitan rural area and other surrounding rural areas. (Action 6.2)
- Implement policy approaches that encourage development of the infill areas within Sydney's existing "footprint" (Action 6.2).

Investigation into the cumulative impacts of Seniors Housing in The Hills and Hornsby local government areas

The report *Investigation into the cumulative impacts of Seniors Housing in The Hills and Hornsby local government areas* was prepared by the Greater Sydney Commission (GSC) in 2020. The report documents the findings of an examination of the planning challenges being experienced by Hornsby and The Hills Councils in relation to seniors housing developments in rural areas, permitted under State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 (the Seniors Housing SEPP).

The report finds that Seniors Housing based on development standards within the SEPP typically result in an urban built form rather than reflecting rural character. Developments generally comprise medium density multi-unit housing complexes with only modest landscaping. The report recommends that the SEPP be reviewed, and the Department of Planning Industry and Environment are considering the options presented in the report.

2.4 Hornsby community and council plans

Council's vision and strategic directions are contained in community and council plans. The plans contain several important policies which have implications for this study. They:

- Place emphasis on the importance of maintaining and enhancing rural landscapes
- Direct future residential growth into existing urban centres
- Indicate that rural areas serve many functions that relate to economic, cultural, social and environmental values.

Hornsby Shire Community Strategic Plan 2018-2028

The Hornsby Community Strategic Plan 'Your Vision Your Future 2028' is a 10-year vision that identifies the main priorities and aspirations for the future of Hornsby Shire. The strategic plan includes the following strategic vision:

> *Our Bushland Shire is a place for people. It has impressive places and wonderful environments and offers a great lifestyle for all members of our community.*

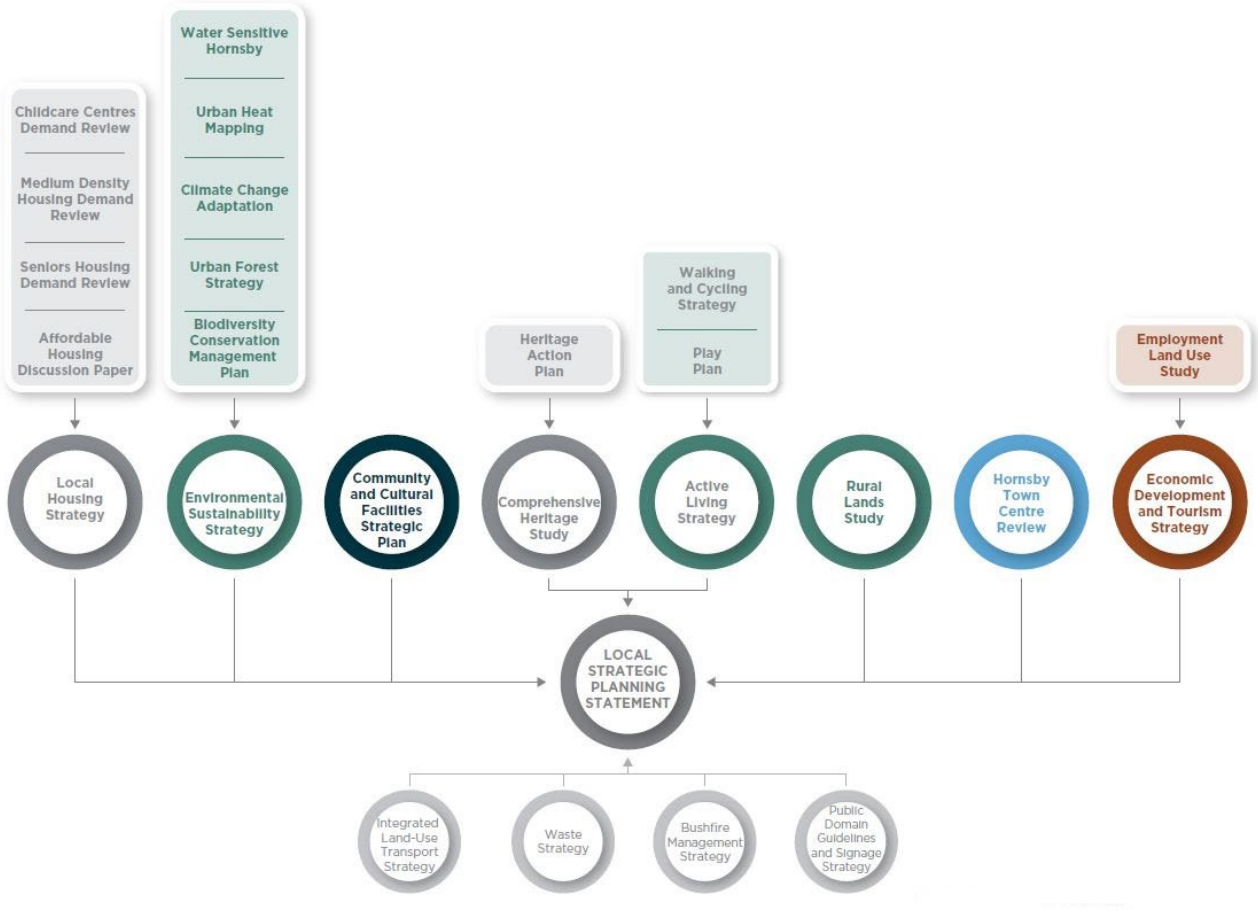
It includes the following focus areas that are relevant to the Study:

- Valuing green spaces and landscape
- Living with bushfire risk
- Adapting to a changing environment
- Advocating with the NSW Government for the infrastructure needs of the local area
- Community wellbeing and neighbourhood amenity
- Giving people housing choices
- Identifying, protecting, creating and providing access to places and spaces for people

Hornsby Shire Local Strategic Planning Statement (2020)

Council has recently prepared a Local Strategic Planning Statement (LSPS). The LSPS sets out a 20-year vision for land use in the LGA. To inform the LSPS, Council commissioned several studies, as shown overleaf.

FIGURE 6: FUTURE HORNSBY LSPS AND SUPPORTING STRATEGY STRUCTURE



Source: *Hornsby Local Strategic Planning Statement, Hornsby Shire Council, 2020.*

These studies, which are currently being prepared, will inform future versions of Hornsby's LSPS.

HORNSBY SHIRE'S LSPS VISION

Value Statement

"Our Bushland Shire is a place for people. It has impressive places and wonderful environments and offers a great lifestyle for all members of our community"

Action Statement

"We are committed to collaboratively implementing infrastructure, sustainability, liveability, productivity and affordability initiatives to ensure our Bushland Shire thrives now and into the future".

External Impacts

"Our Bushland Shire is being shaped by our natural environment, population growth, housing and employment opportunities. Future land use decisions and strategies should be considered regarding their consistency with the above Value Statement and Action Statement."

The Rural Lands Study will be influenced by the following priorities from the LSPS:

- "Protect, conserve and enhance the environmental value and economic productivity of the Metropolitan Rural Lands in the Shire.
- Support sustainable economic growth based on the Shire's built and natural assets, infrastructure and local advantages.
- Build our resilience to natural hazards, including bushfire risk, flooding and climate change.
- Maintain and enhance the environmental, economic and scenic values of the Metropolitan Rural Areas of Hornsby.
- Protect our community from natural hazards."

In addition, several principles are relevant:

- Protect rural areas from inappropriate Seniors Housing development.
- The Shire's bushland setting presents a significant bushfire risk to a large portion of the population.
- "Bushland and waterways act as a natural constraint for urban development, with bushland covering over 2,000 hectares of our Shire."
- Rehabilitation of the Hornsby Quarry and additional links from the Hornsby Town Centre to the Berowra Valley as an expansion of bushland trails and the Green Grid are priorities to improve connections between green spaces and Greater Sydney.
- "The Shire contains a diverse array of landscapes with significant conservation values and hosts a range of endemic flora, fauna and invertebrates—many of which are threatened. It is important to have a strong local policy response to address local biodiversity loss and to do this Council is developing a long-term plan to provide strategic direction for land use incorporating principles of biodiversity." The rural area is key location for biodiversity, where habitat areas can be rehabilitated.
- Council is developing catchment-specific environmental values and targets for waterway conservation, protection and management to prevent negative impacts including pollution, erosive flows, climate change, aging stormwater infrastructure, and urban/industrial runoff."
- "Rural areas are constrained by the provision of mains water and sewerage infrastructure. There are 2,700 properties in the Shire that are unsewered and rely on onsite sewerage management systems for the treatment of wastewater. These have the potential to impact the surrounding environment if not managed correctly."
- "48 per cent of properties in the Shire are located in bushfire prone areas. Our strategies for growth and housing have been, and will continue to be, focussed in areas where natural hazards and risks are low."
- "One of the key constraints for our rural areas is the lack of transport infrastructure, primarily to our State and regional roads…Residents living in rural areas are experiencing significant traffic, further compounded by through traffic originating in the adjoining Hills Shire. Better management of our rural roads, including our capacity to address infrastructure constraints, is a key consideration for future rural planning."
- Regarding seniors housing developments in rural areas, "our priority is to better manage rural lands, being mindful of current constraints but capitalising on strategic opportunities identified through the Rural Lands Study."

Other local strategies relevant to the Rural Lands Study undergoing preparation

Draft Productive Hornsby Shire: Economic Development and Tourism Strategy 2020-2025 (2019)

The Draft Economic and Tourism Strategy is currently under consideration and was not yet finalised at the time of writing. However, due to the interrelated nature of the directions from both that strategy and the future Rural Lands Study the current documentation has been reviewed. Following on from the actions developed in the *Economic Development and Tourism Strategy Discussion and Directions Paper* three themes have been developed to direct the opportunities and outputs of Economic Development and Tourism in Hornsby. The three themes are:

- Theme 1: Connected Hornsby - Establish and promote Hornsby Shire Council's role and capacity as an enabler of economic development,
- Theme 2: Smart and Innovative Hornsby Shire – Establish Hornsby as a globally connected smart and innovate Shire, and,
- Theme 3: Destination Hornsby Shire – Position Hornsby Shire as a location of choice for visitors and events.

Key opportunities related to rural lands are:

- '3.2 Co-ordinate marketing and promotion activities between the Hawkesbury, Hills and Hornsby Shire Councils underpinned by a network of tourism information centres (or portals) coordinated across local government area boundaries.'
- '3.3 Support Hornsby Shire's rural and river communities through delivery of Rural Lands Strategy - including, potentially, the development of a separate Destination Management Plan.'
- '3.4 Improve access to the Hawkesbury River through the delivery of appropriate support infrastructure, including public moorings and jetties, parking facilities and pump stations.'
- '3.8 As part of the LEP review, identify opportunities to facilitate the development of visitor accommodation in Hornsby Shire at appropriate locations. Inform this activity with an audit of existing accommodation across Hornsby Shire and neighbouring areas. This will require consultation with RFS to expand permissible tourism/visitor accommodation in high bushfire risk areas.'

The *Hornsby Shire Economic Development and Tourism Strategy Discussion and Directions Paper (2019)* was prepared by SC Lennon and Associates as part of the preliminary stage of the Economic Development and Tourism Strategy. The paper provides recommendations for how Council can enable economic development and tourism. The study describes the following four actions to catalyse this:

- Preparing for prosperity – Research, Strategic Planning, Regulation and Place Management: Ensuring that the Council forecasts and provides adequate floor space for commercial and industrial development.
- Enabling Prosperity – Infrastructure and Service Provision: Providing infrastructure, elements such as libraries and museums, to attract knowledge workers and stimulate the economy.
- Supporting Prosperity – Investment Attraction and Business Support: Supporting local businesses through issuing information on government grants and access programs to support growth.
- Promoting Prosperity – Economic Development Advocacy and Partnerships: Hornsby Council acting as a unifying voice for the community and businesses. Council should advocate to the State government about key infrastructure such as transport infrastructure that is necessary to support the economy.

The Hornsby Rural Area supports the tourism and agricultural industry sectors. The Strategy acknowledges that the LGA is characterised by a wealth of natural assets, which include several national parks and the Hawkesbury River. These natural assets and the Hornsby rural areas attract visitors and support the agricultural sector. The Strategy found that:

- A range of recreational activities and opportunities including bushwalking, farmgate trails and mountain biking are supported by rural areas.
- Food and agribusiness are strong and have the potential to grow.
- Fagan Park is identified as an underutilised space which could be used for festival and events.
- Agri-tourism should be explored further, particularly along the Hawkesbury River. Currently, there is a shortage B&B style accommodation and eco-lodges. The strategy suggests that the planning framework does not encourage these uses.
- There is a strong demand for fruit picking by visitors.
- Flexibility of land uses should increase to support ancillary uses including wholesale and retail produce shopfronts.

These recommendations are relevant to preparation of the *Rural Lands Study* in the next phase of this project, where suggested actions may be explored in more detail.

Draft Employment Land Use Study (2019)

The *Draft Employment Land Use Study* is, at the time of writing, being undertaken by Hill PDA on behalf of Hornby Shire Council. It is intended to completement the Rural Land Study and its scope is the land zoned for retail, commercial and industrial across the Shire. This indicates that the Employment Land Use Study will not consider all rural lands in detail but there has been consideration of some opportunities to support economic contributions particularly through industrial and waterfront zones within the MRA. It is noted that feedback collected during consultation includes information related to rural industry and the viability of land.

Strategies and actions within the current documentation that may impact rural lands include:

- Utilising the waterfront for tourism activities

- Supporting the tourism and agriculture industries
- Tailor short courses to target industries
- Enable pathways for rural producers and tourism industries to support one another.

Draft Biodiversity Conservation Management Plan (2019)

Council has engaged Rhizome consultants to prepare a Biodiversity Conservation Management Plan.

The Biodiversity Conservation Management Plan will give Council direction in undertaking actions to conserve biodiversity and support existing conservation programs. The plan will be developed to provide Council with a 20-year strategy with key outcomes including a prioritised action plan for conservation works, identify areas for future vegetation corridors and links and provide recommendations for amendments to the Hornsby Local Environment Plan and Development Control Plan that support biodiversity conservation.

Draft Urban Forest Strategy (2019)

Urban Forest Consulting have been engaged to prepare an Urban Forest Strategy. The aim of the Strategy is to improve and protect the urban forest and avoid loss of vegetation. The strategy will involve mapping, benchmarking and the development of actions to improve and protect the urban forest.

Water Sensitive Hornsby

The Cooperative Research Centre for Water Sensitive Cities (CRC WSC) has been engaged to prepare a Water Sensitive Hornsby Strategy. The initial stages of the strategy development, including benchmarking, visioning and the setting of local waterways values, will be used to inform the preparation of the draft Local Strategic Planning Statement.

The vision of a Water Sensitive City (WSC) represents an aspirational concept in which water has a central role in shaping a city. In a WSC the community is active in caring for water and the environment and can enjoy minimal disruption by flooding, reliable water supply, effective sanitation, healthy ecosystems, cool, green and connected landscapes, efficient use of resources and beautiful urban spaces that feature water and bring the community together.

Climate Wise Hornsby

Hornsby Shire Council is committed to reducing its greenhouse gas emissions and taking action on climate change. In 2009 through the Climate Change Adaptation Plan, Council set the emissions reduction target of 30% reduction based on 1995/96 levels by 2020.

Council is currently preparing a new Climate Wise Plan and has committed to Net Zero Emissions by 2050 within a financially sustainable framework.

Draft Hornsby Shire Housing Strategy (2020)

The draft Housing Strategy has been prepared in accordance with the Department of Planning, Industry and Environment (DPIE) guidelines and template and sets out, in more detail than the Local Strategic Planning Statement (LSPS) the priorities, actions and capacity for housing.

The objectives of the Housing Strategy align with key priorities and actions from the LSPS and include:

- Promoting design excellence to ensure new housing delivers high quality buildings and an urban realm that respects current and future desired local character, green spaces and landscaping.
- Ensuring new housing development minimizes environmental impact and promotes ecologically sustainable development.
- Protecting sensitive areas from development and ensure new housing does not detract or erode an area's local character.
- Identifying opportunities encourage housing diversity including medium density, rental housing, adaptable housing for the ageing and multi-unit housing in areas of limited choice and availability.
- Identifying sustainable locations for housing growth close to transport, which support the role of centres, have adequate infrastructure and maximise opportunities through collaboration.
- Ensuring housing growth aligns with the Region and District Plan priorities, planned infrastructure growth and will deliver the District Plan housing targets.

The draft Housing Strategy notes that Metropolitan Rural Land should be protected and raises concerns with the unplanned and unsustainable growth of Seniors Housing permitted by the State Government through Site Compatibility Certificates. This has led to a separate Seniors Housing Demand and Supply Review being prepared by Council to assist decisions concerning the preparation of a standalone Seniors Housing Strategy.

2.5 Hornsby Local Environmental Plan (2013)

The Hornsby LEP 2013 (HLEP) provides the statutory basis for development and land use within the Hornsby LGA. A summary of the zones that apply to Hornsby Shire's rural area is presented below.

Land use and zoning

The zone relates to the land uses (or activities) and types of development that are encouraged in each zone.

The purpose of the **RU1 Primary Production** zone is to encourage sustainable primary production and encourage diversity in primary production. It is also to limit fragmentation or isolation of land used for resource extraction. Some non-agricultural uses such as tourism-related activities can occur in this zone, provided they are low-scale and low-intensity. This zone is applied to land north of Arcadia, Fiddletown and towards Berrilee, around Forest Glen, Canoelands and Maroota, where agricultural activities, and some extractive industries (Maroota) are found.

The **RU2 Rural Landscape** zone identifies land where maintaining the rural landscape character is important. In the RU2 zone, extensive agriculture can also occur, as well as some non-agricultural uses such as those related to tourism. This zone applies to land north of Glenhaven, around Dural and up to Middle Dural.

The **RU4 Primary Production (Small lots)** zone is designed to encourage and promote diversity and employment opportunities in relation to primary industry enterprises, especially those which require smaller lots or are more intensive in nature. This zone also supports some low-scale and low-intensity tourism and visitor accommodation uses, and the provision of farm produce direct to the public provided they are compatible with primary industry. In Hornsby, this zone has been applied in land around Galston, Arcadia and south of Glenorie where some agricultural activities and hobby farms are found.

The **RU5 Rural Villages** zone allows uses that are associated with rural villages. In Hornsby, this zone is applied to a small part of Dural on Old Northern Road. The zone allows some housing 'to support the needs of the community,' and permits development that is 'low scale' and 'low intensity'. As a rural zone, considerations include that new development should not place an undue burden on infrastructure, services and facilities.

The **E3 Environmental Protection** zone applies to land across the rural areas where topography is steeper (for example, river valleys), and usually has more contiguous vegetation and land along the Hawkesbury River. Its purpose is to protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values.

The purpose of the **E4 Environmental Living** zone is to allow low-impact residential development where areas have special ecological, scientific or aesthetic values. Its aim is to manage development so that it is compatible with local character, infrastructure capacity and other identified values. In Hornsby, this zone applies to small settlements along the Berowra Creek and Hawkesbury River.

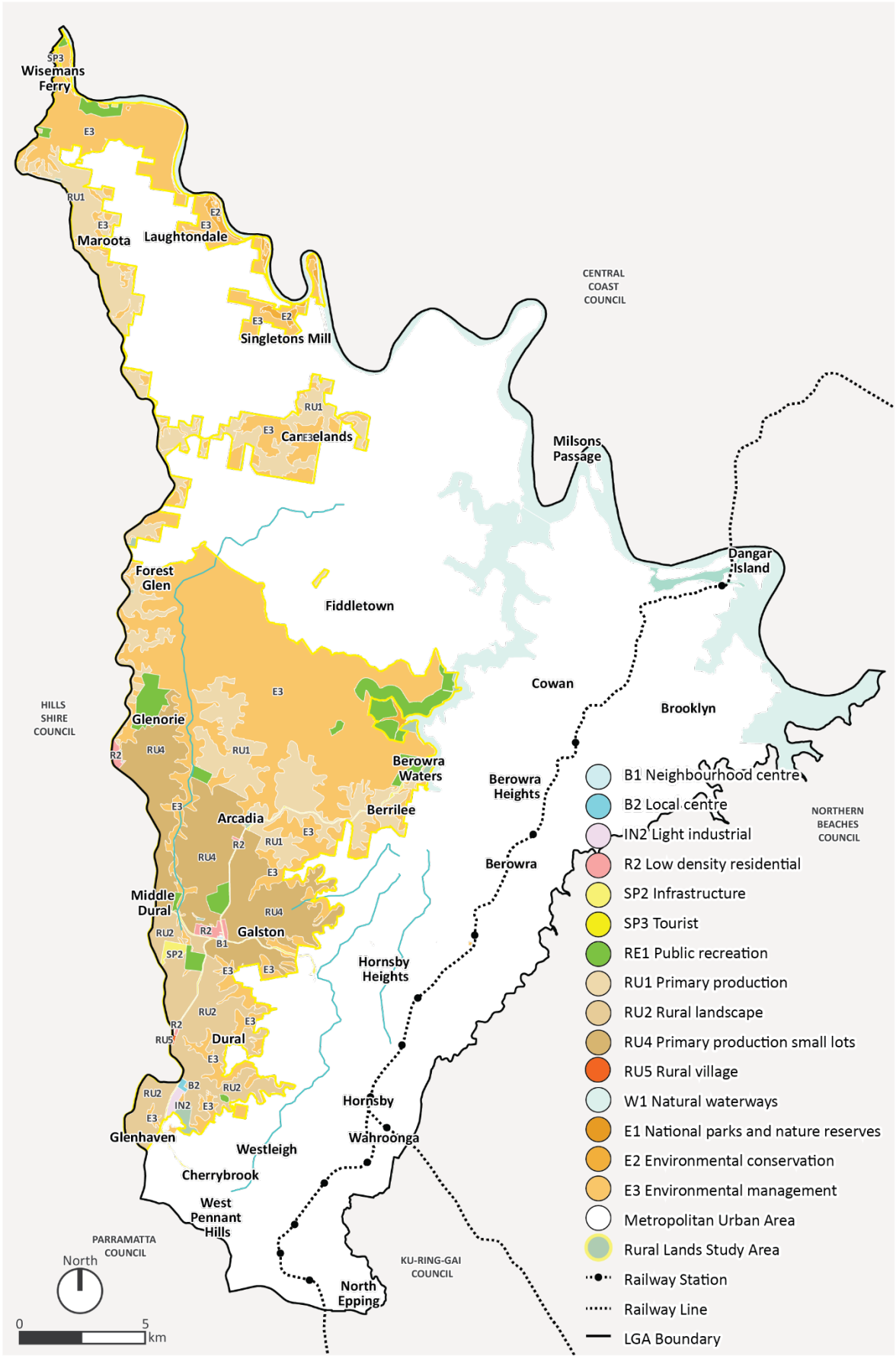
The **SP3 Tourist** zone emphasises the important of creating and supporting land uses that provide tourist orientated development whilst not unreasonably increasing the demand for public infrastructure such as facilities or services. The zone applies to land in Wisemans Ferry.

In Hornsby's rural villages, some small areas of the **B1 Neighbourhood Centre**, **B2 Local Centre** also apply and enable commercial and population-serving activities. Those zones are used within town boundaries only. The **R2 Low Density Residential** zone also applies within Galston village, Arcadia, Dural and Glenorie, which enables residential development within the town boundaries.

Primary production

The main purpose of the RU1, RU2 and RU4 zones is to enable primary production within the rural area. In these zones, all agricultural uses are permitted: aquaculture, extensive agriculture (without consent), intensive livestock agriculture, and intensive plant agriculture. Animal boarding/training establishments, farm buildings and forestry are permitted with consent.

FIGURE 7: LAND USE ZONES IN HORNSBY SHIRE'S RURAL AREA



Source: SGS Economics and Planning, based on NSW Department of Industry, Planning and Environment.

Non-agricultural uses within the rural zones

A range of non-agricultural land uses are also permissible in the RU1, RU2 and RU4. The intent of enabling those land uses (for example, farm stay accommodation, bed and breakfast etc) is to enable farm businesses to diversify, or value-add, strengthening the local economy and enabling flexibility for people to run businesses that reflect the current market.

A range of tourist accommodation uses are currently available within the rural zones, including ecotourism facilities. Camping grounds and caravan parks are not permissible in the rural zones, but can be located within the SP3 Tourist zone.

The rural area in peri-urban locations often contains a range of land uses that service nearby urban populations. In Hornsby, the following land uses are permissible in the RU1, RU2 and RU4 (unless otherwise stated):

- Centre-, home- and school-based child care facilities
- Community facilities
- Information and education facilities
- Respite day care centres
- Recreation areas and recreation facilities (indoor, outdoor)
- Animal boarding and training establishments
- Home occupations (permitted without consent) and home business
- Place of public worship.

Commercial and industrial activities are listed below.

Commercial and industrial activities

A limited range of commercial and industrial land uses are permissible in the rural zones in Hornsby. In the rural zones, the objective is that these commercial or industrial activities are conducted at a smaller scale, to remain in keeping with the primary purpose of rural zoning. They are also intended to provide for commercial or industrial activities which support the ongoing viability of the rural area. Permissible uses in the RU1, RU2 and RU4 include:

- Cellar door premises
- Garden centres (RU2 and RU4)
- Landscaping material supplies
- Plant nurseries
- Roadside stalls
- Rural supplies
- Veterinary hospitals
- Extractive industries
- Open cut mining
- Home industries
- Agricultural produce industries
- Stock and sale yards (RU1 only).

Accommodation uses

There are several short-stay accommodation options available within the Hornsby rural zones.

Tourist and visitor accommodation, bed and breakfast, farm stay and ecotourism facilities are all permissible within the RU1, RU2 and RU4 zones.

For residential accommodation, dwelling houses, attached dual occupancies, group homes (permanent and transitional), rural workers' dwellings and secondary dwellings are permissible. For attached dual occupancies and secondary dwellings, Council has additional measures in place to manage the impacts of such activities on the rural zones, as set out in the discussion below.

Dwelling houses in the rural area

Rural lifestyle opportunities are a significant drawcard of Hornsby Shire. Whether it be lifestyle, part time or hobby farming, the natural and agricultural landscape of Hornsby Shire drives interest in rural living; this is reflected in the high land prices for agricultural lots.

It is important to note that the State Government Planning Framework and the NDP notes that "rural residential development is not an economic value of the rural area and further rural residential development is generally not supported." However, the Greater Sydney Region Plan acknowledges that people seek out rural residential lots for lifestyle purposes, to take advantage of rural scenery and avoid the 'bustle' of urban areas.

As highlighted above, *dwelling houses* are permitted with consent in the rural zones, as well as the E3 and E4 zones in Hornsby. Attached dual occupancies are also permitted, as are rural worker's dwellings and secondary dwellings.

In the rural zones, the main planning objective is that land be used for primary production or small-scale non-agricultural uses that are in harmony with agriculture. Providing housing on the land is an additional use, intended to enable and support running a farm. Despite this, and as highlighted above, many properties in the rural area are used for rural residential, rural living or hobby farms. In these instances, the character may be generally in keeping with a rural aesthetic; however very little or no income-generating activities related to the land may be occurring there.

Given this, characterisation of rural residential development can be understood as set out here (and as observed across the Hornsby rural area):

- Purely rural residential living with almost no agricultural use. This can be further segmented:
    - Rural residential living on small lots in estate-type development with some urban style services but often not reticulated sewer or water (for example, some properties around Galston, and the southern parts of Hornsby Shire's rural area); and
    - Rural retreats on often larger "bush blocks" and sometimes more remote locations (for example, some properties further north along the Hawkesbury River).
- Rural living with very small scale hobby interests of an agricultural nature e.g. keeping horses for private recreation. Often in estate style developments but with larger lot sizes and some agricultural land.
- Hobby farms, which are smaller farms running hobby-scale agricultural operations. Some may have small-scale income-generating activities such as fruit and vegetables, horticulture, or animal keeping.

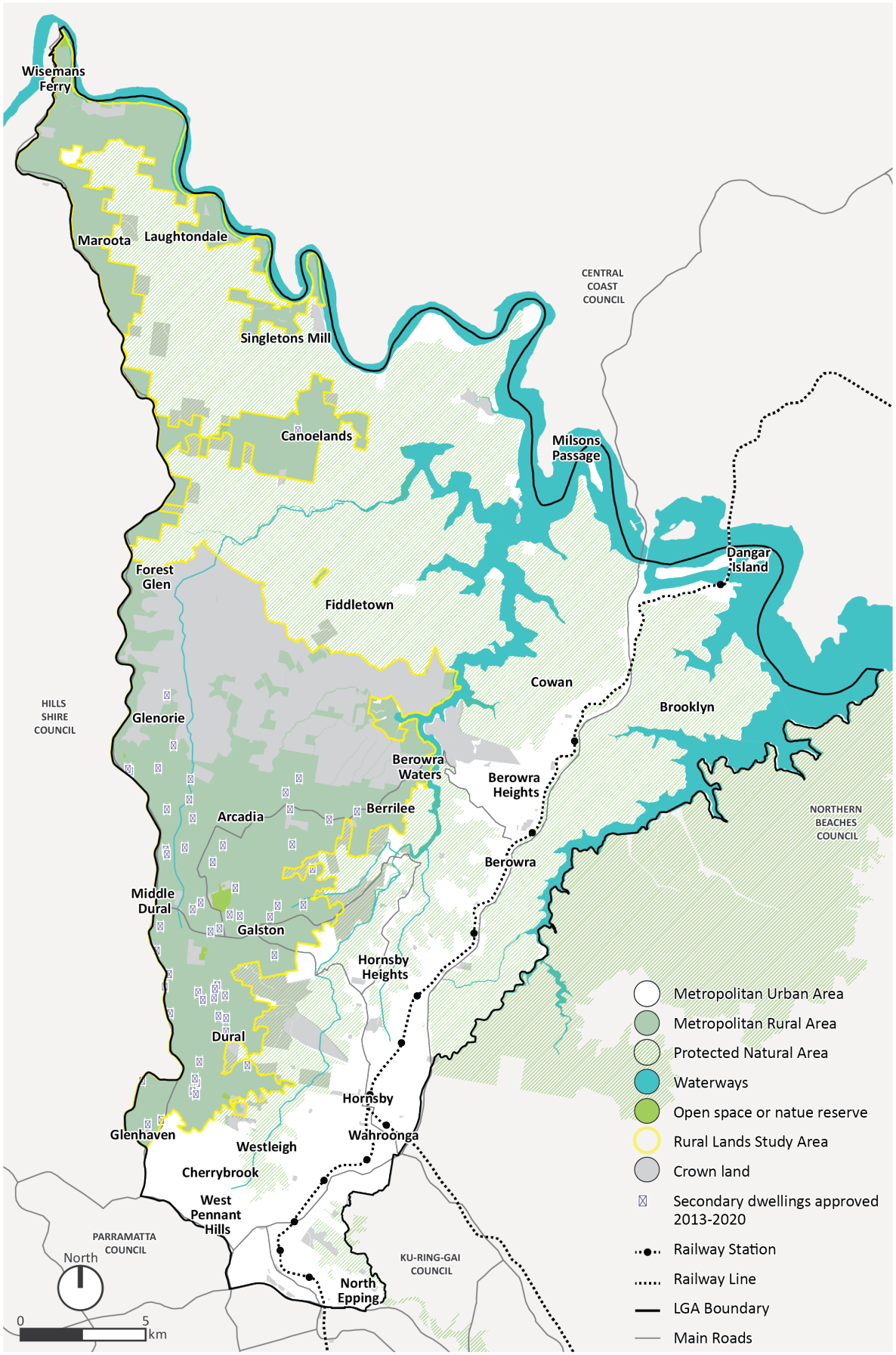
Secondary dwellings

The location of secondary dwellings, and construction of a small number of seniors living developments within the Hornsby rural areas have contributed to dwelling activity in the rural area and have a related effect on household types. The spread of those types of development across the rural area is shown on the map overleaf (Figure 8)

Secondary dwellings have been permitted in rural areas since the land use became permissible in the LEP in 2013. Since this time, 321 secondary dwellings have been approved across the Hornsby LGA, with 25% (92) applications being approved in the rural area, and 75% (269) approved in the urban area. This is a small proportion (2%) of dwelling stock in rural areas which had 3,841 separate houses in 2016. Secondary dwellings were originally permitted to have a floor area that is 20% of floor area of the principal dwelling size, however following the 2014 Rural community issues survey which showed strong support for increasing the permitted secondary dwelling sizes, the LEP was amended to permit secondary dwellings with a floor area of 33% of the principal dwelling floor area.

Recently, secondary dwelling applications tend to be located closer to main roads connecting the rural areas back towards Hornsby city centre and other urban areas, either through the Berowra Valley route or Old Northern Road. The locations are characterised by proximity to higher amenity areas (national parks, waterways and nature reserves) and connectivity to urban areas. The Rural Fire Service does not permit secondary dwellings on land with high bushfire risk (BAL 40 flame zone) and this has likely influenced applications to locate closer to main roads (away from high flame zone areas).

FIGURE 8: SECONDARY DWELLING DEVELOPMENTS IN THE RURAL AREA (2013-2020 APPROVALS)

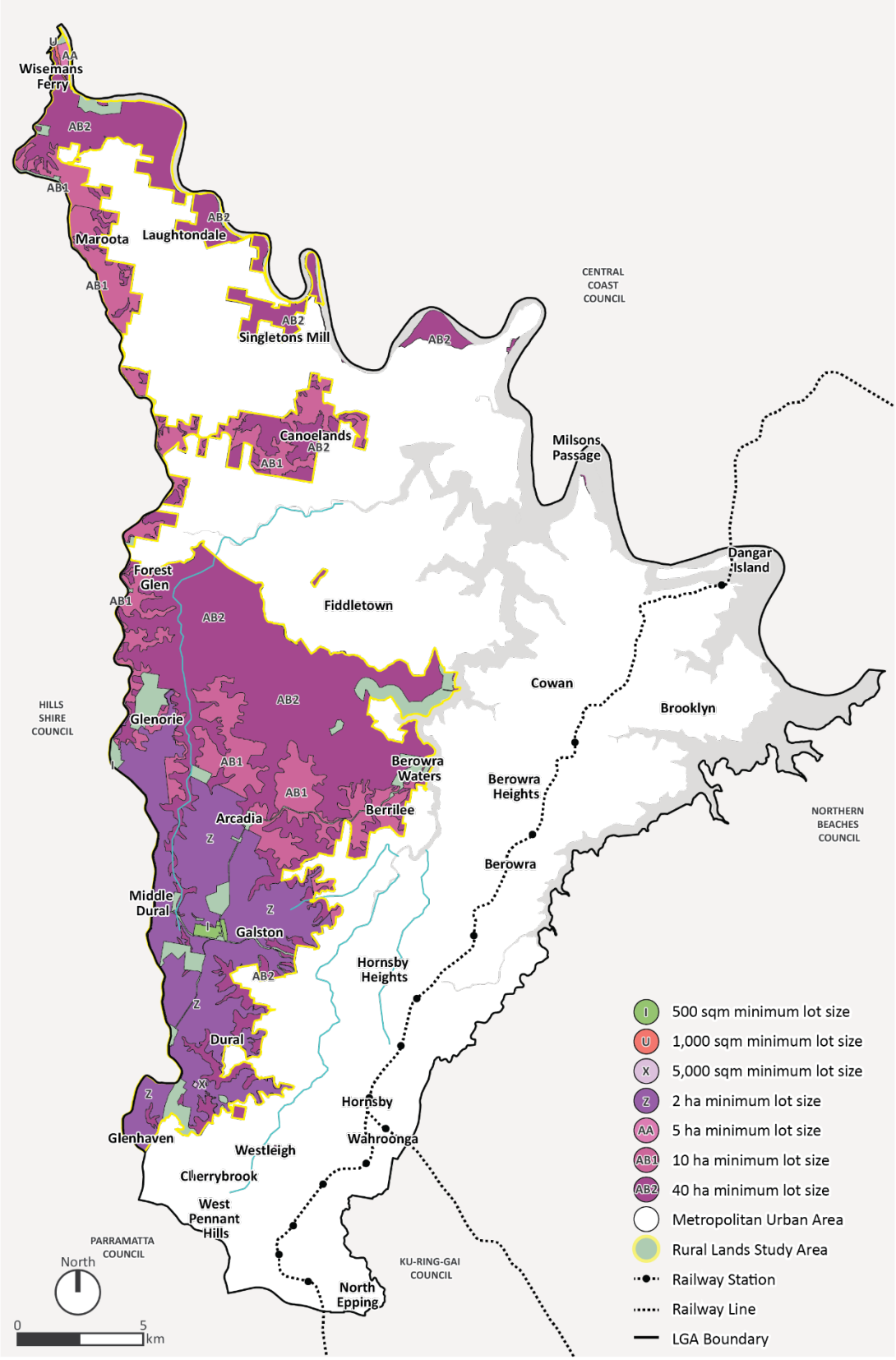


Source: SGS Economics and Planning, 2019, based on data from Hornsby Shire Council.

Minimum lot sizes

The Hornsby LEP (2013) establishes minimum lot sizes for subdivision across the LGA, including rural areas. The map below shows where these apply across the rural area.

FIGURE 9: MINIMUM LOT SIZES FROM THE HORNSBY LEP, 2013



Source: SGS Economics and Planning, 2019.

The Hornsby LEP prescribes minimum lot sizes for subdivision. In the LEP, minimum lot sizes range from 500 square metres within villages, to 2and 10 hectares on rural land, and 40 hectares on land zoned for environmental protection. Minimum lot sizes are not directly tied to zones (Figure 9).

Rural land located generally to the south of Glenorie (in the suburbs of Glenhaven, Dural, Galston, Middle Dural and parts of Arcadia) has a minimum lot size requirement of 2 hectares.

To the north of Glenorie and in the northern parts of Fiddletown and Arcadia, as well as the suburb of Berrilee, there is a minimum lot size of 10 hectares.

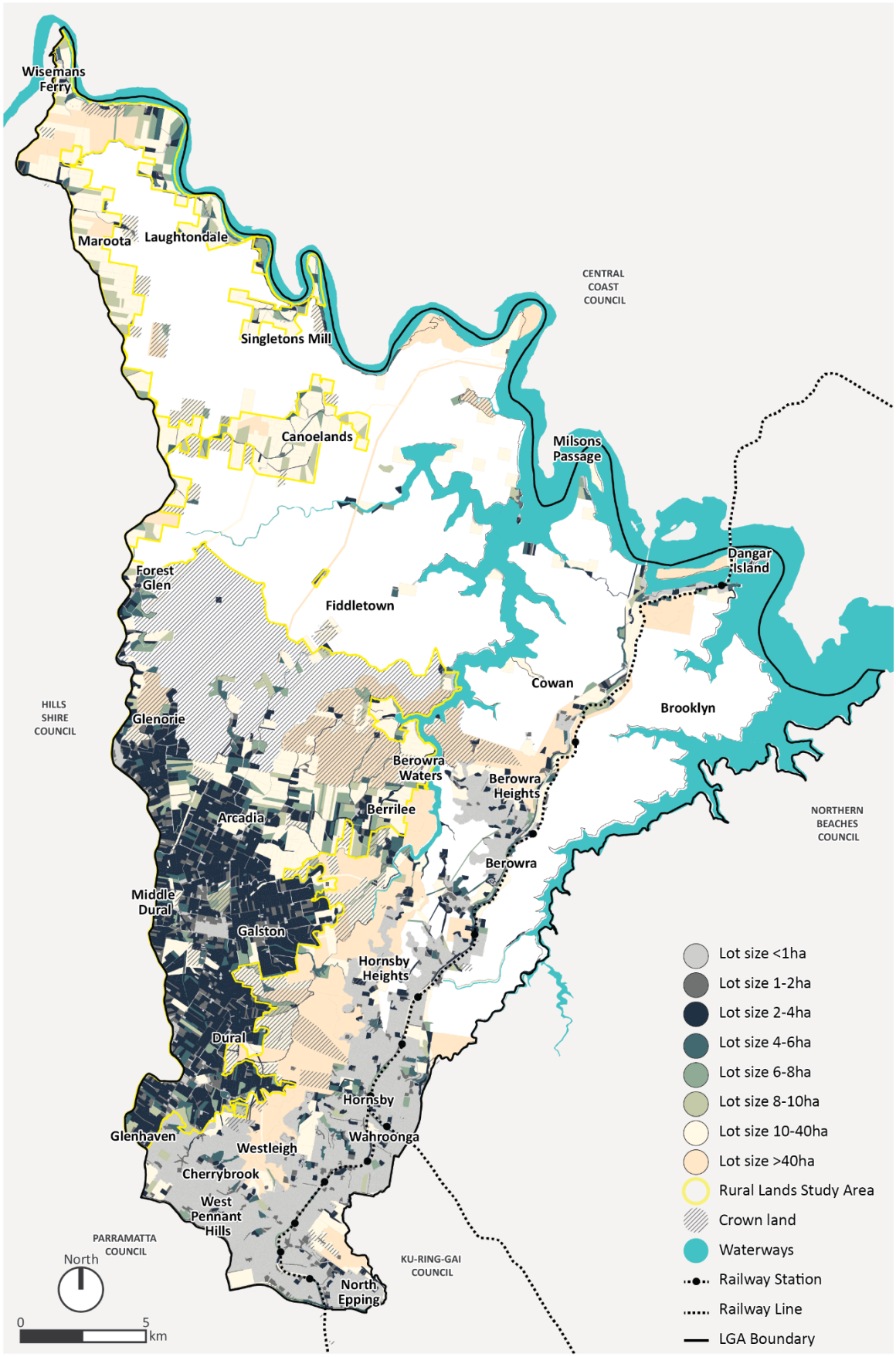
South of Fiddletown and north of Berowra Waters, there is a large area of Crown Land that borders the national/state parks. This land is densely vegetated, and slopes follow the creeklines and the Hawkesbury River. A 40 hectare minimum lot size applies in this area.

A minimum of 40 hectares applies to the land covered by an E3 Environmental Management zone. The E3 Land is located along the Hawkesbury River and is often applicable to private properties that adjoining Bushland or National Parks.

The extent to which minimum lot sizes have been taken up and subdivision opportunities realised, is shown in the map below (Figure 10). Across the rural areas within the Hornsby LGA, the land ownership patterns are highly fragmented, and lot sizes vary significantly based on the environmental features (i.e. larger lots where land slopes more dramatically, as shown on the map). RMCG has conducted further analysis related to land ownership and fragmentation as part of this background review, presented in Section 4.4. Some preliminary commentary is:

- Across the Hornsby rural area, in most locations where a minimum 2 hectare lot size applies, the subdivision potential has been generally realised.
- This demonstrates the desirability of land across the rural area, also reflected in the high land price.
- In areas that are more hilly, or where vegetation protection (e.g. Environmental Management Zones) controls apply, the lot sizes are generally larger.
- As highlighted in the agriculture review, land that has greater soil capability has been significantly fragmented by the historic application of a 2 hectare minimum lot size.
- The landscape character throughout the southern parts of Hornsby Shire's rural area is underpinned by this minimum lot size control, which has established a relatively consistent lot size pattern in lands south of Glenorie, as shown on the map.

FIGURE 10: ACTUAL LOT SIZES ACROSS THE HORNSBY RURAL AREA



Source: SGS Economics and Planning, 2019, based on data provided by Hornsby Shire Council.

Other provisions

In addition to land use zones and principal development standards, the LEP also includes other local provisions that may identify key opportunities or land management constraints, these are identified below:

- Acid sulfate soils
- Terrestrial biodiversity
- Flood planning
- Heritage conservation

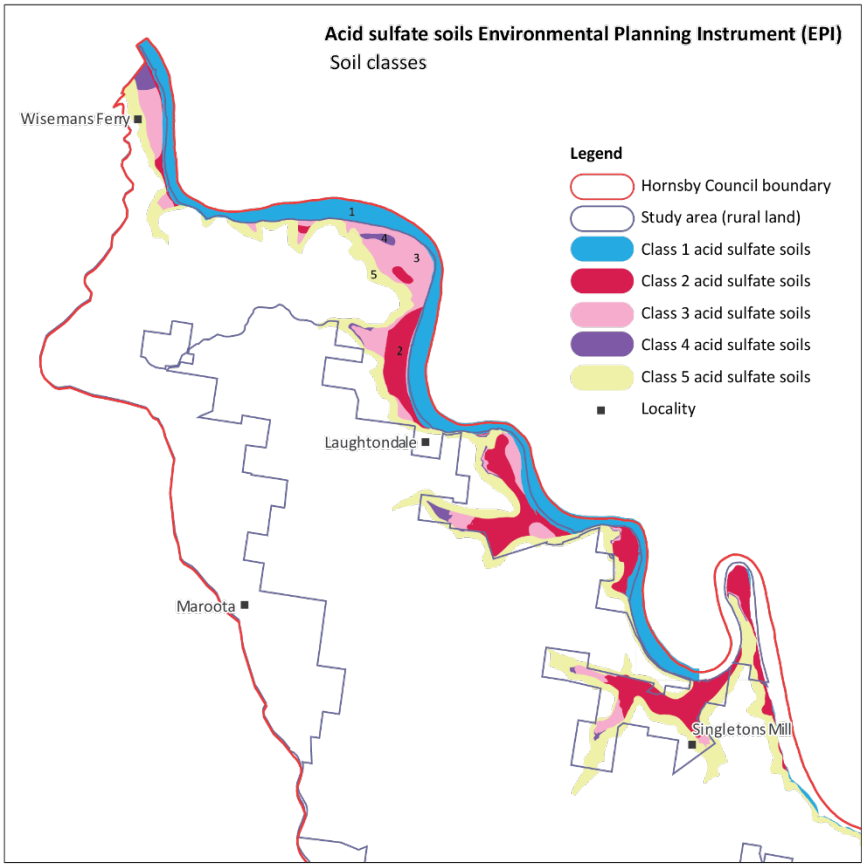
The extent of each provision is identified in the EPI maps in **Appendix 1** to this report.

Acid sulfate soils

Acid sulfate soils can constrain potential land uses as it risks soils being exposed or drained leading to oxidisation and creating sulfuric acid. Environmental planning regulations work to ensure that development at or below ground are limited in development in such soil areas. The permissible works have been categorised from Class 1 to Class 5 with Class 1 Acid sulfate soils the most highly affected.

Within the Hornsby rural area, acid sulfate soils occur along the Hawkesbury River from Wisemans Ferry to Singletons Mill (and beyond) and fall under the following classes, which specify when development consent is required for *the carrying out of any works*. The map at right shows where each class applies.

FIGURE 11: ACID SULFATE SOILS HORNSBY LEP MAP (LAND CLASSES)



Source: SGS Economics and Planning, from Hornsby LEP, 2013.

TABLE 2: DEVELOPMENT CONSENT REQUIRED WORKS ON LAND IN THE ACID SULFATE SOILS

Class of land	Works
Class 1	▪ Any works.
Class 2	▪ Works below the natural ground surface. ▪ Works by which the watertable is likely to be lowered.
Class 3	▪ Works more than 1 metre below the natural ground surface. ▪ Works by which the watertable is likely to be lowered more than 1 metre below the natural ground surface.
Class 4	▪ Works more than 2 metres below the natural ground surface. ▪ Works by which the watertable is likely to be lowered more than 2 metres below the natural ground surface.
Class 5	▪ Works within 500 metres of adjacent Class 1, 2, 3 or 4 land that is below 5 metres Australian Height Datum and by which the watertable is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2, 3 or 4 land.

Source: Hornsby Local Environmental Plan 2013, Part 6 Clause 6.1 (Acid sulfate soils).

Terrestrial biodiversity

Terrestrial Biodiversity limits development in places that are identified as areas of biodiversity within NSW. For development on land to which this clause applies, Council needs to consider the likely adverse impact of the development on the land and any appropriate measures proposed to avoid, minimise or mitigate the impacts. This helps to ensure that endemic flora and fauna are protected.[4]

Council is currently considering an update to the HLEP Terrestrial Biodiversity Map in accordance with updated mapping prepared by EcoLogical Australia in 2017.

Flood planning

This clause prescribes standards and implications for development for property that are in areas that are designated as being under flood risk. The flood planning clause limits the development capacity of lots that are in low lying areas within the Hornsby LGA (see Appendix 1).

Heritage conservation

This provision aims to conserve the environmental heritage of Hornsby, the heritage significant of heritage items and heritage conservation areas, archaeological sites and Aboriginal objects and Aboriginal places of heritage significant. A heritage assessment needs to be conducted on land which this clause applies.

2.6 Hornsby Development Control Plan (2013)

The *Hornsby Development Control Plan* (DCP) (2013) sets out controls and design requirements for development and land use applications across the LGA. The DCP objectives are to:

- "Provide a framework for development of land in the Hornsby LGA
- Clearly set clearly set out the processes, procedures, and responsibilities for the involvement of the community and key stakeholders in the development of land
- Promote development that is consistent with Council's vision of creating a living environment
- Protect and enhance the natural and built environment, and ensure that satisfactory measures are incorporated to ameliorate any impacts arising from development,
- Encourage high quality development that contributes to the existing or desired future character of the area, with particular emphasis on the integration of buildings with a landscaped setting
- Protect and enhance the public domain
- Minimise risk to the community
- Ensure that development incorporates the principles of Ecologically Sustainable Development (ESD)."

Part 1 General Controls contains sections based on several development types and different contexts within the LGA. For example, it includes prescriptive measures for planning applications that require consideration of biodiversity, stormwater management, waste management and effluent disposal, services and lighting, flooding, and bushfire. Many of these considerations are relevant to development applications rural areas. The clauses manage the scale, design, and siting of development to limit detrimental impacts on the natural environment, protection of waterways, and protect people from natural hazards.

Part 2 of the Hornsby Development Control Plan (HDCP) sets out a range of controls and design requirements for rural areas which seek to encourage development that will be environmentally sustainable and protect water quality as well as native flora and fauna. Part 2 of the HDCP Rural buildings, Rural Land Uses, Village Masterplans, Dural Village, and Extractive Industries all relate to the Hornsby rural lands. In essence, the rural chapter of the HDCP seeks to protect and manage rural areas through design requirements that emphasises and mandate the need to preserve and retain the character of the rural area.

Part 9 of the DCP covers heritage, and provides controls for development that may impact on heritage items or areas, many of which are found across the rural area. A map showing heritage places and conservation areas is included in Appendix 1. The controls in Part 9 include approaches for development involving heritage-listed items, Conservation Areas, and places where land (including undisturbed land) may contain an Aboriginal relic or place.

[4] Department of Planning, Industry and Environment, 2019, *Terrestrial Biodiversity*, 'https://www.planningportal.nsw.gov.au/opendata/dataset/epi-terrestrial-biodiversity', date accessed 08/10/2019.

Part 2.1 Rural Buildings

A number of controls are outlined in the Rural Buildings chapter. Aspects of development including height and design, site coverage, setbacks and design details ensure that buildings and dwelling *'contribute positively to the rural landscape*.

Part 2.2 Rural Land Uses

Some rural land uses must be separated from adjoining sensitive land uses to minimise the potential for land use conflict (such as rural industries, animal boarding or training facilities, garden centre, plant nurseries and landscaping material supplies, dams and intensive plant agriculture). Rural industries are defined as 'the handling, treating, production, processing, storage or packing of animal or plant agricultural products for commercial purposes.'

The protection controls also include specifications which apply to secondary dwellings (i.e. the HDCP states that secondary dwellings can be 33 per cent of the principles dwelling or 60 square metres, whichever is greater).

Part 2.3 Village Masterplans

Rural village zones have a range of objectives and controls which seek to ensure that development is compatible and in character within the rural areas. Dural, Galston and Wisemans Ferry villages are identified, and master planned in the HDCP. There are specific requirements which ensure that the village centres retain their respective rural character. The masterplans emphasise the importance of development that is consistent with the low-density rural character of the area.

Part 2.4 Dural Village

Chapter 2.4 of the HDCP contains specific design requirements for Dural Village. The chapter provides further controls on the RU5 Village Zone which is located in Dural Village.

Examples of the desired outcomes include:

- "Development with a height, bulk and scale that is compatible with the character and amenity of the Village Centre.
- Development compatible with a low-density residential environment that complements the zone objectives".

Part 2.5 Extractive Industries

The HDCP outlines specific requirements for extractive industries at Maroota. These industries are regulated by the planning policy and approaches to mitigation and environmental monitoring are identified in the policy.

Management practices and mitigation measures must be implemented. Extractive resource operators must submit an annual Environmental Management Plan. Extractive industries that implement progressive rehabilitation strategies that minimise long-term impacts on surrounding land uses and optimise sustainable future land use.

2.7 Previous Rural Studies

Rural Lands Study (1995)

The *Rural Lands Study* was prepared in 1995 by Hornsby Shire Council. The study provided an analysis of the rural lands, which covered 306 square kilometres of the LGA. The study's purpose was to understand and review the rural planning provisions and to create a rural lands strategy that would inform the future LEP of Hornsby.

Natural, indigenous, social, environmental and economic values were identified as creating the unique landscapes of Hornsby's rural lands. The study adopted nine landscape areas, among which three were considered to have state significance, one was identified as having regional significance and one was identified as having local significance.

The study's aims were to:

- Investigate the role of the Hawkesbury catchment on Hornsby's rural lands
- Identify the natural and built resources
- Investigate the role of agriculture and other rural pursuits
- Understand the direction for population, housing and commercial activities
- Identify and respond to the needs of the community
- Review and update the existing planning controls
- Produce controls for development that improve the environment.

Key findings and new policy objectives were developed as part of the 1995 study:

- The agricultural industry sector within the rural lands contributed to the local economy and employment. The study found that agriculture contributed $98 million per annum.
- Intensive agriculture was identified as a new use. The use is defined by use such as grazing which usually involves land clearance.
- Ensuring that environmentally sensitive areas of rural lands are protected from residential uses.
- Residential zones that were identified as being within close proximity to the Hawkesbury River were recommended to be rezoned to Environmental zones.
- This study has informed the HLEP 2013 and informs the current zoning and lot patterns that categorise the Hornsby LGA. For example, environmentally sensitive areas of rural lands are now protected under Zone E3 Environmental Management, and the Zone E4 Environmental Living ensures that low-impact residential development can be developed in areas with special ecological, scientific or aesthetic values. Extensive agriculture uses are permissible under RU1 Primary Production and RU4 Primary Production Small Lots.
- Although the names of each zone changed in the 2013 HLEP to be accordance with the Standard Instrument LEP, the layout and distribution of the zones and intent has remained generally unchanged.

Rural Resource Lands Study (2006)

The Hornsby Rural Resource Lands Study was prepared by SJB (2006). The study was managed by a project coordinator from the then Baulkham Hills Shire Council and Project Steering Committee made up of the following councils: Baulkham Hills, Campbelltown, Gosford, Hawkesbury, Hornsby, Penrith and Wollondilly. These councils are located on the urban fringe of Greater Sydney and have a range of valuable non-urban lands. They were concerned about the impact of population growth on these lands.

The study discusses and defines rural resources lands and provides insights into rural areas in the LGA. It identifies rural resource lands as significant and highlights how they are under increasing threat from urban encroachment and non-agricultural land uses. These zones aim to protect, manage and restore areas with high or special ecological, scientific, cultural or aesthetic values.

The study also defined rural resource lands as:

> *Land used for the purposes of agriculture, water catchment, nature conservation, mineral exploitation, timber production, recreation, tourism and rural activities and which have recognised economic, environmental, scenic, landscape, cultural and social values significant to the character, biodiversity and sustainability of particular locality and or region.*

The study designates rural areas as lands that are:

- Agricultural
- Rural
- Environmentally sensitive
- Biodiverse significant
- Land used for extractive industry
- Rural residential
- Any 'non-urban' land.

Key findings from the study were:

- The rural area supports agricultural uses which contribute to the economy.
- Environmental values should be maintained in rural landscapes as they protect biodiversity, landscapes and water catchments.
- Hornsby rural areas have cultural significance, as they contain many Aboriginal heritage sites.
- Agriculture in peri-urban areas is impacted by growing demand for rural residential housing, which impacts the economic sustainability of traditional farming.

Rural Lands Planning Provisions Review (2009)

The Hornsby Rural Lands Planning Provisions Review was prepared by Edge Land Planning (February 2009). The review aimed to translate existing strategies and planning policies to State Government Standard Instrument LEP formats whilst seeking to retain planning provisions.

The review found that the Standard Instrument did not have correlating zones for all of Council's existing zones and some amendments were needed to complete the translation. The review recommended which areas the new zones should apply to, how the zones were eventually applied is captured within the Hornsby Development Control Plan.

Rural Planning Community Issues Survey (2014)

The 2014 survey included questions to test community attitudes to a vision statement for Hornsby's rural lands. A key finding from the survey was that people supported the provision of alternative housing formats, business and tourism opportunities.

The survey identified there was community support for the introduction of a number of development opportunities, including larger granny flats, introducing attached dual occupancies as a permissible land use and permitting larger roadside stalls that sell local produce.

The results of the survey indicated mixed support for and against reducing the minimum allotment sizes.

In response to the outcomes of the survey, Council initiated a planning proposal to amend the Local Environmental Plan (LEP) to provide opportunities for additional development supported in the community survey. In November 2016, amendments to the LEP were finalised that allowed the following development opportunities on rural zoned land:

- Secondary dwellings up to 33% of the size of the principal dwelling (increased from 20%);
- Attached dual occupancy up to 200sqm in floor area;
- Roadside stalls up to 40sqm; and
- Split zone lots (comprising rural and environmental protection zoned land) with a total area that complies with the rural zone lot size and maintains a minimum one-fifth of the site as rural zoned land.

2.8 Other Approaches

The Hills Shire

The Hills Shire Council have recently exhibited a planning proposal for amendments to The Hills Shire LEP 2013. Part of the planning proposal involves changes to planning controls in rural areas from actions arising from The Hills Shire Rural Lands Study 2019. Some key components of the planning proposal as it relates to rural area include:

- Artisan food and drink premises are proposed to be included in rural zones to reflect the changing nature of boutique food and drink operations and support local growers in showcasing their goods.
- Markets are proposed to be as included in the RU2 Rural Landscape zone to encourage tourism and the provision of farm produce directly to the public.
- Other changes include the addition of rural industries and service stations in the RU1 Primary Production Zone to help provide agricultural enterprises with access to convenient, localise support industries.
- Inclusion of a new objective in the RU6 Transition zone to ensure that development does not have a detrimental impact on the rural and scenic character of the land.
- Changes to the land use table in the RU6 zone include inserting rural industries, markets, cellar door premises and artisan food and drink premises as permitted uses and prohibit public administration buildings, livestock processing industries, sawmill or log processing works and stock and sale yards. See further discussion below under 'Application land use zones.'
- Inclusion of Standard Instrument Clause 5.16 to minimise potential land use conflict between existing and proposed residential land uses and other rural land uses. This Clause would apply to applications for dwellings or subdivision for dwellings in the rural and environmental zones and would require consideration of existing and approved surrounding land uses.

The Rural Strategy and Local Strategic Planning Statement identify opportunities to investigate future location of a rural services hub in the northern area of the Shire that may cater to these requirements.

A meeting was held with the Hills Shire Council to understand their approach to managing rural lands, especially where these abut Hornsby Shire.

Key aspects of the discussion that have informed the approach to managing shared areas within Hornsby (especially rural villages of Dural, Glenorie and Wisemans Ferry) are:

- Rural areas in the Hills Shire face many of the same challenges regarding land use conflicts, availability of secure water supply, capacity for people to grow businesses and intensify agricultural land uses, and have value-adding opportunities, especially tourism.
- An investigation area around Glenorie has been identified for place planning and part of that work may involve examining housing diversity within villages.
- The Hills propose to investigate the transition between rural villages and the rural area through place planning, identifying how housing diversity will be achieved while also managing interface issues that can arise between rural residential and other rural land uses.
- Flooding and bushfire are key challenges.

Cluster subdivisions

One of the approaches implemented in The Hills Shire Council is the opportunity for cluster subdivisions.

Cluster subdivision involves the subdivision of a lot into small parcels grouped together on land that is not significantly constrained, in order to protect another portion of the site containing significant environmental and biodiversity values though a restrictive covenant and ongoing management.

This approach was considered by Hornsby Shire Council following the 2014 Rural Lands Survey, however Council decided not to progress with this option due to concerns about encouraging development on sites that experience significant environmental constraints.

Concessional lots

A *concessional lot* is a lot that was subdivided off from a larger land parcel (parent allotment), that is less than the minimum allotment size prescribed in a planning instrument, and often contains a dwelling. Hornsby Council's planning instruments have never included provisions that specifically permitted concessional lots. However, an inspection of aerial mapping shows numerous examples of properties where concessional lots were created.

Based on Council's review of title plans, most concessional allotments were created prior to the commencement of the Hornsby Planning Scheme Ordinance (HPSO) in 1977 and before the commencement of the Environmental Planning & Assessment Act 1979. Pre-1977 was a time when the County of Cumberland Planning Scheme was in force (from 1951) and applications for subdivision were considered against the now repealed Local Government Act 1919. Although the County of Cumberland planning scheme included a rural lot size requirement of 2 hectares and 10 hectares, the Local Government Act included basic considerations for subdivision. It appears that a more flexible approach in subdivision approvals was provided at this time which is attributable to the mixed pattern of allotment sizes that is evident throughout the rural areas.

Although Hornsby Shire has not included specific provisions to allow for concessional lots in rural areas, it is understood that some other Council areas have historically included provisions for concessional lots through their respective planning instruments.

The original intent of concessional lots was to support farms by providing opportunities for farmers to retire and remain on site, support family succession planning and/or provide for worker housing on the farm. Anecdotally, concessional lots historically allowed farms to sell off a portion of land to remain viable, offering opportunities for smaller rural residential lots.

The matter of concessional lots was considered in the 1995 Rural Lands study. The Study identified the advantages of concessional lots as being a method to allow people no longer able to farm their property to remain in the family home. The disadvantages identified were that they create infrastructure inefficiencies and an irregular subdivision pattern of small lots amongst larger lots. In summary, the 1995 Rural Lands Study recommended that Council retain the minimum 2 hectare and 10 hectare allotment size as this method provides more certainty and achieves a more regular subdivision pattern.

In 2007, the NSW Government undertook a review of planning controls for rural areas across the central west region of NSW. The Central West Rural Lands Panel was established to undertake this review. The report by the Panel made several recommendations for rural planning policy. With respect to concessional lots, the report noted that:

> *Concessional allotments were originally introduced to provide for farm workers and family members and to minimise the subdivision/fragmentation of rural land. This objective is no longer relevant and this concession has been misused with many concessional lots being sold to related rural lifestylers. In this way, concessional lots have become residential in nature and have resulted in land use conflict.* (p. 14)

The report recognised that although the review focused on the NSW central west, the outcomes would be extended across other rural areas within the State.

In accordance with the Panel's findings, in 2008, the State Environmental Planning Policy (Rural Lands) 2008 was introduced. The SEPP was created to ensure the orderly and economic development of rural land to ensure that the future planning for rural lands is based on stable strategic framework which comprises clear planning controls. The SEPP applied to rural land outside metropolitan areas and therefore was not applicable to Hornsby Council. The SEPP had the effect of amending council Local Environmental Plans to remove provisions for concessional lots. A total of 72 Local Government Areas across regional NSW had concessional lot provisions removed as a result of the SEPP. The SEPP also set out a consistent new set of planning principles and controls that would be mandatory for inclusion in any new LEPs for Councils.

The supporting planning circular (PS 08-002) issued by the then Department of Planning and Environment in 2008 advised that:

> *The provision has resulted in the unplanned creation of rural residential lots occupied by rural lifestylers located next to large commercial farms. As such, concessional lots have resulted in a range of unintended impacts e.g. fragmentation of rural land, land use conflicts and increased demand for infrastructure and services in remote areas.*

Although the Rural Lands SEPP has now been repealed, the amendments made by the now repealed SEPP and the planning circular remain relevant. The Department of Planning, Industry and Environment recently confirmed that the intent of the Rural Lands SEPP and its effect of removing provisions of concessional lots is still relevant. When the Standard Instrument LEP was introduced, Clause 4.2 mirrored Clause 9 of the Rural Lands SEPP, with the intention of prohibiting concessional lots. Clause 4.2 enables subdivision of rural land for the purpose of primary production below the minimum lot size but prohibits a dwelling on the lot.

Small lot excisions in Victoria

The creation of small lots from larger farming parcels in other jurisdictions is also discouraged, due to the fragmentation effect this approach has in rural areas. In Victoria, the creation of concessional lots is discouraged. In instances where small lots can be excised from larger farms, it is caveated with land capability assessments, onsite wastewater management to EPA standards, agricultural production considerations and landscape character objectives.

The policies in Victoria are worded against excision, based on the risk that small lot excision will create isolated residential lots that do not have connection to the usual services/facilities that may be expected in a more peri-urban or urban location. Where small lots may be considered, the lot sizes and remnant farm size are above the minimum lot sizes currently found in the Hornsby minimum lot size LEP:

- In Ballarat (rural council), the minimum permissible land area for excision is 1 hectare, and the remaining farm size must be greater than 4, 10 or 70 hectares depending on its location in the farming zone. Applicants also have to enter into a Section 173 (legal voluntary agreement) with council that prevents further subdivision of the farm following the initial excision. The agreement is registered on the plan of subdivision and title, preventing future owners from further subdivision on that farm.
- In South Gippsland (rural council) the minimum excised lot size is 4 hectares, and the remaining farm size must be greater than 40 hectares.
- In Golden Plains (rural council), the minimum excised lot size is 2 hectares. While there is no minimum remaining farm size, to have a dwelling on the remaining farming zone lot, the minimum lot size is 40 hectares.
- In Casey (peri-urban council with Green Wedge land), the minimum excised lot size is 1 hectare, and the remaining farm size must be greater than 20 hectares.

Such an approach would be difficult to achieve in Hornsby Shire, given the level of fragmentation that already exists. For example, in areas where 2 hectare minimum subdivision size applies, the subdivision potential has been largely realised wherever that is available. In Victoria, the smallest lot that can be excised is 1 hectare, and a minimum farm size must be retained on the balance of the land, in most instances a minimum of 10-20 hectares. A policy with intent similar to the Victorian setting would be difficult to achieve across Hornsby's rural area given the smaller existing lot sizes.

Based on the above, on balance, the benefits put forward in favour of concessional allotments to support farms and families are outweighed by the disadvantages of this approach in terms of increased fragmentation of rural land and land use conflicts.

Land use and zoning

As part of this review, the zoning approach in selected peri-urban and rural councils around Greater Sydney and NSW have been considered. Relevant sections of the following LEPs were reviewed, to understand the mix of zones and land uses enabled across other parts of the Metropolitan Rural Area:

- Hills Shire
- Hawkesbury Shire
- Upper Hunter Shire
- Wollondilly
- Cessnock.

There are six rural zones available in the standard instrument. These zones are applied and designed differently across the five investigation councils, and Hornsby LGA. An overview of the objectives contained within each zone

for these council areas is included in Appendix 2. It is important to note that the range and application of rural land uses differs across council areas, based on historic trends in their planning approach. There are many similarities between planning objectives that prioritise primary production, environmental protection and non-agricultural activities that are sensitive to agricultural land use, and sympathetic to rural landscape character.

TABLE 3: RURAL ZONE APPLICATION ACROSS SELECTED COUNCILS

Rural Zone	Hornsby Shire	The Hills Shire	Hawkesbury Shire	Upper Hunter Shire	Wollondilly Shire	Cessnock
RU1 Primary Production	✓	✓	✓	✓	✓	-
RU2 Rural Landscape	✓	✓	✓	-	✓	✓
RU3 Forestry	-	✓	-	✓	-	✓
RU4 Primary Production Small Lots	✓	-	✓	✓	✓	✓
RU5 Rural Village	✓	-	✓	✓	-	✓
RU6 Transition	-	✓	-	-	-	-

Source: Relevant LEPs.

The council areas selected for investigation were chosen for a range of factors, based on either a similar context to Hornsby Shire (peri-urban councils with land in the Metropolitan Rural Area), a tourism destination (for agriculture, scenic values, etc.), or a rural council where agriculture is more widespread.

Application of the rural zones

In The Hills Shire, the rural area north of Glenhaven to Glenorie is zoned RU6 Transition. The Hills Shire has used the RU6 zone to provide a buffer between urban areas and parts of the rural area north of Glenorie more heavily used for primary production. This is similar with Hornsby Council's approach, where RU2 Rural Landscape zone is used between the urban areas and primary production zoned land in the north of the Shire.

The objectives of the RU6 zone are to manage land use conflicts between rural and urban areas, encourage innovative and sustainable agriculture, encourage tourism and link farm produce to the public. In this zone, extensive agriculture is permitted without consent, and intensive plant agriculture is permitted with consent (as does the RU2 zone in Hornsby Shire).

The Hills Shire Planning Proposal currently under consideration by DPIE, proposes an additional objective to the RU6 zone which is: 'to ensure that development does not have a detrimental impact on the rural and scenic character of the land.' This confirms the intent of the zone is for maintaining rural character and addresses the misconception that the zone facilitates transition away from rural to urban land uses. The Department of Planning's practice note (PN 11-002) applying zones emphasises that the RU6 Rural Transition zone should not be used to identify future urban land.[5]

The additional objective proposed for RU6 is similar to the existing objective of the RU2 zone in the HLEP 2013. The proposed changes to the land uses permitted and prohibited in the RU6 zone aim to ensure consistency with rural character, encourage rural support industries and tourism to further clarify the intent of the zone.

The use of the RU2 zone in Hornsby Shire was a result of recommendations in the Rural Lands Planning Provisions Report (2009), which sought to translate existing zoning under the HSLEP 1994 to the Standard Instrument. The continued use of RU2 zone between the urban area and the primary production zoned land in Hornsby Shire is

[5] Department of Planning, *Planning Practice Note PN 11-002: Preparing LEPs using the Standard Instrument: standard zones*, 2011.

supported, due to the potential misconceptions of the term 'transition' in the RU6 zone title. The RU2 zone most appropriately reflects the intent of the rural land zoning strategy for Hornsby Shire.

In Hawkesbury Shire, the RU1, RU2, RU4 and RU5 are used. Across the Hawkesbury LGA there are significant areas of national park and land zoned for environmental protection. Among the E1 National Parks and Nature Reserve zone areas, the RU1 zone has been used. It often applies along roads that are otherwise fringed by land in the E1 zone. Around Kurrajong township, the land is zoned RU4, with a buffer of E4 Environmental Living zone adjacent to the national park. Around Tennyson and North Richmond, the RU1 has been used. The RU2 has been used as a buffer between Richmond township and the RU1 beyond. The RU2 objectives relate to protecting hilltops and ridgelines, river valleys and the rural landscape.

In Hawkesbury's rural zones, the importance of environmental protection, preserving native vegetation are encouraged. Other objectives seek to encourage agricultural activities that do not rely on highly fertile ground, and to ensure development does not create unreasonable demands for infrastructure provision. In RU1, RU2, and RU4 zones, extensive agriculture is permitted without consent, while other selected forms of agriculture are permitted with consent. In the RU5, like other LGAs a range of retail and population-serving activities are permitted with consent, to support the surrounding rural areas.

In the Wollondilly Shire, the RU1, RU2 and RU4 apply. The RU1 is intended to promote agricultural production and protect the environment and has been applied to land with better soils/conditions for agriculture. The RU2 has been applied to places with large lots, or where conditions and soils are less productive. The RU4 is used around villages, to create a buffer and edge for the urban area.[6]

In the Upper Hunter, the RU1 zone is used extensively across the Shire. There are small areas of RU3, and RU5 used for forestry and rural villages respectively. The RU1 has broad objectives, focusing on protecting the agricultural value of rural land, and maintaining rural landscape character in the long-term. It includes objectives to manage negative impacts from mining including on the environment (noise, air, water, soils). In RU4-zoned land, most agricultural uses are permitted without consent, with some supporting land uses such as aquaculture and farm buildings requiring consent (this is the case with most council areas reviewed).

In Cessnock, the RU2, RU3, RU4 and RU5 apply. The RU5 is applied within rural villages, while the balance of the rural area is mainly zoned RU3 (Forestry) or RU2 (Rural Landscape). There is some RU4 (Primary Production Small Lots) land near Rothbury and Pokolbin, surrounding land for tourism (SP3 zone) where several wineries are located. The RU2 Rural Landscape zone contains several objectives related to protection of primary production and rural landscape character, alongside providing for "a range of compatible uses, including extensive agriculture" and "other forms of development associated with rural activity and require isolation, or support tourism and recreation." Extensive agriculture and home occupations are permitted without consent in the rural zones, other than RU3 and RU5.

Non-agricultural uses

A range of non-agricultural land uses are permitted in The Hills Shire rural zones, with consent. Home-based childcare and home businesses are also permitted. Regarding tourism, a bed and breakfast (without consent) and farm stay accommodation are permitted. Camping grounds, caravan parks and eco-tourist facilities are permitted in the RU2 or RU6 (eco-tourist facilities only) zones. A limited number of retail activities are also permitted (with consent): cellar door premises (not in RU6), restaurants and cafes (not in RU1), garden centres, landscaping material supplies, plant nurseries, and rural supplies (not in RU6). In the RU1, educational establishments/schools are permitted with consent. It is noted that The Hills Shire is currently amending its LEP and may introduce other rural and non-agricultural uses into its rural zones as a result.

In the Hawkesbury RU1, RU2 and RU4, camping ground, caravan parks and tourist and visitor accommodation are permitted. Farm stay accommodation is permitted with consent in the RU2. Food and drink premises, plant nurseries, indoor/outdoor recreation facilities and a range of boat-related activities are permitted with consent. The range of land uses permitted in the RU2 is more limited than the RU1 and RU4, reinforcing its application along hilltops, ridgelines and river valleys and its focus on scenic protection.

[6] Wollondilly Shire Council, *Zone descriptions and explanations*, Available from URL: https://www.wollondilly.nsw.gov.au/assets/Documents/Planning-and-Development/Guidelines-Controls/Zone-Descriptions-Explanations.pdf.

In the Wollondilly RU1, RU2, and RU4 zones, service land uses such as animal boarding/training establishments, plant nurseries, rural supples and plant nurseries are permitted with consent. A range of rural industries are permitted with consent in the RU2 zone. Information and education facilities (RU1, RU2, RU4), and places of public worship (RU2, RU4) are permitted with consent.

In the Upper Hunter, a range of boat-related activities and water recreation facilities are permitted with consent in the RU1 and RU4, zones. Like other council areas in this section, the land uses permitted in the RU5 Village enable town functions, commercial and retail activities reflective of the service role in these centres. Function centres, camping grounds, caravan parks and cellar door premises are permitted with consent, along with home businesses and home occupation in the RU1. Excepting cellar door premises, those tourism-related uses are not permitted in the RU4 zone.

Cessnock enables agricultural produce industries, cellar door premises, some child-care and community facilities, plant nurseries, tourist and visitor accommodation, restaurants and cafes, neighbourhood shops, and function centres in the RU4 with consent. As highlighted above, the RU4 is mainly restricted to land around Rothbury and Pokolbin. There, tourist and visitor accommodation, restaurants and cafes, neighbourhood shops, function centres are also permitted with consent. In the RU2, cellar door premises, health consulting rooms, home industries, neighbourhood shops, pubs, restaurants/cafes, roadside stalls, and rural supplies are permitted with consent. The RU5 (village) zone enables a range of tourism/ accommodation land uses, community facilities and other commercial/ retail and light industrial uses as well as semi-detached dwellings and service stations that would be expected within a township boundary.

Rural residential

In The Hills Shire, attached dual occupancies and secondary dwellings are permitted in the RU1, RU2 and RU6 zones.

In Hawkesbury, attached dual occupancies are permitted with consent in the RU1, RU2 and RU4 zones. Secondary dwellings are not permitted.

In Wollondilly, dual occupancies (attached) and secondary dwellings are permitted with consent in the RU1, RU2 and RU4. Rural workers' dwellings are permitted in the RU1 and RU2.

Dual occupancies (attached), rural workers' dwellings and secondary dwellings are permitted with consent in the Upper Hunter RU1 and RU2 zones. Attached and detached dual occupancies, secondary dwellings, attached dwellings and shop top housing are permitted in the RU5, reflecting the role of villages as an appropriate location for these housing typologies.

In Cessnock, secondary dwellings are permitted with consent in the RU4 and RU5. In the RU2, dual occupancies are permitted with consent. In the RU5 (Village), boarding houses, secondary dwellings, semi-detached dwellings and seniors housing are permitted with consent.

The Hills Shire

The range and application of rural land uses differs across council areas. Based on this review, the approach to managing rural areas that prioritises rural activities is clear across each LGA. Although the combination of zones and variation between zone objectives varies, this is usually based on historic application and refinement of these policies over time, which has evolved differently in each council area. In that regard, the challenges being considered as part of the Hornsby Rural Lands Study are unique to Hornsby.

Challenges more complex to certain council areas are reflected in the zone objectives (see Appendix 1). Most councils in peri-urban locations, or with particularly impactful activities (such as mining) to manage, contain more complex objectives in the relevant rural zone.

The combination of zones, parameters around the zones, and land uses permitted have been assessed and recommendations will be based on how Hornsby Shire's rural area may evolve positively into the future. The review of other council areas assists in this process by considering alternative approaches that may be appropriate to Hornsby.

2.9 Insights from the policy review

State planning policy, supported by local planning policy, emphasises the role and function of rural lands for agriculture, and ancillary uses that support rural populations. In some cases, land uses such as mining and resource recovery that support nearby urban populations are also encouraged. These policies also emphasise that rural areas are important for their scenic and landscape values, and in Hornsby Shire his includes the Hawkesbury River and several national parks. Past rural lands studies conducted by Hornsby Shire Council identified that pressure from nearby urban and residential areas risks creating conflict with rural areas, reducing the potential for rural uses to continue at their most productive rate.

Key findings from the **State policy review** include:

- The Greater Sydney Regional Plan (GSRP) and the Northern District Plan (NDP) define the function of rural areas as farmland, mineral resources, and distinctive towns and villages in rural and bushland settings.
- The GSRP and the NDP highlight key tensions that exist within rural areas: balancing their important role for resource extraction and mining (especially for construction), agriculture production (especially food), with rural residential settlements and biodiversity values which have intrinsic ecological importance as well as providing a natural, scenic break for people to engage with their local landscapes.
- The NSW state policy context acknowledges the inherent conflicts that occur between residential land uses and agricultural land uses particularly within the peri-urban context.
- Policies emphasise the important role that rural areas play in contributing to the economy through agricultural industries as well as the importance of protecting landscapes for biodiversity and cultural purposes.
- The NDP emphasises that Greater Sydney has enough existing urban land to accommodate housing needs within the current Urban Area boundary. It specifies that "rural residential development is not an economic value of the District's rural areas and further rural residential development is generally not supported."
- The NDP requires that local strategic planning and amendments to local planning controls are consistent with the State planning actions and objectives. It is also intended to guide strategic land use planning for the Northern District more broadly. This is the key guiding document that sets the parameters for how Council should plan to manage and grow change.
- State Environmental Planning Policy, (Housing for Seniors or People with a Disability) 2004, is facilitating seniors living developments in Hornsby Shire's rural areas, conflicting with the GSRP and NDP policy objectives for protecting the values of the Metropolitan Rural Area. This is due to the SEPP's application which enables Seniors Housing to be developed on rural zoned land that adjoins land zoned for primarily for urban purposes.
- Scenic quality, koala habitat protection and how development impacts bushland are all key considerations under state policy for rural lands within Hornsby.

Key findings from the **local policy review** are:

- Council's community and council plans emphasise the importance of maintaining and enhancing rural areas while directing future residential growth into existing urban centres.
- The Hornsby Development Control Plan sets controls for rural areas including protection and management, separation of uses and rural village character requirements.
- Council's LEP review program includes draft strategies in various stages of completion which will inform the future amendment of the *Local Strategic Planning Statement*.
- The *Hornsby Local Strategic Planning Statement* is informed by several strategies which reference rural land management, employment, tourism, biodiversity, bushfire risk and sustainability. Consultation during the LSPS process has highlighted the community's views around housing diversity, sustainability and climate change, diverging views on rural lands and more.
- According to Council's *Housing Strategy*, housing supply for population growth will be provided in urban areas
- The draft *Employment Land Use Study* currently under review notes tourism and agriculture need support
- Past rural lands studies found that agriculture in peri-urban areas is impacted by a growing demand for rural residential housing, which impacts the economic sustainability of traditional farming.

A review of the **Hornsby Local Environment Plan** and statutory planning context found:

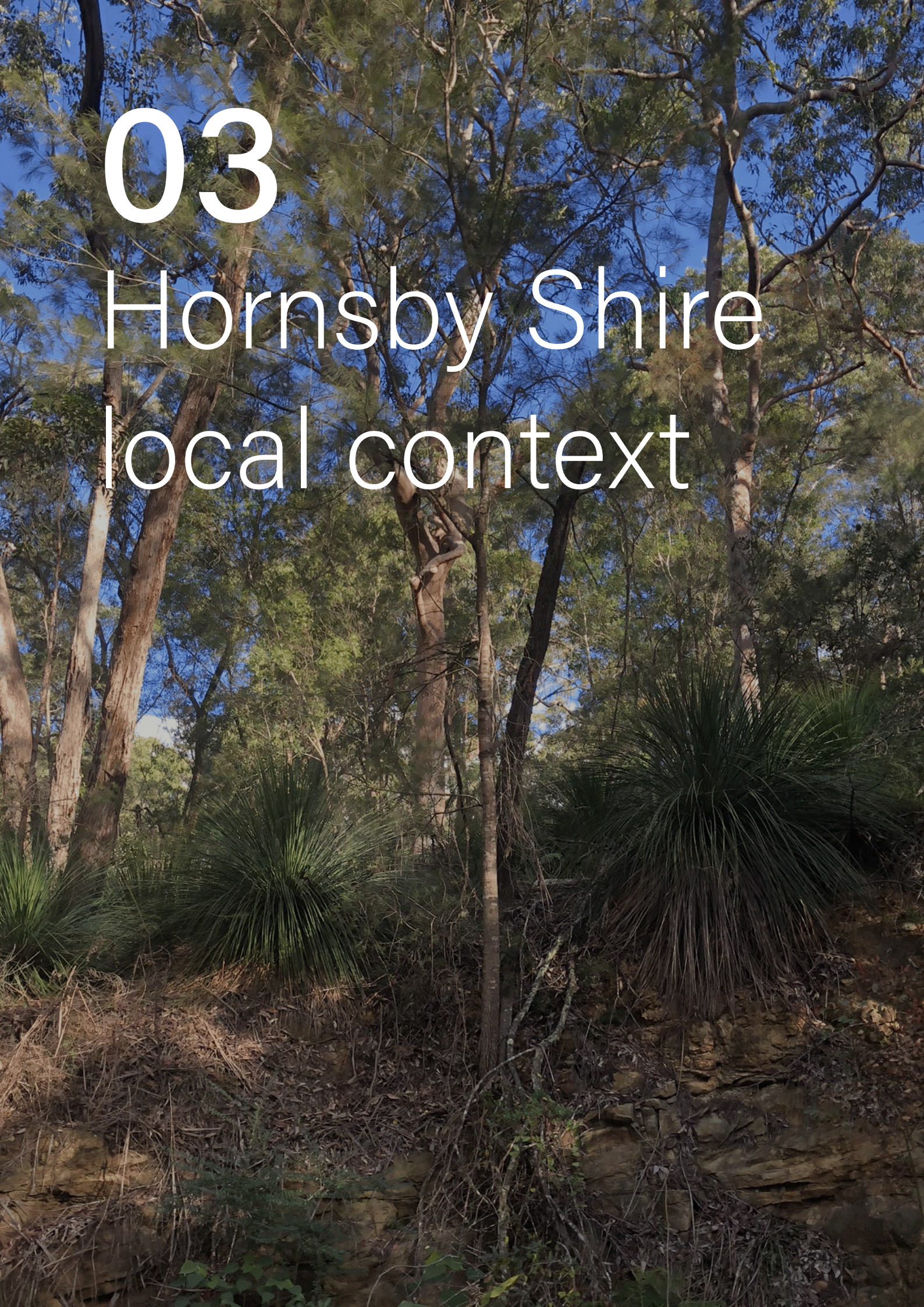
- In Hornsby, permission can be sought for secondary dwellings in rural zones. Secondary dwellings, dwelling houses and dual occupancies (attached houses) are permitted with development consent in rural areas.

- In recent years there has been an increase in the number of secondary dwellings being developed in rural areas.
- Lot sizes vary across the LGA and are not directly tied to their applicable rural zones. For example, the RU1 Primary Production Zone has a variety of minimum lot sizes.
- All rural areas in Hornsby, have closed zones, which means that the types of land uses permitted in each zone are limited to those specifically listed (i.e. only the land uses listed may be applied for through the DA process). Closed zones are not unique to Hornsby. The LEP Practice Note[7] suggested that this approach should be used in Environment Protection, Special Purpose and Recreation zones.

The **planning zones** were reviewed to understand how rural lands are currently managed. Key findings were:

- *RU1 Primary production* includes rural areas with agricultural industries as well as extractive resources as per the standard instrument. Policy objectives include an intention to minimise land use conflicts.
- *RU2 Rural Landscape* encourages and supports sustainable primary production. Land uses in the rural landscape zone are to be carried out in a way that protects natural resource bases. This includes seeking to retain the rural landscape character; the only rural zone which specifies this objective as part of the Standard Instrument. Thus, retaining the rural landscape character is central to the purpose of this zone. Tourism is encouraged through encouraging the provision of "visitor accommodation". The objectives support agriculture and express the importance of supporting "farm produce direct to the public."
- *RU4 Primary Production Small Lots* seeks to minimise land use conflicts and encourage the sustainability of primary industries. Key objectives are to enable tourism and to ensure new development is supported by services and infrastructure.
- The *RU5 Village* applies to Dural and is intended to provide land for services support the nearby rural area. It contains objectives to meet housing needs and acknowledges the importance of ensuring that development is supported by appropriate infrastructure and services such as sewerage, water, telecommunications and waste facilities. This zone in Dural includes development consent for retail, café, medical and a small number of other uses is restricted to preserve the town's role as a local service centre and preserve rural character.
- Galston's *B1 Neighbourhood Centre* is surrounded to the north and west with R2 Low Density Residential Zone.

[7] NSW Government, 2011, accessed from https://www.planning.nsw.gov.au/-/media/Files/DPE/Practice-notes/preparing-LEPs-using-the-standard-instrument-standard-zones-2011-03-10.pdf



03 Hornsby Shire local context

3. HORNSBY SHIRE LOCAL CONTEXT

Hornsby Shire is a local government area that reaches from the remote and natural areas of Marramarra National Park and Hawkesbury River in the north, to the established urban and residential areas of Hornsby, North Epping and Beecroft, in the south. The rural parts of the LGA range from protected national and state parks with rocky, mountainous vistas (Mount Kuring-Gai and the Berowra National Park) to agriculturally productive horticultural from Dural to Wisemans Ferry.

3.1 Introduction

Hornsby Shire is recognised for its bushland and waterways. With vibrant commercial centres, many sporting facilities and parks, Hornsby Shire is a great place to live. The Hornsby Shire estimated resident population for 2019 is 154,490 persons, up from 147,385 in 2016[8]. The population is forecast to grow to 179,582 by 2036. Most of the growth is forecast to be within existing urban areas, especially in Asquith, Hornsby Town Centre and Waitara. Between 2016 and 2026, the age structure forecasts for Hornsby Shire indicate a 9.2 per cent increase in population under working age, a 26.5 per cent increase in population of retirement age, and a 10.1 per cent increase in population of working age.[9]

This chapter presents background information about the demographic profile of the Hornsby LGA compared to its rural areas. It examines the employment profile across Hornsby Shire and its rural areas and examines the likely location of population and employment growth into the future. Finally, the report examines agricultural productivity and land uses currently occurring in the LGA's rural areas.

Geographies and assumptions used in data analysis

Profile.id and Forecast.id prepared demographic profile and employment data for Hornsby Shire Council in 2019. The analysis in this chapter is based on that data, and a map overleaf illustrates how geographies in this chapter relate to the study area boundary. The three profile areas relevant to rural lands used by Profile.id are: Arcadia-North Western Rural, Galston-Middle Dural and Dural.

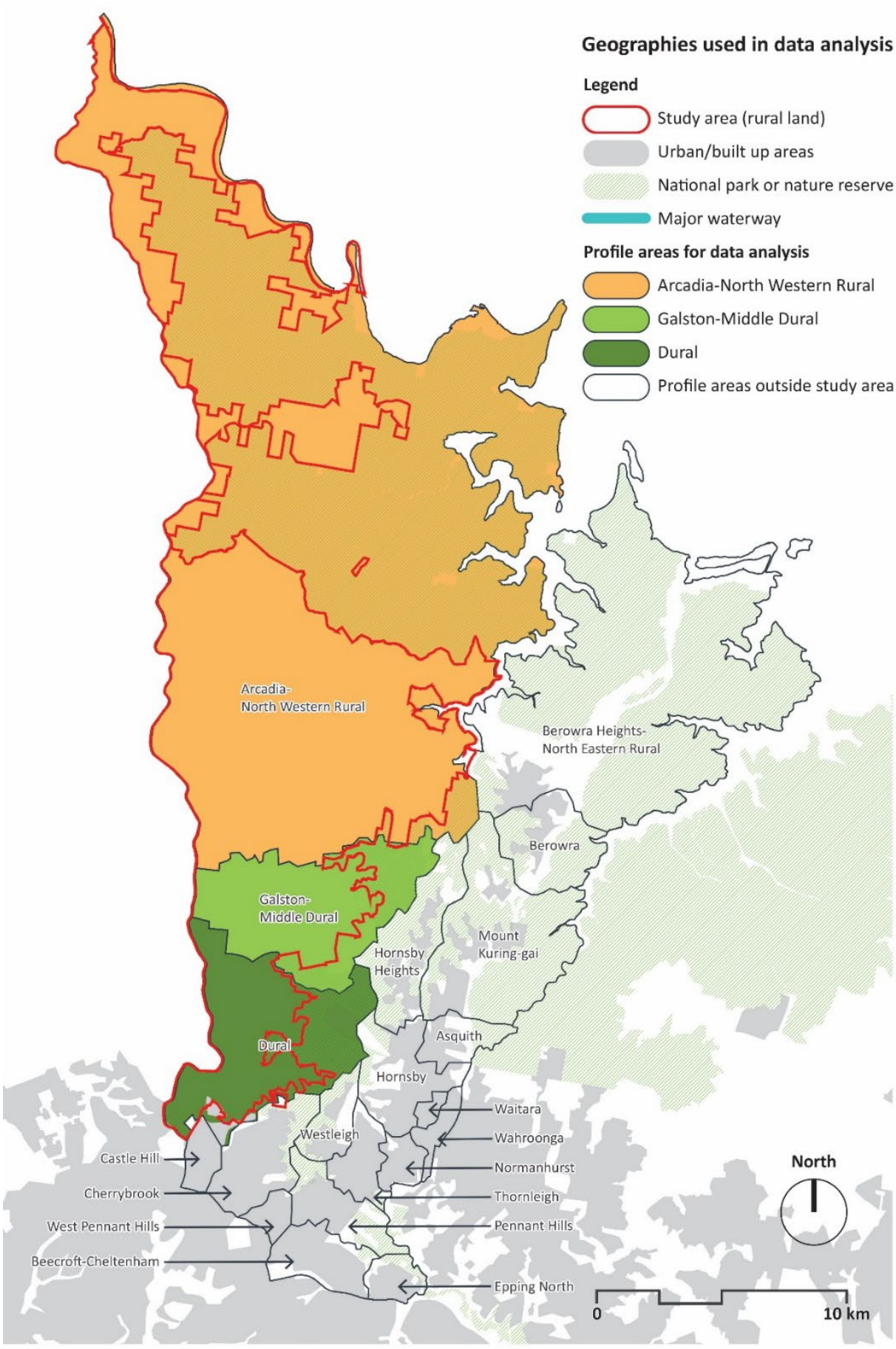
It is noted that the profile area, 'Berowra Heights-North Eastern Rural,' has not been used in the discussion as it is outside the study area (rural lands) boundary for the purposes of the Rural Lands Study, and is largely covered by national park, with a small part of urban land in the south (refer to map overleaf).

The rural areas used throughout this chapter were selected prior to the Rural Land Study being undertaken, and thus growth assumptions are based on population forecasts prepared by .id Consultants in 2019. The projected population growth/change does not contemplate future zoning or lot size changes and is based on ABS Census data. In some instances, SGS has drawn from its own datasets to add detail to the demographic, economic and employment analysis. The data source is cited below those charts or tables.

While the Rural Lands Study has been underway, several other studies and strategies were also being prepared as part of Council's accelerated LEP review program, including an Economic Development and Tourism Strategy, and an Employment Land Strategy. Those studies are occasionally referenced in this report, as relevant. However, some figures will vary based on assumptions used to prepare employment forecasts within the rural area, for example. The variation between this and other studies is minor, and it is important to note that the demographic and employment figures used in this Study are to provide background profile information to illustrate how the rural area is unique, and differs to change occurring in the urban parts of Hornsby Shire.

[8] Population summary data, Available from URL < https://profile.id.com.au/hornsby/population>, .id the population experts, February 2019
[9] Population forecast data, Available from URL <https://forecast.id.com.au/hornsby>, .id the population experts, February 2019.

FIGURE 12: PROFILE AREAS USED IN DATA ANALYSIS



Source: Profile.id for Hornsby Shire Council, 2019.

3.2 Demographic profile

Most people in Hornsby Shire live in an urban area. For those in rural areas, most people live in the southern parts of Hornsby Shire's rural area, while population is more dispersed further north. In the future, the Hornsby LGA population is forecast to increase by around 1 per cent per annum, from 154,490 people (2019) to 179,582 people in 2036. The main areas of growth will be in urban areas: Asquith, Waitara and Hornsby (town centre and Hornsby suburb).

The population in Hornsby Shire's rural areas is not forecast to grow significantly over the next 15 years. According to background research prepared for Hornsby Shire Council by .id Consultants, the existing urban area already contains enough land to accommodate population growth for at least the next 15 years. It should be noted that these growth rates are forecast based on policy conditions today; meaning they are subject to change.

The population across the rural area is ageing, with the rate of 65+ increasing at a faster rate than the urban parts of the LGA. Likewise, the proportion of lone person households in rural areas is expected to increase at a faster rate than urban areas. Decreases in two parent households is expected to occur into the future across both the rural and urban parts of the LGA.

Over the last ten years, medium and high-density development in the LGA has been concentrated in Asquith and Waitara, while new separate housing has also been built in the LGA's suburban areas, particularly Thornleigh, Hornsby Heights and Cherrybrook. In contrast, limited development has occurred in the rural areas, and most dwelling stock is separate dwellings. Some townhouses, terraces and units (a small number) are found within Galston village.

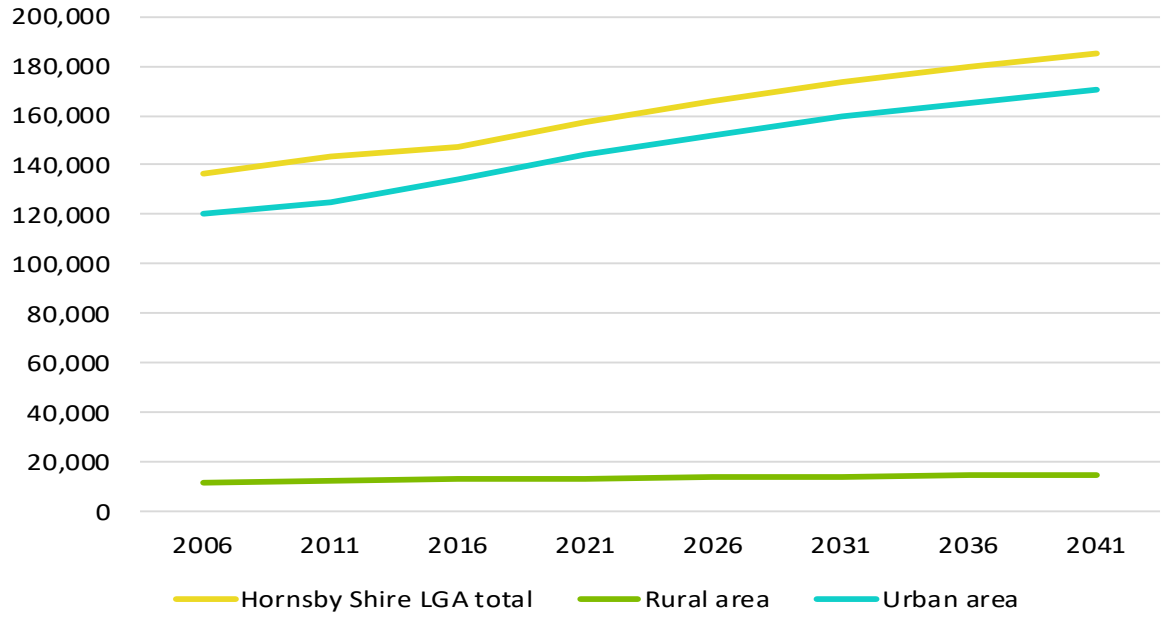
This section presents the population profile (including age groups, household size and dwelling activity) in Hornsby Shire's rural areas, compared to the urban and suburban areas in the LGA. It also compares the three profile areas from .id Consultants, that fit within the study area for the Rural Lands Study, as detailed on the map in the previous section (Figure 12). The demographic, dwelling structure and economic analysis in this section and throughout this chapter were informed by population and employment projections from Forecast.id, prepared for Council. It is important to note that:

- Forecast.id numbers were prepared prior to the commencement of the Rural Lands Study.
- For the rural area, population and employment projection figures are based on existing zoning and planning controls.
- For the urban areas, the figures are based on existing zoning and planning controls, except for Hornsby Town Centre and government-owned land next to Cherrybrook Station, which will accommodate future dwelling stock to meet state government housing targets
- Where other data has been sourced by SGS for the purpose of this analysis, the alternative source will be noted below that figure or table.

Population profile and forecast growth

The population in Hornsby Shire grew by 11,500 people from 2006 to 2016, with a 0.81 per cent average annual growth rate. Comparatively, NSW experienced a 1.38 per cent average annual growth rate. Population growth in the LGA was concentrated in the urban areas, which grew by 11.85 per cent, compared to the rural areas (0.94 per cent). How Hornsby Shire's rural and urban population growth is trending is outlined in Figure 13.

FIGURE 13: PAST AND FORECAST POPULATION GROWTH, AND SHARE OF POPULATION IN HORNSBY LGA URBAN AND RURAL AREAS



Source: SGS Economics and Planning, based on .id Consultants, from ABS Census data, 2016.
Note: Here and throughout, 'rural area' refers to the combined profile areas: Arcadia-North Western Dural, Dural, and Galston-Middle Dural.

Within the rural areas, growth was concentrated in the southern parts of the LGA, with 14.13 per cent total growth occurring in Galston-Middle Dural, compared to 9.45 per cent in Arcadia and 7.61 per cent in Dural, over the same period (2006 to 2016). Despite varied growth rates, these areas have similar total population, however the growth numbers indicate slightly more population growth has occurred in Galston-Middle Dural and Dural in recent years.

The Hornsby Shire population is projected to grow by an additional 31,921 people over the twenty years from 2016 to 2036. This represents a total growth rate of 21.6 per cent, or 1 per cent per cent average annual growth rate. The projected change indicates a similar rate of growth to that which occurred from 2006 to 2016. The rural areas are projected to grow by around 10.6 per cent (an additional 1,393 people from 2016 to 2036), while the urban areas will growth by 22.7 per cent (an additional 30,528 people) over the same period.

In the rural areas, Dural and Galston-Middle Dural are forecast to grow by 10.8 per cent and 24.2 per cent respectively from 2016 to 2036, while the population in Arcadia-North Western Dural will decline by -1.5 percent, or -61 people (Table 4).

TABLE 4: FORECAST POPULATION CHANGE, 2016-36

Geography	2016	2036	Change	Average annual growth rate	Growth rate
Hornsby Shire total	147,661	179,582	+31,921	1.08%	21.62%
Urban area	134,489	165,017	30,528	1.13%	22.70%
Rural area total	13,171	14,564	1,393	0.53%	10.58%
Rural areas					
Arcadia - North Western Rural	4,031	3,970	-61	-0.08%	-1.51%
Dural	5,658	6,268	610	0.54%	10.78%
Galston - Middle Dural	3,482	4,326	844	1.21%	24.24%

Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

Age profile

To understand the age profile in the Hornsby LGA, a 'service age groups' approach has been used, which groups people based on an approximate life stage. The groups used are:

- Children 0-5 (children not yet in primary school)
- Youth 5-20 (primary and secondary school, usually still living at home)
- Young adults 20-30 (further education, early working life)
- Adult 30-45 (starting a family, buying a house)
- Mature adult 45-65 (established careers, possibly older children and still in the workforce), and
- Retirees 65+ (mainly out of the work force).[10]

The population profile in rural areas will change into the future: the proportion of retirees and older people will increase, following State and national trends. Furthermore, the incidence of older people living in lone person households will also increase. The Hornsby LGA population profile largely reflects that of the Greater Sydney and NSW, as shown below.

FIGURE 14: AGE PROFILE IN THE HORNSBY LGA COMPARED TO GREATER SYDNEY AND NSW AVERAGES

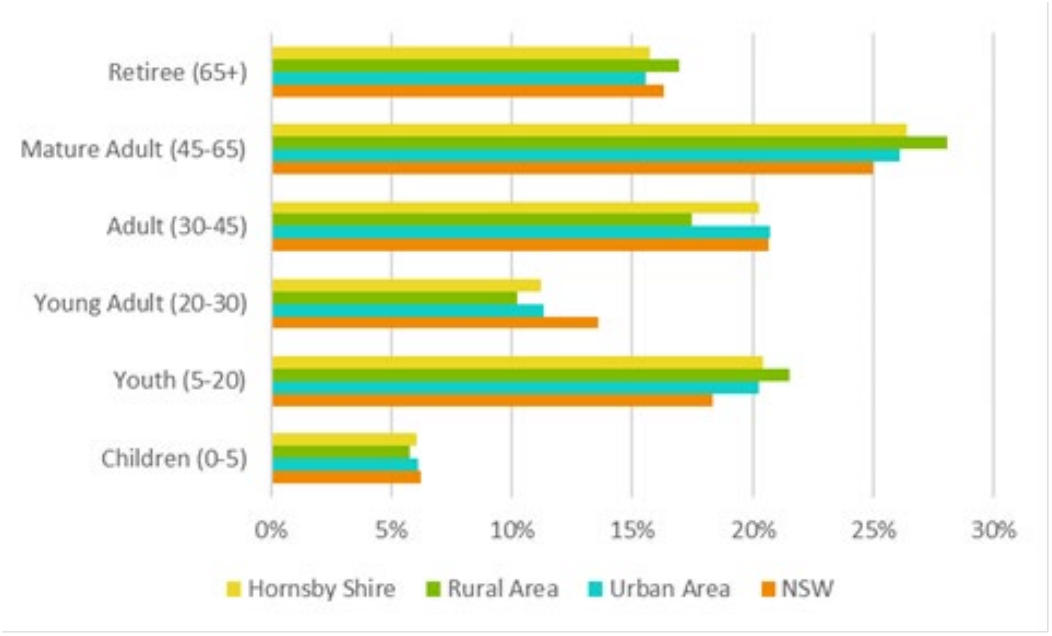


Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

[10] Although some people remain in the workforce after the age of 65, to be eligible for Age Pension you must be 65 or older

The largest age group in the Hornsby LGA (both in urban and rural areas) is mature adults (45-65 years old), who make up 26.36 per cent of the population (Figure 15). In the rural areas, the share is slightly higher at 28.09 per cent. Hornsby Shire's rural areas have a slightly higher share (16.96 per cent) of retirees compared to urban areas (15.54 per cent). In the ten years between 2006-16, the retiree age group (over 65 years old) grew as a proportion of the population in the Hornsby Shire's rural area (+6.69 per cent) (further detail available in Appendix 3). This change was greater than in the urban areas (1.98 per cent) and the NSW average (2.45 per cent). In future, this means there will be a larger proportion of retirees and elderly people in rural areas.

FIGURE 15: RURAL/URBAN AGE PROFILE BY LOCATION, COMPARED TO NSW AND THE LGA AVERAGE (2016)



Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

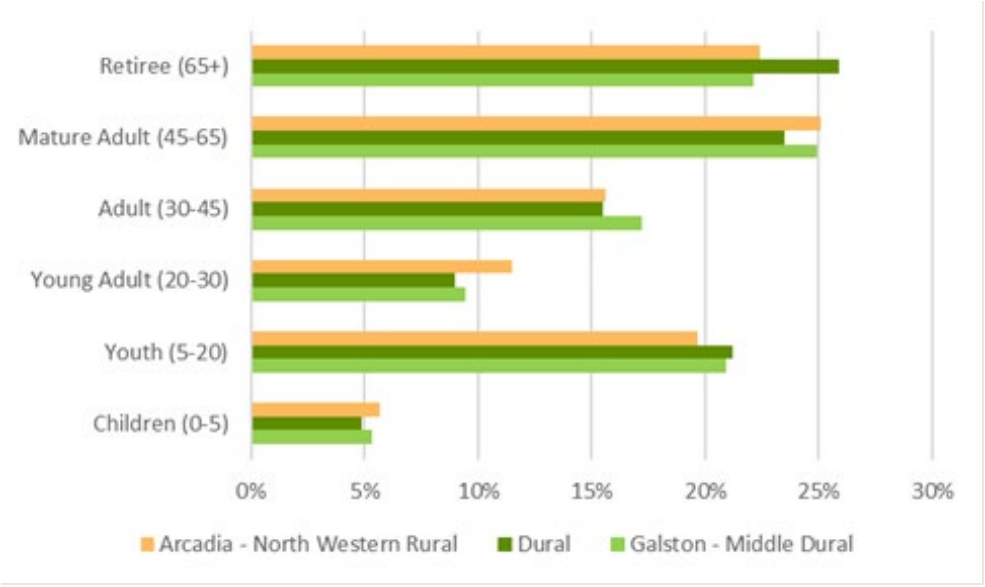
The share of adults or 30-45 year olds in Hornsby Shire's rural area decreased (-3.87 per cent) as a proportion of the population, while in urban areas the group's representation remained relatively stable (-0.61 per cent). The share of people aged 5 to 20 years (youth) also decreased in the rural area (-0.66 per cent) at a slightly greater rate than the urban area (-0.05 per cent) (see Appendix 3).

It is noted that the retiree figures correlate with the locations of seniors housing development locations shown later in where rural areas that comprise a high presence of retirees. While all of Hornsby Shire's rural areas have had an increase in retirees as a proportion of their population, the share in Dural grew the most (+7.48 per cent), followed by Galston-Middle Dural (7.08 per cent) and Arcadia-North Western Rural (5.06 per cent) (see Figure 17).

The proportion of mature adults (45-65 year-olds) grew marginally over 2006 to 2016 in Arcadia (+0.31 per cent) and Dural (0.69 per cent), while the same group decreased in Galston-Middle Dural (-2.23 per cent). The children, youth and adult groups (0-20 years old and 30-45 years old) decreased as a proportion of the population across all three rural areas over the ten years between 2006 to 16 (-0.40 per cent to -4.74 per cent).

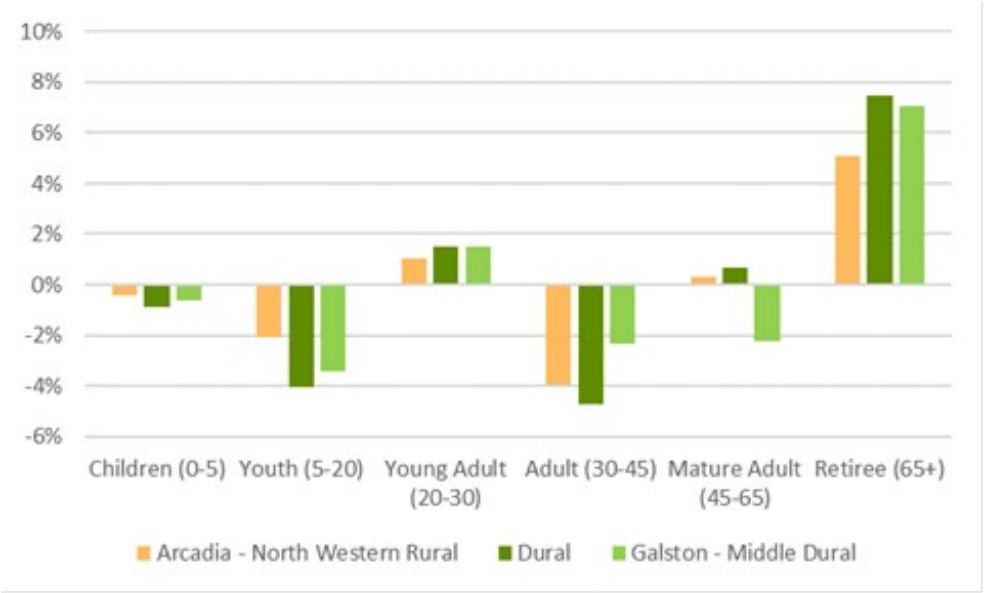
Among the rural areas, Dural has the largest total population (Figure 16). It has a much higher (comparatively) share of people aged 5 to 20 years (youth: 1,236 people) and mature adults (1,643 people). Each rural profile area has a similar share of each age group other than retirees, where Galston-Middle Dural (22.10 per cent) has a significantly higher proportion compared to Dural (17.27 per cent) and Arcadia-North Western Rural (16.20 per cent).

FIGURE 16: HORNSBY RURAL AREAS AGE PROFILES PERCENTAGE SHARE (2016)



Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

FIGURE 17: HORNSBY RURAL AREAS AGE PROFILES PROPORTIONAL CHANGE (2006-16)



Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

Forecast change in age groups

By 2036, the major age groups in the Hornsby Shire are projected to be mature adults (44,130 people), adults (37,115 people) and youth (34,159). This is consistent with the age profile of Hornsby at 2016. Among different age groups, the largest groups are projected to be retirees, mature adults and adults. This follows broader trends across Australia which suggest the population is ageing, and that this is more profound in rural, compared to metropolitan, areas.

Figure 18 below shows that Hornsby Shire's rural areas are projected to have a significantly higher share of adults by 2036 (21.07 per cent) compared to Hornsby Shire's urban areas (16.03 per cent) (further data is available in Appendix 3). The share of mature adults is likely to be consistent across both Hornsby Shire's rural and urban areas (approximately 25 per cent). In contrast, Hornsby Shire's urban areas are projected to have a higher proportion of retirees (23.83 per cent) compared to rural areas (17.96 per cent). This may reflect the need for people to move closer to services as they get older, particularly as they become elderly (aged 85+).

FIGURE 18: HORNSBY AGE PROFILES PERCENTAGE SHARE (2036)



Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

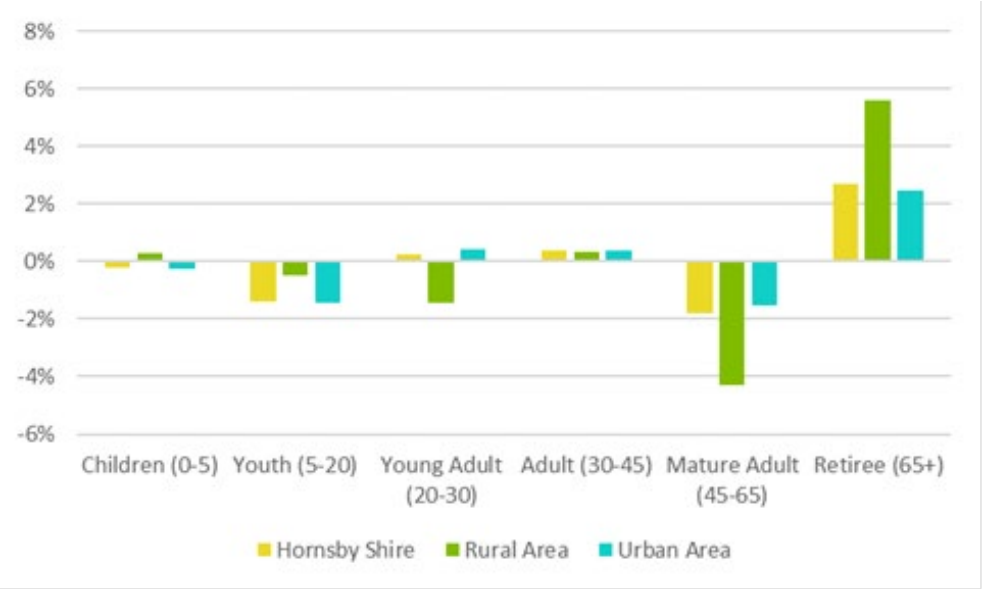
Over the 20 years from 2016 to 2036, retirees will have increased as a proportion of Hornsby Shire's rural population, by almost 6 per cent (see Figure 19). This is comparatively higher than the proportional growth expected in Hornsby's urban areas (just over +2 per cent).

The share of mature adults in Hornsby Shire's rural areas is projected to decrease as a proportion of the population at a faster rate (-4.3 per cent) than in the urban area (-1.54 per cent). The share of youth, however, is projected to decrease at a faster rate in urban areas (-1.44 per cent) compared to rural areas (-0.49 per cent). This may be due to a smaller representation of youth in rural areas to begin with (starting with a lower base).

Looking at area profiles within the rural areas, Dural is projected to have a higher number of retirees (1,474 people) compared to Galston-Middle Dural (958) and Arcadia (889) by 2036 (further detail in Appendix 3). This is similar for the mature adults and youth groups.

By 2036, retirees are projected to become a significantly larger proportion of the population in Dural (25.9 per cent), while Arcadia (22.40 per cent) and Galston-Middle Dural (22.15 per cent) are comparatively lower. Arcadia is projected to have a greater share of young adults (11.51 per cent) compared to Galston (9.43 per cent) and Dural (9 per cent). This trend may occur in Arcadia and Galston-Middle Dural due to new secondary schools and a higher proportion of family households (refer to Appendix 3).

FIGURE 19: HORNSBY FUTURE AGE PROFILES PROPORTIONAL CHANGE (2016-36)

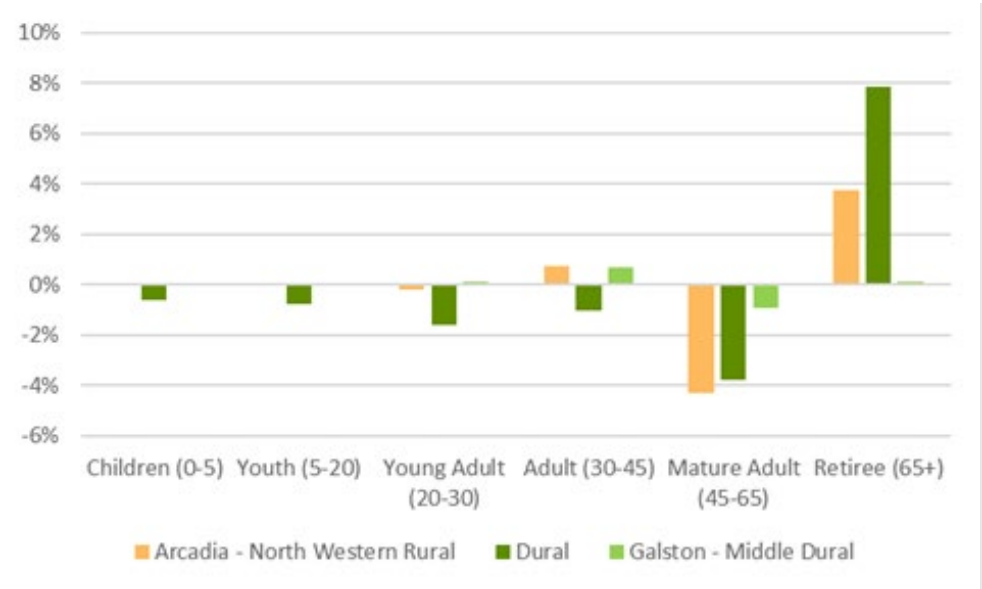


Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

As a group, retirees are expected to grow significantly as a proportion of the population in Dural (+7.82 per cent), comparatively higher than Arcadia (+3.73 per cent) and Galston-Middle Dural (+0.12 per cent) (Figure 20).

While mature adults are projected to decrease as a proportion across all of Hornsby Shire's rural areas, the decrease is projected to be greatest in Arcadia (-4.30 per cent). Dural is projected to see the greatest decrease in the share of people in the children, youth, young adults and adult groups (-0.61 per cent to -1.05 per cent).

FIGURE 20: HORNSBY RURAL AREAS FUTURE AGE PROFILES PROPORTIONAL CHANGE (2016-36)



Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

Households

There are 49,864 households in the Hornsby LGA, of which 4,271 are in Hornsby Shire's rural areas (8.6 per cent). The largest household type across both rural and urban areas in the LGA is two parent families (Table 5).

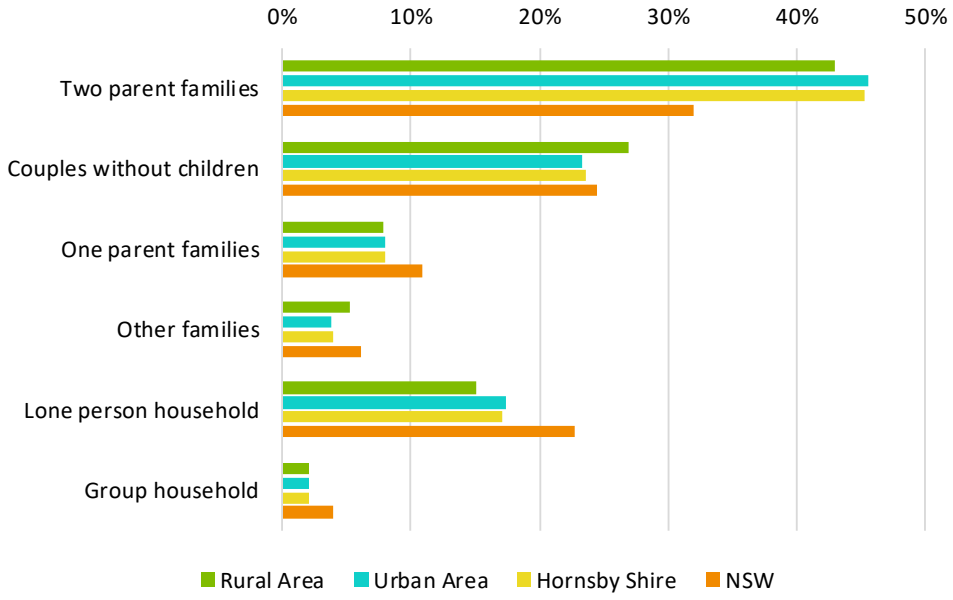
TABLE 5: HORNSBY HOUSEHOLD TOTALS BY HOUSEHOLD TYPE (2016)

Geography	Two parent families	Couples without children	One parent family	Other families	Lone person household	Group household	Total
Rural Area	1,834	1,151	333	224	643	86	**4,271**
Urban Area	20,759	10,637	3,652	1,708	7,900	940	**45,596**
Hornsby Shire	22,592	11,786	3,985	1,930	8,545	1,026	**49,864**
NSW	875,264	670,870	295,957	166,986	620,783	109,004	**2,738,864**

Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

Two parent families make up the largest share of households across all areas in Hornsby Shire, however, Hornsby Shire's rural areas have a slightly smaller share (42.94 per cent) compared to the urban areas (45.53 per cent). The rural areas have the greatest share of couples without children (26.95 per cent), compared to urban areas (23.33 per cent) (Figure 21).

FIGURE 21: HORNSBY HOUSEHOLDS BY HOUSEHOLD TYPE PERCENTAGE SHARE (2016)

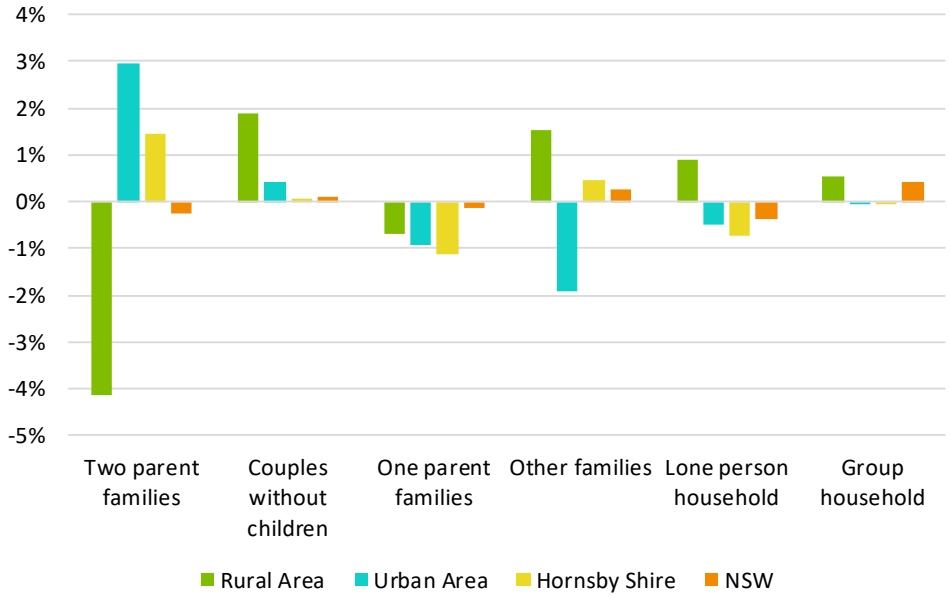


Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

The share of two parent families in Hornsby Shire's rural areas decreased over the 10 years from 2006 to 2016 (-4.12 per cent) as illustrated in Figure 22. Over the same period, couples without children increased as a proportion of households (+1.87 per cent) at a greater rate than urban areas (0.43 per cent). Lone person households in rural areas had a slight increase as a proportion (+0.89 per cent), whilst this share decreased in other parts of the LGA.

There is a large proportion of family households across the rural area, and adults aged 45 to 65 years is the largest single group. Over the next 15 years, this means that this age group will move into older adulthood, retirement and elderly age groups.

FIGURE 22: HORNSBY HOUSEHOLDS BY HOUSEHOLD TYPE PROPORTIONAL CHANGE (2006-16)

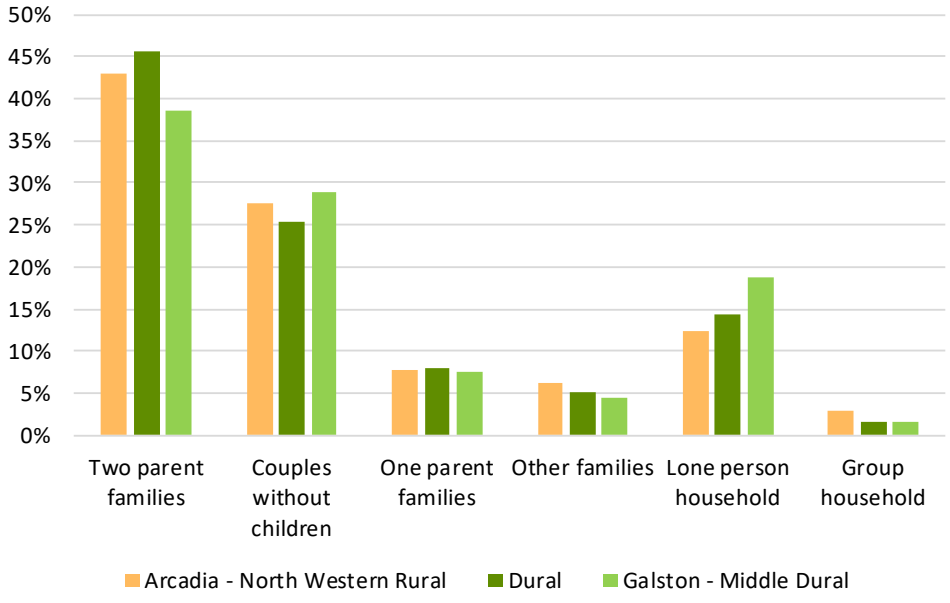


Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

Looking at the rural areas, Galston-Middle Dural has a higher share of lone person households in its area (18.85 per cent) compared to Dural (14.4 per cent) and Arcadia (12.48 per cent). Dural has a higher share of two parent families (45.7 per cent) compared to Arcadia (43.5 per cent) and Galston-Middle Dural (38.54 per cent). Galston-Middle Dural has the highest share of couples without children (28.5 per cent), Hornsby's other rural areas are similar: Arcadia-North Western Rural (27.49 per cent) and Dural (25.29 per cent).

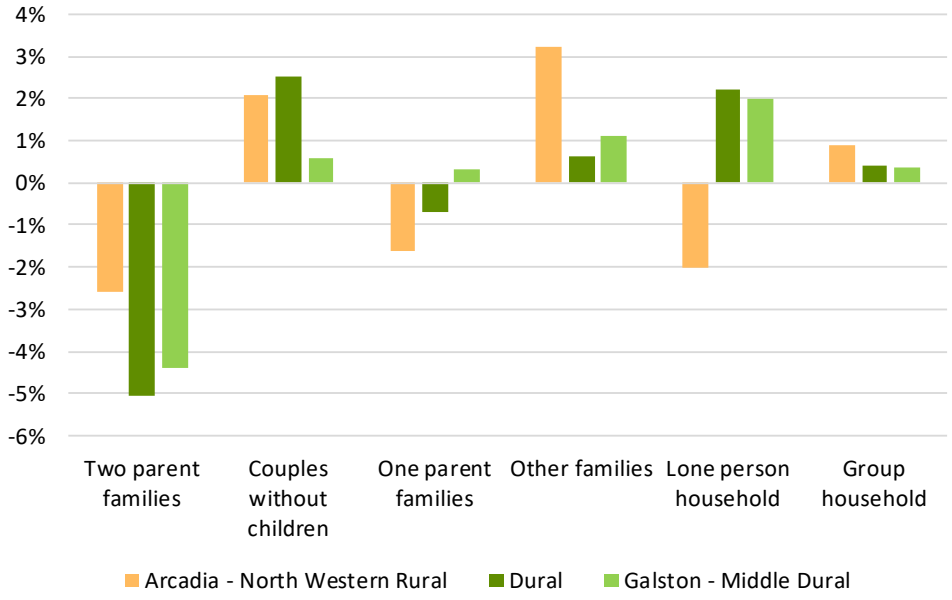
The share of lone person households may be greater in Galston-Middle Dural due to pockets (such as Galston village) where there are several smaller residential lots. However, the exact distribution of lone person households is difficult to establish using the available data geographies (which are quite large).

FIGURE 23: HORNSBY RURAL AREA HOUSEHOLDS BY HOUSEHOLD TYPE PERCENTAGE SHARE (2016)



Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

FIGURE 24: HORNSBY RURAL AREAS: PROPORTIONAL CHANGE IN HOUSEHOLD TYPE (2006-16)



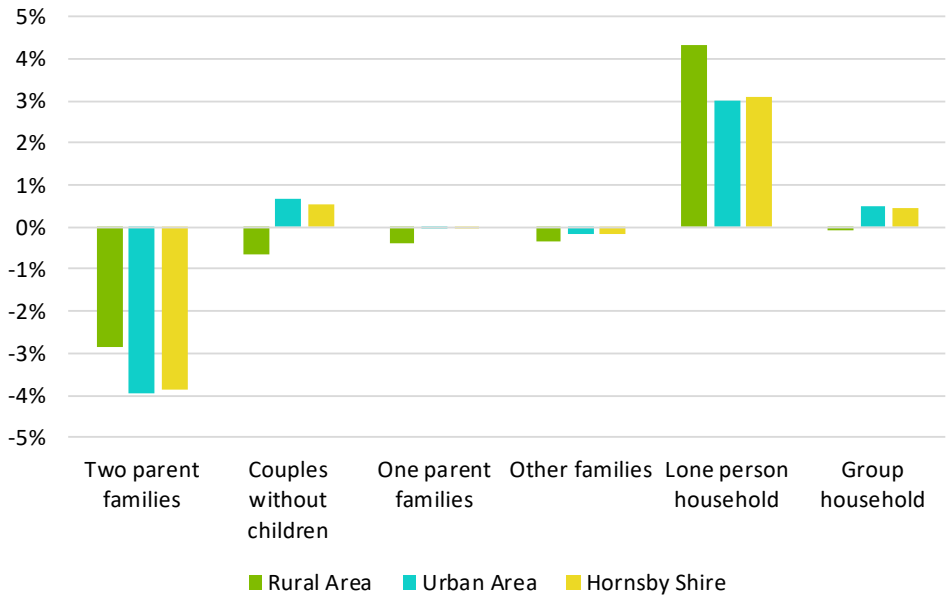
Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

Forecast change in household types

The Hornsby LGA is projected to have 64,157 households by 2036, of which 4,884 will be in Hornsby Shire's rural area. This represents 7.61 per cent households of households in the LGA being located in rural areas, a decrease of around 1 per cent in share between urban and rural areas, illustrating most population growth will continue to be in urban areas, as directed by State and local policy.

Two parent families will remain the largest household type across the rural and urban areas of Hornsby (Figure 30). Two parent families will remain the largest share of households by 2036 (38 per cent to 40 per cent across all compared areas). Furthermore, Hornsby Shire's rural areas are projected to have a slightly higher share of couples without children (26.6 per cent) compared to the urban areas (24.33 per cent). Lone person households are estimated to make up approximately 21 per cent of all compared areas.

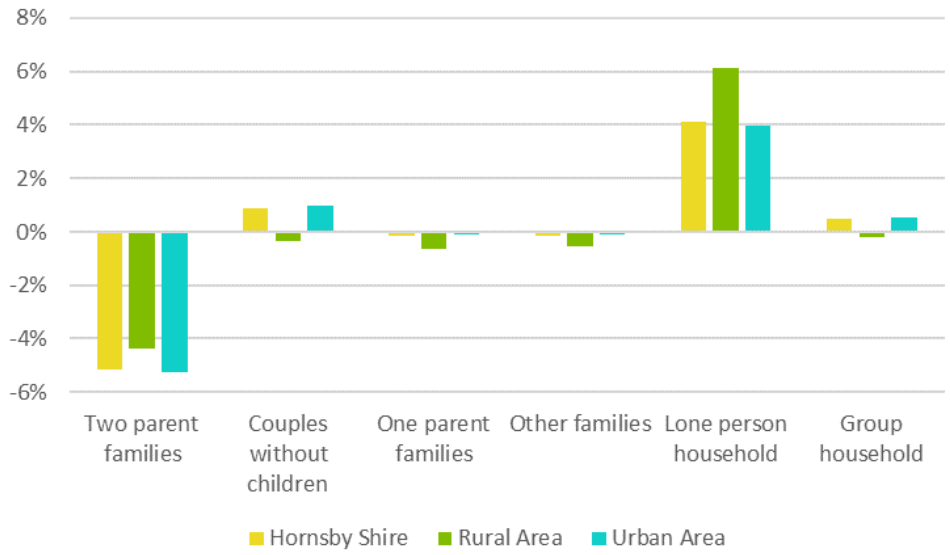
FIGURE 25: HORNSBY FUTURE HOUSEHOLDS BY HOUSEHOLD TYPE PERCENTAGE SHARE (2036)



Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

The share of two parent families is likely to continue to decrease at a faster rate in urban areas (-5.25 per cent) compared to the rural areas (-4.39 per cent) over the period from 2016 to 2036. Meanwhile, the proportional share of lone person households will be greater in the rural areas (+6.12 per cent) compared to the urban areas (+3.95 per cent) (Figure 26).

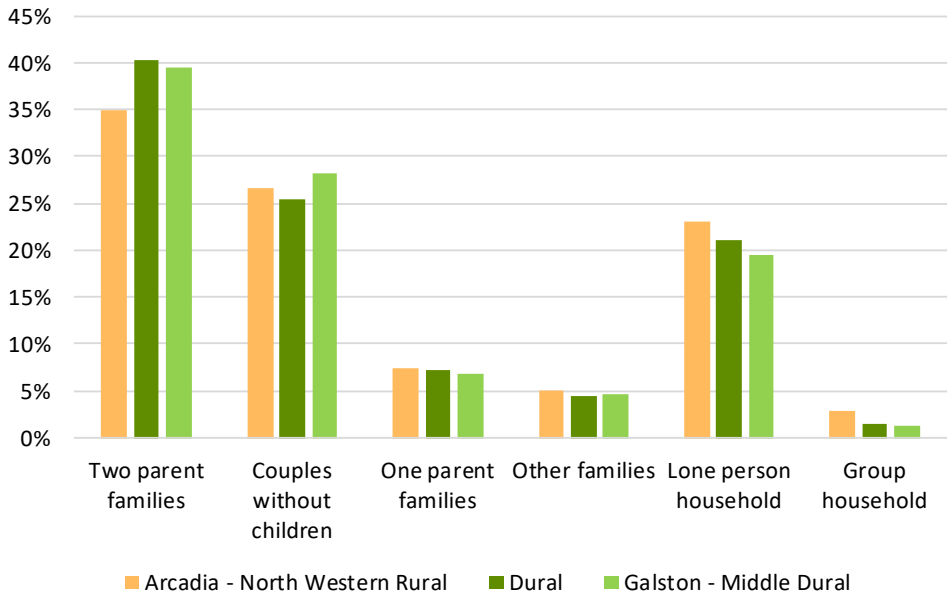
FIGURE 26: HORNSBY HOUSEHOLDS BY HOUSEHOLD TYPE FUTURE PROPORTIONAL CHANGE (2016-36)



Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

Dural is projected to have the largest share of two parent families (40.32 per cent), while Galston-Middle Dural will have the largest share of couples without children (28.22 per cent) and Arcadia of lone person households (23.05 per cent) (Figure 27).

FIGURE 27: HORNSBY RURAL AREAS FUTURE HOUSEHOLDS BY HOUSEHOLD TYPE PERCENTAGE SHARE (2036)



Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

Examining the forecast proportional change (Figure 28, overleaf), the household structure of Arcadia-North West Dural and Dural is expected to have the greater shift towards lone person households, while the profile in Galston-Middle Dural will remain relatively stable.

Among household types, many lone person households are made up of retirees. Table 6 illustrates this is more prominent in Dural (154 retirees), followed by Galston-Middle Dural (129 retirees) and Arcadia (74 retirees). Mature adults also have a greater representation in living in lone person households than younger people, or those living in urban areas (55 to 71 per rural area).

TABLE 6: HORNSBY RURAL AREAS AGE PROFILE IN LONE PERSON HOUSEHOLDS (2016)

Geography	Children	Youth	Young Adult	Adult	Mature Adult	Retirees	Total
Arcadia - North Western Rural	0	0	9	14	71	74	*166*
Dural	0	0	14	14	66	154	*246*
Galston - Middle Dural	0	0	3	13	55	129	*204*
Total	*0*	*0*	*27*	*51*	*198*	*353*	*617*

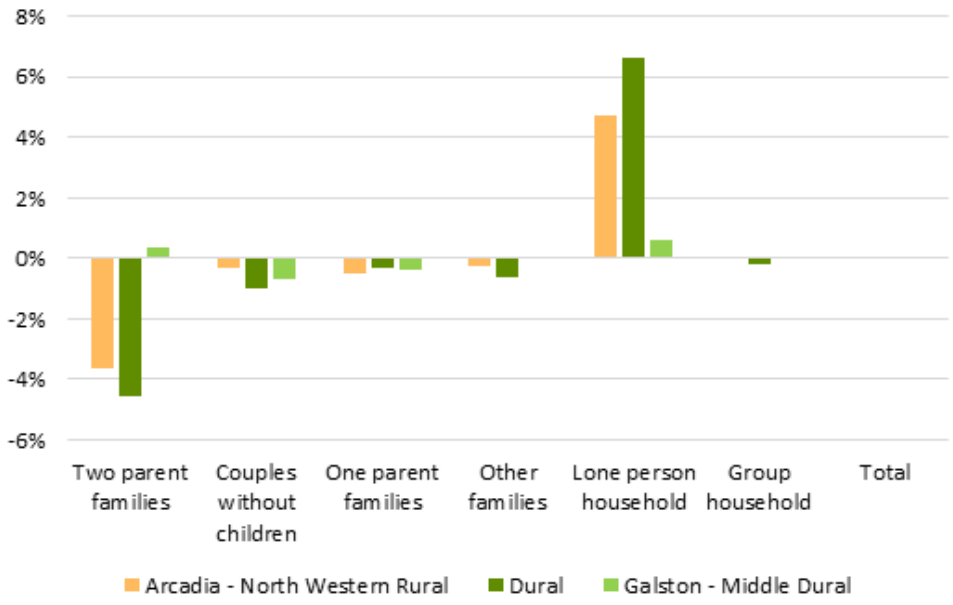
Source: Profile.id

Over the ten years from 2006 to 2016, two parent families decreased the most as a proportion of the rural population, in Dural (-5.06 per cent) and Galston-Middle Dural (-4.37 per cent) (Figure 28). The share of couples without children households increased in Dural (+2.51 per cent) and Arcadia (+2.10) with a very small increase in Galston-Middle Dural (+0.6 per cent). Lone person households have decreased in Arcadia (-2.02) while Dural (+2.21 per cent) and Galston-Middle Dural (+1.97 per cent) had proportional increases over the same period.

Dural is projected to have the largest proportional decrease in two parent families (-4.58 per cent) and the largest proportional increase in lone person households (+6.66 per cent) (Figure 28). The share of two parent families in Arcadia is projected to decrease at a similar rate to Dural, while the share in Galston-Middle Dural is projected to grow slightly.

This shows the greatest change in rural areas (Arcadia-North Western Rural and Dural) is a trend towards lone person households, perhaps reflecting a shift from families towards older retirees. Galston-Middle Dural is unlikely to undergo significant change across any household type over the forecast period 2021 to 2041.

FIGURE 28: HORNSBY RURAL SUBURB HOUSEHOLDS BY HOUSEHOLD TYPE FUTURE PROPORTIONAL CHANGE (2021-41)

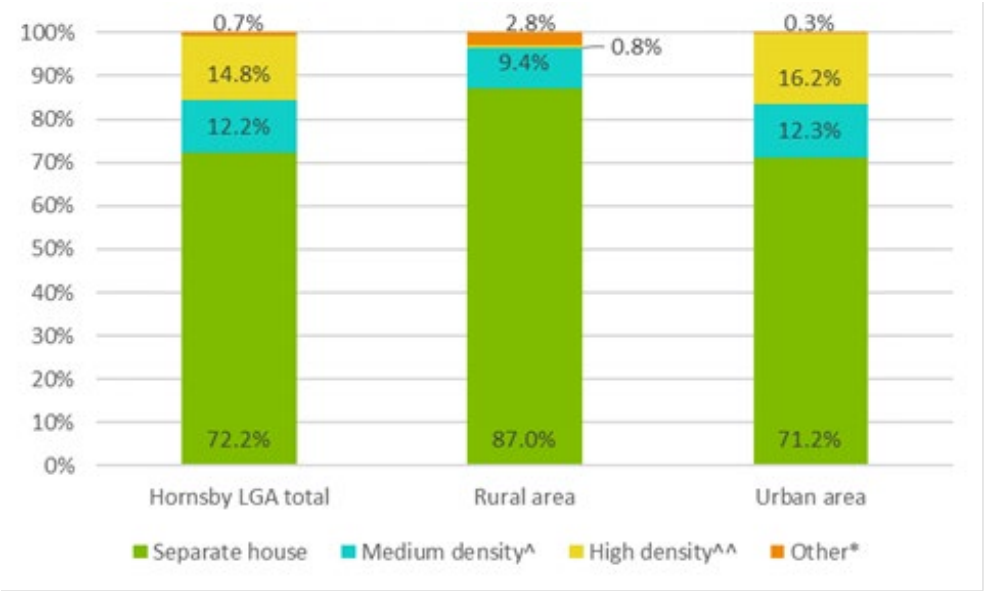


Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

3.3 Dwelling structure

In the Hornsby Shire's rural areas, 87 per cent of dwellings are separate houses 9.4 per cent are medium density dwellings (townhouses, terraces, villa units and semi-detached dwellings), and less than 3 per cent of housing is either high density (flats in a building of three or more storeys) or other (which includes caravans, cabins and houseboats). The proportion of separate dwellings in the rural area is significantly higher than the LGA and urban area figures.

FIGURE 29: PROPORTION OF DWELLING TYPES IN HORNSBY LGA, RURAL AND URBAN PROFILE AREAS



Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016. ^Medium density refers to townhouses, terraces, villa units and semi-detached dwellings, flats in 1 and 2 storey blocks and flats attached to houses. ^^High density refers to flats in 3 or more storey blocks. *Other includes the category, 'caravans, cabin, houseboat'.

Actual dwelling numbers are shown in the table below (Table 7). Most high-density housing is in Hornsby Town Centre and Waitara, while medium density housing is mostly located in the Hornsby Town Centre and Waitara, as well as Cherrybrook. Other residential areas that contain high numbers of separate houses include Hornsby Heights, Mount Colah - Mount Kuring-Gai and Thornleigh; refer to Appendix 3 for a full table of dwelling numbers in each profile area/suburb.

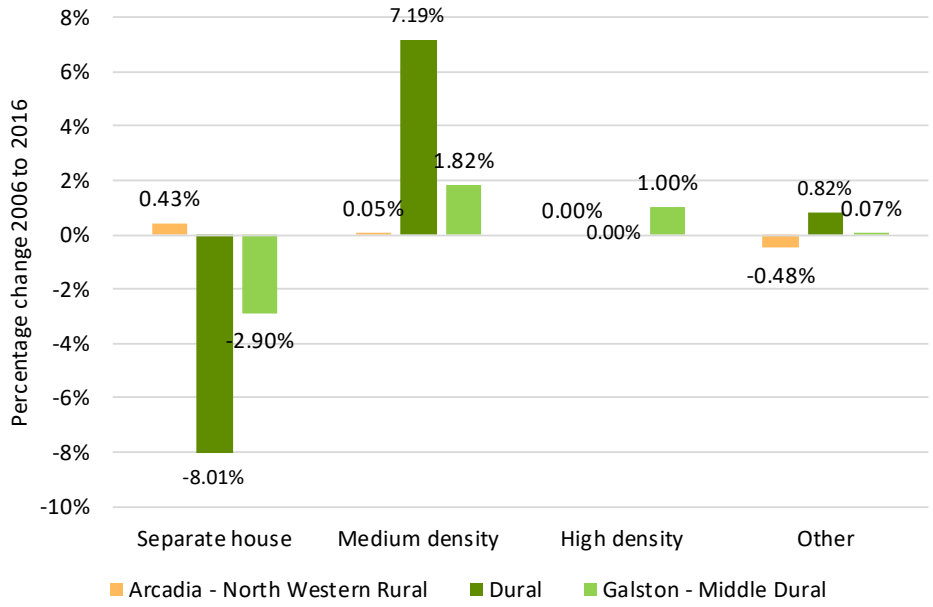
TABLE 7: DWELLING STRUCTURE IN HORNSBY LGA AND RURAL PROFILE AREAS (2016)

	Separate house	Medium density	High density	Other*	Total
Hornsby LGA total	*37,149*	*6,280*	*7,607*	*384*	***51,420***
Rural area	3,841	415	37	123	**4,416**
Urban area	33,272	5,732	7,584	154	**46,742**
Rural areas					
Arcadia - North Western Rural	1,300	6	0	16	**1,322**
Dural	1,520	288	0	99	**1,907**
Galston - Middle Dural	1,021	121	37	8	**1,187**

Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

Over the ten years from 2006 to 2016, the proportion of separate houses decreased in Dural (-8 per cent) and Galston-Middle Dural (-3 per cent), this represents a total of 5 separate houses being added to Dural and 13 to Galston-Middle Dural. At the same time, 151 medium density houses were built in Dural (+7.19 per cent), and 26 medium density houses were constructed in Galston-Middle Dural (+1.82 per cent) (Figure 30).

FIGURE 30: HORNSBY RURAL AREAS - DWELLING STRUCTURE PROPORTIONAL CHANGE (2006-16)



Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

3.4 Infrastructure and servicing

In the rural area, there are several challenges relating to water and wastewater, internet, roads and public transport infrastructure.

As set out in the Hornsby LSPS, the key infrastructure challenges facing Hornsby Shire's rural area are:

> *There are currently 2,700 properties in the Shire that are unsewered and rely on onsite sewage management systems for the treatment of wastewater. Onsite sewage management systems have the potential to impact the surrounding environment if not managed correctly.*
>
> *One of the key constraints for [Hornsby's] rural areas is the lack of adequate transport infrastructure, primarily our State and regional roads. The Federal Government announced $10 million of funding towards planning upgrades of New Line Road, but additional funding is required to adequately resolve the regional road network issues.*
>
> *Importantly, the South Dural Planning Proposal was withdrawn in 2018 in response to the road and infrastructure constraints in the region. Importantly since then, urban development has been limited to within identified Urban Area under both the Greater Sydney Region Plan (Objective 29) and North District Plan (Planning Priority N18). Any Planning Proposal seeking a change within the MRA would need to demonstrate substantial strategic merit to warrant a change not only to the local planning scheme but also inform changes to both the District and Regional Plans.*
>
> *Residents living in our rural areas are experiencing significant traffic, which is further compounded by through traffic originating in the adjoining Hills Shire. This is one of the key regional issues facing Hornsby Shire. Better management of our rural lands, including our capacity to address infrastructure constraints, is a key consideration for Council for future rural planning.*
>
> *Council and the community also share significant concerns about the State Government policy allowing seniors housing developments in the rural areas through the use of what is known as site compatibility certificates. These concerns have been raised with the Minister for Planning and the Greater Sydney Commission.*[11]

[11] Hornsby Shire Council, *Future Hornsby Local Strategic Planning Statement*, 2019. Available from URL: http://hscenquiry.hornsby.nsw.gov.au/temp/001_004X_0K1T12KIJLN_LTVLJFBY.PDF.

The challenges outlined in the LSPS are considerations for preparation of the Rural Lands Strategy. Further, the objectives for rural zoning set out in NSW Standard Instrument LEP include that new development should not place undue pressure or create new demand for significant additional infrastructure.

Road infrastructure

The lack of adequate road infrastructure is a significant issue in rural areas. Traffic congestion on Old Northern Road, New Line Road and Galston Road is an issue for local residents and this is compounded by through traffic originating in The Hills Shire. Road infrastructure challenges are also compounded by shifting expectations about road quality and capacity. This can arise from a greater proportion of traffic entering the rural area from urban areas, and a higher number of people moving from urban areas for lifestyle changes, to hobby farms and small urban properties. This infrastructure challenge is faced in peri-urban places around Australia.

The matter of road and infrastructure constraints was a key reason why a planning proposal for approximately 3000 dwellings in South Dural / Glenhaven was withdrawn in 2018. Although the planning proposal did not progress at the time due to the inability to resolve traffic and infrastructure issues, the subsequent release of the Greater Sydney Regional Plan and the North District Plan confirms that this form of proposal involving urban expansion into rural zoned land cannot be supported due to actions and objectives under the respective plans to limit urban development to within existing urban areas.

As identified in the Hornsby Shire LSPS the Federal Government has announced $10 million of funding towards planning upgrades of New Line Road. However, additional funding is required to adequately resolve the regional road network issues.

The New Line Road project will apply to 6.2 kilometres of the road corridor from Castle Hill Road (West Pennant Hills) to Old Northern Road (Dural). The project investigations will focus on the potential to upgrade the road to a four lane divided carriageway.[12] According to the Australian Government, the benefits of the project (currently in the planning phase) would be to "improve safety, traffic flow, travel times and provide capacity for the growing population of Sydney's north west and support the Cherrybrook Priority Precinct."[13]

The Hills Shire Council have advised of plans for improvements to Annangrove Road to accommodate future population from the North-West Growth Area. Hornsby Shire Council has raised that any road improvements should be considered holistically in a coordinated approach so as to not compound existing traffic congestion in Hornsby Shire.

Sewer infrastructure

In 2015, a reticulated sewerage system was completed in the Galston / Glenorie area as part of a priority sewerage program to serve the existing Galston and Glenorie Villages. This system was designed to cater for existing villages and was not designed to accommodate growth.

Most properties in the rural areas of Hornsby Shire are unsewered and rely on on-site sewage management systems (OSSM) for the treatment of wastewater. The Hornsby LSPS identifies that there are approximately 2,700 properties in the Shire that operate an OSSM.

Correct operation and maintenance of OSSMs is essential for ensuring systems operate effectively and to ensure human health and the natural environment is not impacted. The siting and selection of an OSSM should have regard to the environmental constraints of site. Council is currently considering the options available for a licensing and audit program for OSSMs.

OSSM (commonly known as septic tanks) must perform effectively and be well-managed to minimise risks to public health and the environment. The requirements depend on the source of wastewater, site constraints, treatment method and the quality of effluent needed for the end uses of the treated water:

- 'Wastewater treated to primary quality is only suitable for disposal below ground via soil absorption trenches, mounds and evapo-transpiration beds or trenches.
- Wastewater treated to secondary quality can also be dispersed to land via pressure-compensating subsurface irrigation.

[12] Australian Government Department of Infrastructure, Transport, Regional Development and Communications, *New Line Road Project Description*, October 2019, URL: https://investment.infrastructure.gov.au/projects/ProjectDetails.aspx?Project_id=101262-19NSW-MRD.
[13] Ibid.

- Greywater treated to advanced-secondary quality can be used in the home for flushing toilets and in washing machines. It can also be used for surface and subsurface irrigation.'[14]

In most instances, the installation of an OSSM requires a land capability assessment that considers a range of onsite characteristics and aids in establishment of the land area to ensure the environment and public health are not diminished as a result of the OSSM. The main objective of a land capability assessment is to determine the ability of each lot to contain all treated effluent within the site boundaries, and the potential impact of onsite wastewater systems on local receiving environments (such as surface waters and groundwater). An assessment must consider:

- Land area available
- Climate (difference between annual rainfall and pan evaporation), exposure to sun and wind
- Erosion (or potential for erosion), landslip (or landslip potential)
- Water: Flood frequency, groundwater bores, stormwater run-on, surface waters (OSSM setback distance), rock outcrops (% of surface), slope form (affects water shedding ability) and slope gradient
- Soil: Soil drainage, whether fill is present on the site (imported soil/fill material)
- Vegetation coverage over the site.[15]

Council currently has systems in place for the design and management of septic tanks, and approves applications to install new systems. The range of considerations and potential for setback distances from waterways and vegetation, existing buildings and property boundaries, as well as public health considerations, mean individual lot size requirements may vary depending on context.[16]

3.5 Economic profile

This section outlines employment sectors and key industries across the Hornsby LGA, with a focus on industries and jobs that are represented within the rural area. In Section 2.5 (Key findings), further commentary is included regarding current agricultural productivity, challenges and opportunities to that industry.

Employment in the LGA

In 2016, the LGA contained 42,757 jobs, of which 18 per cent were in Hornsby Shire's rural areas (7,635 jobs). Agriculture in the LGA generated around $21 million in gross value in 2016. Most value of production came from horticulture including nurseries, cut flowers and vegetables and poultry. Agricultural land uses occur mainly around Dural, Fiddletown and Glenorie.

Hornsby Shire's rural areas have a much greater share of agriculture, forestry and fishing (7.7 per cent) than urban areas (0.3 per cent), as well as construction jobs (12 per cent compared to 7.4 per cent). The industry strengths in urban areas are health care and social assistance (19.2 per cent of jobs, compared to 10 per cent in rural areas).

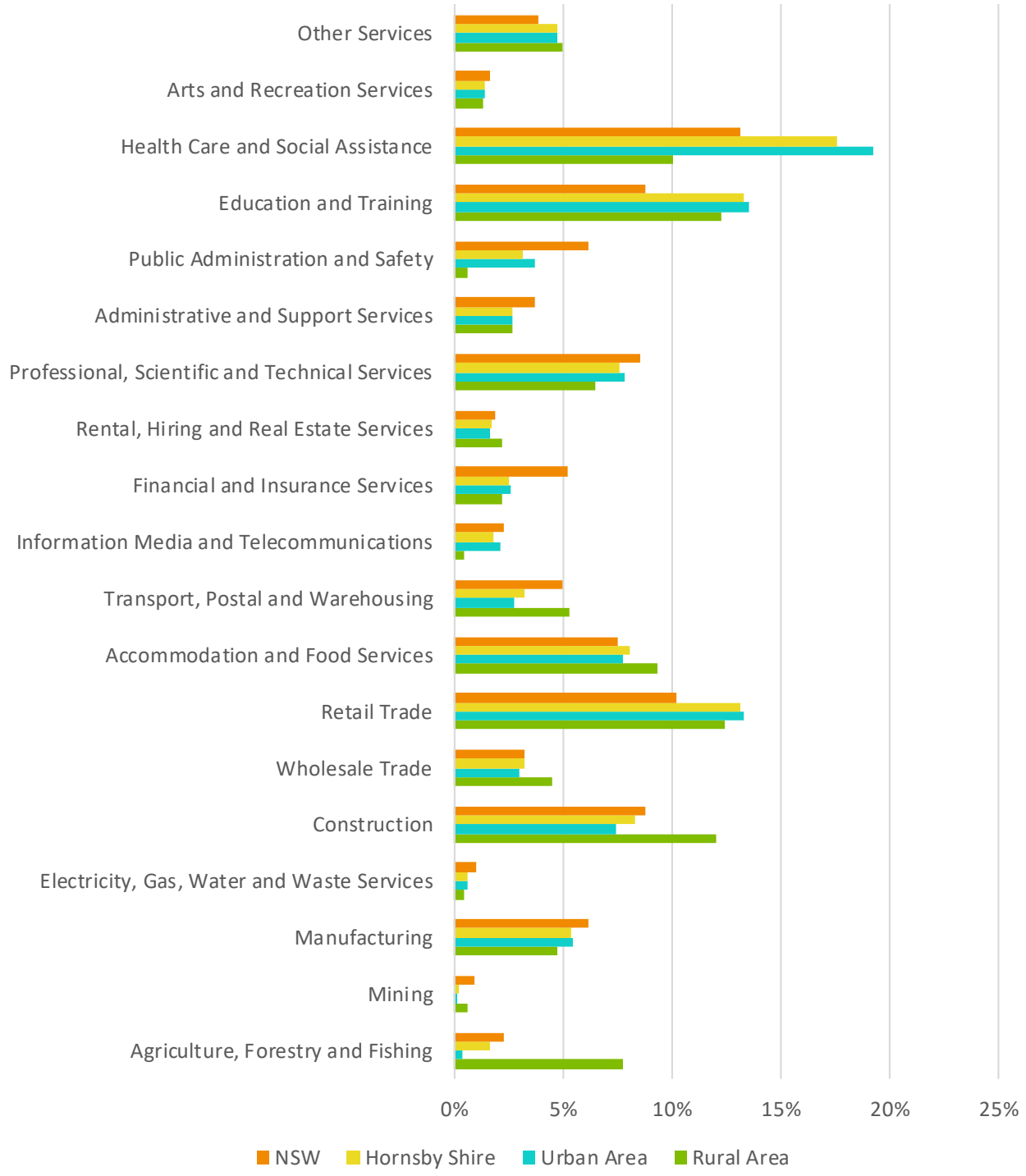
In the rural area, health care and social assistance is the largest employment industry (6,759 jobs), followed by education and training (4,753 jobs) and retail trade (4,669 jobs). Hornsby Shire's rural areas also contain 588 agriculture, forestry and fishing jobs. In comparison, the urban area only contains 116 agriculture, forestry and fishing jobs (which may be administrative jobs linked to those fields, or jobs located in light industrial areas within the urban area).

Other large industries in Hornsby Shire's rural area (as a proportion of the population) are retail trade (946 jobs), education and training (935 jobs), and construction (919 jobs).

Figure 31, overleaf, shows the employment industry breakdown across different job types, comparing NSW, the Hornsby LGA and urban/rural areas within the LGA. Compared to NSW, the Hornsby rural area has strong representation in agriculture, forestry and fishing, and construction (this is the share of people working in those sectors compared to the State profile).

[14] Onsite wastewater management, EPA, available from: https://ref.epa.vic.gov.au/your-environment/water/onsite-wastewater
[15] Based on information from Water NSW and EPA.
[16] Hornsby Shire Council, Sewerage management, available from: https://www.hornsby.nsw.gov.au/property/myproperty/developing-my-property/sewerage-management.

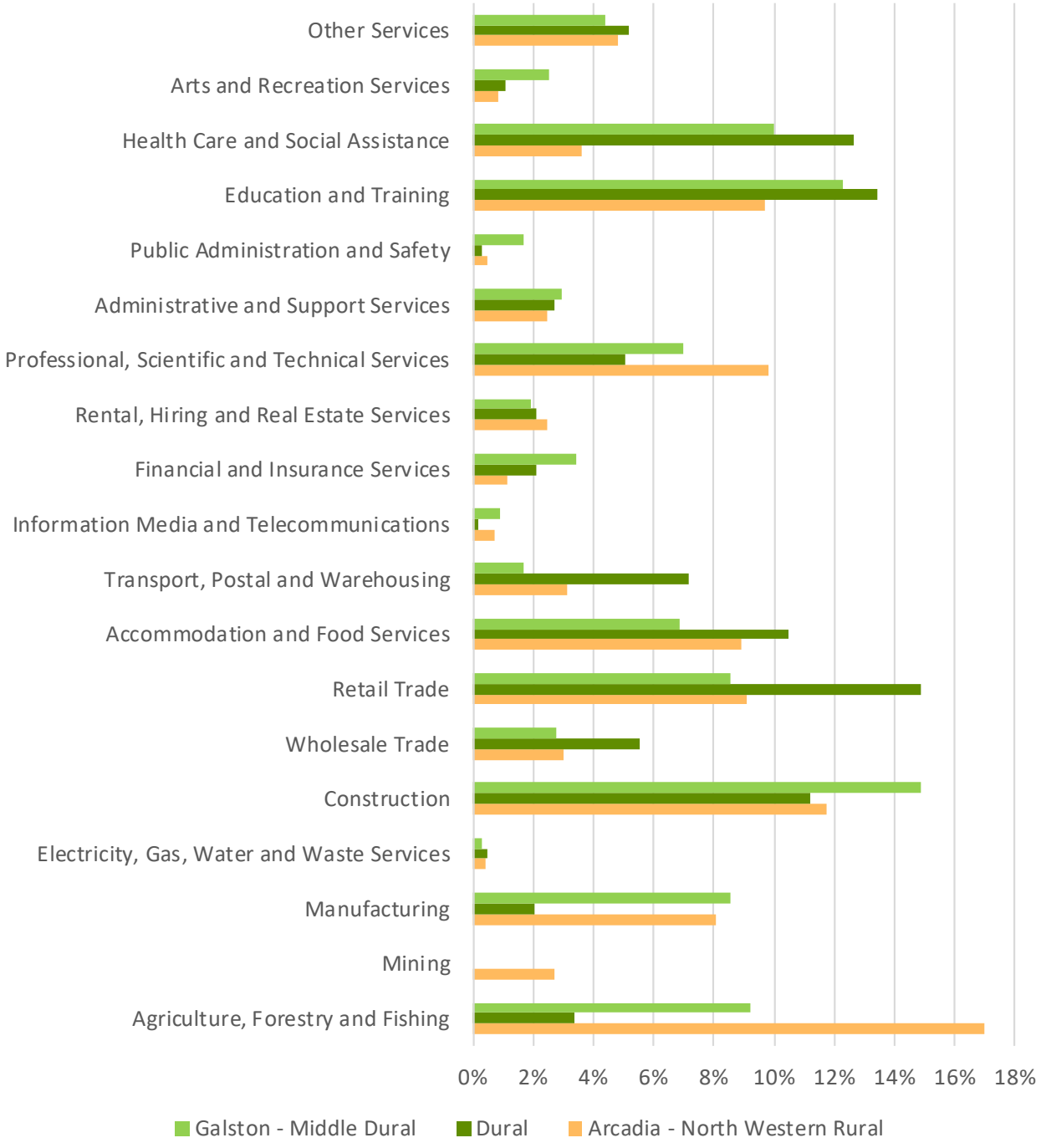
FIGURE 31: HORNSBY EMPLOYMENT BY 1-DIGIT ANZIC EMPLOYMENT PERCENTAGE SHARE (2016)



Source: ABS Census TableBuilder (2016) .

The chart below shows how employment is divided between sectors across Hornsby Shire's rural area. Arcadia-North Western Rural has a significantly higher share of agriculture, forestry and fishing jobs (17 per cent) (Figure 32). Construction takes up Galston-Middle Dural's highest share of employment (14.9 per cent) while retail trade is Dural's largest employment sector (14.9 per cent). Refer to Figure 9 for a map of the profile areas.

FIGURE 32: HORNSBY RURAL AREAS EMPLOYMENT BY 1-DIGIT ANZIC EMPLOYMENT % SHARE (2016)



Source: ABS Census TableBuilder (2016)

The Australian Bureau of Statistics (ABS) collects information about employment industries using a structure called ANZSCO, which has five levels of data.[17] The most detailed employment category is the level called "occupations" (jobs). Occupations are grouped together to form unit groups, which have a higher-level umbrella term to describe the types of work people do. For this analysis, the 4-digit ANZSCO employment figures are used. The data analysis focuses on the occupations/jobs people do, to understand what work people are doing and where, across the Hornsby Shire.

Over the following pages, employment figures are presented (refer to the Appendix for further information):

- Agriculture, forestry and fishing
- Mining
- Manufacturing
- Transport, postal and warehousing
- Construction
- Professional, scientific and technical services.

Agriculture, forestry and fishing jobs are most strongly represented in Arcadia-North Western Rural and Dural, where most nursery production, floriculture and vegetable growing occurs. There are also some floriculture and nursery production jobs in Galston-Middle Dural, however the sector is smaller than elsewhere.

Mineral sand mining, gravel and sand quarrying, and other construction mineral mining are occurring in Arcadia-North Western Rural; these jobs are concentrated in the northern part of the LGA, around Maroota.

In Galston-Middle Dural there are 73 poultry processing jobs while other manufacturing jobs are not strongly represented across the rural area (although some human pharmaceutical and medicinal product manufacturing, and veterinary pharmaceutical and medicinal product manufacturing is occurring in Arcadia-North Western Rural).

Dural contains a variety of employment across the transport sector, including urban bus transport (148 jobs), postal services (42 jobs) and road passenger transport (32 jobs), interurban and rural bus transport (combined 58 jobs), which likely service both the local rural residential, and nearby urban populations. There are 26 road freight transport jobs in Arcadia-North Western Rural, likely linked to the mining activities occurring in the northern rural areas.

Dural has a stronger representation of jobs in the construction sector than other rural areas in Hornsby Shire, focussed on electrical services (102 jobs), house construction (68 jobs) and plumbing services (53 jobs). As Dural has relative proximity to Hornsby Shire's urban area, these jobs likely service both the rural and urban populations. Meanwhile, in Arcadia-North Western Rural there are 30 jobs in site preparation services, an industry likely associated with this area's mining sector in Maroota.

Arcadia has a higher number of veterinary services jobs (73) compared to the other rural areas. Accounting services are high in Dural (41 jobs). Other sub-industries of professional, scientific and technical services are more evenly spread across the rural areas. Further detail is available in Appendix 3.

Employment change over time

The analysis in this section is based on data from .id Consultants prepared for Hornsby Shire Council, as it did not contain forecasts for employment figures this has been added to with further research.

Over the period from 2011 to 2016, jobs in wholesale trade reduced by -4.23 per cent, while the sector was comparatively stable in the urban areas (-1.5 per cent) (Figure 33).

Health care and social assistance was the largest employment sector in the urban area in 2016. Over the five years between 2011 to 2016, this industry also grew as a proportion of jobs in Hornsby Shire's rural area. The sector grew at a faster rate (+2.1 per cent) compared to urban areas (+1 per cent), a trend which is reflected around Australia as the health care sector undergoes expansion and innovation.

[17] For more information, refer to the ABS Website, *1220.0 ANZSCO – Australia and New Zealand Standard Classification of Occupations*: https://www.abs.gov.au/ausstats/abs@.nsf/0/E3031B89999B4582CA2575DF002DA702?opendocument

FIGURE 33: HORNSBY EMPLOYMENT BY 1-DIGIT ANZSIC EMPLOYMENT PROPORTIONAL CHANGE (2011-16)

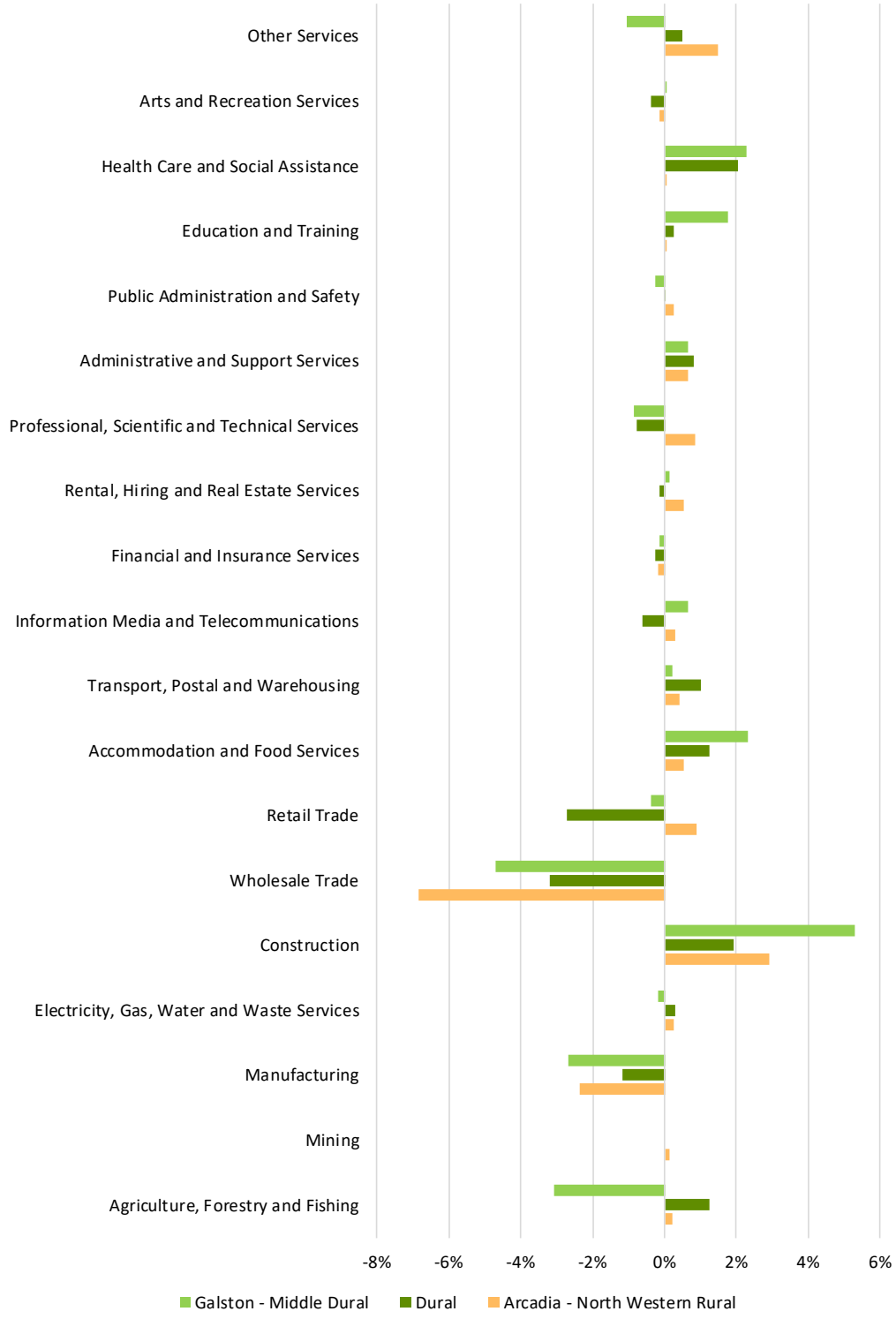


Source: SGS Economics and Planning, based on ABS Census data, 2011-2016.

Figure 34 shows the proportional change in employment sector market share from 2011 to 2016. Across Hornsby Shire's rural areas, employment in construction grew, focussed in Galston-Middle Dural (+5.3 per cent). Wholesale trade decreased, mostly in Arcadia-North Western Rural (6.8 per cent).

The number of jobs in health care and social assistance grew in Dural (+2 per cent) and Galston-Middle Dural (+2.3 per cent).

FIGURE 34: HORNSBY RURAL AREAS EMPLOYMENT BY 1-DIGIT ANZSIC EMPLOYMENT PROPORTIONAL CHANGE (2011-16)



Source: SGS Economics and Planning, based on ABS Census data, 2011-2016.

Rural Villages in Hornsby Shire

Within the rural area, Hornsby Shire has four key villages namely Dural, Galston, Glenorie and Wisemans Ferry. This section estimates floorspace and job numbers within and around those centres and considers how that may change into the future.

It is noted that Middle Dural and Arcadia also contain schools and/or a small number of shops, however these have not been examined due to small numbers which can lead to inaccuracies when interpreting the data.

These villages are important to understand, given they play several roles within the broader rural area in Hornsby Shire: as places to live, work, visit and access basic services people need to go about their daily lives. Given the peri-urban location of the LGA, larger centres service people's more occasional needs and are still (relatively) close by.

The role and function of rural villages

The *Greater Sydney Region Plan* emphasises:

> *The distinctive towns and villages of the Metropolitan Rural Area offer opportunities for people to live and work in attractive rural or bushland settings, close to a major city. They provide focal points for local communities and rural industries. They contain scenic and cultural landscapes which are important to the history and character of Greater Sydney, and are popular with tourists and visitors.*
>
> *Maintaining and enhancing the distinctive character of each rural and bushland town and village is a high priority. Ongoing planning and management of rural villages will need to respond to local demand for growth, the character of the town or village and the values of the surrounding landscape and rural activities.*

Rural villages are distinct from urban areas as they have a largely local population-serving role, in that they provide mainly for resident's needs. In contrast, large urban centres such as Hornsby typically have a much larger catchment and play a role servicing people's needs across LGA boundaries.

These centres service their surrounding rural areas and provide for any visitors to the area. Increases in population in the surrounding rural area, nearby urban areas, and tourism can lead to demand for expansion together with greater demand for infrastructure (sewerage, water, telecommunications, waste facilities and roads).[18]

This section examines the size of Hornsby's rural villages now, and considers how the employment floorspace and job numbers may change into the future. The analysis is based on available floorspace and projected population-related growth, which also influences employment numbers. This is because most jobs in Hornsby's rural villages are related to the local population, with some health and education jobs. Some are linked to land uses in the surrounding area such as agriculture and industrial activities.

To interpret the likely size of employment and forecast growth in each centre (Dural, Galston, Glenorie and Wisemans Ferry), TPA projections were used. TPA uses Travel Zones (small area) to interpret data from larger areas and create a local projection for population, workforce and employment using a model that receives inputs around likely factors that characterise an area. The TPA baseline (2016) floorspace projections were also measured against Geoscape PSMA floorspace data which measures the area of actual buildings based on their footprint.

The HillPDA Employment Land Use Study

As part of the accelerated LEP review, Council commissioned an *Employment Land Use Study* from HillPDA, which examined centres across Hornsby's urban area, including Galston, Wisemans Ferry and Dural. The Employment Land Use Study is in draft form and has not yet been endorsed by Council, however its preliminary findings are used to inform the Rural Lands Study. The overarching employment precinct sizes from that study are shown in the chart and tables overleaf.

In Hornsby's activity centre hierarchy, identified by HillPDA in the draft *Employment Land Use Study* (2019), Dural is identified as a small village, while Galston is identified as a neighbourhood centre. The HillPDA review also looks at "Dural Service Centre", which is the Dural South Industrial Area zoned IN2.

[18] Highlighted in the Ag Econ Plus Report, *Values of the Metropolitan Rural Area of the Greater Sydney Region.*

Most economic and employment activity in Glenorie and Wisemans Ferry occurs on the western side of Old Northern Road, within The Hills Shire Council boundary. To understand the function of these towns for their local rural populations, the investigation area was expanded by SGS to include commercial land on The Hills Shire side of Old Northern Road. A summary of key figures from the HillPDA Study are included below, followed by additional analysis and discussion from SGS.

TABLE 8: NON-RETAIL FLOORSPACE DEMAND BY PRECINCT

Precinct	Supply in 2019	Demand in 2019	Additional Demand in 2026*	Additional Demand in 2036*
Galston	4,3847	4,032	206	936
Other centres**	37,172	25,030	-7,347 (oversupply)	-2,667 (oversupply)

Source: HillPDA 2019 Land use audit (excludes residential space), as presented in the Hornsby Employment Lands Study, 2019 (HillPDA).

* Assumes an increase in target RTDs at 0.4% per annum.

**combined villages, small villages, neighbourhood and rural village.

HillPDA's **recommendations** for Hornsby's rural villages were:

- "Establish a minimum non-residential floorspace ratio of 0.8 to encourage more business support uses (for Galston village only)."
- "A portion of the Galston Village containing The Grove residential living and the residential component to the north along Griffith Close is currently not contributing to the local centre function. Rezone areas to R2 Low Density Residential where they do not contribute commercial uses."
- "Undertake meaningful engagement with local agriculture producers and rural and tourism industries to determine pathways to further support the productivity of rural lands as part of the rural land strategy and economic development strategy."
- The proposed hierarchy of centres identifies Galston village as a local centre
- The plan recommends retaining Dural rural village in its current role
- Wisemans Ferry classified as a neighbourhood centre.

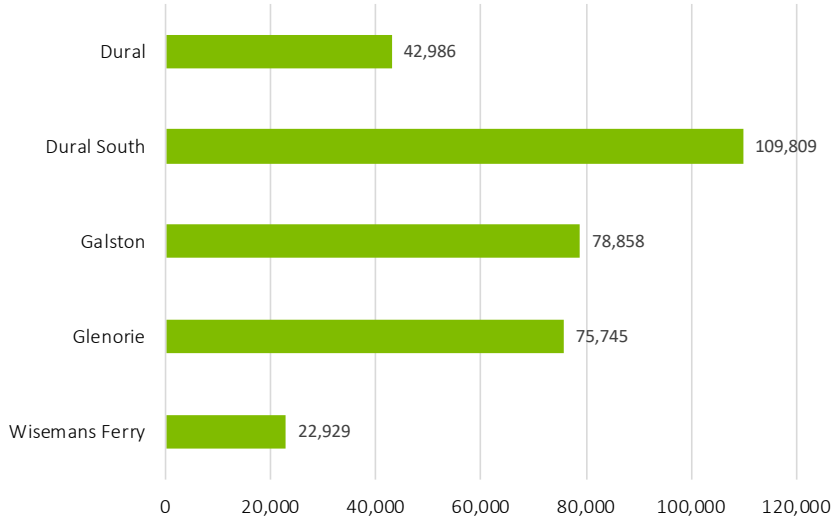
HillPDA suggests the total net growth in floor area for Galston would be 2,490 sqm from 2016-2036, with a current vacancy rate of 380 sqm (15%). A recommendation of the study was that steps to reduce vacancy rates across centres to 2.5%, including capping the proportion of residential floorspace on commercial lots.

Employment floorspace modelling

SGS' employment space by employment estimates for the rural villages are based on the same datasets as HillPDA (TPA Projections), however the catchment areas have been broadened to include land around the immediate centres; while HillPDA only examined land in commercial or industrial-zoned land.

The investigation area for Hornsby's rural villages encompasses some land outside the town centres, as well as the town or village commercial core. This is to capture a holistic picture of jobs available in the immediate surrounds and may also pick up some home businesses or activities occurring on rural properties.

FIGURE 35: EMPLOYMENT FLOORSPACE ESTIMATES FOR RURAL CENTRES (SQM)



Source: SGS Economics and Planning, 2019, based on Geoscape PSMA floorspace data.

The analysis found employment around rural centres is relatively dispersed, with a range of activities occurring both within and outside the commercial areas of each centre (including home businesses). It is difficult to pinpoint the exact floorspace numbers, given small area forecasts in rural locations typically cover a much larger statistical area than urban area.

Broken down by zone, the approximate amount of floorspace in each investigation (larger) area around the rural centres is shown below in Table 9.

TABLE 9: FLOORSPACE IN SPACE RURAL CENTRES

Zone	Dural	Dural South Industrial Area	Galston	Glenorie	Wisemans Ferry	Total (sqm)
B1	**2,370**		**9,466**	**6,767**	**2,207**	**20,811**
B2		**22,090**				**22,090**
E1					246	**246**
E3					3,108	**3,108**
IN2		**59,803**		**22**		**59,825**
R2	13,102	12,343	54,213	40,811		**120,470**
R3	229					**229**
RE1					402	**402**
RE2				1,089	2,588	**3,677**
RU2	25,594	11,231	367		378	**37,570**
RU4			24,100	7,244		**31,343**
RU5	5,292					**5,292**
RU6	15,578			18,158		**33,735**
SP2 (Infrastructure)			604		50	**654**
SP3 (Tourism)					**10,067**	**10,067**
W1					10	**10**
Total (sqm)	**62,165**	**105,468**	**88,749**	**74,091**	**19,057**	**349,529**

Source: SGS Economics and Planning, 2019, based on Geoscape PSMA floorspace data.

Reflecting HillPDA's findings and current zoning, there is a large amount of residential floorspace within the Galston town area and surrounds.

Floorspace and employment forecasts

As the population grows, it generates demand for services that enable people to go about their daily lives: *population serving jobs*. These include post offices, supermarkets, tax and real estate agents, and retail. In Hornsby's rural centres, there are also some health and education jobs, and jobs linked to rural activities, such as farm supplies. However, over time if agricultural activity continues to decline, fewer industry-serving businesses will operate from these centres.

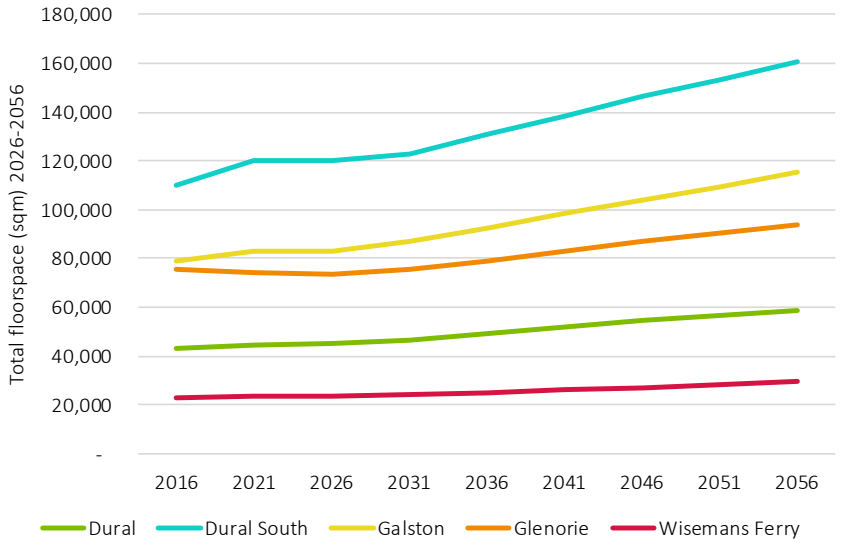
Excluding Dural South industrial area, Dural is the largest centre in Hornsby Shire's rural area. Due to its proximity to urban areas, it has a diverse mix of job types compared to the smaller centres in Galston, Glenorie and Wisemans Ferry.

For 2016-2056, estimates have been made about each of the rural centres by industry sector. These figures are an indication only but demonstrate the likely industry profile of rural centres into the future, especially considering their role in supporting the rural and rural residential populations around them.

Figure 36 shows strong growth in Dural South, reflecting its different role as an industrial centre that services the nearby urban areas, while also accommodating some businesses that supply the rural area (although this has decreased over time).

The role each rural centre plays as a service centre means some employment growth will occur over time, despite the nexus between rural activities/rural industries decreasing. The forecast floorspace growth between HillPDA and SGS' estimates are generally aligned (noting the estimate above extends out to 2056).

FIGURE 36: ESTIMATED FLOORSPACE IN RURAL CENTRES 2016-2056



Source: Source: SGS Economics and Planning, based on TPA projections.

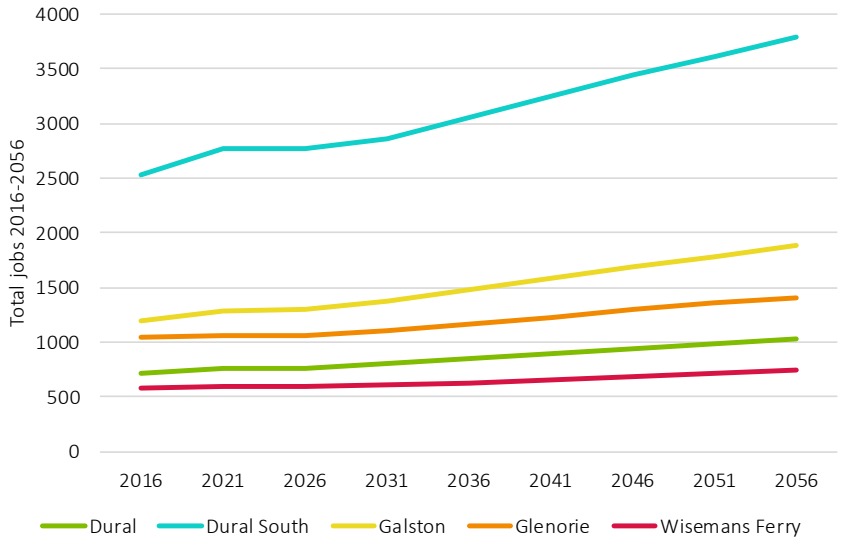
Jobs in rural centres

The floorspace estimates presented above are based on job numbers, taken from the TPA projections (as described earlier).

Dural, Galston, Glenorie and Wisemans Ferry show modest growth from 2016-2056, likely in line with population growth and some changes in broader industry trends. Due to its industrial zoning, Dural South shows greater potential for jobs growth as the nature of industry changes and some higher order jobs are located there.

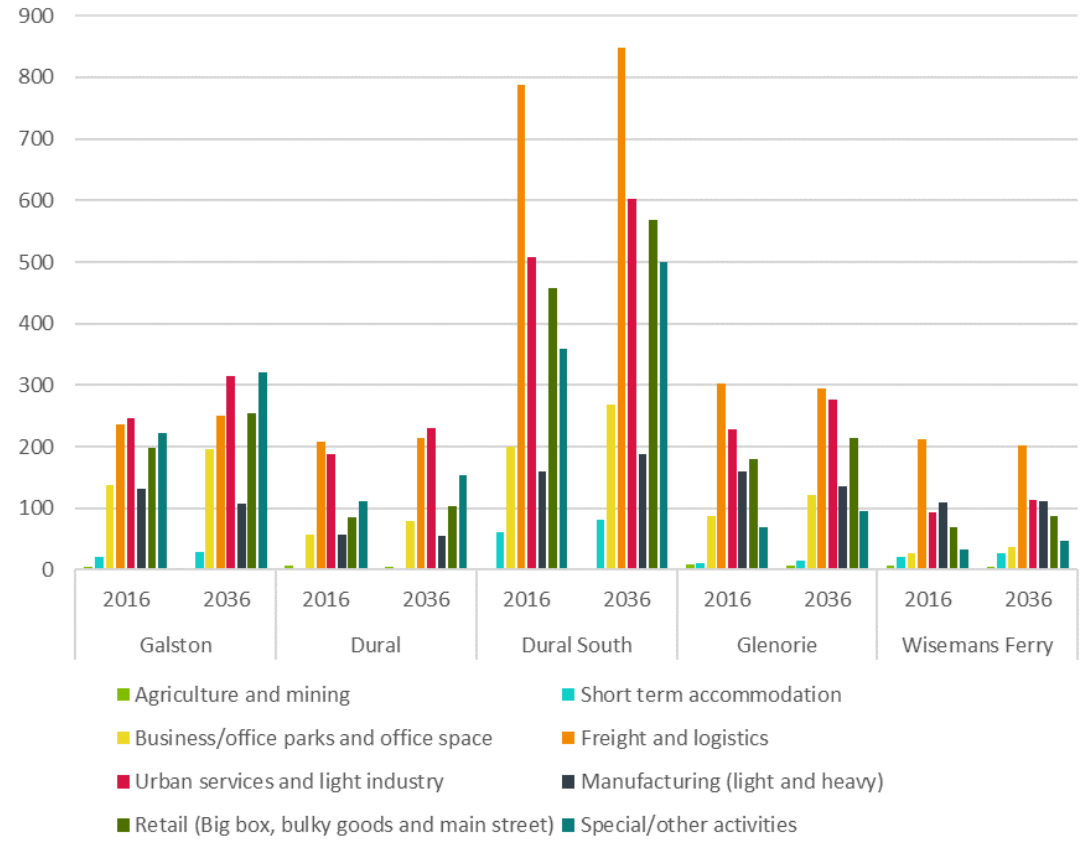
As identified in the HillPDA report, several factors can influence the future of centres including the availability of appropriately zoned land with the right size, the infrastructure provision which attracts businesses to locate in an area, and broader supply chains.

FIGURE 37: ESTIMATED JOBS IN RURAL CENTRES 2015-2056



Source: SGS Economics and Planning, based on TPA projections.

FIGURE 38: ESTIMATED CHANGE IN JOB NUMBERS 2016-2036



Source: SGS Economics and Planning, 2019, based on TPA projections. Industry categories based on BLC classifications.

Given the proportion of residents living within close proximity to the rural villages, especially Galston, Dural and Glenorie, it is likely these jobs which previously served agriculture, may be replaced with uses that respond to people's residential needs.

For Glenorie, Galton and Dural, the estimates show growth in those sectors likely to service nearby urban populations; one function of rural areas. Retail jobs are likely to remain relatively stable given their link to the surrounding population. In contrast, manufacturing jobs are likely to decrease given the broader national trend currently affecting this sector.

Into the future, Hornsby's rural villages will be important to provide services that support nearby agricultural, tourism and other businesses across the rural area. They will also contain and continue to provide services that support the nearby resident population.

Based on the *GSRP*, villages play an important role providing some housing and in Hornsby Shire the villages could also play a stronger role in supporting the visitor and tourism economy; uses that would benefit from the surrounding rural landscape setting.

To understand the long-term floorspace and employment numbers in more detail (and how this growth would be accommodated), a detailed structure plan should be prepared that understands current floorspace capacity within the town/village boundaries, and whether there is sufficient appropriately zoned land to do so; noting that the rural villages are not expected to meet job/housing targets set for urban areas in the *GSRP*.

What we heard: trends in farm-related businesses

Through community engagement for this project, people reported that farm-related businesses (e.g. farm supplies and farm machinery mechanics) have slowly moved out of Hornsby Shire's rural villages over time, as the farming activities decline and the demand for such services lessens.

Further analysis related to farming and agriculture jobs is included at Chapter 4.

3.6 Environmental profile

The geography of the Hornsby LGA is defined by the Hornsby Plateaux, together with the influence of the Hawkesbury River. The geological formations of Hawkesbury sandstone with underlying remnants of overlying Wianamatta group sediments and underlying Narrabeen group have strongly influenced the land uses of suburban development, with pockets of rural uses taking advantage of relatively better soils found on the weathered Wianamatta group on the plateaux.[19]

Interim Biogeographic Regionalisation for Australia (IBRA)

Bioregional classifications (regions and subregions) were developed in 1993-4 and are endorsed by all levels of government as a key tool for identifying land for conservation. For this study, the IBRA sub-regions have been used as a starting point to understand how the interplay between geology, landform, water body and vegetation influences the look and feel of the landscape across Hornsby Shire. Soil types, rock formation, topography and the availability of water also shape the types of land use across an area, and the types of agriculture that occur in different locations.

Australian bioregions capture the patterns of ecological characteristics in the landscape and underlying environmental features and patterns of use of the land, providing a natural framework to recognise and respond to biodiversity values. Bioregions are relatively large land areas characterised by broad, landscape-scale natural features and environmental processes that influence the functions of entire ecosystems. They capture the large-scale geophysical patterns across Australia. These patterns in the landscape are linked to fauna and flora assemblages and processes at the ecosystem scale, and provide a useful means for simplifying and reporting on more complex patterns of biodiversity.[20] Planning for biodiversity at this scale recognises the significance of these natural processes and gives us the greatest opportunity to conserve biodiversity in sufficient numbers and distribution to maximise its chance of long-term survival.

The Sydney Basin

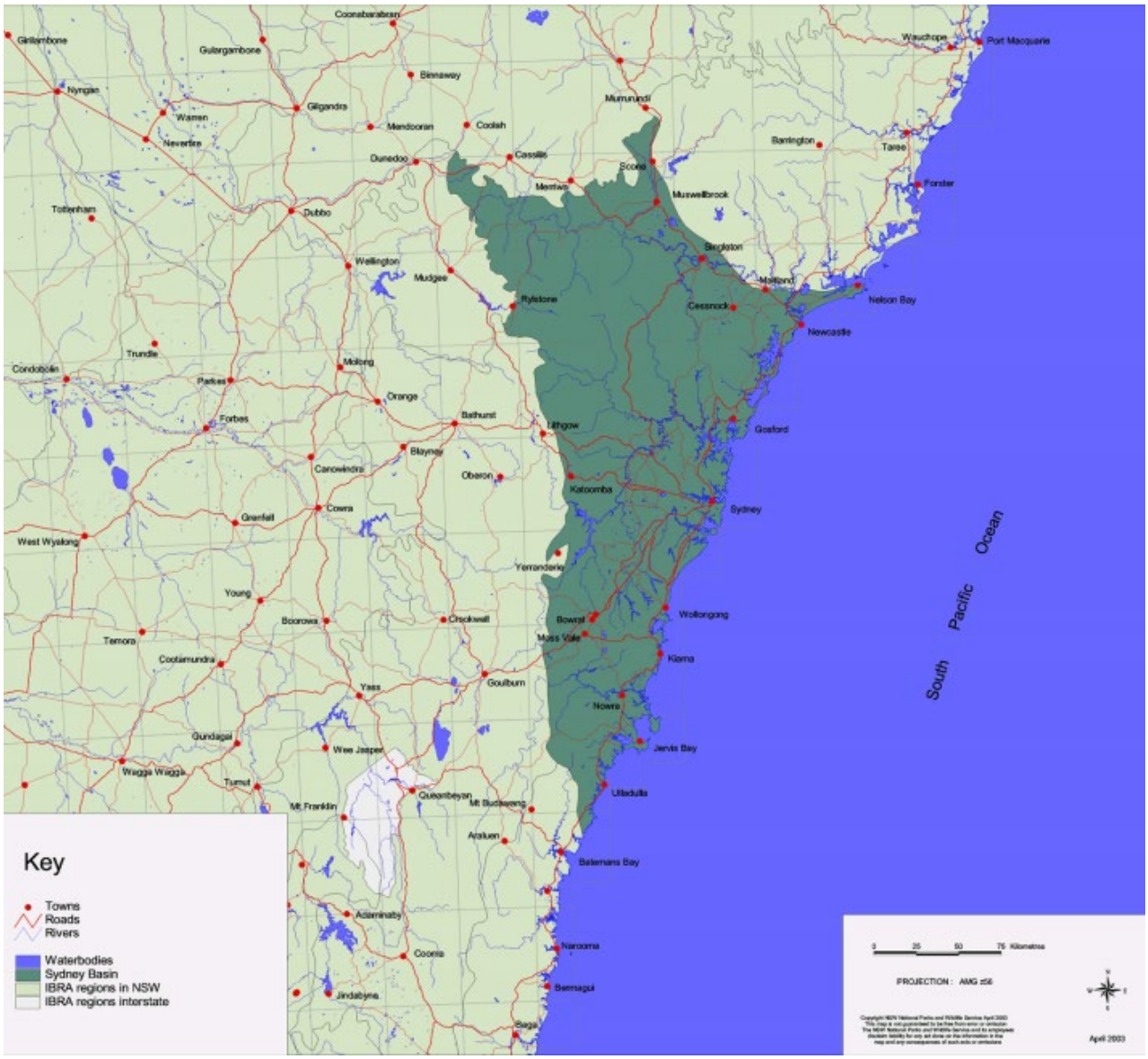
Under the IBRA classification system, the Hornsby LGA is located within the Sydney Basin region, described as follows:

> *The Sydney Basin Bioregion lies on the central east coast of NSW and covers an area of approximately 3,624,008 ha (IBRA 5.1). It occupies about 4.53% of NSW and is one of two bioregions contained wholly within the state. The bioregion extends from just north of Batemans Bay to Nelson Bay on the central coast, and almost as far west as Mudgee.*
>
> *The bioregion is bordered to the north by the North Coast and Brigalow Belt South bioregions, to the south by the South East Corner Bioregion and to the west by the South Eastern Highlands and South Western Slopes bioregions.*

As well as Sydney itself, the Sydney Basin Bioregion encompasses the towns of Wollongong, Nowra, Newcastle, Cessnock, Muswellbrook and Blue Mountains towns such as Katoomba and Mt Victoria. It includes a significant proportion of the catchments of the Hawkesbury Nepean, Hunter and Shoalhaven river systems, all the smaller catchments of Lake Macquarie, Lake Illawarra, Hacking, Georges and Parramatta Rivers, and smaller portions of the headwaters of the Clyde and Macquarie rivers.[21]

[19] AgEcon Plus, *Values of the Metropolitan Rural Area,* 2017, p. 105.
[20] NSW National Parks and Wildlife Service, 2016, *Bioregions Explained*, Available from URL: <https://www.environment.nsw.gov.au/bioregions/BioregionsExplained.htm>.
[21] NSW National Parks and Wildlife Service, 2003, *The Bioregions of New South Wales: their biodiversity, conservation and history*, NSW National Parks and Wildlife Service, Sydney.

FIGURE 39: SYDNEY BASIN BIOGEOGRAPHIC REGION

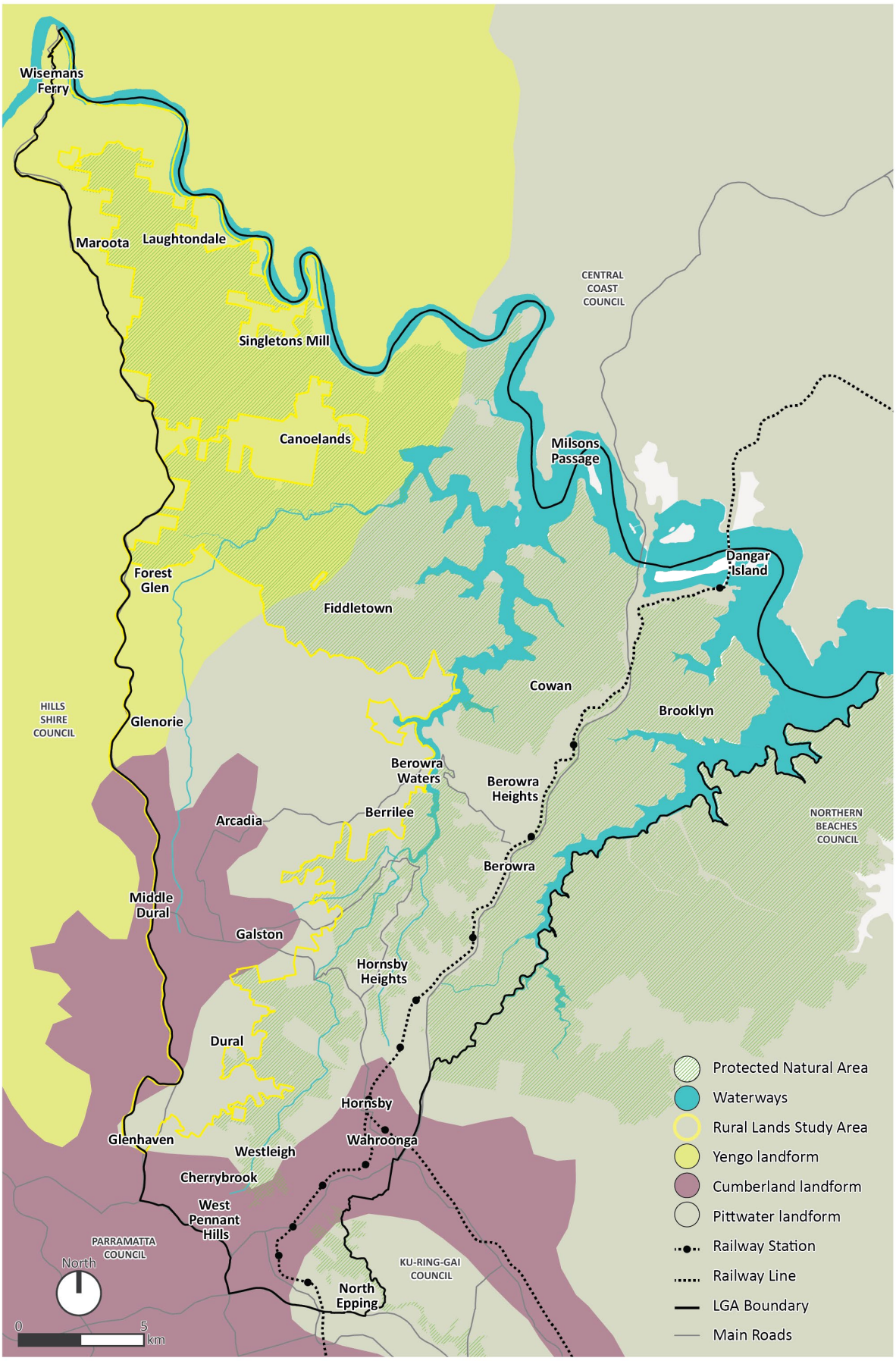


Source: NSW Government, 2003

As illustrated in Figure 40 the Hornsby LGA straddles three IBRA subregions within the Sydney Basin:

- Cumberland: The southern and western parts of the LGA, from Hornsby to Cherrybrook and Dural, extending as far north as Galston, Glenorie and over to Fiddletown.
- Pittwater: North of Hornsby, contains the Berowra Valley and Berowra National Park, up to the Hawkesbury River and contains Berrilee, Berowra Heights, Dangar Island.
- Yengo: North of Glenorie, extends to the Hawkesbury River just east of Singletons Mill, and contains Forest Glen, Canoelands, Laughtondale, Maroota and Wisemans Ferry.

FIGURE 40: IBRA SUB-REGIONS IN THE SYDNEY BASIN



Source: SGS Economics and Planning, based on IBRA data and Mitchell Landscapes, 2020.

FIGURE 41: THE SANDY SOILS OF THE MAROOTA LAND SYSTEM SUPPORT A DIFFERENT, HEATHY VEGETATION PROFILE THAN ELSEWHERE IN THE LGA



Source: SGS Economics and Planning, 2019.

While IBRA regions are one component of defining landscape areas, their definition and sub-regional boundaries will form the basis for identifying more detailed landscape area boundaries within the Hornsby LGA as part of this project.

Geology and landform

Landform is a feature on the earth's surface that is part of the terrain. Mountains, hills, plateaus and plains are the four major types of landform. Minor landforms include buttes, canyons, valleys and basins. Tectonic plate movement under the Earth can create landforms by pushing up mountains and hills. Erosion by water and wind can wear down land and create landforms like valleys and canyons. Both processes happen over a long period of time, sometimes millions of years.

The *Greater Sydney Region Plan* (GSRP) identifies landform across Greater Sydney, defined by topography and other underlying geological features. The Hornsby LGA lies across a sandstone plateau (the Hornsby Plateau), and the Cumberland Plain. Its altitude varies from ridgelines greater than 250 metres above sea level, to steeply incised valleys below 25 metres above sea level. In some cases, the fall may be 200 metres of a run of less than 1 kilometre, where from high points viewers are afforded a range of panoramic views over hills and valleys, interspersed with enclosed and filtered views from the valley floor.

Sydney Basin

The Sydney Basin is one of the four major structural features of eastern Australia and has well-defined geographical and structural boundaries. The landform was created over a long time, culminating in final major tectonic movements during the late Triassic period. The Hornsby LGA falls across the Hornsby Plateau, which is characterised by sedimentary rock on an eroded basement of granite and metamorphic rocks. In Hornsby this is predominantly the quartzose Hawkesbury Sandstone, which forms cliffs and dominates the landscapes, including many impressive outcrops across the Hornsby Plateau and Cumberland Basin.

The geomorphology of Sydney's sandstone lands has been categorised as the repetition of three landform sub-types: gently dipping plateau summits and upland valleys; cliff lines, and valley sides and floors.[22] The landform are found in great variation across the Hornsby LGA.

Hornsby Plateau and Cumberland Plain

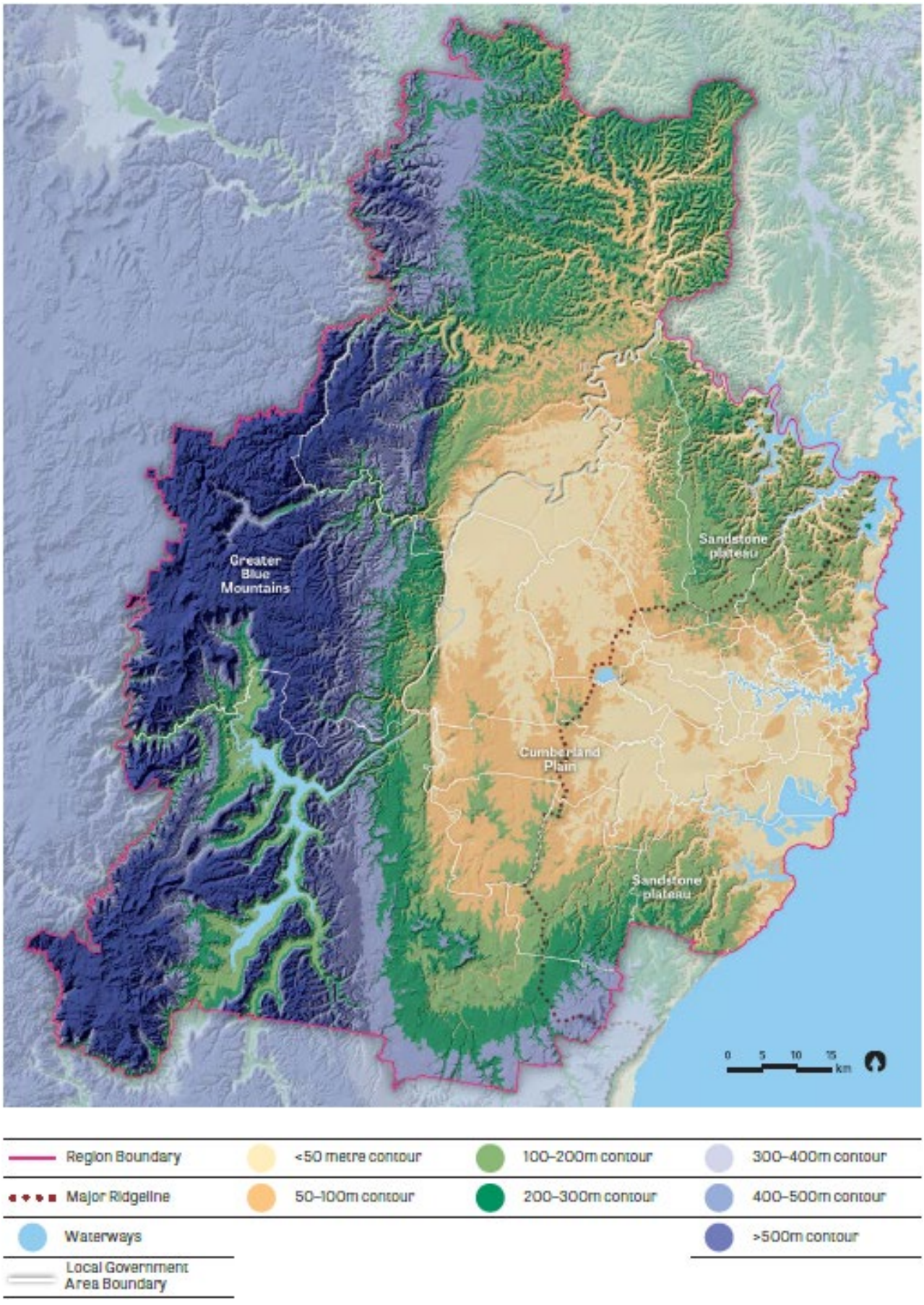
Around the Cumberland Plain, the sedimentary rocks rise gently to the north and south, but more steeply to the west, to form a number of structural plateaux, encircling and dipping inward toward the Cumberland Plain. These structural plateaux (notably in the Hawkesbury Sandstone), rise to the north (the Hornsby Plateau), south and west (Woronora and Nepean Plateaux and Illawarra Plateau, and Blue Mountains and the Newnes Plateau respectively). [23]

The Hornsby Plateau rises from near sea level to an altitude of between 100 and 200 metres. While the plateaux are mainly cut from a single stratigraphic unit (generally, resistant sandstone), the summits are commonly a relatively narrow series of flat-topped ridges, flanked by broad benches commonly linked to differential weathering of various beds within sandstone. Major streams have cut deep, valley walls. Smaller streams on the plateaux surfaces often flow through broad, low gradient, sediment-filled swampy depressions.[24]

In the Hornsby Plateau, valleys cut in the Hawkesbury Sandstone are not as deep as elsewhere in the Sydney Basin; consequently, valley sides are generally sloping or of steep gradient. Valley bottoms are often narrow and rugged.

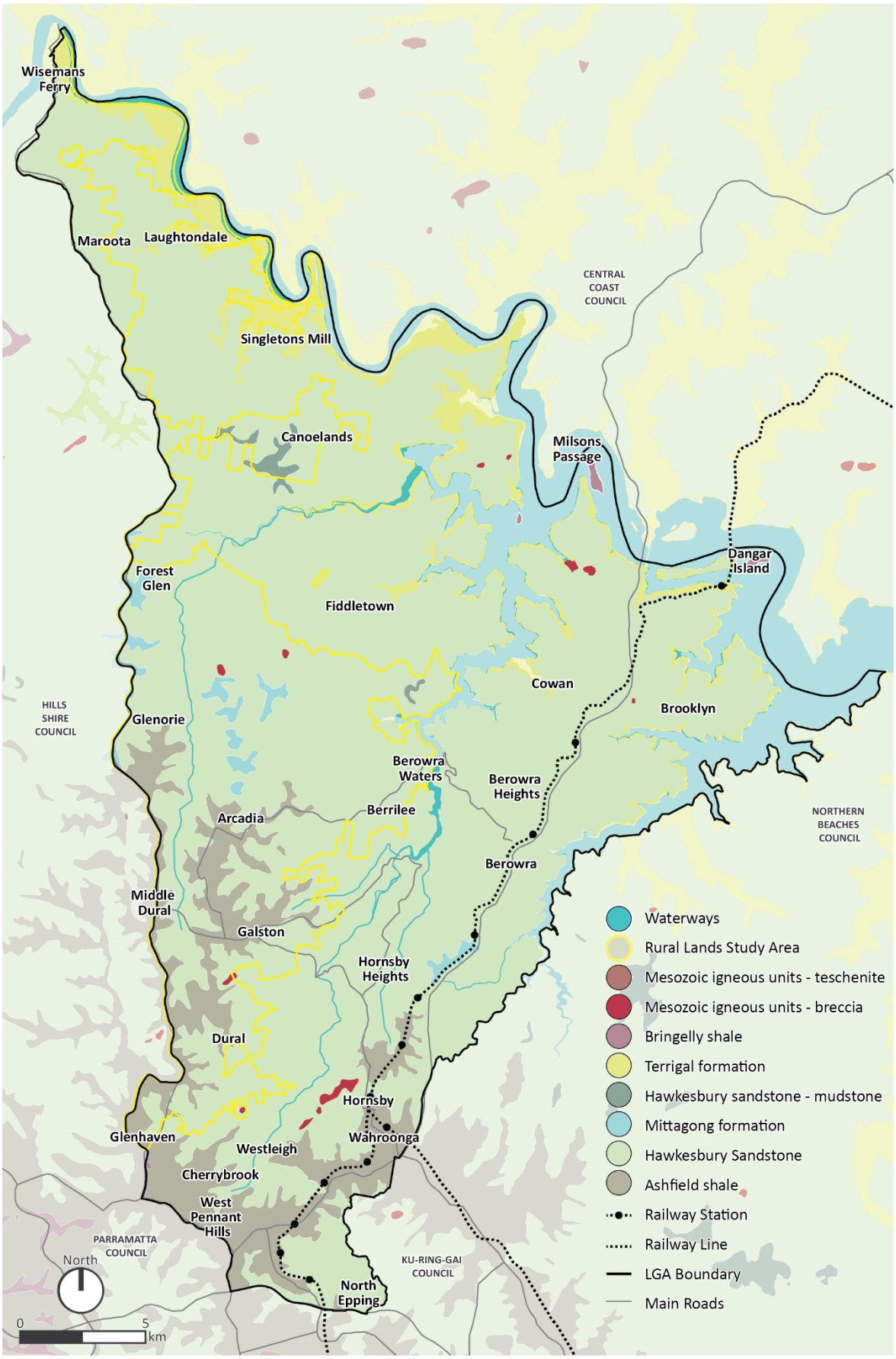
[22] Wray, R. A., *Solutional landforms in quartz sandstones of the Sydney Basin*, University of Wollongong, 1995, p. 62.
[23] Young, R. W., and Young, A. R. M., *Altogether Barren, Peculiarly Romantic: The Sandstone Lands Around* Sydney, in The Australian Geographer, 1988, Vol. 19, pp. 9—25.
[24] ibid.

FIGURE 42: LANDFORM OF GREATER SYDNEY



Source: Greater Sydney Commission, Greater Sydney Region Plan, p. 159.

FIGURE 43: GEOLOGY IN THE HORNSBY LGA



Source: SGS Economics and Planning, based on NSW Government data.

Landform in the Hornsby LGA

The geology of the Hornsby LGA was largely formed during the late- to early Triassic period. The Sydney Basin and its terrain is dominated by sandstone, which often appears in the landscape on cliff faces, escarpments and rocky outcrops. Its iconic stratigraphy lined with darker striations is a key feature of the Basin and can be found throughout the Hornsby LGA. The landform is highly varied, characterised by rolling slopes and deep valleys. It is of great antiquity, and geological change has been remarkably slow.

The two dominant geological formations of the Hornsby LGA are the Hawkesbury sandstone (north of Glenorie and east of Galston up to the Berowra Creek and Hawkesbury River) and Ashfield Shale (in the southern parts of the LGA and along ridgelines reaching up to Glenorie).

The Hawkesbury sandstone is made up of quartz sandstones, shales and red-brown clay-stones. The landform is typically overlain with Hawkesbury Sandstone where it occurs in Hornsby. Along creeklines and waterways, the Hawkesbury Sandstone is often visible as steep escarpments, rocky outcrops and steep valleys with dramatic stratigraphy. Quartz sandstone is typically made up of 80 to 100 per cent quartz, and the common soil profile is red or yellow, deep or shallow sands which are often single grained.

Ashfield Shale appears black to light grey, made up of grey shale and laminate. Some examples of outcrops can be seen, with an appearance much more grey than in the This landform often overlies Hawkesbury Sandstone, shale and dark grey-to-black siltstone. It occurs along ridgelines throughou the southern parts of the LGA, interspersed with the Burralow Formation. In other locations, patches of Mittagong Formation appear on ridgelines, characterised by interbedded shale, laminate and medium-grained quartz sandstone. Shale rock is typically made up of 80 to 100 per cent clay, with low nutrient levels and inert oxides.

Waterform

The Hornsby LGA is within two major river catchments: the Hawkesbury River catchment (which covers most of the LGA north of Pennant Hills and Normanhurst), and the Port Jackson/Georges River catchment (Cheltenham).

The Hawkesbury-Nepean catchment is the longest coastal catchment in NSW. The Hawkesbury River flows for 470 kilometres, from south of Goulburn near Lake Bathurst to Broken Bay, draining 21,400 square kilometres (or 2.14 million hectares) of land.

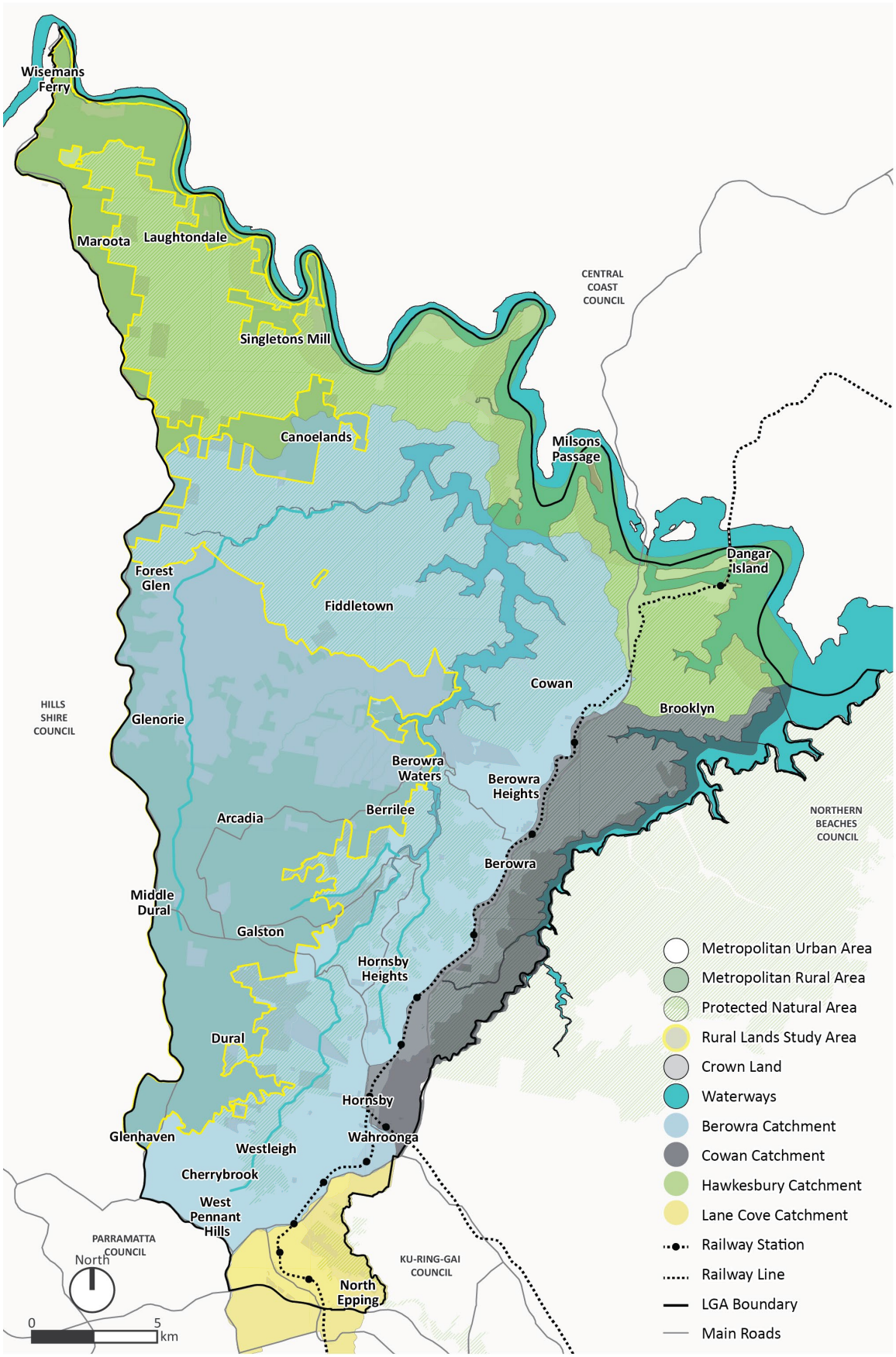
The northern boundary of the Hornsby LGA is defined by the Hawkesbury River, which dominates the landscape from Wisemans Ferry to the remote and beautiful localities of Laughtondale and Singletons Mill. (In these locations, views are framed by the Hawkesbury River to the north, and steep hills towards the Marramarra National Park in the south.)

The Berowra Creek and valley forms an approximate boundary through the LGA between the rural areas of Berowra Waters, Berrilee and Galston, and land in the Berowra Valley National Park. Along the Pacific Highway and railway line, on the eastern side of the Berowra Creek, are the urban settlements of Berowra Heights, Berowra, Mount Kuring-Gai, down to Hornsby and Cheltenham. Several creeklines branch from the Berowra Creek across the urban and rural parts of the LGA. The eastern boundary of the LGA is defined by Cowan Creek.

Along the Hawkesbury River, Berowra Creek and Cowan Creek, the riparian environment is host to Mangrove, Saltmarsh, Zostera and Posidonia vegetation communities.[25] Mangrove and Saltmarsh forests, which reach up as far as Laughtondale, are important nursery habitats for fish.

[25] NSW Department of Primary Industries, *Mapping the estuarine habitats of NSW*, available online from URL: <https://www.dpi.nsw.gov.au/content/research/areas/aquatic-ecosystems/estuarine-habitats-maps>.

FIGURE 44: MAJOR CATCHMENTS IN HORNSBY SHIRE



Source: SGS Economics and Planning, 2019, based on data from DPI.

Vegetation and biodiversity

Thirty-four native vegetation communities have been identified across the Hornsby LGA (excluding land in national parks). Those occurring within the rural area are identified in Figure 51. Due to land clearing for agriculture and urban development, some endangered communities (such as the Angophora-Red Mahogany Forest and Shale Gravel Transition Forest) are only represented by remnant trees without native understorey.

Several vegetation communities in Hornsby Shire have national, state, regional or local-level significance. Six communities make up 83 per cent of the land surveyed: Peppermint-Angophora Forest, Bloodwood-Scribbly Gum Woodland, Narrow-leaved Scribbly Gum Woodland, Grey Gum-Scribbly Gum Woodland, Yellow Bloodwood Woodland and Scribbly Gum Open woodland/Heath (12,858 of 15,505 hectares). The significant communities make up only 17 per cent (2,647 hectares) of the Shire.[26]

FIGURE 45: TURPENTINE-IRONBARK FOREST, CHERRYBROOK



Source: P. J. Smith Ecological Consultants, 2008.

FIGURE 46: PEPPERMINT-ANGOPHORA FOREST, BROOKLYN



Source: P. J. Smith Consultants, 2008.

FIGURE 47: GREY-GUM SCRIBBLY GUM WOODLANDS, CANOELANDS



Source: P. J. Smith Consultants, 2008.

FIGURE 48: SHALE GRAVEL TRANSITION FOREST, ARCADIA



Source: P. J. Smith Consultants, 2008.

[26] P. J. Smith Ecological Consultants, *Native Vegetation Communities of Hornsby Shire, 2008 Update*, 2008, p. 2.

The three communities of greatest conservation significance, the critically endangered Turpentine-Ironbark Forest, Blue Gum Shale Forest and Blue Gum Diatreme Forest, all occur on easy topography on relatively fertile soils, and have been severely depleted and fragmented by clearing for urban and rural development.

Over 95 per cent of the original extent of critically endangered communities on the Cumberland Plain has been cleared (Tozer 2003). Hornsby Shire has around one quarter of the remaining area of both Turpentine-Ironbark Forest (295 of 1183 hectares) and Blue Gum Shale Forest (37 of 168 hectares), and possibly all of the remaining area of Blue Gum Diatreme Forest (14 hectares). Only a small proportion of these communities are conserved in the local Department of Environment reserves. Hornsby Shire Council has a major role to play in the conservation of the three communities and is currently reviewing its Biodiversity Strategy as part of the LSPS review.

FIGURE 49: NARROW-LEAVED APPLE SLOPES FOREST, SINGLETONS MILL



Source: P. J. Smith Ecological Consultants, 2008.

FIGURE 50: BLOODWOOD-SCRIBBLY GUM WOODLAND, DURAL



Source: P. J. Smith Consultants, 2008.

Among the regionally and locally significant communities, two communities face threats.

- Coachwood Rainforest, which occurs along creeks, is highly prone to weed invasion from water-borne and bird-spread propagules, especially Small-leaved Privet (Ligustrum sinense), which has become a major component of many stands of this community around Sydney.
- Silvertop Ash-Scribbly Gum Woodland, which occurs on ridges and plateaus in the eastern part of Hornsby Shire, mainly outside Berowra Valley Regional Park, is threatened by the continual spread and intensification of urban development within its distribution. Several stands of this community have been cleared or reduced since a previous survey was conducted in 1990.

Vegetation across Hornsby Shire's rural area is highly varied, and great changes occur in line with topographic and geological shifts in the landscape. Remnant vegetation is common along roadsides (in varying conditions) and ranges from highly textured, dark greens and grey-browns of tall Turpentine-Ironbark forests, Scribbly Gums and Narrow-leafed Apple Gums, to low heathy woodlands around the Maroota Sands landform. Lower-lying, river and creek valley communities are represented by forests (Peppermint-Angophora Forest, Narrow-leaved Apple Gully Forest, and Narrow-leaved Apple Slopes Forest). In the large-lot areas around Galston and Dural, and the primary production (small lot) areas around Arcadia and Fiddletown, remnant vegetation is often found along roadsides: Turpentine-Ironbark Forest, Narrow-leaved Scribbly Gum Woodland and Bloodwood-Scribbly Gum Woodland.

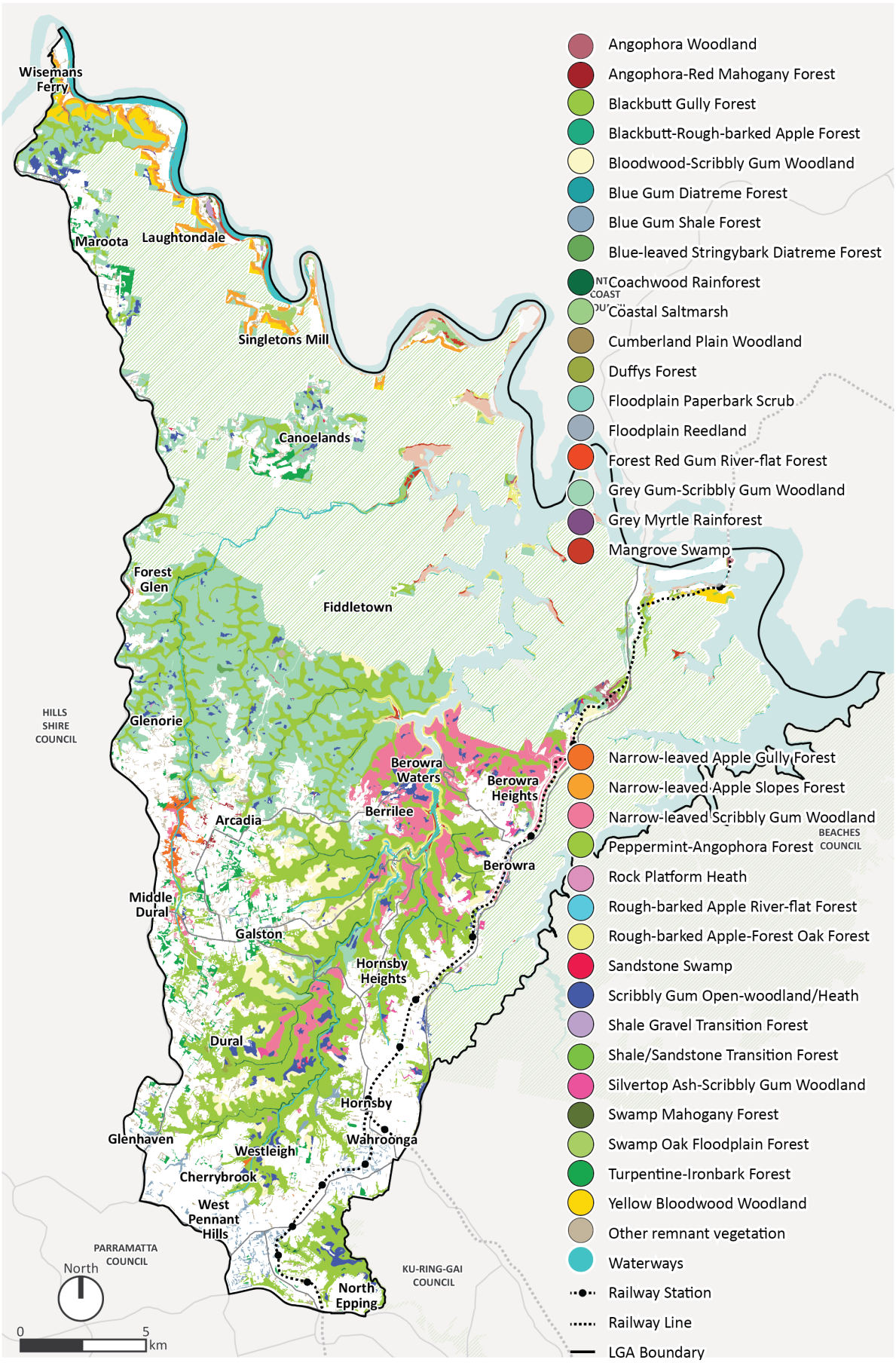
More recent vegetation mapping has been prepared by Eco-Logical Australia (ELA) consultants dated 2017. The ELA Vegetation Report 2017 maps 16,352 hectares (ha) of vegetation and identifies 35 native vegetation communities, including 26 communities of National, State and Regional significance. These comprise 4 Critically Endangered Ecological Communities and 10 Endangered Ecological Communities listed under State and Federal legislation. This includes approximately 466 ha of Turpentine Ironbark Forest, 135 ha of Blue Gum Shale Forest, 22 ha of Blue Gum Diatreme Forest and 5 ha of Shale/Sandstone Transition Forest. A further 9 vegetation communities are identified as being locally significant or common communities.

The ELA Report applies the existing, accepted vegetation communities classified by Smith & Smith with the following updates:

- An additional vegetation community of mixed 'urban native exotic/remnant vegetation', consistent with the Sydney Metropolitan vegetation mapping that overlaps part of the Hornsby Shire study area. In total, 648 hectares are identified as 'urban native/exotic. However, the proportion of exotics is highly variable and field validation is recommended to ground truth the data. Therefore, this vegetation community is not included within the total calculated area of native vegetation communities as recommended by the ELA 2017 Report.
- The addition of Cumberland Plain Woodland vegetation community. This is a CEEC identified under both Federal and State legislation and remnants within Hornsby Shire have now been included in the mapping.
- The upgrading of the conservation status of Angophora Woodlands from local to Regionally significant based on the NSW Plant Community Type equivalent.

As highlighted in its LSPS, Council's work to update its Biodiversity Strategy will involve a conservation management plan that aims to protect and conserve ecological values, restore disturbed ecosystems and enhance ecological values and function. The project includes aims to connect community better with nature (also part of the Greater Sydney initiative for a Green and Blue Grid) and enhance biodiverse ecological communities for future generations. The rural area contributes a significant amount of land and effort towards biodiversity and offers real opportunities to support those efforts.

FIGURE 51: VEGETATION COMMUNITIES WITHIN THE STUDY AREA



Source: SGS Economics and Planning, based on the Hornsby Vegetation map update 2017 report prepared by ELA.

Environmental constraints

Bushfire prone land

Due to the extensive tree coverage and topography, vast areas of the Hornsby LGA are prone to bushfire risk. In 2014, 20,180 properties in the Hornsby Shire were identified as bushfire prone; this is equivalent to 48% of the LGA, as outlined in the LSPS.

Some parts of the rural area are very remote, and only accessible with one road in and out. Many of these lots are surrounded by dense bushland and vegetation, alongside steeper topography. Usually, private land that is densely vegetated or has a steep slope is identified with the E3 zone.

There are two classifications[27] for bushfire prone land:

- Vegetation Category 1: The highest risk for bushfire. Any land under this category will have a 100m buffer. Land in Category 1 has the highest combustibility and likelihood of forming fully developed fires under heavy ember protection. This category applies to areas of forest, woodlands, heathlands, forested wetlands and timber plantations.
- Vegetation Category 2: This land is considered to be a lower bushfire risk but higher than the excluded areas; it has a 30m buffer. Vegetation in these locations has a lower combustibility and/or limited fire size due to the vegetation area shape and size, land geography and management practices. This category applies to rainforests, and lower risk vegetation parcels (remnant vegetation, land with ongoing management practices that have a plan of management in place).

The LSPS highlights that Hornsby Shire Council is committed to protecting its residents from bushfire risk, including limiting further development or intensification of development in areas that are bushfire prone, or where Emergency Management practices are still being confirmed with local committees and the RFS.

The RFS *Planning for Bush Fire Protection* (2019) guide applies to planning and development in bushfire prone areas across NSW. The guide contains development standards for designing and building on bushfire prone land in NSW, as well as outlining expectations around property maintenance to improve development survivability and prevent loss of life. It impacts strategic plan-making, as well as regulating new development and subdivision.

The principles from this guide will underpin development of the Hornsby Rural Lands Strategy, particularly where changes to the LEP may be proposed:

- Control the types of development permissible in bushfire prone areas
- Minimise the impact of radiant heat and direct flame contact by separating development from bushfire hazards
- Minimise the vulnerability of buildings to ignition and fire spread from flames, radiation and embers; enable appropriate access and egress for the public and firefighters
- Provide adequate water supplies for bushfire suppression operations
- Focus on property preparedness, including emergency planning and property maintenance requirements
- Facilitate the maintenance of Asset Protection Zones (APZs), fire trails, access for firefighting and on site equipment for fire suppression.[28]

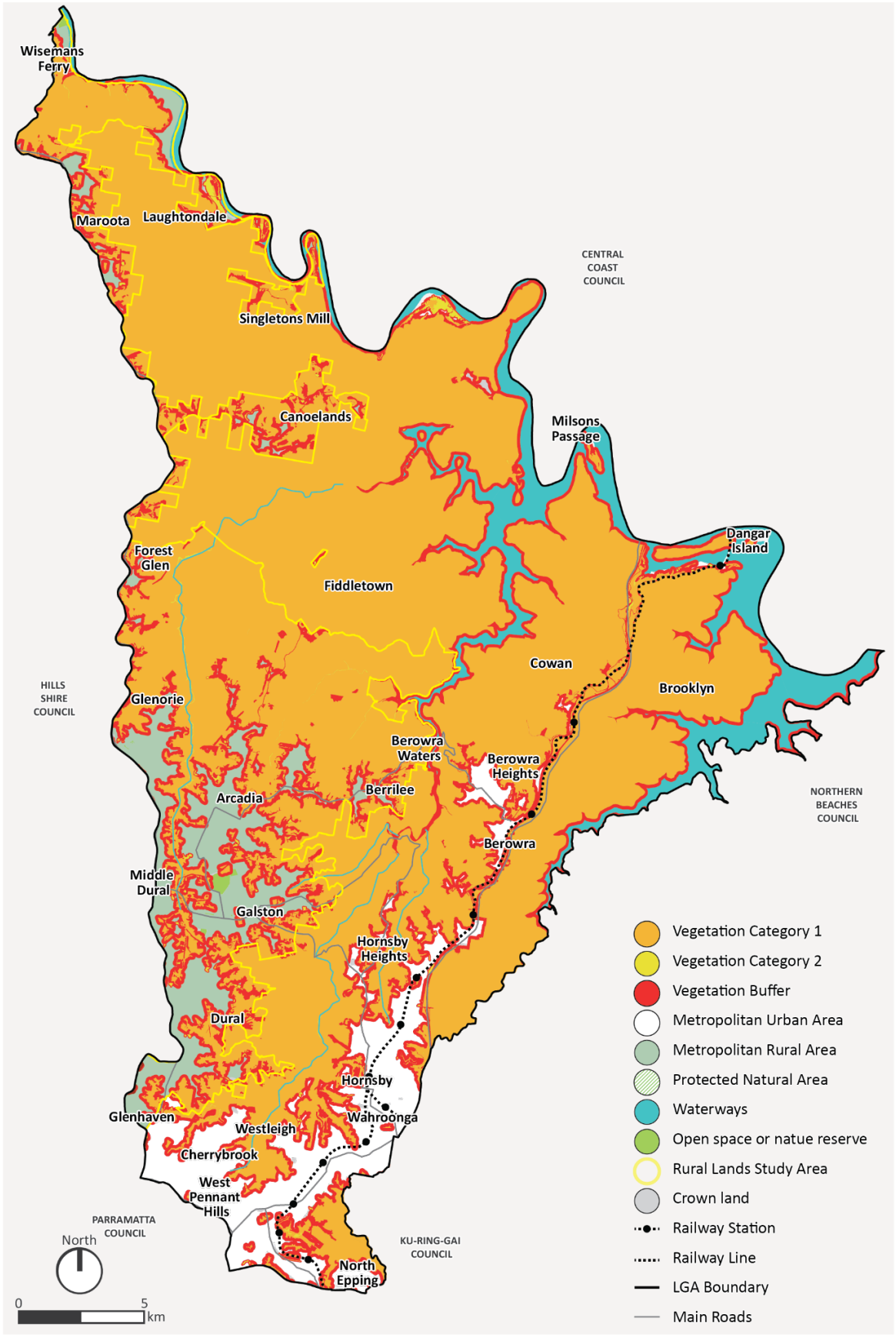
Flood risk

Flood risk is identified across the LGA through application of the Flood Planning policy at Clause 6.3 of the Hornsby LEP (2013). The flooding extent applies to land from Wisemans Ferry east along the Hawkesbury River as set out in the LEP (shown in the maps at Appendix 1). In these locations, development consent is required, to manage flood risk to life and property, while ensuring adverse impacts on the environment are avoided.

While some of the land in the Hornsby Shire that is subject to flood risk is depicted on the HLEP Flood Planning Map - flood planning area', this map is not exhaustive. Other parts of the shire are subject to flood risk and require consideration of flood related development controls prescribed in the DCP and LEP.

[27] Note: Following the preparation of this report in 2020, the Hornsby Shire bushfire prone land map was updated in March 2021. The new bushfire map has three vegetation categories. Refer to Hornsby Shire Council's website for the current bushfire prone map.
[28] NSW Rural Fire Service, *Planning for Bush Fire Protection*, 2019, p. 10. Available from URL: https://www.rfs.nsw.gov.au/__data/assets/pdf_file/0005/130667/Planning-for-Bush-Fire-Protection-2019.pdf.

FIGURE 52: BUSHFIRE PRONE LAND



Source: Data provided by Hornsby Shire Council, 2020.

Note: Note: Following the preparation of this report in 2020, the Hornsby Shire bushfire prone land map was updated in March 2021. The new bushfire map has three vegetation categories. Refer to Hornsby Shire Council's website for the current bushfire prone map.

Climate change

Council expressed its response to climate change in the LSPS. In the LSPS, Council reaffirms its commitment to the *Climate Change Adaptation Strategic Plan* (2009), which is currently being updated. Council's climate change vision is:

> *Improving the wellbeing of residents and businesses in the Shire, promoting sustainability and resilient design in our planning strategies, and protecting vulnerable communities from detrimental health effects associated with extreme weather.*

The LSPS identifies several aspects of climate change and their likely effects in rural (as well as urban) areas: carbon emissions, waste management, urban heat island and heat vulnerability, urban forest and tree canopy cover, and biodiversity (several ecological communities across the Shire are listed as threatened or critically endangered). In September 2019 Council resolved to 'align itself with the NSW Government target of net zero carbon emissions by 2050 and the Federal Government commitment to the Paris Agreement'.

Urban heat mapping shows land in the rural area is forecast to experience temperatures from 0-3 and 3-6 degrees warmer. Although people living in Hornsby Shire's rural areas are less vulnerable (than urban areas) to heat, the overall change in climate will affect how agricultural and other businesses in the rural area operate, and will place significant stress on the natural environment, plants and animals. This is also reflected in the *Climate Change Adaptation Strategic Plan* (2009) as it identified five key impact areas as most relevant to the Hornsby Shire, these include: heat, bushfire, ecosystems, rainfall and sea level rise.

Landscape and scenic values

As highlighted above, the Hornsby LGA sits within the Sydney Basin, and its landform is defined by a beautiful mix of sandstone cliffs and gorges, open waterways, secluded bays and natural vegetation. Scenic landscape qualities are linked to views which available from several vantage points across the LGA. This is owing to the topography which affords panoramic views over the Hornsby Plateau from ridgelines and densely vegetated views from within steeply incised valleys. Close to Hornsby, the Galston Road winds through the Berowra Valley and follows the transition from the LGA's urban areas to its rural and agricultural lands beyond.

The northern parts of the LGA contain several national parks and reserves: the Marramarra, Berowra Valley and Ku-Ring-Gai Chase National Parks, and the Muogamarra Nature Reserve. In the rural areas, Fagan Park in Galston is renowned as 'the crown jewel of Hornsby Shire's parks': it is a 55-hectare reserve with many planted gardens as well as local bushland areas.

Further details about landscape and scenic values across the Hornsby rural area are contained within the *Landscape Areas Report*, prepared in September 2019.

FIGURE 53: VIEW OVER THE HAWKESBURY RIVER FROM HAWKINS LOOKOUT



Source: SGS Economics and Planning, 2019.

3.7 Market trend analysis

Spreading urbanisation and population growth are putting pressure on agricultural lands through increased demand for alternate land uses on the fringes of Sydney. This is reflected in land values set by the Valuer-General (VG). Figure 54 (below) plots land values for twelve different property categories (as defined by the VG) against their value in 1996.

As one would expect, land values for residential sites in Sydney have increased by the most since 1996 (some 657%, or 9.38% per annum). However, in close second are land values for hobby farms and home sites in the Sydney area, including Hornsby Shire. The land value of hobby farms and home sites have increased 655%, or 9.36% per annum since 1994. The rate of growth has accelerated in recent years, with land values increasing by 18.25% per annum since 2014, faster than every other category over this period. Residential land in Sydney has increased in value by 12.44% over the same period.

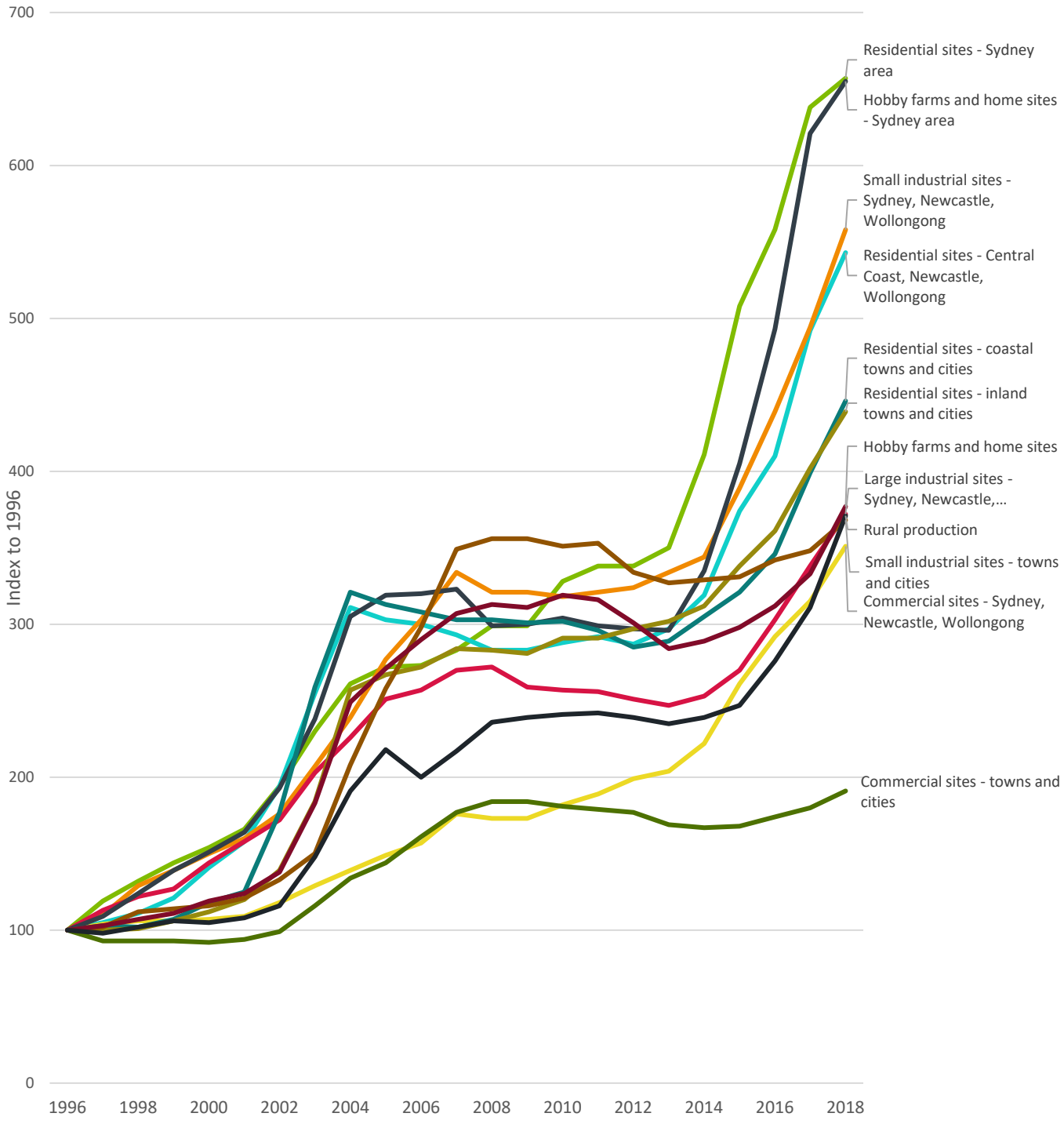
The primary determinant of market value of land in Sydney's peri-urban areas are urban influences rather than the land's agricultural value; in particular the distance and travel time from Sydney.[29] Speculation about future subdivision potential may also be capitalised into land values as Sydney's urban footprint grows.

Other potentially significant determinants of peri-urban private land values are lot size, quality of the dwelling, property improvements (fences, sheds, dams etc.), zoning, access to utilities, expectations of future growth in value, amenity and water entitlements. Lot size is particularly important. Empirical studies[30] have found that land values in Sydney's peri-urban areas increase with size, but at a diminishing rate.

The consequence of this is that there are immediate benefits to landholders if they subdivide. However, subdivision will not reduce land prices for new lots or address land affordability challenges that currently affect farmers' ability to acquire additional land to expand agricultural activities within the rural area. Increasing land prices based on desirability of these locations as rural lifestyle areas means farmers wishing to expand their businesses must do so through intensification on site, rather than expansion through acquisition, as individual lot sizes creep towards non-agricultural levels.

[29] AgEconPlus (2017). Values of Metropolitan Rural Area of the Greater Sydney Region. Prepared for the NSW Department of Planning and Environment in association with the Greater Sydney Commission.
[30] AgEconPlus (2017). Values of Metropolitan Rural Area of the Greater Sydney Region. Prepared for the NSW Department of Planning and Environment in association with the Greater Sydney Commission.

FIGURE 54: NSW LONG TERM LAND VALUE TRENDS BY CATEGORY (VALUES INDEXED TO 1996 VALUES)



Source: data from NSW Valuer General (2019). Long term land value trends – 1996 to present

Turning to Hornsby Shire, for the profile areas, low density residential is the most valuable land zone per square metre of land (out of the five major types analysed). Low density residential land is most valuable around Dural, followed by Arcadia-North Western Rural (Figure 55). In terms of growth in value since 2014, residential land has been growing at a slower rate than the other four zone types, primary production small lots, rural landscape, primary production and environmental management (Figure 56).

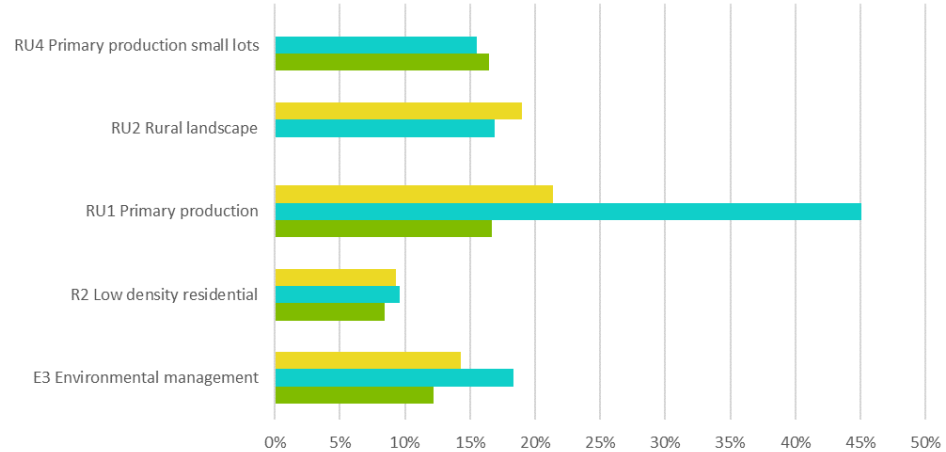
Primary production land has been growing in value by 17% per annum in the Arcadia-North Western Rural profile area, and up to 45% per annum around Galston-Middle Dural. This growth in Galston-Middle Dural has seen the value of primary production land increase dramatically, so much so its value is now similar to low density residential, on a per SQM basis.

FIGURE 55: LAND VALUES IN 2018, PER SQM, BY PROFILE AREA AND ZONE



Source: SGS Economics and Planning (2019). Data from NSW Valuer General (2019).

FIGURE 56: PROFILE AREAS PER ANNUM LAND VALUE CHANGE BY ZONE SINCE 2014

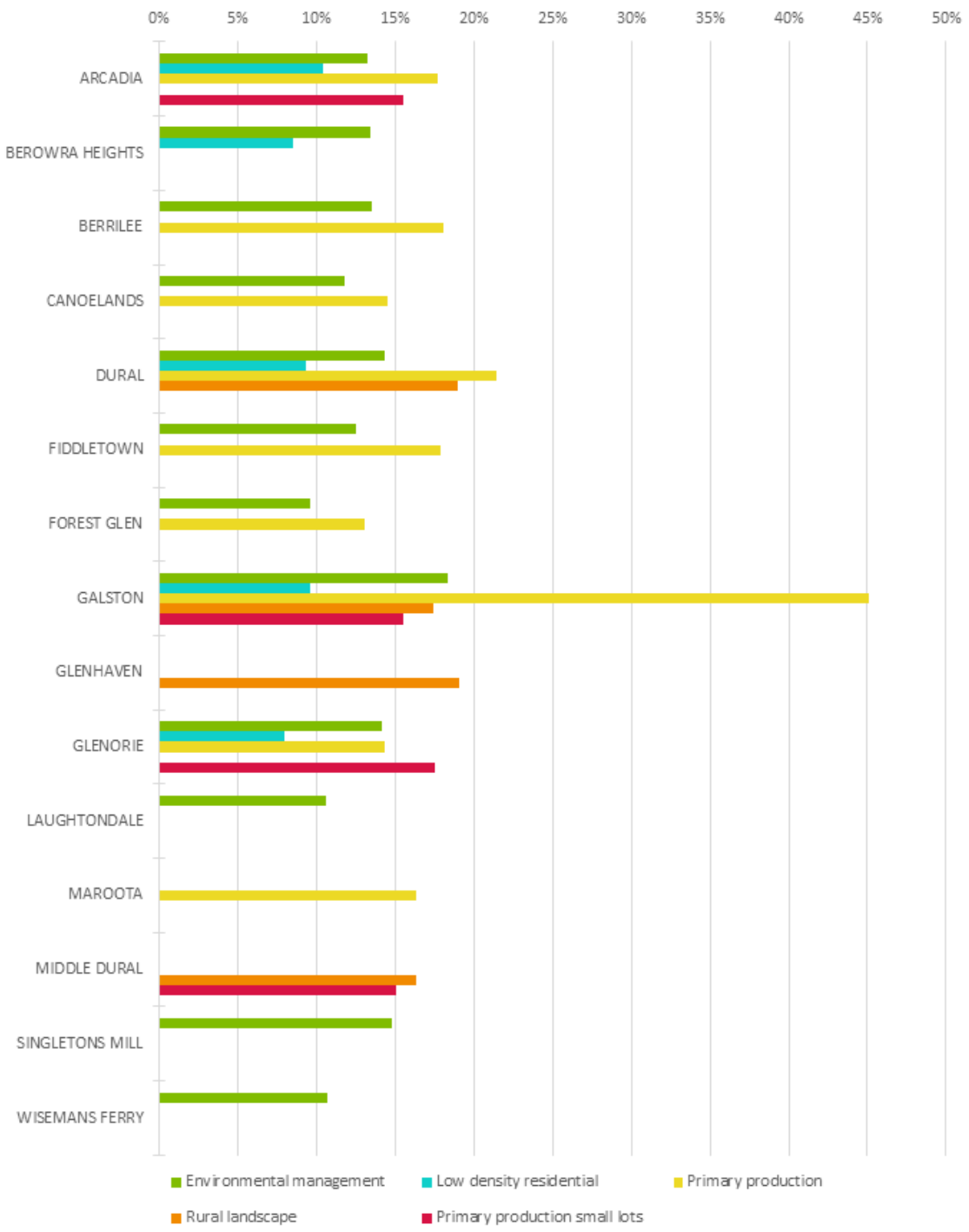


	E3 Environmental management	R2 Low density residential	RU1 Primary production	RU2 Rural landscape	RU4 Primary production small lots
Dural	14%	9%	21%	19%	
Galston-Middle Dural	18%	10%	45%	17%	16%
Arcadia-North Western Rural	12%	8%	17%		16%

Source: SGS Economics and Planning (2019). Data from NSW Valuer General (2019).

Figure 57 presents the per annum growth in value by zone, by suburb across the rural areas.

FIGURE 57: PER ANNUM LAND VALUE CHANGE BY ZONE SINCE 2014, BY SUBURB



Source: SGS Economics and Planning (2019). Data from NSW Valuer General (2019).

3.8 Insights from the local context analysis

Hornsby Shire's demographic profile is expected to change in a variety of ways. The population of Hornsby is forecast to grow, however, the rate of growth within the rural area is much slower than the urban areas. The rural area has a high proportion of retirees compared to Hornsby's urban areas and the NSW average; this is forecast to continue to remain a higher proportion in future. The greatest trend in rural areas is towards lone person households. Secondary dwellings and seniors living development have likely contributed to a share of medium density dwelling activity within rural areas.

Agriculture, mining, construction and manufacturing industries represent a strong share of employment across the Hornsby Shire's rural area. Many of these activities occur around Dural, Fiddletown and Glenorie. Construction, health care and social assistance are growing employment industries of rural residents. Dural South shows greater potential for jobs growth with some employment opportunities within the other rural villages for population supporting roles.

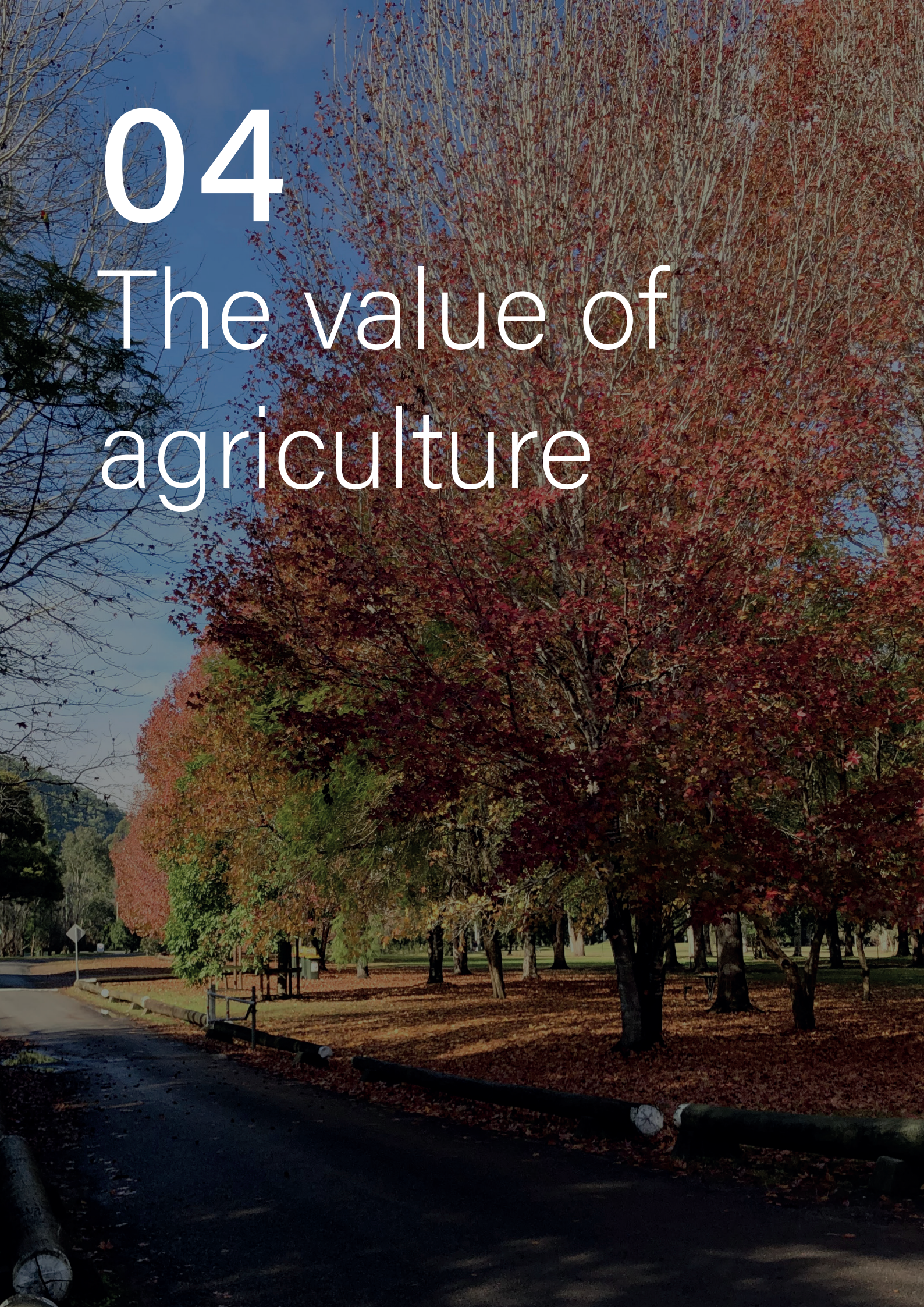
Settlement patterns and urban areas have typically followed the Pennant Hills and Ridges landform, in the southern part of the LGA. Into the future, Hornsby Shire's rural villages will be important to provide the services that support nearby agricultural, tourism and other businesses across the rural area. They will continue to provide services that support the nearby resident population. There is an opportunity for villages to provide options to age in place.

Hornsby Shire's rural area has a diverse environment and varied landscapes, which support a range of vegetation and animal communities, as is evident when travelling through the landscape. In this location, some vegetation communities are endangered, and at risk from further urban encroachment. Environmental constraints in Hornsby Shire include bushfire, flood and climate change risks which impact on the existing and potential land use as well as community.

Due to Hornsby Shire's scenic landscapes, living in rural areas is very popular, and this is seen especially around Dural and Glenhaven, where areas traditionally used for horticulture and nursery (outdoor) production are often now developed as large rural residential homesteads.

Market trend analysis has highlighted:

- Low density residential land around Dural and Arcadia has a high value per square metre ($900-1,000 around Dural and $600-700 around Arcadia-North Western Rural).
- Land zoned for primary production small lots or rural landscape has a value closer to $100 per square metre.
- Land zoned for primary production around Galston-Middle Dural has a much higher value, at $500-600 per square metre. This is where a significant level of transition can be seen, from primary production to rural lifestyle developments, reflected in the price of land per square metre.
- The land value increases within the Galston-Middle Dural profile area demonstrate the demand for rural residential properties and the peri-urban pressure for lifestyle lots.



04 The value of agriculture

4. THE VALUE OF AGRICULTURE

This chapter outlines the value generated by agriculture, highlights key agricultural industries and examines how the economy is changing across the industry. It also sets out other values (such as scenic and recreational enjoyment) in rural areas that may be experienced by residents and visitors alike. Section 4.1 provides an overview of broader work prepared for the State government about the value of rural areas across Greater Sydney. From Section 4.2 onwards, the analysis prepared by RMCG looks at agriculture in the Hornsby LGA more closely.

4.1 Values of the Metropolitan Rural Area

The *Values of the Metropolitan Rural Area of the Greater Sydney Region* report was prepared by Ag Econ Plus in 2017. The report provided the evidence base for the analysis and spatial recognition of the economic, environmental and social values of the Metropolitan Rural Area (MRA or, in this report, rural area) within each district across the Greater Sydney region, including the Hornsby LGA. That information formed the basis for values of the rural area in the Greater Sydney Commission's *North District Plan* (outlined in Chapter 2.1 above).

The scope of the study was to create criteria to assist decision-makers to:

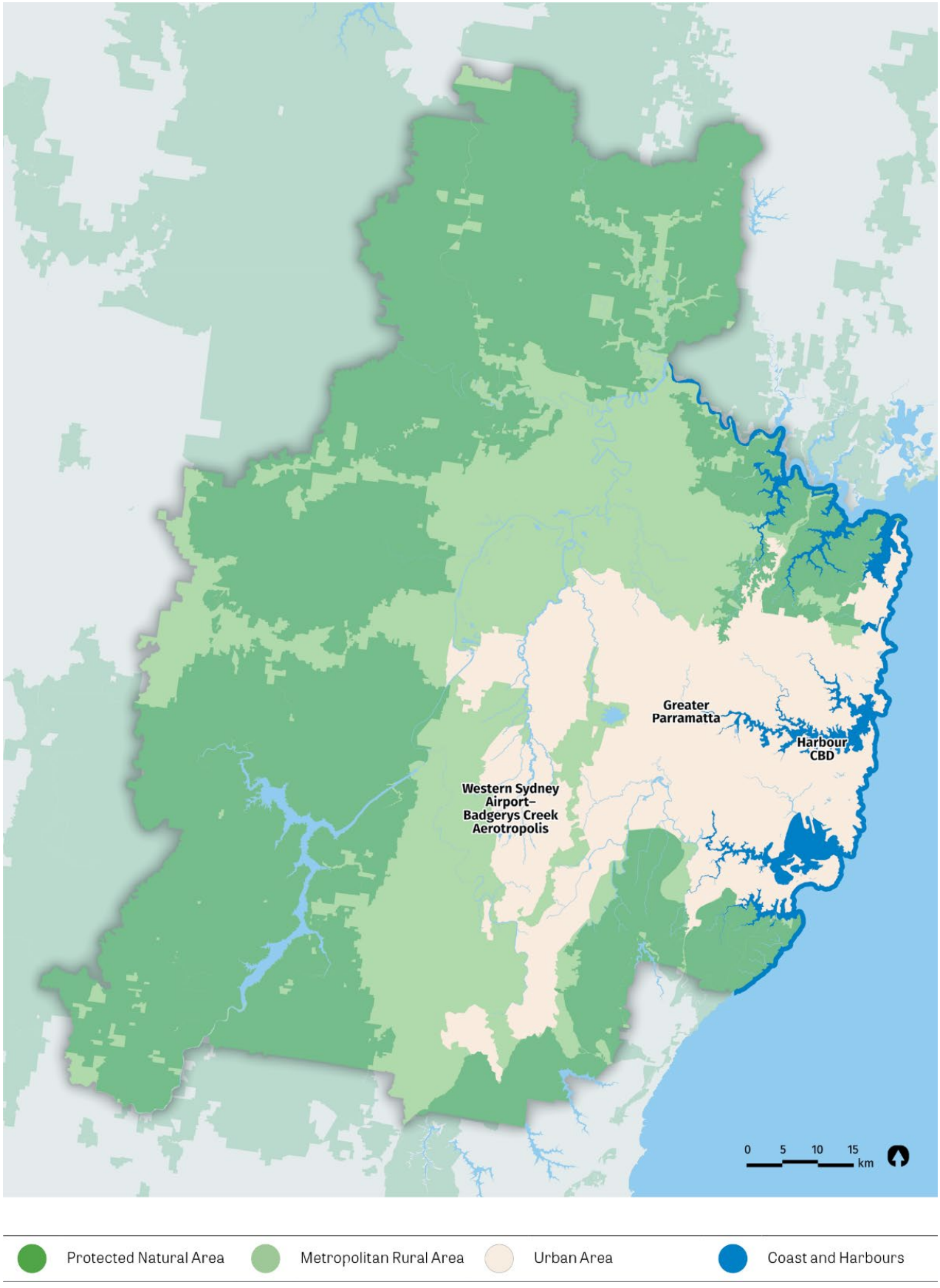
- "minimise adverse economic impacts on existing primary industry and productive agriculture;
- consider critical natural resource constraints;
- provide adequate public open space and recreational activities and avoid creating unsustainable pressure on existing Crown Land and State forests;
- consider natural hazards, such as the need to evacuate people from flood/bushfire prone areas; how flood-prone areas will be avoided and not increasing flood risks in new hosing areas (through early planning for stormwater management); and
- consider and plan to protect significant natural resources including water quality, riparian and aquatic habitats and marine estates."[31]

The *Greater Sydney Region Plan* and *North District Plan* show the extent of the Metropolitan Rural Area (rural lands) as identified by the Greater Sydney Commission. These are shown on the maps overleaf.

As outlined elsewhere in this report, both the GSRP and NDP emphasise that the environmental, social and economic values in rural areas should be protected and enhanced; and that urban development is not consistent with the values of the Metropolitan Rural Area.

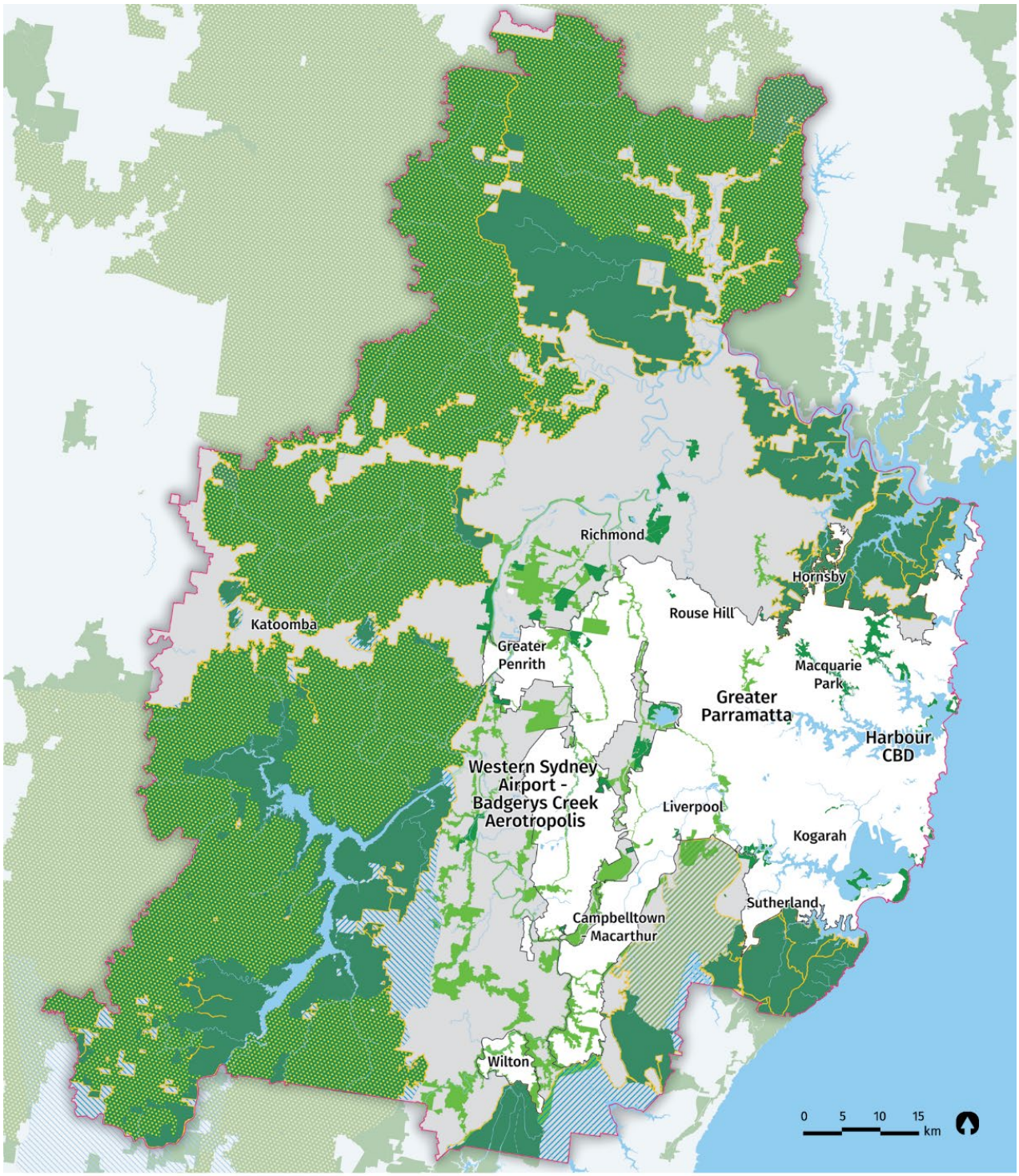
[31] Ag Econ Plus, *Values of the Metropolitan Rural Area of the Greater Sydney Region*, 2017, p. 5.

FIGURE 58: FOUR MAJOR LANDSCAPE TYPES OF GREATER SYDNEY



Source: Greater Sydney Region Plan

FIGURE 59: PROTECTED NATURAL AREA AND METROPOLITAN RURAL AREA IN THE NORTH DISTRICT



Source: North District Plan

Land use and the role/function of rural areas

The report defined rural areas as having three land use types: public land protected through conservation and other public values, peri-urban land used for a range of rural and rural lifestyle purposes, and rural villages.[32] It highlights that 27% of the rural area across Greater Sydney is private land, with 73% public land with existing policies to protect biodiversity, open space for recreation, drinking water catchments and defence. On privately-owned land, the report highlighted where public values held by the community may also apply, such as biodiversity or scenic landscapes, as well as the value of land determined by the interaction of supply and demand on the market.

Importantly for the Hornsby Rural Lands study, the Ag Econ Plus report highlighted that much of Greater Sydney's rural area is peri-urban land, meaning its market value is "more likely to be influenced by urban influences, rather than its agricultural characteristics."[33] To understand the value of agricultural land across Greater Sydney's rural areas, Ag Econ Plus reviewed Land and Soil Capability (LSC) and Biophysical Strategic Agricultural Lands (BSAL) mapping. The report highlights that, "while BSAL is a good indicator of the ability of land to accommodate different rural land uses, ultimately market forces primarily dictate the suitability of land for different agricultural activities and the viability of agricultural activities and clusters."[34]

The market value of agricultural lands

According to Ag Econ Plus, the agricultural values (value of agricultural commodities produced and the corresponding value of land) are "expected to continue to decline in significance with a continuing shift in the share of fruit and vegetable production to other regions of NSW, where land is cheaper and inputs such as water are more readily available."[35] In addition, "current minimum subdivision sizes are unlikely to result in increased agricultural production, since current fragmentation and land values (influenced by proximity to Sydney City) are already prohibitive for farm amalgamation or 'buy-in' for agricultural investors."[36]

Other values in rural areas

Regarding **biodiversity**, the report emphasises that, while significant areas of biodiversity in the rural area are already within public land/protected areas such as national parks, reserves and water catchments, a considerable amount of biodiversity also occurs outside protected areas, on privately owned rural land.

Other values[37] across the rural areas are:

- **Water quality**: the MRA contains Sydney's drinking water catchment which must be protected from agricultural water runoff and other sources of pollution.
- **Air quality**: photochemical smog (ground-level ozone) and particle pollution affect land in the Sydney Basin and are heightened during bushfires or dust storms; ongoing work is required to manage and reduce this pollution.
- **Mining and extractive industries**: the entire Sydney Basin is underlain by in situ black coal resource, and coal seam gas, as well as regionally significant sand and crushed sandstone resources linked to construction material for road base, concrete, bricks, pavers, blocks, building stone, land formation and landfill materials, important to the ongoing construction industry for new housing across Sydney's urban area.
- **Scenic landscape values**: these include open space and vistas, as well as special places like the Blue Mountains World Heritage Area, national parks, wilderness and other protected areas, historic and scenic villages, open recreation spaces and rural vistas for both residents and visitors; the benefits of these can be impacted by changes or intensification of land uses especially as a result of urban pressures.
- **Tourism and recreation values**: in the Hornsby LGA, significant tourism/recreation assets recognised are the Hawkesbury Nepean River System, the rural landscape and rural villages.
- **Waste management**: the rural areas can also be a place for managing waste with the location of recovery and recycling facilities, however emissions (dust, stormwater runoff, landfill gas, noise and litter) must be carefully managed and these areas provide a constraint on future land uses.

[32] Ibid.
[33] Ibid., p. 7.
[34] Ibid., p.8.
[35] Ibid., p.8.
[36] Ag Econ Plus., p.8.
[37] Ibid., pp. 9—13.

- **Rural lifestyle values**: most private land in the MRA is peri-urban land located outside rural villages, and agricultural activity may be minimal; the demand for this type of land for rural lifestyle properties is growing, affecting the market value of land currently identified for agricultural use; this can give rise to land use conflicts and increase the demand for sewerage, water, telecommunications, waste facility and road infrastructure.
- **Rural villages**: these provide mainly for local growth needs, as distinct from the needs of Greater Sydney, and service the surrounding rural areas; increases in MRA population, and tourism, can lead to demand for expansion of rural villages alongside greater infrastructure demand.
- **European and Aboriginal heritage values**: cultural heritage may not be confined to sites, while historic heritage includes places and landscapes of historic, cultural, social, spiritual sacrifice, archaeological, architectural or aesthetic significance; many occur across the MRA and identifying and listing items of heritage significance are the first steps in protecting and managing these places and objects.
- **Other values**: private land across the MRA also contributes to public goods or values such as biodiversity which falls within water catchments, contains places of heritage significance and landscape values. These are expected to increase in value as the population grows.

The interplay between different land uses contributes to its economic value of land, as do environmental and social values. Ag Econ Plus highlighted that while some values are mutually exclusive, others can be complementary, and the trade-off between values is an important factor for local strategic planning assessments such as the future Hornsby Rural Lands Study.

MRA values of the North District

For the LGAs of Hornsby, Ku-ring-gai and Northern Beaches, Ag Econ Plus found:

- Public land makes up the majority of the North District's rural area (including Marramarra National Park, Muogamarra Nature Reserve and Ku-ring-gai Chase National Park which intersect the Hornsby LGA).
- There is no LSC Class 1 (extremely high capability land), Class 2 (very high capability land) or Class 3 (high capability land) private land within the North District rural area (for further information about LSC classes refer to the Agricultural Assessment in Chapter 4.4 below).
- The major land use on private land is 'other minimal land use' and 'grazing,' with around 600 hectares of land used for horticulture, 1,100 hectares of land used for grazing modified pastures and nature vegetation and more than 6,000 hectares other minimal land use.
- There is no BSAL (land with high quality soil and water resources capable of sustaining high levels of productivity) in the North District MRA.
- Private land in the MRA is highly fragmented, with the majority (95%) of lots being less than 20 hectares and 60% less than 5 hectares.
- Part of the Multi Use Cluster Horticulture (Vegetable and Tree Fruits) agricultural cluster is found in this district, around Middle Dural, Galston and Arcadia.
- The gross value of agriculture commodities produced in the Dural-Kenthurst-Wisemans Ferry and Galston-Laughtondale Statistical Area is $57 million.
- Nurseries (outdoor and undercover) account for $28.7 million while cut flowers represent $9.4 million; stone fruit accounts for $4.8 million.
- Extractive industries occur in the north-west of the District at Maroota.

TABLE 10: LAND USES IN THE MIDDLE DURAL, GALSTON AND ARCADIA AGRICULTURAL CLUSTER

Land use	Area (ha)
Seasonal horticulture	353
Perennial horticulture	283
Intensive animal production	10
Grazing modified pastures	970
Remnant native vegetation	6,851
Residential	1,609
Reservoir or dam	63
Other	755
Total	**10,894**

Source: Ag Econ Plus, 2017, p. 104

In the North District, the report found the following planning issues should be considered when preparing policy for the rural area:

- "Land use conflict and mitigation measures (noise, odour, visual, etc.)
- Land value escalation impacting on returns on investment
- Waste."[38]

Market analysis – macrotrends affecting agriculture

Regarding macrotrends affecting agriculture, the report highlights that:

Globalisation and trade in agriculture has put downward pressure on prices and led to a trend of fewer and larger farms and more intensive production. Small farms in peri-urban locations are therefore likely to struggle to compete and therefore increasingly operated by 'lifestyle farmers'…the dominance of minimal land uses, grazing and pastures is common across all Districts containing MRA lands.[39]

Productivity growth is central to the performance and international competitiveness of Australia's agricultural sector. Most Australian farmers are highly dependent on world markets where they are largely 'price takers.' The past 25 years have seen world prices for many agricultural commodities decline significantly in real terms (Productivity Commission 2005) while input costs have risen…Production decisions of farmers are therefore generally around how to maximise profits given their fixed supply of land. This can lead to intensification of farming where other inputs to production e.g. capital, are increased in order to increase profits. Additional inputs to production are increased provided the additional output exceeds the marginal cost of increased inputs.[40]

According to the report, there is a risk of "run-off" (farmers ceasing to invest capital in their business) once the input-output values are marginal, and the cost of production exceeds their marginal revenue. In this instance, farmers can operate profitably in the short-term (removing input costs), however in the long-term it is not sustainable and at that point farmers are likely to cease production. Today, most commercially viable operations in the MRA are concentrated in Greater Sydney's West and South Districts, with highly intensive agricultural operations (mainly poultry and mushrooms) the most profitable as they are not linked to land capability.

[38] Ag Econ Plus, p. 104.
[39] Ibid., pp. 34—35.
[40] Ibid., p. 38.

Pressures on rural lands

Ag Econ Plus highlighted that the proximity of MRA to 'Sydney City will continue to be a major determinant of land values in the MRA, making expansion of commercial agricultural production prohibitively costly'[41]. As a result, most rural lands will be primarily in demand as rural lifestyle properties, with some semi-commercial or non-commercial agricultural activities.[42] However, the Ag Econ Plus report emphasises that identified urban areas provide sufficient land for housing demand and therefore residential land uses should not be a priority of the rural lands. This is reinforced in the *North District Plan*:

"Rural residential development is not an economic value of the District's rural areas and further rural residential development is generally not supported. Limited growth of rural residential development could be considered where there are no adverse impacts on the amenity of the local area and the development provides incentives to maintain and enhance the environmental, social and economic values of the Metropolitan Rural Area. "[43]

Given lot size can be a determinant of land value and peri-urban areas can experience a "plattage" effect, the Ag Econ Plus report also highlights tension arising from increased pressure to subdivide land into smaller lots for residential use, and increased demand for infrastructure such as sewerage, water, telecommunications, waste facilities and roads, with a parallel rise in possible land use conflicts due to noise, dust and odour emissions, as well as truck movements, that occur in rural areas.

The report findings warn that any further rural area fragmentation should be carefully considered in the context of flood, fire, and conservation properties of the land, alongside a possible reduction in public good values.

4.2 Overview of RMCG agricultural assessment

This section was prepared by RMCG, to provide information about agricultural land productivity and capability across the Hornsby LGA.

Agriculture in Hornsby Shire generated around $21.7 million in 2015-16, around 0.2% of the state value of agricultural production. The main commodity groups include ornamental horticulture (nursery, cut flowers and turf), meat (poultry, beef and lamb) vegetables and fruit and nuts (Figure 60). Between 2005/06 and 2015/16 the gross value of agricultural production reduced by around $15 million with most reduction in the value of ornamental horticulture (Figure 61). Horticultural production is spread across the Shire and livestock grazing occurs in the north (Figure 62).

There were 463 Agriculture, Forestry and Fishing sector jobs in Hornsby in 2016, up from 313 in 2011. This represents around 0.6% of local employment. Just under half of workers in the Hornsby Agriculture, Forestry and Fishing sector, reside in the municipality while the remainder commute from adjoining municipalities.

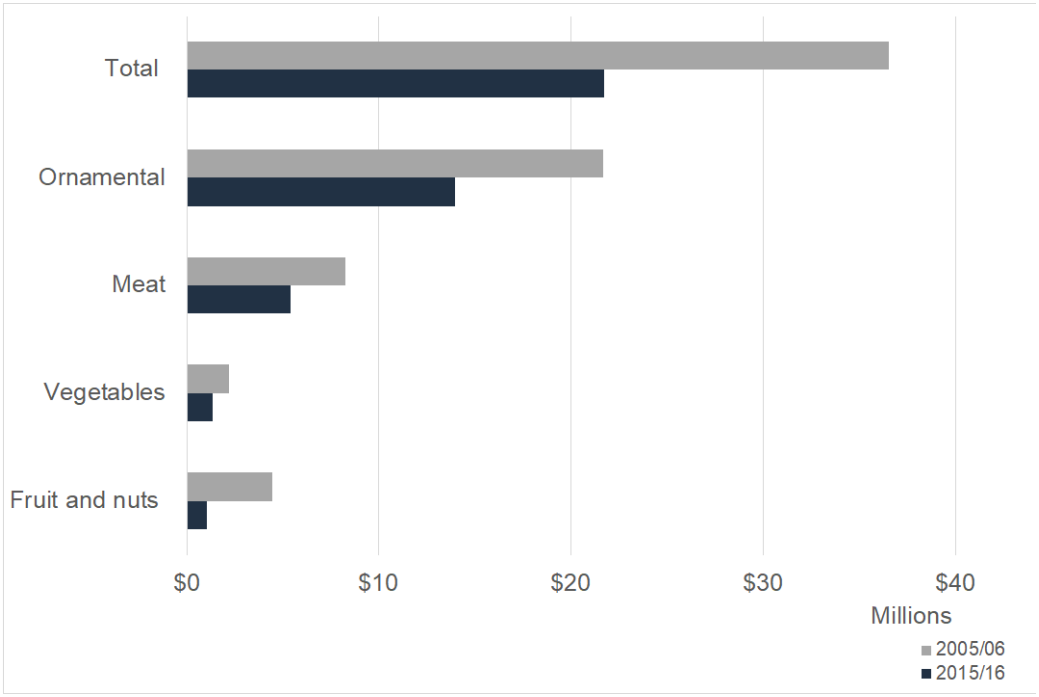
In 2015-16, the profile of agricultural businesses within Hornsby Shire that contributed to the Australian Bureau of Statistics, suggests that most are engaged in full-time farming:

- Involved in farming for 31 years
- Average age between 55 and 60 years
- Between 85% and 87% of income is generated by agricultural production on the holding.

Hornsby farmers are career agriculturalists and generate most of their income from the farm.

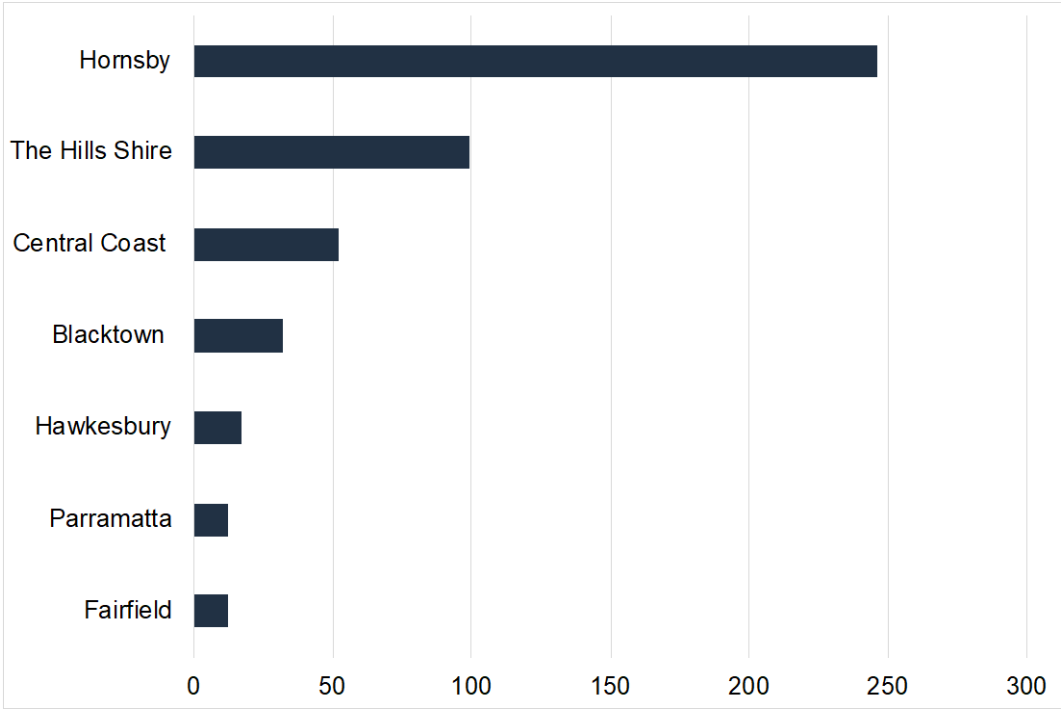
[41] Ag Econ Plus, p. 46.
[42] Ibid.,, p. 46.
[43] P. 106, Greater Sydney Commission, 2018, OUR GREATER SYDNEY 2056 North District Plan – connecting communities

FIGURE 60: MAJOR COMMODITY GROUPS, HORNSBY SHIRE 2005 – 2006 AND 2015-16



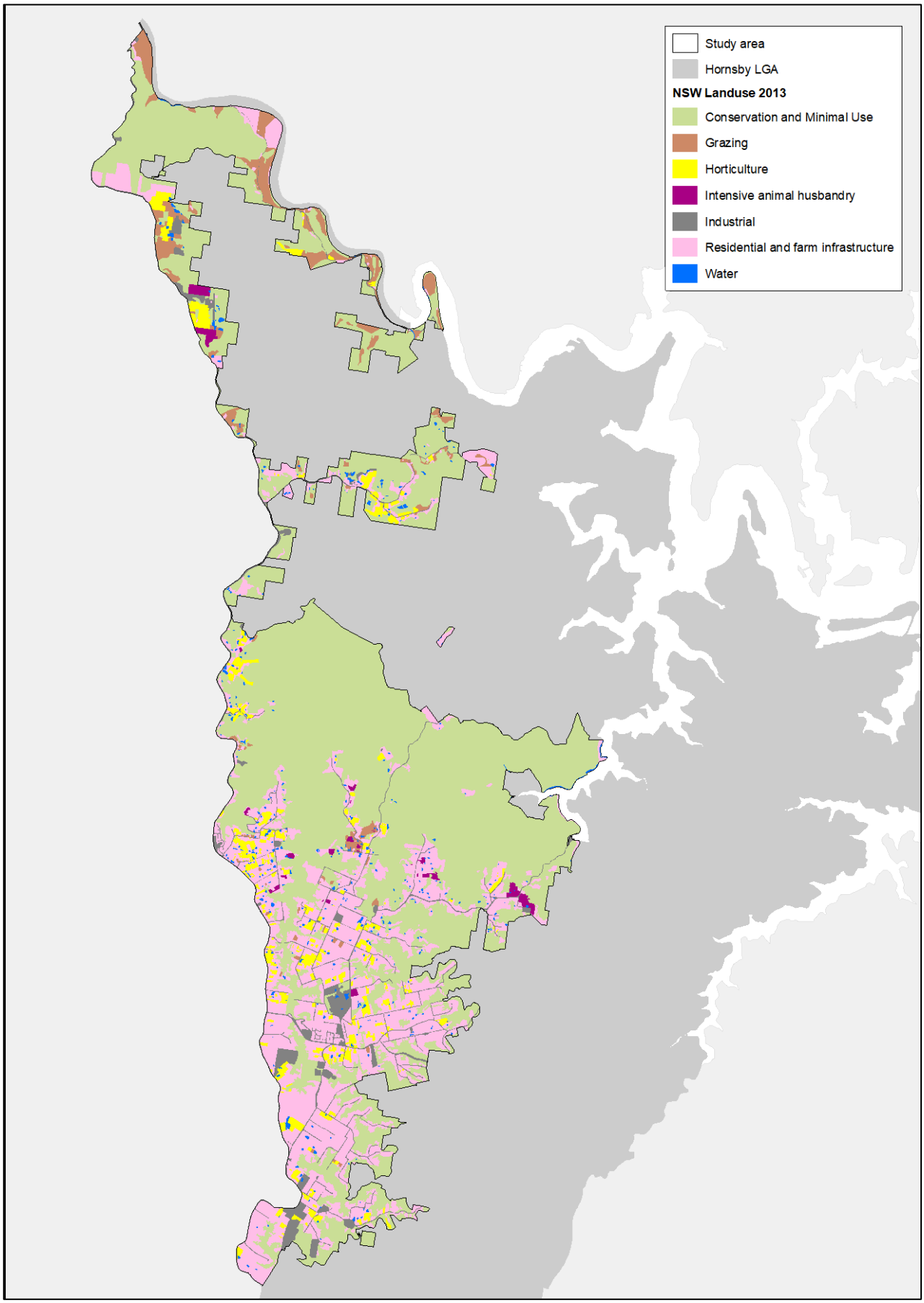
Source: RMCG, 2019. Based on data from 7503.0 – Value of Agricultural Commodities Produced, Australia, 2015-16.

FIGURE 61: RESIDENTIAL LOCATION OF HORNSBY AGRICULTURAL WORKERS



Source: RMCG, 2019. Based on data from Australian Bureau of Statistics, Census of Population and Housing 2016. Compiled and presented in economy.id.

FIGURE 62: LAND USE 2013



Source: RMCG, 109 based on data from https://datasets.seed.nsw.gov.au/dataset/nsw-landuse-2013.

4.3 Key industries

The ornamental horticulture sector, comprising the nursery, cut flowers and cultivated turf industries is the largest sector by value of production in Hornsby. In 2015-16 (the latest comprehensive agricultural survey by Australian Bureau of Statistics) the gross value of production was:

- Nursery: $8.3 million
- Cut flowers: $5.4 million
- Cultivated turf: $0.3 million.

The ornamental horticulture sector in the Sydney basin is an important contributor (around 44 per cent) to the State gross value of ornamental horticulture (Table 11). The industry is focused in the Hawkesbury and The Hills LGAs, which contributed 18 per cent and 10 per cent respectively.

Within the Sydney basin, Hawkesbury and The Hills, along with Hornsby are the main contributors to the gross value of ornamental horticulture.

The Sydney basin ornamental horticulture industry produced 44 per cent of the state industry gross value in 2015-16 of which Hornsby contributed 11 per cent.

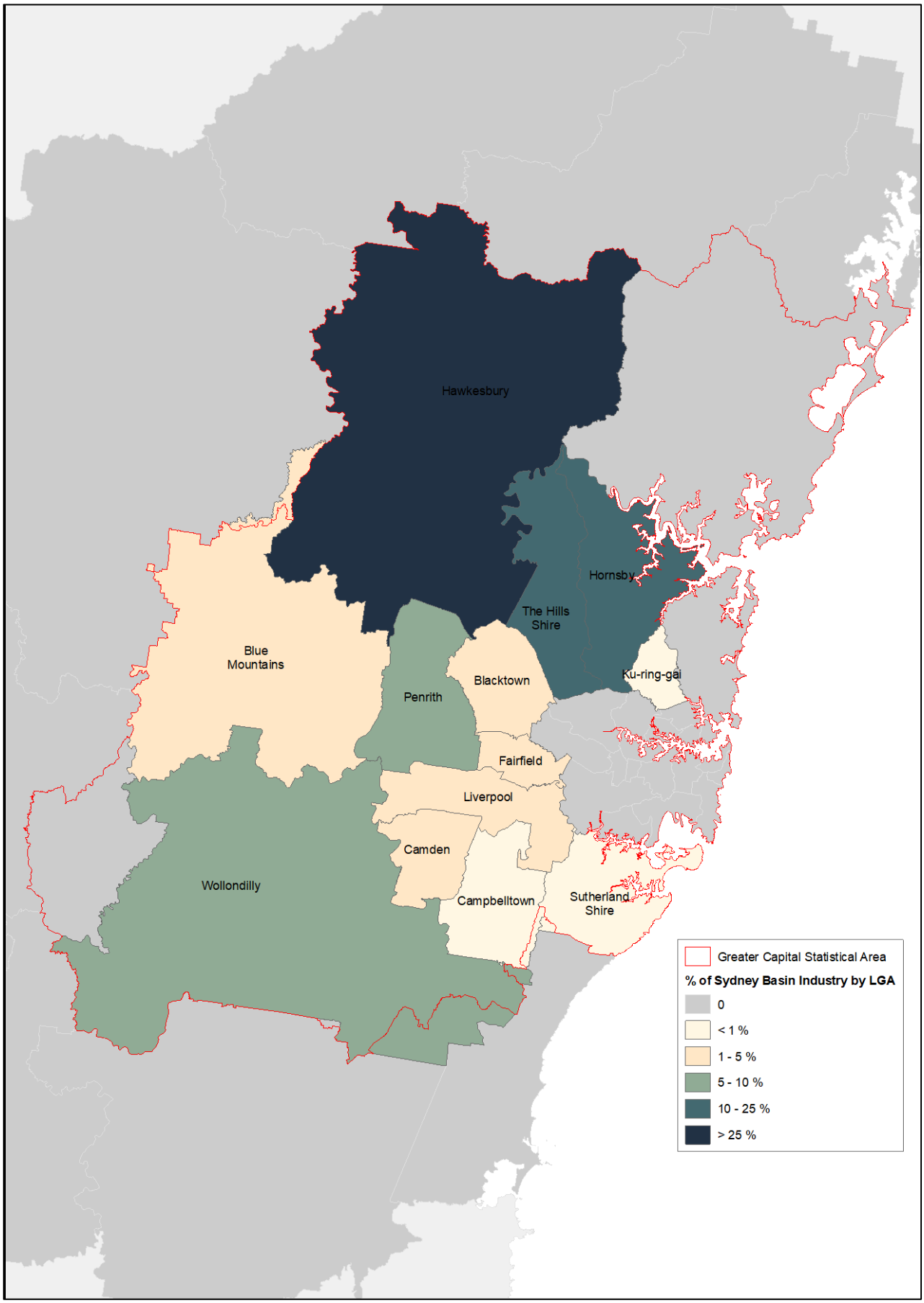
TABLE 11: GVAP ($ MILLION) ORNAMENTAL HORTICULTURE

Commodity	Hornsby LGA	Sydney Basin	NSW
Nursery	$8.3 m	$55.4 m	$81.8 m
Cut flowers	$5.4 m	$34.0 m	$71.3 m
Cultivated turf	$0.3 m	$42.8 m	$146.9 m
Total	$14.0 m	$132.1 m	$300.1 m

Source: RMCG, 2019.

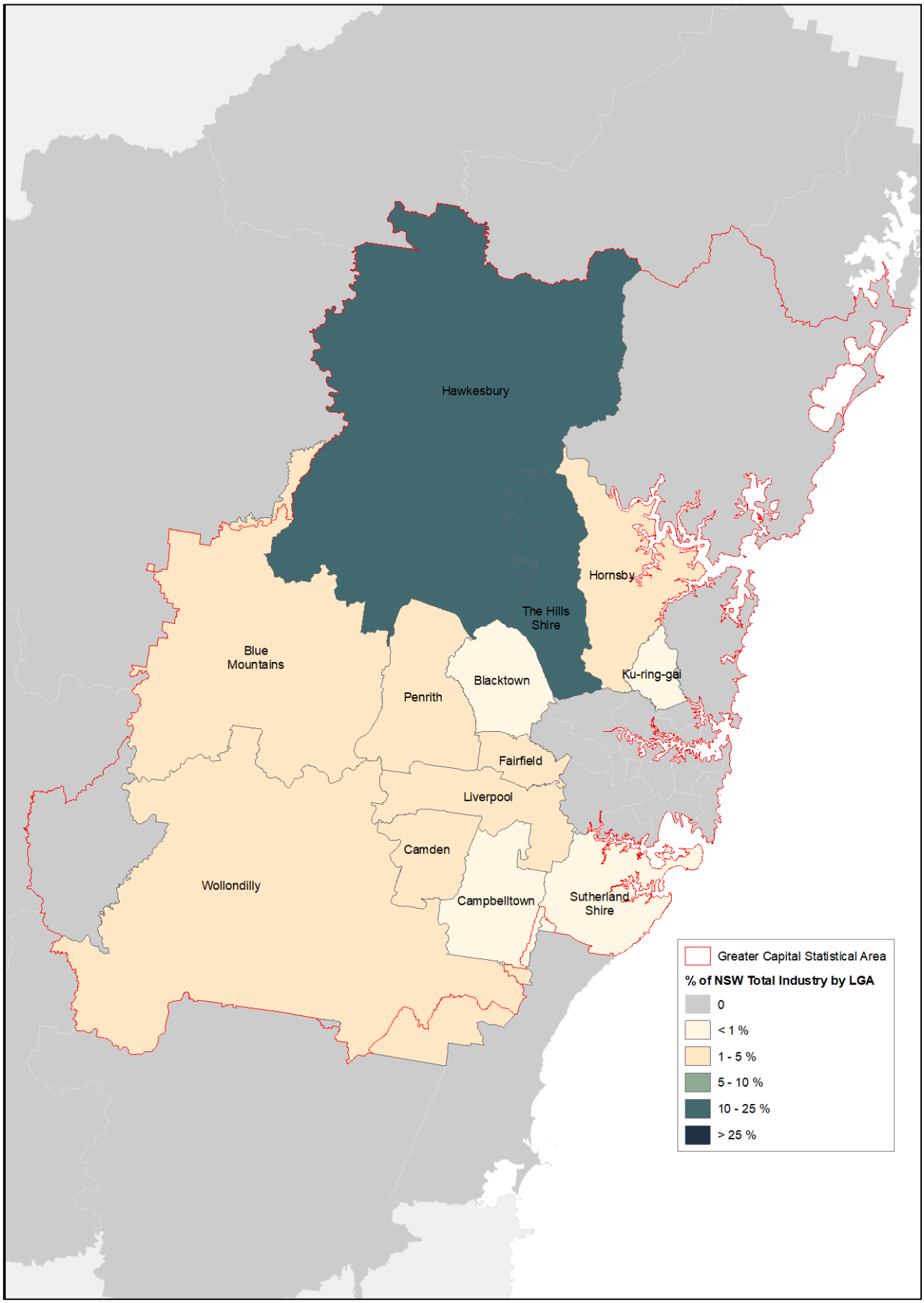
The ornamental horticulture industry is clustered in the Hawkesbury, The Hills and Hornsby local government areas (see maps overleaf).

FIGURE 63: ORNAMENTAL HORTICULTURE GVAP AS A PROPORTION OF SYDNEY BASIN INDUSTRY, BY LGA



Source: RMCG, 2019.

FIGURE 64: ORNAMENTAL HORTICULTURE GVAP AS A PROPORTION OF NSW INDUSTRY, BY LGA



Source: RMCG, 2019.

Nursery

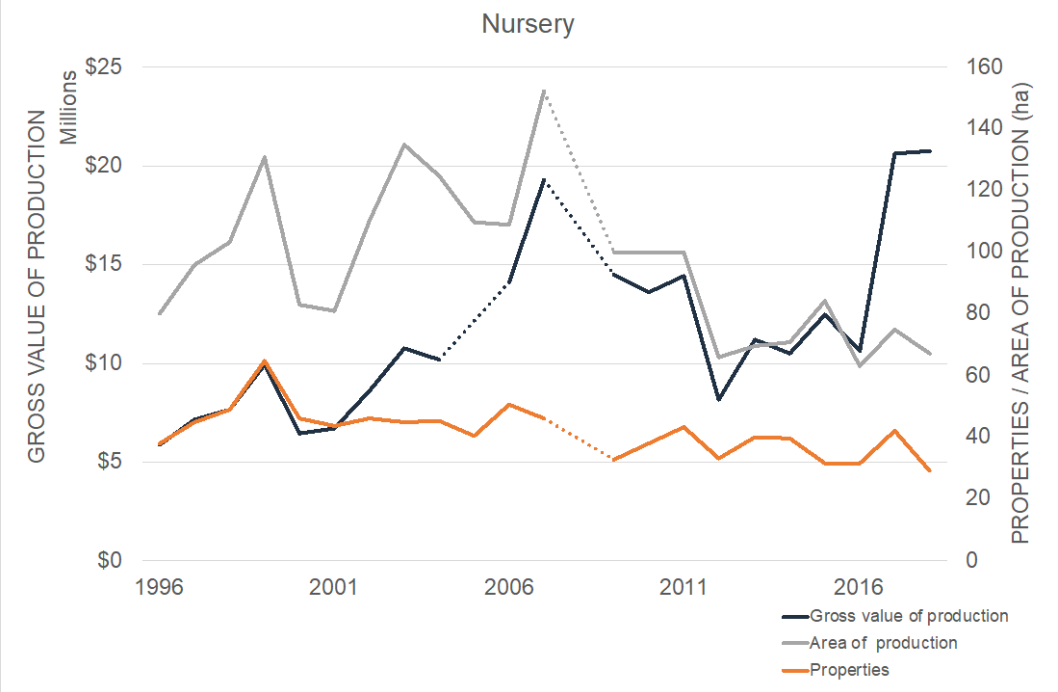
Nursery production includes live plants grown for a range of uses including landscaping, revegetation and distribution of ornamental retail supply chains, plus as starter plants in the commercial production of fruit, vegetables and forestry. Nursery production occurs in all states and territories of Australia, with the majority of production occurring in New South Wales ($699 million) Queensland ($699 million) and Victoria ($653 million). The Northern Rivers and Central Coast are the key nursery producing areas in NSW. For the year ending 2018, the value of production of the Australian nursery industry was $2.3 billion. Most products are grown for the domestic market.

The Hornsby Shire nursery industry represents a very small proportion of the national and state value of nursery production. Over the last 20 years, the gross value of nursery production in Hornsby, while experiencing annual fluctuations, has shown an overall increase in the value of production (Figure 65). Over the same period, the number of nursery properties and the area of nursery production have experienced an overall reduction. Most reduction has occurred in the extent of outdoor nursery production and the number of outdoor nursery properties (Figure 66). By comparison, the extent of undercover production and number of undercover production properties has remained steady.

The gross value of the industry has increased. The total area of production, mainly outdoor production, has reduced. The area of indoor production has remained steady.

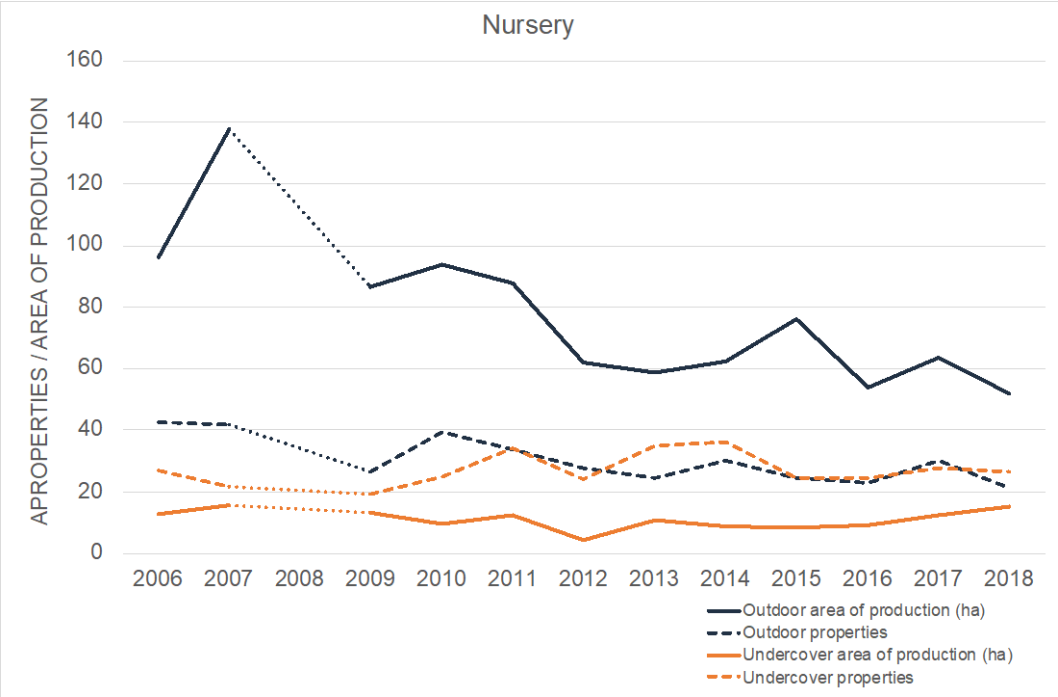
Most nursery businesses are under 50 hectares in size (Figure 67) and generate between $100,000 and $500,000 estimated value of operations per annum (Figure 68). Businesses in this size range also contribute the most to the total industry estimated value of operations (Figure 69). The trends indicate that the overall reduction in nursery businesses has occurred through consolidation of small-scale businesses (<$100,000) as well as some businesses exiting the industry.

FIGURE 65: NURSERY INDUSTRY TRENDS, HORNSBY SHIRE



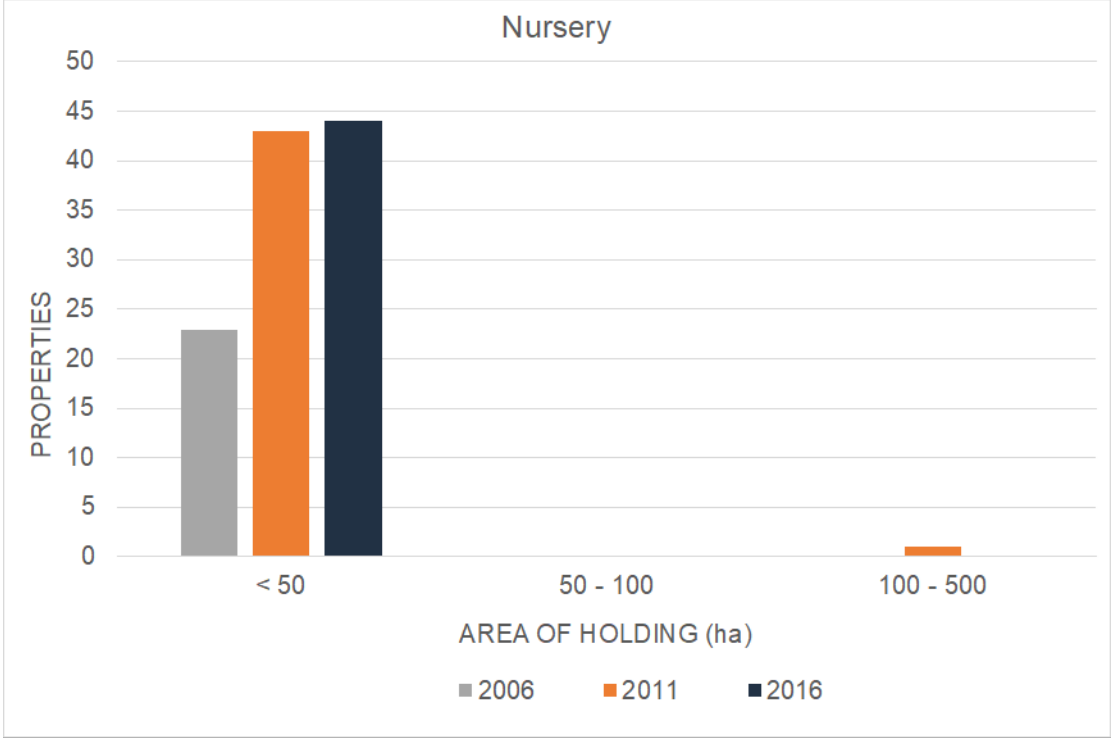
Source: RMCG, 2019.

FIGURE 66: OUTDOOR AND UNDERCOVER NURSERY INDUSTRY TRENDS, HORNSBY SHIRE



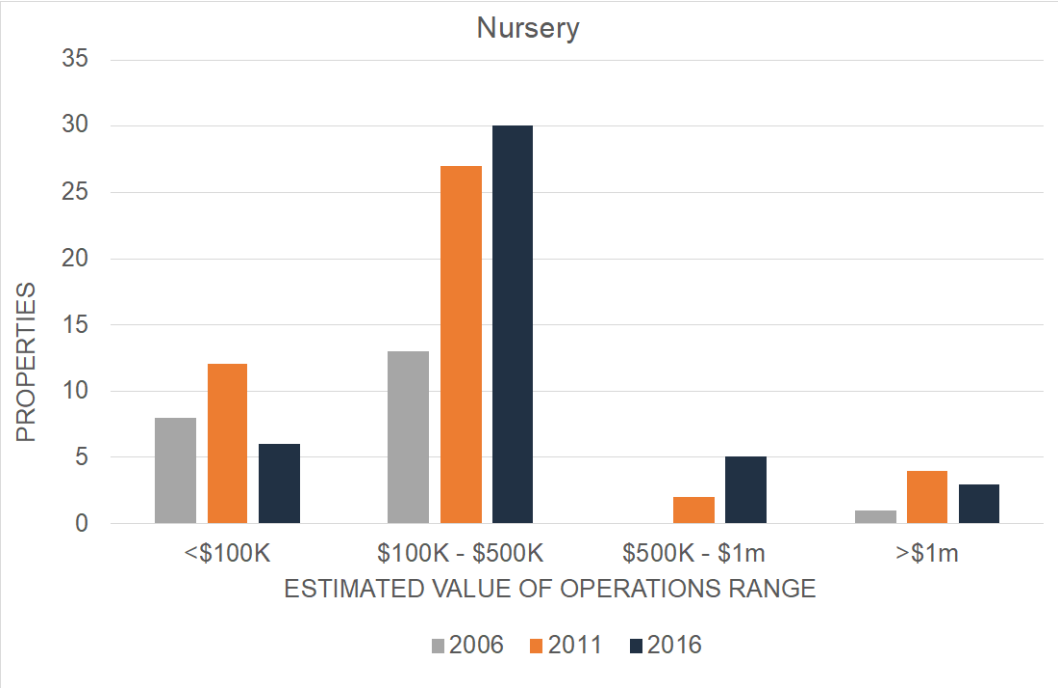
Source: RMCG, 2019

FIGURE 67: AREA OF HOLDING TREND



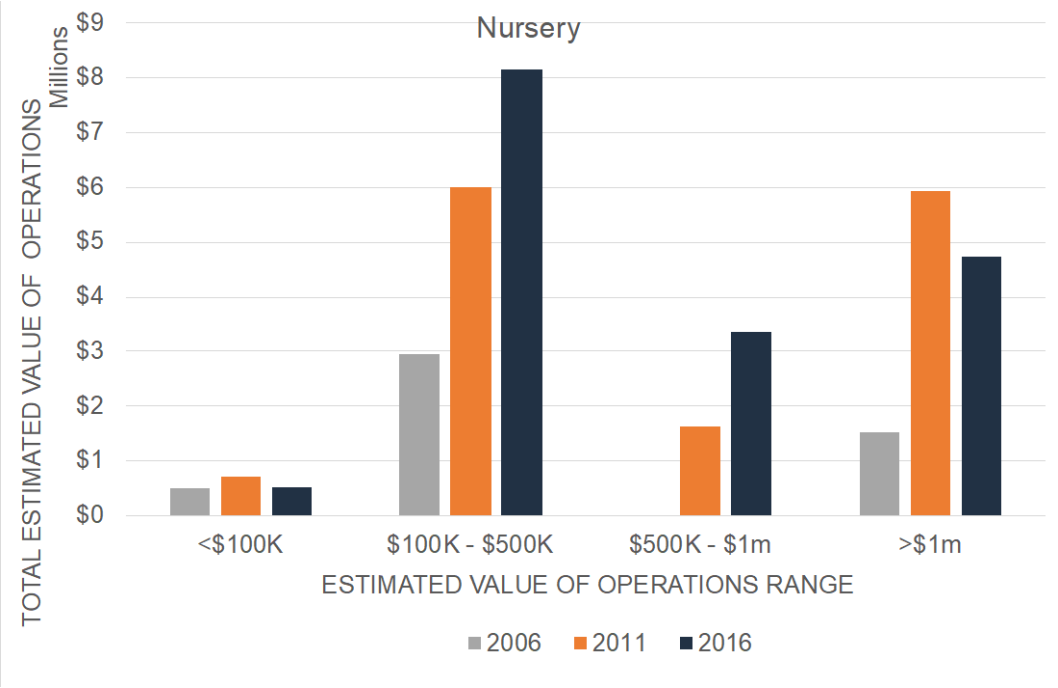
Source: RMCG, 2019.

FIGURE 68: PROPERTY ESTIMATED VALUE OF OPERATIONS TREND (2016)



Source: RMCG, 2019.

FIGURE 69: INDUSTRY ESTIMATED VALUE OF OPERATIONS TREND (2016)



Source: RMCG, 2019.

Cut flowers

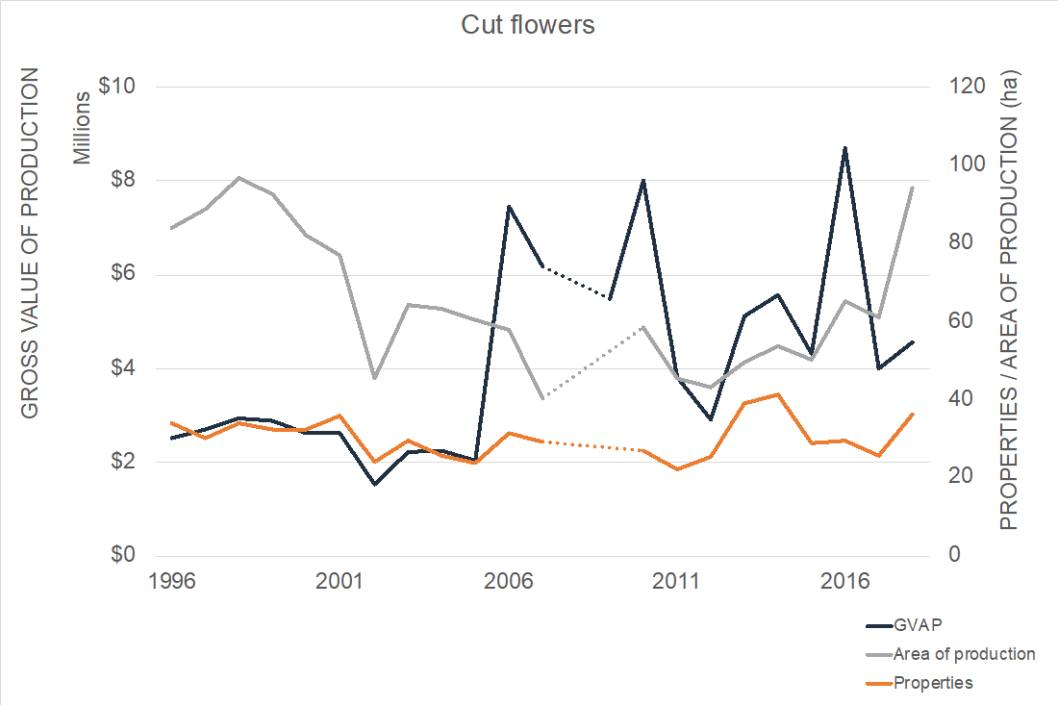
Cut flowers are grown year-round in Australia. Production occurs in high tech glasshouses, low tech protected cropping and outdoor fields. The majority of cut flowers grown in Australia are produced in Victoria. The national total value of production in 2018 was $281 million. New South Wales contributed around $70 million or 25 per cent of the national value of production. Australia is a new importer of fresh cut flowers, with small amounts of export.

The Hornsby Shire cut flower industry represents a very small proportion of the national and state value of cut flower production. Over the last 20 years, the number of cut flower businesses has remained relatively steady. The total area of cut flower production fell between 2000 and 2011, but, has since returned to pre-2000 levels (Figure 70). Over the same period, the gross value of production grew. Most value of production comes from outdoor production of cut flowers (Figure 71). There is an increasing trend in the area of production under both outdoors and undercover.

The gross value of the cut flower industry and area of production has increased over time, business numbers have remained relatively steady.

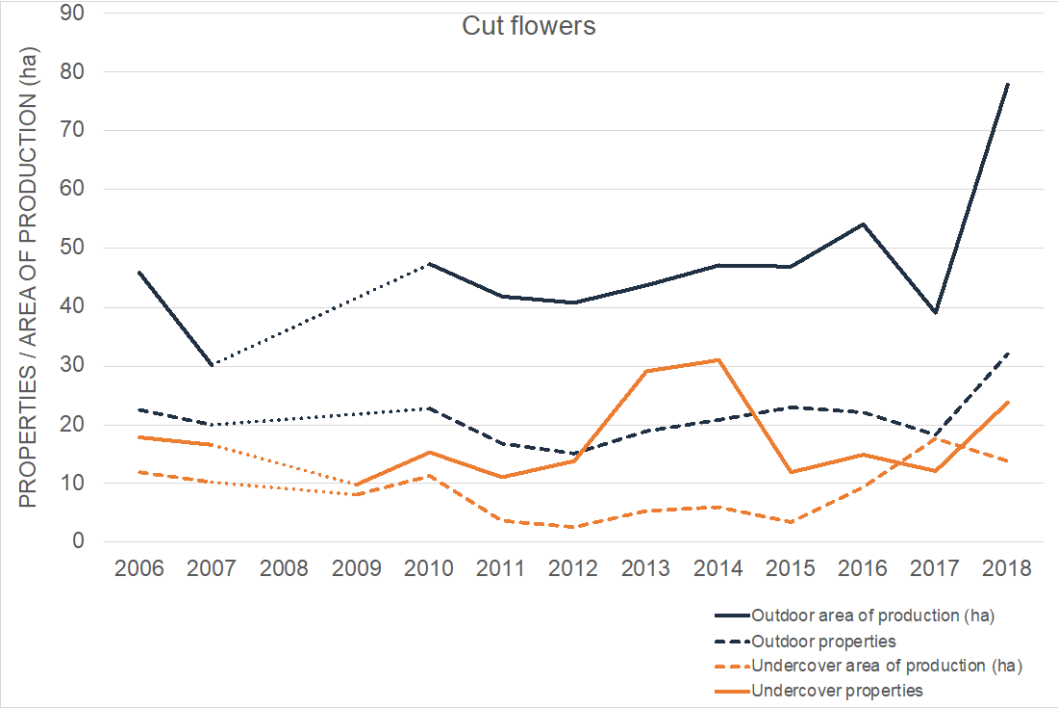
Similar to the nursery industry, most cut flower businesses are under 50 hectares in size (Figure 72) and generate between $100,000 and $500,000 estimated value of operations per annum (Figure 73). Businesses in this size range also contribute the most to the total industry estimated value of operations (Figure 74). The trends indicate that the number of businesses has remained steady, though there has been some movement in the industry structure, with more business generating income over $100,000.

FIGURE 70: CUT FLOWER INDUSTRY TRENDS, HORNSBY SHIRE (2016)



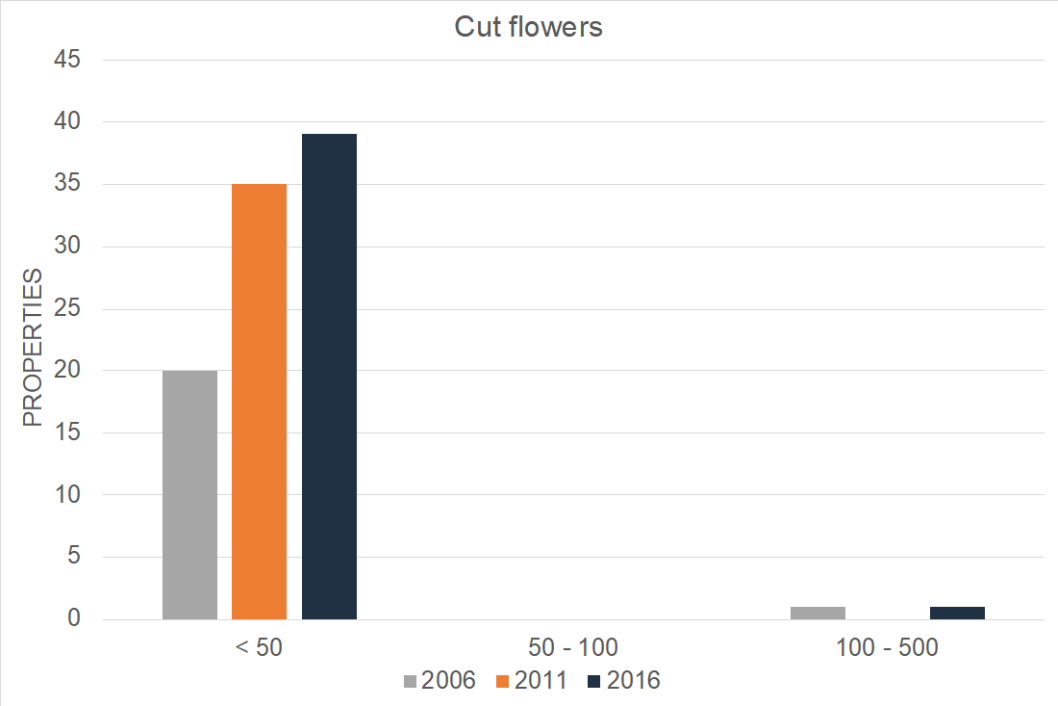
Source: RMCG, 2019.

FIGURE 71: OUTDOOR AND UNDERCOVER CUT FLOWER PRODUCTION TRENDS, HORNSBY SHIRE



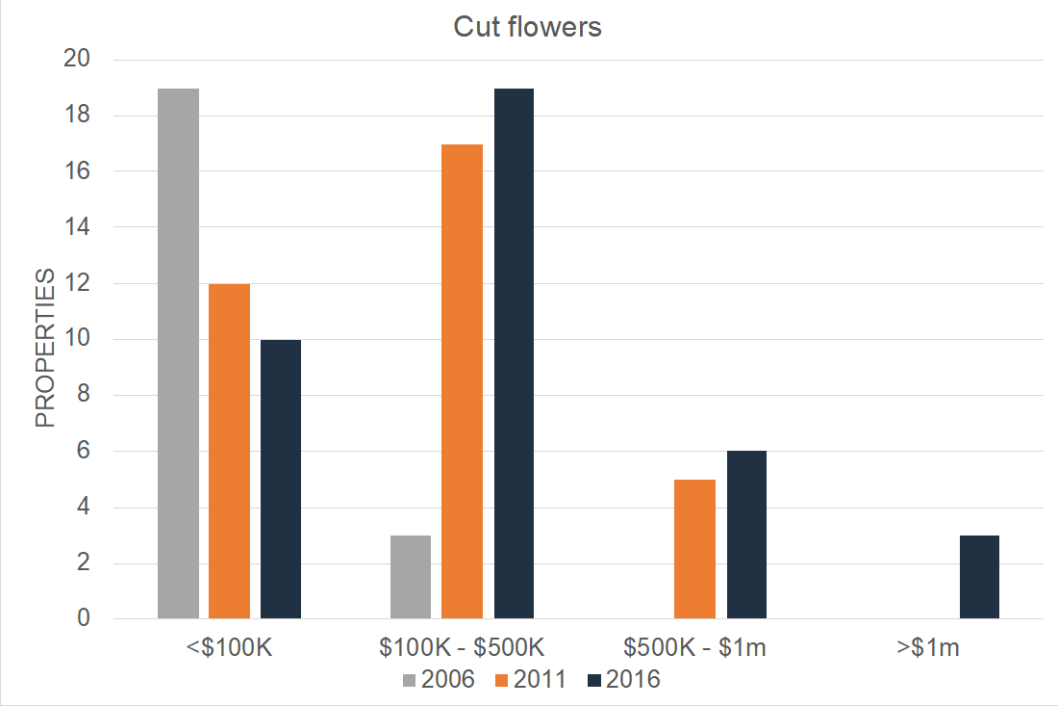
Source: RMCG, 2019.

FIGURE 72: AREA OF HOLDING TREND



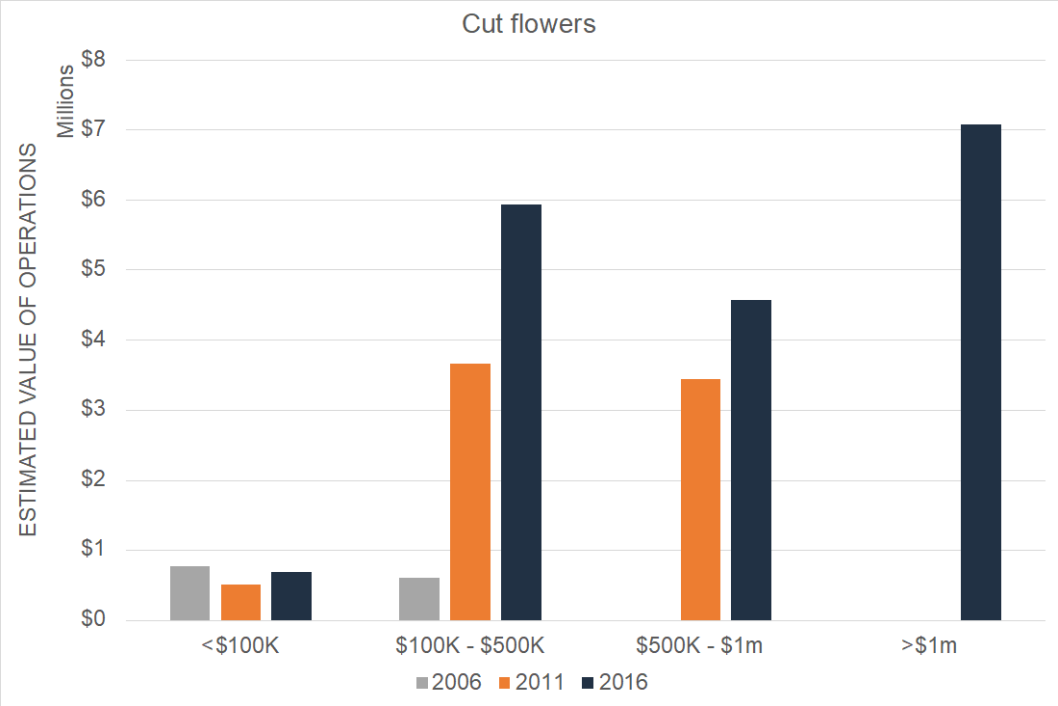
Source: RMCG, 2019.

FIGURE 73: PROPERTY ESTIMATED VALUE OF OPERATIONS TREND



Source: RMCG, 2019.

FIGURE 74: INDUSTRY ESTIMATED VALUE OF OPERATIONS TREND



Source: RMCG, 2019.

4.4 Industry engagement

Targeted interviews were conducted with farmers representative of the major industries (fruit orchard, orchard and tourism, cut flowers and nursery) in Hornsby Shire. Informal discussions were also conducted with farmers attending the community workshops.

There are some highly profitable, sophisticated businesses operating in the Shire, but growers feel that they are being forgotten and that there is no clear support for the industry. They feel that they are being 'over-run' by lifestylers and that the needs of lifestylers are more important than those of agriculture.

Farm viability is being impacted by:

- High cost of land which restricts capacity to expand the farm business
- Encroachment by non-agricultural neighbours and complaints leading to costs and changes to farm operations
- Increased trespass, theft and damage to farm machinery and crops
- Increased traffic on roads causing safety issues when moving farm machinery
- Planning policy such as set-back requirements limiting the productive potential.

This is leading to:

- Lack of interest in farming by the next generation
- Declining investment in new businesses
- Increasing interest in subdividing to capitalise on land value
- Increasing interest in value-add opportunities such as 'pick your own' and farm accommodation
- Emergence of high value, boutique industries such as zucchini flowers, persimmons, baby cucumbers selling direct to Sydney restaurants and markets.

Other issues for agriculture include:

- Lack of a secure and affordable water supply. Some growers are able to capture enough water on farm to irrigate, other rely on the potable water supply which is very expensive
- Agricultural services have left the area
- Difficulties navigating the planning approval process for new buildings or farm structures and uncertainly about timing for approval.

4.5 Assessment of agricultural land

An assessment of agricultural capability of land within Hornsby rural areas was undertaken by RMCG utilising:

- State-wide land capability data
- Land ownership data.

State-wide mapping of land and soil capability (LSC) classifies land into 8 classes based on a range of agricultural practices that can be sustained, ease of management and risk of degradation. The limitations to agricultural use are determined by factors including, but not limited to soil properties and climate. The more limitations for agricultural practices, the higher the classification and the lower the agricultural versatility or value.

Land of moderate agricultural capability (Class 4) is found mainly in the southern end of the study area (Figure 75) and is included in the RU1 (primary production), RU2 (rural landscape) or RU4 (rural small holdings) Zone. Land within the RU4 and RU2 zone is highly fragmented with most land holdings mostly under 10 hectares. Land within the RU1 zone is less fragmented but still held in relatively small holdings mainly between 10 to 20 ha in the south and over 10 hectares in the north. Lower agricultural capability land (mainly Class 6) is associated with the steeper parts of the Shire and is covered by the E3 (environmental management) zone.

Land fragmentation has a number of impacts on an agricultural industry. This includes:

- An 'impermanence syndrome' for commercial agriculture.
- The price of land increases fuelling land speculation.
- Tracts of farmland become isolated.
- Farmers are deterred from investing in their operations as they anticipate the conversion of their land out of commercial agriculture resulting in an absence or certainty in their industry.

- Loss of critical mass of commercial farms and farmers to sustain an agricultural industry and value chain as higher land prices act as an inducement to sell or commercial agriculture is substituted for sub-commercial agricultural activities. This places a strain on remaining farmers to survive and reduces opportunities for commercial farmers to expand businesses, further exacerbating conversion of agricultural land to non-agricultural uses.
- A reduced ability for farmers to generate sufficient income to sustain a standard of living or provide for retirement such that they speculate in their land rather than farm it.
- Rural land use conflict as new migrants in an agricultural landscape have an expectation of a benign rural environment.

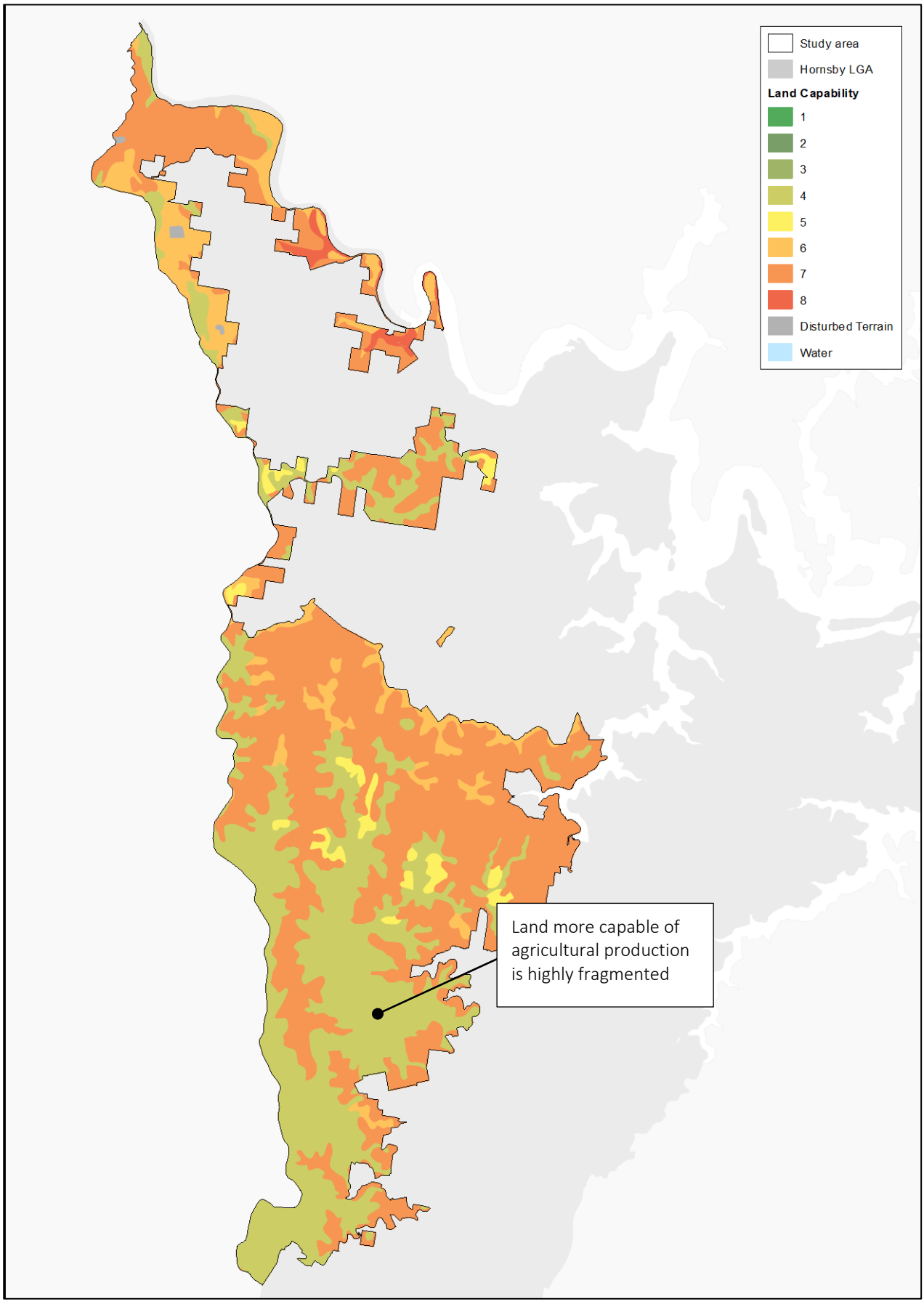
Encroachment and fragmentation inevitably lead to loss of land from commercial agricultural production. The level of fragmentation, particularly in the southern parts of the study area will make it increasingly difficult to maintain an agricultural industry in the long term.

TABLE 12: LAND AND SOIL CAPABILITY CLASS DEFINITIONS

LSC class	General definition
Land capable of a wide variety of land uses (cropping, grazing, horticulture, forestry, nature conservation)	
1	**Extremely high capability land**: Land has no limitations. No special land management practices required. Land capable of all rural land uses and land management practices.
2	**Very high capability land**: Land has slight limitations. These can be managed by readily available, easily implemented management practices. Land is capable of most land uses and land management practices, including intensive cropping with cultivation.
3	**High capability land**: Land has moderate limitations and is capable of sustaining high-impact land uses, such as cropping with cultivation, using more intensive, readily available and widely accepted management practices. However, careful management of limitations is required for cropping and intensive grazing to avoid land and environmental degradation.
Land capable of a variety of land uses (cropping with restricted cultivation, pasture cropping, grazing, some horticulture, forestry, nature conservation)	
4	**Moderate capability land**: Land has moderate to high limitations for high-impact land uses. Will restrict land management options for regular high-impact land uses such as cropping, high-intensity grazing and horticulture. These limitations can only be managed by specialised management practices with a high level of knowledge, expertise, inputs, investment and technology.
5	**Moderate–low capability land**: Land has high limitations for high-impact land uses. Will largely restrict land use to grazing, some horticulture (orchards), forestry and nature conservation. The limitations need to be carefully managed to prevent long-term degradation.
Land capable for a limited set of land uses (grazing, forestry and nature conservation, some horticulture)	
6	**Low capability land**: Land has very high limitations for high-impact land uses. Land use restricted to low-impact land uses such as grazing, forestry and nature conservation. Careful management of limitations is required to prevent severe land and environmental degradation
Land generally incapable of agricultural land use (selective forestry and nature conservation)	
7	**Very low capability land**: Land has severe limitations that restrict most land uses and generally cannot be overcome. On-site and off-site impacts of land management practices can be extremely severe if limitations not managed. There should be minimal disturbance of native vegetation.
8	**Extremely low capability land**: Limitations are so severe that the land is incapable of sustaining any land use apart from nature conservation. There should be no disturbance of native vegetation.

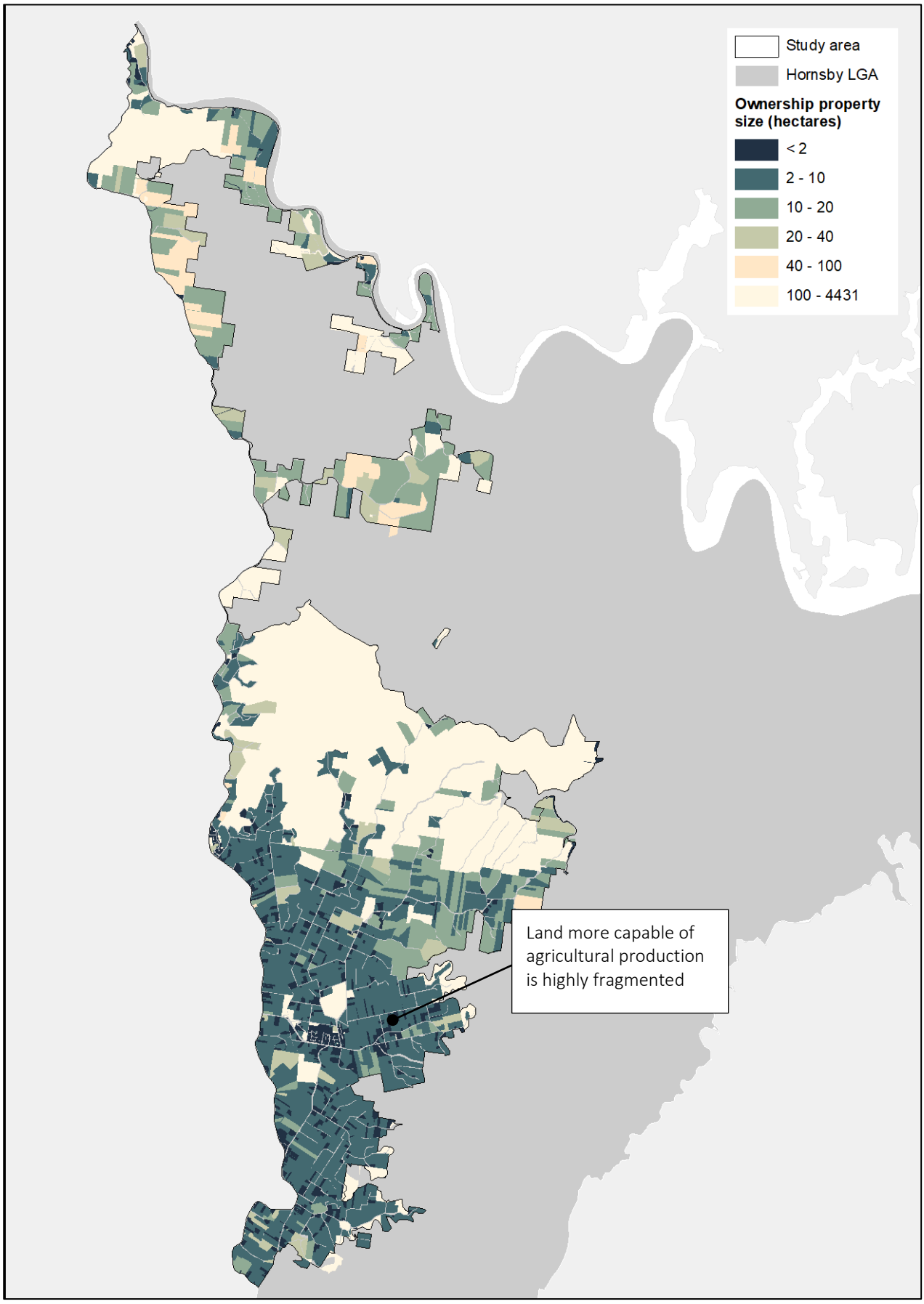
Source: RMCG, 2019.

FIGURE 75: LAND AND SOIL CAPABILITY



Source: RMCG, 2019.

FIGURE 76: LAND PROPERTY OWNERSHIP



Source: RMCG, 2019.

4.6 Insights from the agricultural assessment

Globalisation and trade in agriculture has put downward pressure on prices and led to a trend of fewer, but larger farms. In the peri-urban regions of Sydney, small farms struggle to compete, which has resulted in the relocation of fruit and vegetable farming to rural areas where land is cheaper and more access to inputs to production (such as water).[44]

A review of aerial photography has shown, intensive agricultural uses are often occurring among rural lifestyle properties, where wider land use transition has occurred from widespread agriculture, to many lots now being used for rural residential. This presents several issues for the ongoing operation of agriculture, particularly intensive agriculture and horticulture, in the LGA. Land fragmentation, particularly from rural lifestyle dwellings and an increased presence of non-agricultural residents in a landscape, has several impacts on agriculture.

The investigation into current agricultural activity across Hornsby Shire found:

- Hornsby farmers are career agriculturalists and generate most of their income from the farm.
- The Sydney basin ornamental horticulture industry produced 44 per cent of the state industry gross value in 2015-16, of which Hornsby contributed 11 per cent.
- The gross value of the nursery industry has increased. The total area of production, mainly outdoor production, has reduced. The area of indoor production has remained steady.
- The overall reduction in nursery businesses has been achieved through consolidation of small-scale businesses (<$100,000) as well as some businesses existing the industry.
- The gross value of the industry, area of production has increased over time and business numbers has remained relatively steady.
- Ornamental horticulture in Hornsby, comprising mainly nursery and cut flower commodities, is a regionally significant industry.
- The ornamental horticulture industry in Hornsby is part of a broader cluster that also includes the neighbouring Hawkesbury and The Hills local government areas.

Other key industry findings include:

- The value of production has fluctuated over time, but overall, there has been a steady increase.
- Production has increasingly moved indoors with a reduction in outdoor production.
- Land within the RU zones ranges from moderate to low land capability. Land fragmentation, particularly in the southern parts of the study area, has reduced the suitability of the land for agriculture.
- The level of fragmentation, particularly in the southern parts of the study area will make it increasingly difficult to maintain an agricultural industry in the long term.

Regarding lot sizes and land ownership:

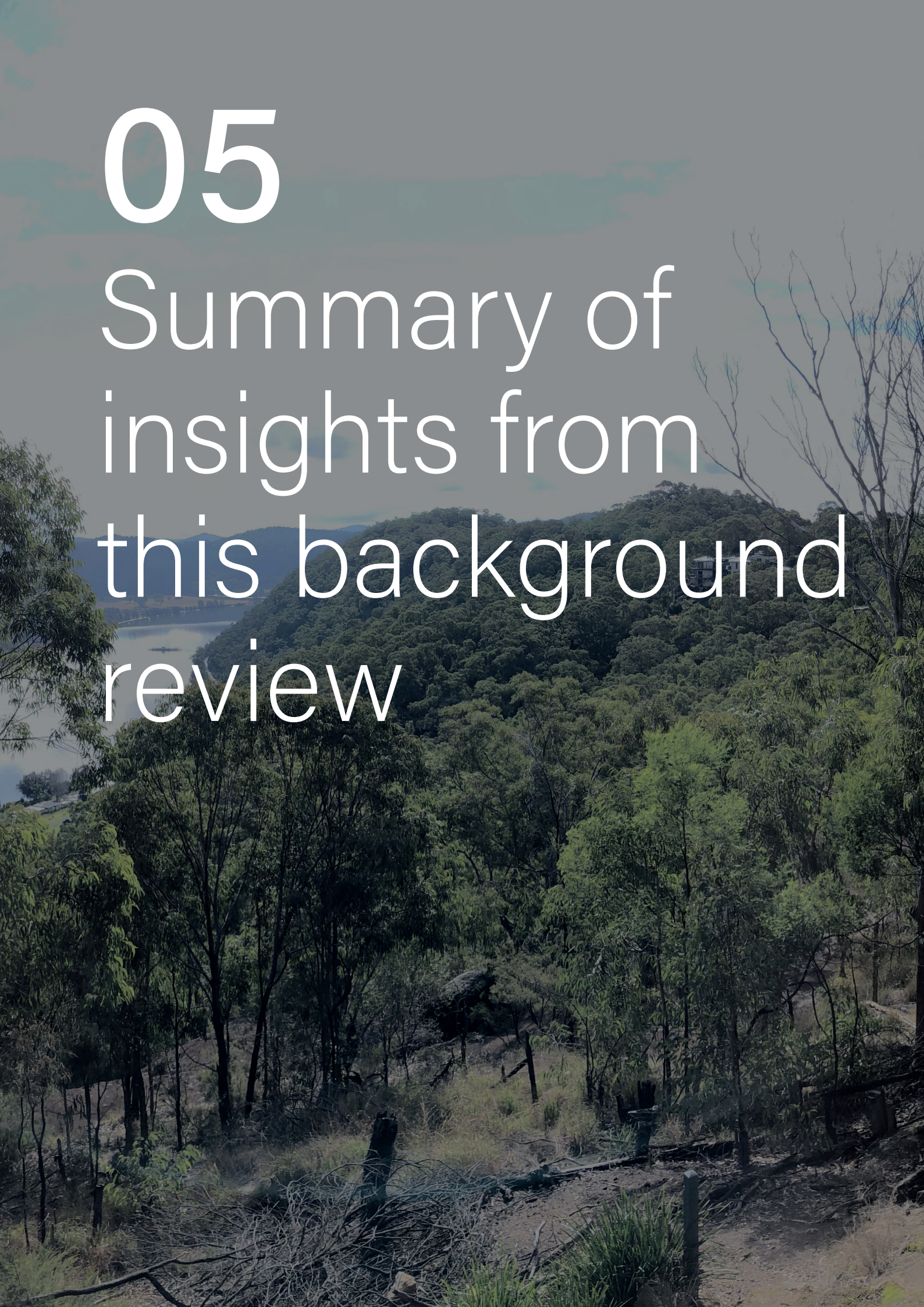
- In some rural areas, land ownership and lot sizes create very clear character distinctions between different areas. However, across the rural areas within the Hornsby LGA, the land ownership patterns are highly fragmented (as shown on the map), and lot sizes vary significantly based on the environmental features (i.e. larger lots where land slopes more dramatically).

There are number of issues facing the Australian nursery and cut flower industries into the future, which may influence the way that the industry changes across the Hornsby LGA.

- The continuing increases in electricity costs are a significant challenge to the long-term viability of production. Production systems can be highly mechanised utilising electrically powered components in heating, cooling, ventilation, climate control, irrigation, potting machines, etc. and there is limited scope to reduce energy demand without severely impinging productivity and profitability.
- Rising regulation, especially with regards to environmental compliance, on business in the peri-urban environment, which accommodates large numbers of ornamental horticulture businesses.
- A lack of access to affordable and skilled a labour.
- Industry profitability is very reliant on weather patterns at critical times of the year. Climate change impacts including, drought, water shortage, extreme events (fire, wind and flood) will impact production markets.

[44] AgEconPlus (2017). Values of Metropolitan Rural Area of the Greater Sydney Region. Prepared for the NSW Department of Planning and Environment in association with the Greater Sydney Commission.

- There is decreased interest in “gardening” due to changing lifestyle – i.e. bigger homes, smaller blocks, increased units/flats, decrease in backyard size.
- Ornamental horticulture is positioned in the discretionary spend segment for most consumers and the industry has to compete with many other industries and categories for consumer time, disposable income, lifestyle and enjoyment.
- Climate change provides a positive role for increased green life in the urban environment (indoor and outdoor).
- Increased focus on food security will provide opportunities for nurseries supplying starter plants for this sector.
- The sector can play a vital role in preventing, stabilising and reversing environmental degradation.
- There is considerable room for demonstrating how gardens and green life can improve personal health and wellbeing, and increase property value (plants appreciate in value over time).
- Improvement in profitability can be found not only in new technologies and better business practices, but also through all stages of the supply chain working together more efficiently.
- House size increasing and domestic gardens shrinking provides an opportunity to sell more indoor plants and outside shade trees to reduce reliance on air conditioning/heating.
- New forms of non-traditional advertising and other channels provide the ability to target consumers in niche segments.



05 Summary of insights from this background review

5. SUMMARY OF INSIGHTS FROM THE BACKGROUND REVIEW

This chapter presents the key findings from each chapter of the background report and discusses implications for the draft Hornsby Rural Lands Study.

5.1 Policy context

Over the past 20 years, Hornsby Shire Council has sought to protect and manage rural areas and achieve development outcomes that are in keeping with local character. Since the last Rural Lands Study for Hornsby Shire was prepared, State government policy has progressed significantly. It places a strong emphasis on the value of rural lands, the need to carefully plan for, manage and protect these places for social, environmental and economic benefits.

Direction N18 from the North District Plan requires "better managing rural areas," and Objective 19 seeks to "ensure environmental, social and economic values in rural areas are protected and enhanced." This sets a policy direction for Council to prepare a rural lands study that identifies the economic, social and environmental values within the Hornsby rural area, and to consider how bushland, farmland, mineral resources, scenic landscapes and rural villages are to be managed into the future. Direction N18 requires Council to use a *place-based planning* approach. This approach emphasises the identification of unique local places as a base unit upon which policy objectives can be made. This marks a departure from how rural lands have been planned in Hornsby previously, which was a more general approach (seeing the rural area as a larger whole).

Other documents emphasise the need to maintain and enhance rural lands. This is pertinent in the face of growing urban encroachment**.** These policies recognise that rural areas have several functions: biodiversity, scenic and cultural values, agriculture, mining/resources, and some rural residential/lifestyle.

The current local policy emphasises the need to protect and manage rural activities, and the character of rural villages. In zoning and land use objectives in the Hornsby LEP 2013, there is a focus on rural activity, with only a few tourism-related land uses available.

The *Economic Development and Tourism Strategy* recommends that the "wealth of natural assets" across Hornsby Shire's rural area should be retained. Further, the strategy recommends that land uses could be more flexible to ensure and support the growth of Agri tourism and recreational opportunities (for example, bushwalking, farmgate trails, mountain biking).

Previous rural studies conducted by Hornsby Shire Council identified that pressure from nearby urban and residential areas risks creating conflict with rural areas, reducing the potential for rural uses to continue at their most productive rate.

5.2 Local context

Demographic Profile

Hornsby Shire's demographic profile is expected to change in a variety of ways. The population of Hornsby Shire is forecast to grow, however, the rate of growth within the rural area is much slower than the urban areas. The rural area has a high proportion of retirees compared to Hornsby's urban areas and the NSW average; this is forecast to continue to remain a higher proportion in the future. The greatest trend in rural areas is towards lone person households.

From 2016 to 2036 it is forecast that there will be an additional 1,400 people in the rural areas (+10%) while in the urban areas there will be an additional 30,500 people (+23%).

The proportion of people aged 65+ will continue to grow as a share of the total population in the rural area. As this trend continues, the proportion of older people living in single person households is also forecast to increase. However, two parent families and couples without children will still make up most households in the rural areas.

The Hornsby LGA is projected to have 64,157 households by 2036. Of the 64,157 households 4,884 will be in Hornsby Shire's rural area. This represents 7.61 per cent of households being located in rural areas, a decrease of around 1 per cent in market share between urban and rural areas, illustrating most population growth will continue to be in urban areas, as directed by State and local policy.

Dural is projected to have the largest share of two parent families (40.32 per cent) in 2036. Galston-Middle Dural will have the largest share of couples without children (28.22 per cent) and Arcadia of lone person households (23.05 per cent).

Dwelling Structure

The location of secondary dwellings and construction of a small number of seniors living developments within the Hornsby rural areas have contributed to dwelling activity in the rural area and have a related effect on household types.

The proportion of single, detached dwellings in the rural area is around 87%. This is significantly higher than elsewhere in the Hornsby LGA or the NSW average.

Secondary dwellings have been permitted in rural areas since the land use became permissible in the LEP in 2013. Secondary dwellings are permitted within some parts of the Hornsby rural area, and typically those developments have occurred in the southern and eastern parts, closer to the urban fringe. In the urban areas secondary dwellings are permitted under the Affordable Housing SEPP.

While some seniors housing developments have occurred in recent years as a result of state policy overriding local controls within the rural area, the current planning policy setting under the Greater Sydney Regional Plan and North District Plan (discussed in Chapter 2) discourages residential development for population growth in locations that are not well-serviced by infrastructure. Council has been advocating to the state government for changes to state policy to ensure seniors living developments are not permitted on rural land which is inconsistent with the objectives of the GSRP and NDP.

Economic Profile

Hornsby Shire's rural area contains 18 per cent of jobs across the LGA. In 2016, agriculture generated around $21 million gross value, most of which came from nurseries, cut flowers and vegetables, and poultry.

In the rural area, health care and social assistance is the largest employment industry (6,759 jobs), followed by education and training (4,753 jobs) and retail trade (4,669 jobs). Hornsby Shire's rural areas also contain 588 agriculture, forestry and fishing jobs. In comparison, the urban area only contains 116 agriculture, forestry and fishing jobs (which may be administrative jobs linked to those fields, or jobs located in light industrial areas within the urban area).

The varied agriculture, forestry and fishing jobs are most strongly represented in Arcadia-North Western Dural and Dural, where most nursery production, floriculture and vegetable growing occurs. There are also some floriculture and nursery production jobs in Galston-Middle Dural, however the sector is smaller than elsewhere. The number of jobs in agriculture, forestry and fishing grew in Dural by 79 jobs (+1.3 per cent) and Arcadia which had 32 more jobs (0.1 per cent). A decrease of 25 jobs was recorded between 2011 and 2016 which equated to a -3.1% change.

Hornsby Shire contains a variety of jobs across the transport sector, which likely service both the local rural residential, and nearby urban populations. There are 26 road freight transport jobs in Arcadia-North Western Rural, likely linked to the mining activities occurring in the northern rural areas.

The varied profile of employment across the rural area and especially in the southern parts of the LGA, suggests that there are many residents who live in the rural parts of Hornsby for lifestyle reasons, but may work elsewhere.

Dural, Galston, Glenorie and Wisemans Ferry show modest growth from 2016-2056, likely in line with population growth and some changes in broader industry trends. Dural South shows greater potential for jobs growth as the nature of industry changes and some higher order jobs are located there.

Reflecting HillPDA's findings and current zoning, there is a large amount of residential floorspace within the Galston village and surrounds. The strongest growth was recorded in Dural South, which reflects its role as an industrial centre that services the nearby urban areas, while also accommodating some businesses that supply the rural area. The role each rural centre plays as a service centre means some employment growth will occur over time, despite the nexus between rural activities/rural industries decreasing. The forecast floorspace growth between HillPDA and SGS' estimates are generally aligned

Into the future, Hornsby Shire's rural villages will be important for providing the service that support agricultural, tourism and other businesses across the rural area. The villages will also continue to provide the services that support the nearby resident population. There is an opportunity for villages to provide more housing diversity.

Environmental Profile

Hornsby Shire's rural area contains significant biodiversity values but is also prone to bushfire, flood risk and climate change risks which impact on the existing and potential land use as well as the community.

The northern parts of the LGA contain several national parks and reserves: the Marramarra, Berowra Valley and Ku-Ring-Gai Chase National Parks, and the Muogamarra Nature Reserve.

The landscape across the Hornsby rural area is defined by waterways with gently undulating and steeper valleys, dominated by the weathered landform of the Hornsby Plateau.

The geological formations of Hawkesbury sandstone have, over time, influenced where residential development occurred, with agricultural activity occurring where soils were better, including along waterways with alluvial soils suitable for horticulture on a small scale. Many national parks occur over land where poor soils or steeper topography meant land clearing could not be undertaken as easily as elsewhere. Remnant native vegetation on private land is often found along waterways and on steeper land primarily zoned for Environmental Management (E3).

Current climate projections for the Shire indicate warmer and drier conditions with more frequent droughts and bushfires. Extreme weather events such as storms, heavy rainfall and hot days are projected to become more frequent and severe over the next 20 years. Not only will there be impacts on Hornsby's natural environment, but agricultural industry profitability is very reliant on weather patterns at critical times of the year. Climate change impacts including, drought, water shortage, extreme events (fire, wind and flood) will impact production markets. Council is preparing a new Climate Wise Plan with new emissions reduction targets in line with State, National and International targets.

Due to the extensive tree coverage large parts of the Hornsby LGA, the LGA is prone to bushfire risk. Over one third of residents in the LGA live close to bushland reserves and national parks and are exposed to bushfire risk.

Hazards predicted for the Hornsby Shire include the intensification of storm events, increase in wind speeds and sea level rise. As set out in the LSPS, the effects of local flooding will continue to be managed as the Shire changes

over the next 20 years. Council is currently undertaking work to identify the flood risk presented to the Shire, to better prepare for and mitigate the risks of flooding – including in the rural area, and how coastal inundation and future sea level rise may impact river communities, where flood risk is most profound.

Hornsby Shire's rural area has a diverse environment and varied landscapes, which support a range of vegetation and animal communities.

Market Trend Analysis

The proximity of Hornsby Shire's rural area to Sydney City means land values have increased to a point where it is difficult to sustain agricultural production. As a result, many farms are being "run-off" and the pressure for rural lifestyle lots, accompanied by increased demand for sewerage, water, telecommunications, waste facilities and road infrastructure is growing.

Spreading urbanisation and population growth are putting pressure on agricultural lands, through increased demand for alternate land uses in peri-urban areas. Despite strong policy from the State government towards the preservation, protection and enhancement of rural areas, land price increases alongside rising farm input costs are having a significant impact on agricultural productivity in Hornsby.

Low density residential land within Dural, Galston, Glenorie and Arcadia has a high value per square metre, and the value has increased significantly over the last ten years. This reflects the strong pressure from urban areas and mounting interest in rural lifestyle living, as was identified and reported on by Ag Econ Plus in its report to the State Government about the value of agricultural lands across Greater Sydney in 2017.

From 2014 to present, land values in Galston have increased by 45%. The pressure from land value increases is observable when further investigating the land use profile of rural areas in the southern and eastern parts of Hornsby Shire's rural area, where it is clear many farms have been 'run-off' or have transitioned to very high value rural residential acreage developments. This poses a significant challenge for future planning across the Hornsby rural area, especially in the southern parts, as farming struggles to remain sustainable in the face of rising farm maintenance and input costs.

The market trend analysis also found that planning zones affect the price per square metre, with land in the primary production RU1 zone around Galston increasing significantly from 2014-2019. Land values in the RU1 zone also increased by more than 15% in Arcadia, Berrilee, Dural, Fiddletown, and Maroota. The agriculture assessment findings explore the implications of this land value increase in greater detail.

5.3 Value of agriculture

Farmers in the Hornsby Shire are career agriculturalists and generate most of their income from the farm. The Sydney Basin ornamental horticulture produced 44 per cent of the State industry's gross value in 2015-16, of which Hornsby contributed 11 per cent. The gross value of the industry has increased, although the total area of production has reduced. For cut flowers, the area of production has increased over time, while business numbers have remained relatively steady.

The ornamental horticulture industry in Hornsby is part of a broader cluster that also includes the neighbouring Hawkesbury and The Hills LGAs. In recent times, there has been an overall reduction in nursery businesses, through consolidation of small-scale businesses (<$100,000) as well as some businesses exiting the industry.

The value of production has fluctuated over time, but overall, there has been a steady increase. Meanwhile, production has increasingly moved indoors with a reduction in outdoor production. Land within the RU zones ranges from moderate to low land capability. Land fragmentation, particularly in the southern parts of the study area, has reduced the suitability of the land for agriculture. The level of fragmentation, particularly in the southern parts of the study area will make it increasingly difficult to maintain an agricultural industry in the long term.

There are number of issues facing the Australian nursery and cut flower industries into the future, which may influence the way that the industry changes across the Hornsby LGA. The continuing increases in electricity, water and skilled labour costs and climate sensitivity all affect the viability of agriculture. At the same time, Ag Econ Plus found that rising land prices are a major factor affecting land use transition away from agriculture towards rural

lifestyle use, especially in rural areas closer to Sydney City and the urban fringe. RMCG found that an improvement in profitability can be found not only in new technologies and improved better practices, but also through the stages of the supply chain working together more efficiently.

Appendices

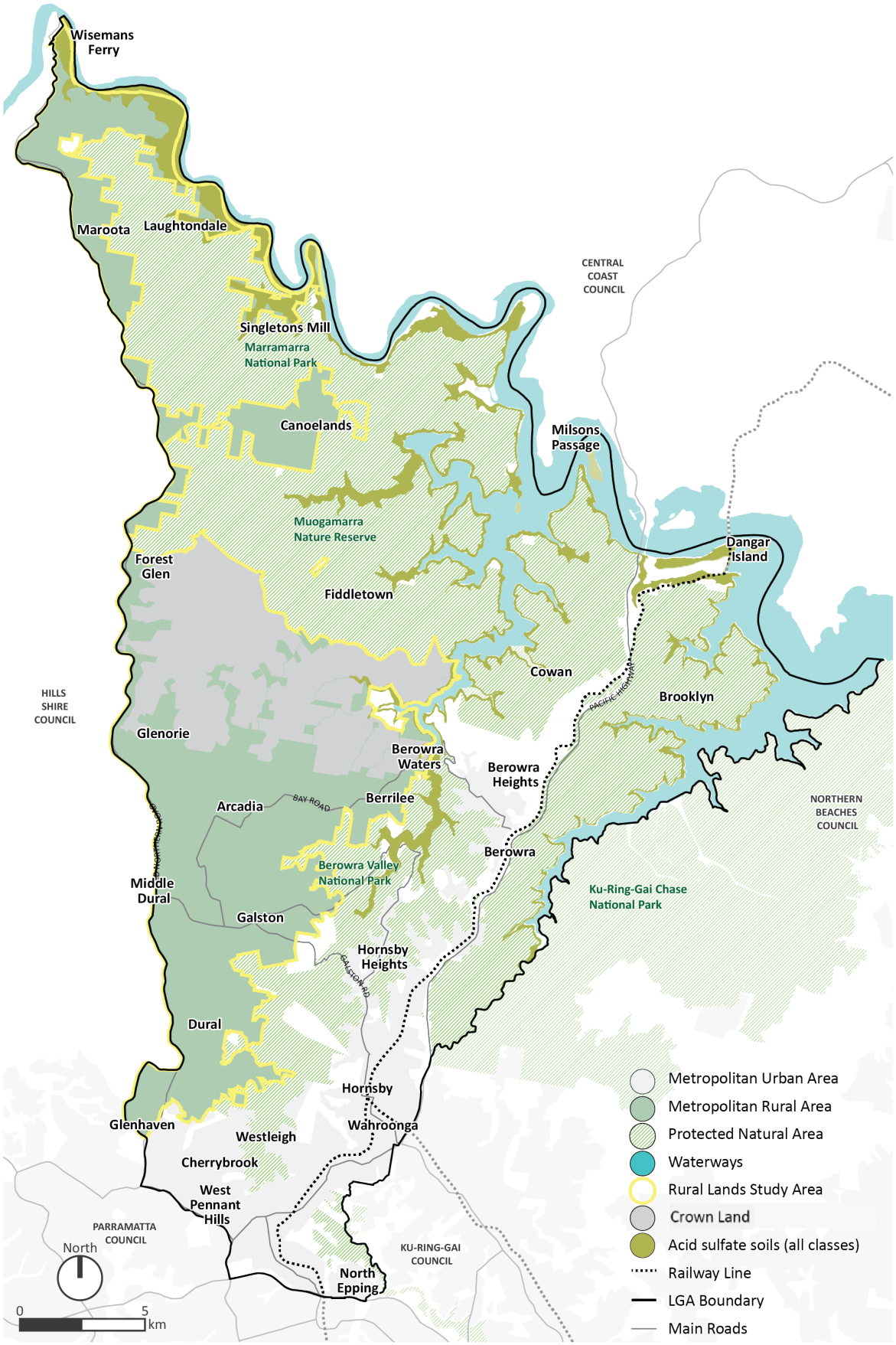


APPENDIX 1

Hornsby LEP maps

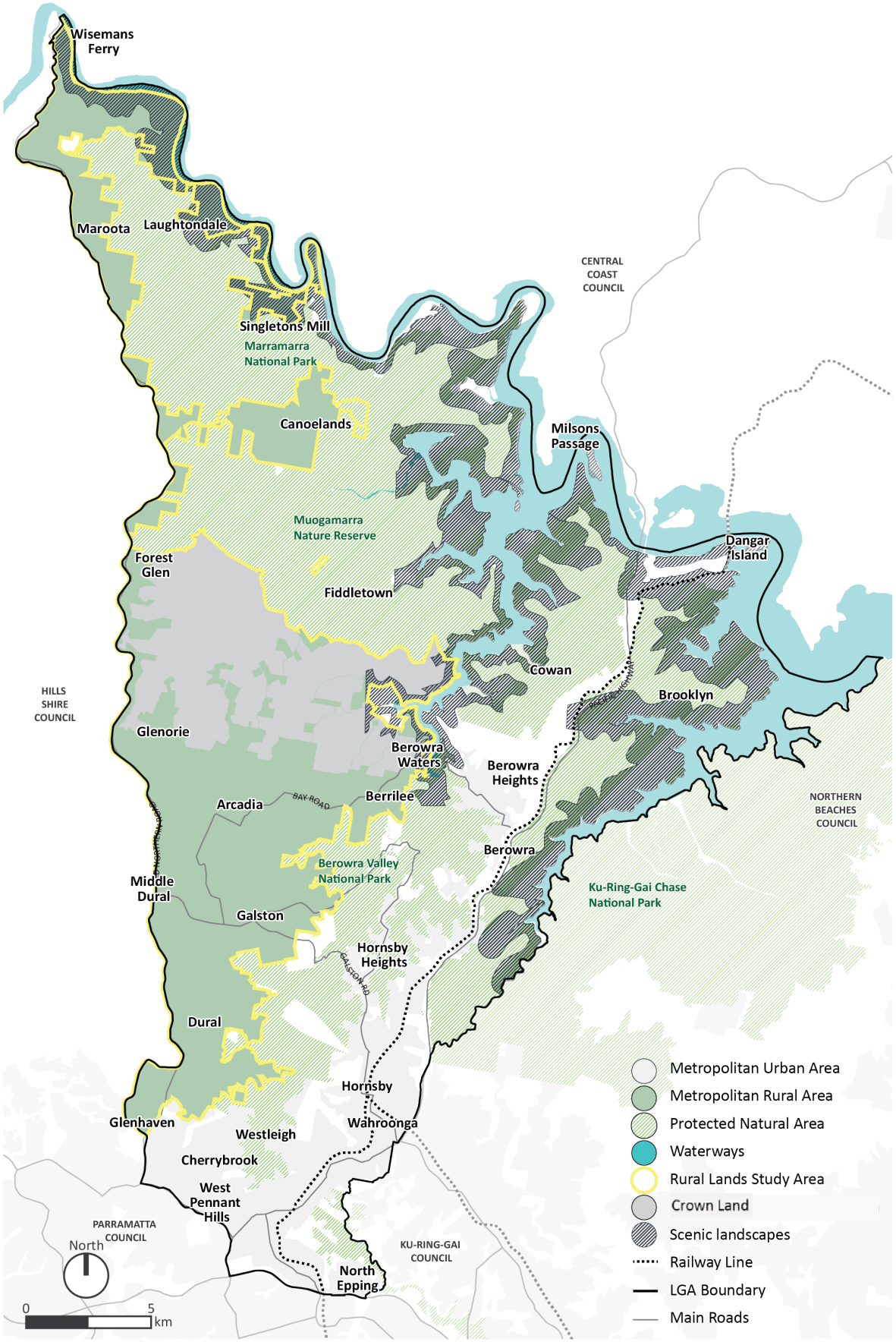
This section contains the following LEP maps, referenced in this Background Report:

- Acid sulfate Soils
- Hawkesbury-Nepean Catchment (Scenic Landscapes)
- Terrestrial Biodiversity
- Flood Map
- Heritage Item or Heritage Conservation Area.

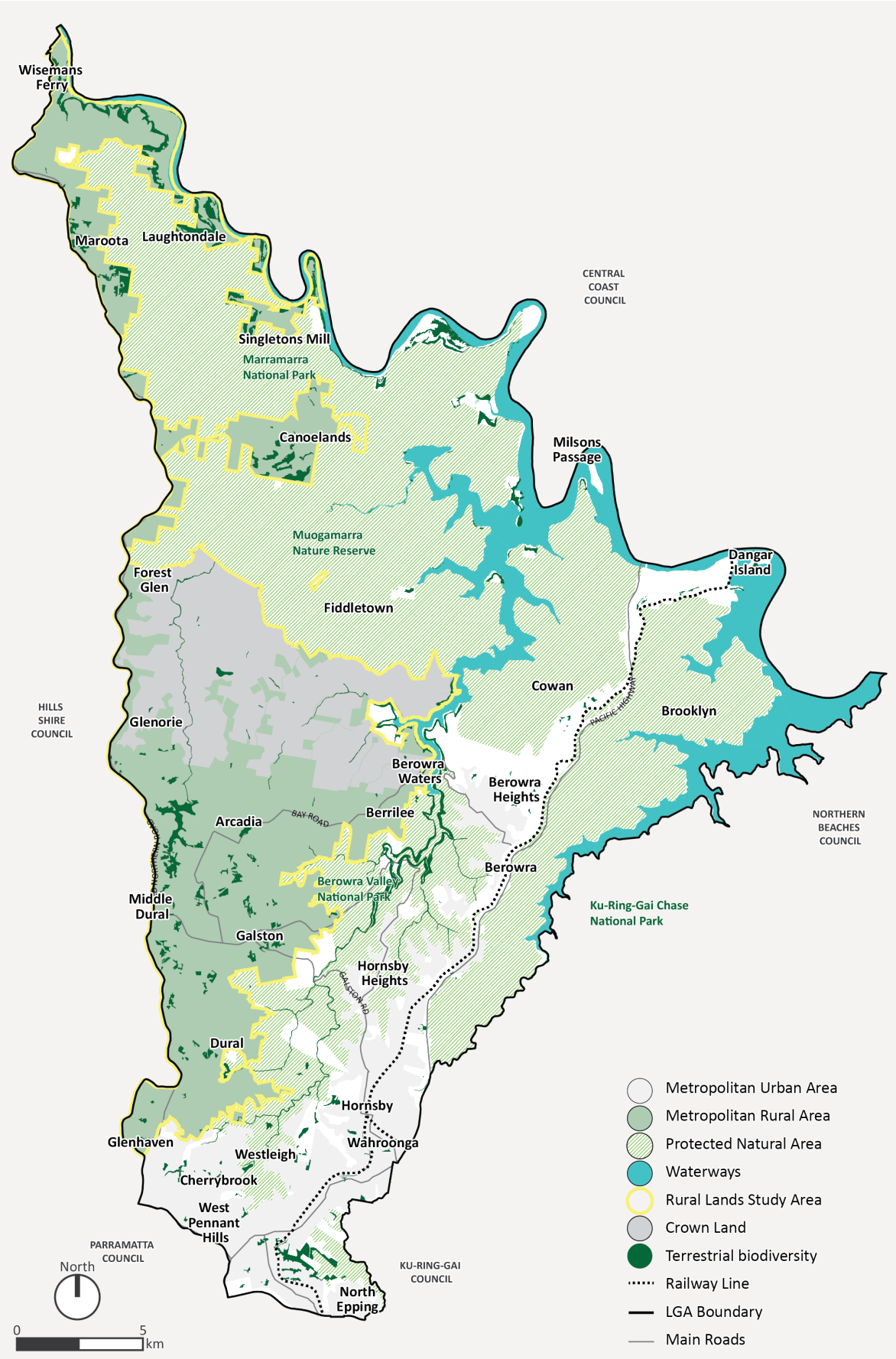


Source: SGS Economics and Planning, based on Hornsby LEP maps.

HAWKESBURY-NEPEAN CATCHMENT: SCENIC LANDSCAPES

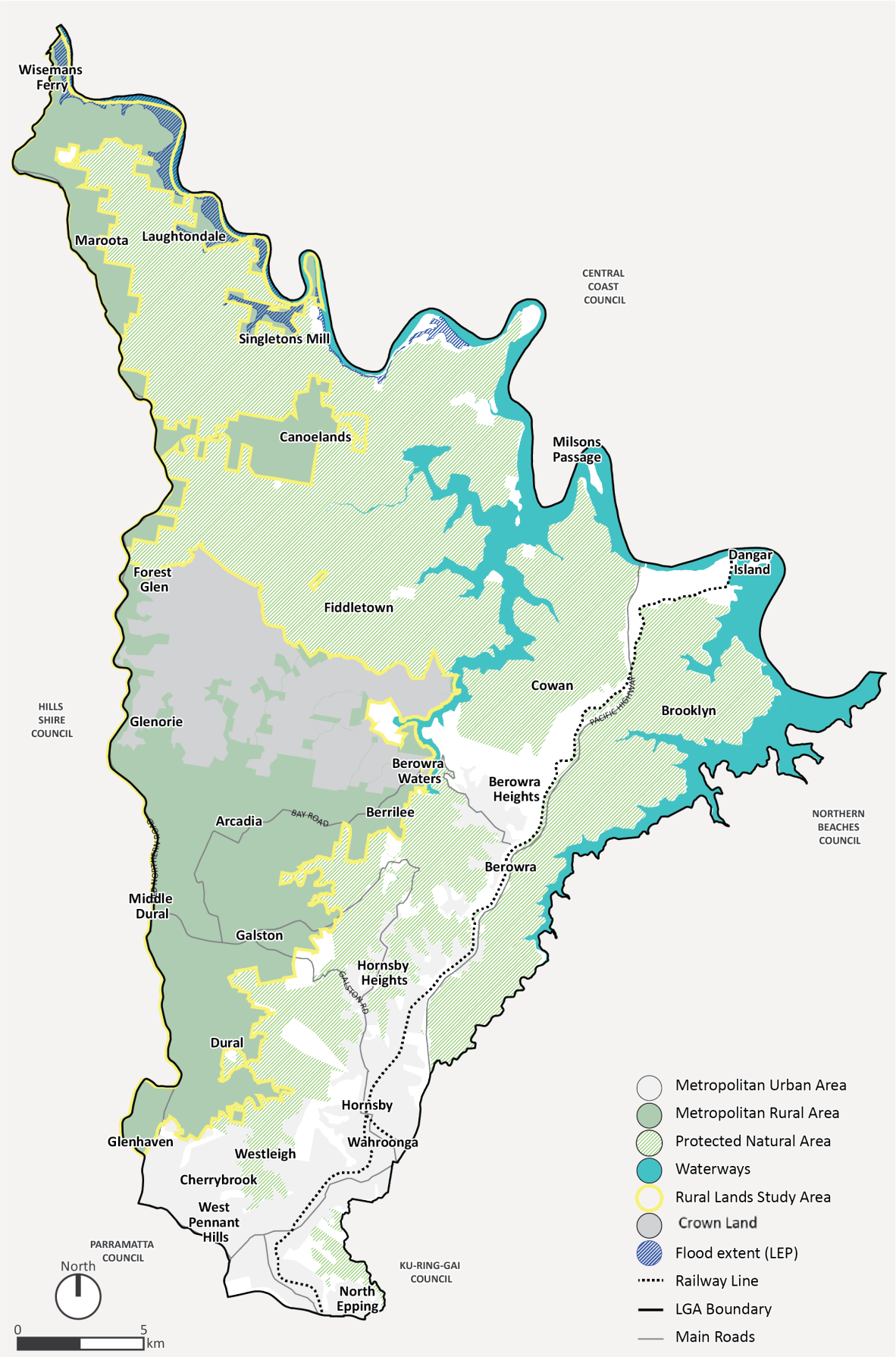


Source: SGS Economics and Planning, based on SREP 20.



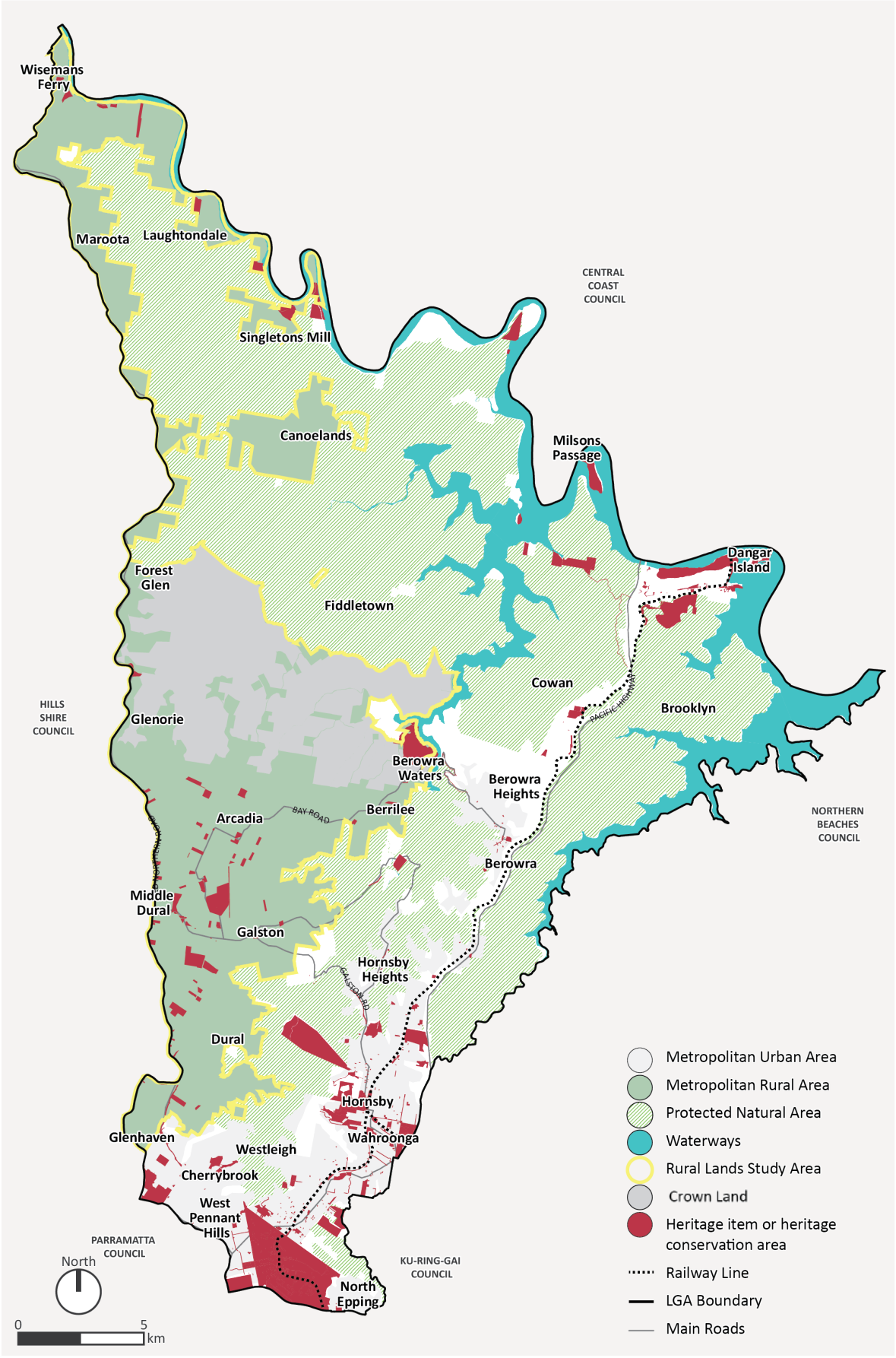
Source: SGS Economics and Planning, based on Hornsby LEP maps.

FLOOD MAP



Source: SGS Economics and Planning, based on Hornsby LEP maps.

HERITAGE ITEM OR HERITAGE CONSERVATION AREA



Source: SGS Economics and Planning, based on Hornsby LEP maps.

APPENDIX 2

Comparison between zone objectives with neighbouring LGAs

Based on a comparative review of the objectives across rural zones in the selected LGA, it is clear that the policies in each local government area contain different emphasis. Some key findings are:

- In the Hawkesbury LEP, each rural zone contains policy directions that involve environmental conservation or enhancement. For example, that "development does not impede significantly on the environment." Another objective emphasises "conservation and enhancement of endemic species."
- The Hills Shire LEP objectives emphasise the importance of making farm produce available to the public (i.e. farmgate sales). Other objectives emphasise tourism infrastructure and visitor accommodation, provided it is low-scale and in keeping with local rural character.
- The Hills Shire planning proposal seeks an additional zone objective for the RU6 zone to confirm the intent of the zone for maintaining rural character and addresses the misconception that the zone facilitates transition away from rural to urban land uses. The additional objective proposed for RU6 is similar to the existing objective of the RU2 zone in the HLEP 2013. This is further addressed in Section 2.8 Other Approaches.
- Unlike the RU1, RU2 and RU4 zones, the RU6 zone is generally not focused on commercial primary production, environmental/ scenic landscapes, or to promote diversity in employment opportunities in rural areas. As such, Hornsby Shire applying the RU6 zone has not been recommended.
- The Hills Shire LEP contains specific requirements which seek to ensure village centres retain their rural character and require that new development is in keeping with rural and environmental values/character.
- In Hornsby Shire, the LEP contains specific controls for the Dural village area, requiring new development to reflect the surrounding rural character.
- Regarding agricultural production, the Hornsby LEP contains additional objectives in the RU1 Primary Production zone to encourage land uses that support primary production, low scale tourist and visitor accommodation (like the Hills Shire LGA). It also contains an objective to "ensure development is supported by public infrastructure and facilities."
- Wollondilly Shire contains objectives across its suite of rural zones that encourage low density development, to maintain a non-urban break between settlements.
- In the Upper Hunter region, the significance of agriculture is reinforced through additional objectives that emphasise rural landscape character and agricultural values.
- In the RU2 Rural Landscape zone, both the Hornsby and The Hills Shire LGAs contain objectives to enable "farm produce direct to public" and to "ensure development is supported by public infrastructure and facilities."
- The Hawkesbury LGA RU2 zone objectives focus on sustainable development, mitigating the environmental impacts of development, and protecting endemic species.
- In Hornsby Shire's RU4 Primary Production Small Lots zone, there is an emphasis on low-scale tourist and visitor accommodation, while the other two LGAs have not expanded the purpose of this zone.
- In the RU5 Rural village zone, Hornsby Shire emphasise providing for housing needs (supported by public infrastructure and facilities), while in Hawkesbury the objectives focus on protecting rural character, and landscapes, for their local features and scenic significance.

	Standard Instrument	Hornsby Shire	The Hills Shire	Hawkesbury Shire	Upper Hunter	Wollondilly Shire	Cessnock Shire
RU1 Primary Production							
Sustainable primary production							N/A
Protect natural resource base							
Industry diversity							
Minimise fragmentation and alienation of resource lands							
Minimise land use conflict within the zone and with adjoining zones							
Encourage land uses that support primary production							
Low scale tourist and visitor accommodation							
Farm produce direct to public							
Ensure development is supported by public infrastructure and facilities							
Extraction of materials for economic and rehabilitation of the land							
Sustainable development, ensure development does not significantly impact on the environment							
Promote conservation and enhancement of endemic species							
Protect the agricultural value of rural land							
Maintain rural landscape character in the long-term							
Ensure that development for extractive industries will not destroy or impair agricultural production, or detrimentally affect water quality							
Provide areas within which the density of development is limited in order to maintain a separation between urban areas							
RU2 Rural Landscape							
Sustainable primary production					N/A		
Protect natural resource base							
Retain rural landscape character							
Range of land uses including extensive agriculture							
Low scale tourist and visitor accommodation							

	Standard Instrument	Hornsby Shire	The Hills Shire	Hawkesbury Shire	Upper Hunter	Wollondilly Shire	Cessnock Shire
Farm produce direct to public							
Ensure development is supported by public infrastructure and facilities							
Sustainable development, ensure development does not significantly impact on the environment							
Promote conservation and enhancement of endemic species							
Provide areas within which the density of development is limited in order to maintain a separation between urban areas							
Minimise disturbance to the landscape from development through clearing, earthworks, access roads and construction of buildings.							
Enable other forms of development that are associated with rural activity and require an isolated location or support tourism and recreation							
RU3 Forestry							
Enable forestry development		N/A		N/A		N/A	N/A
Enable compatible forestry development							
RU4 Primary Production Small Lots							
Sustainable industry primary production							
Diversity and employment opportunities in relation to primary industry enterprises							
Minimise land use conflict within the zone and with adjoining zones							
Low scale tourist and visitor accommodation							
Ensure development is supported by public infrastructure and facilities							
Provide areas within which the density of development is limited in order to maintain a separation between urban areas							

	Standard Instrument	Hornsby Shire	The Hills Shire	Hawkesbury Shire	Upper Hunter	Wollondilly Shire	Cessnock Shire
RU5 Village							
Land uses, services and facilities that are associated with a rural village			N/A		N/A	N/A	
Provide housing needs							
Ensure development is supported by public infrastructure and facilities							
Rural character							
Protect landscapes for their local features and scenic significance							
Ensure that development is compatible with the amenity, functioning and scale of a rural village							
RU6 Transition							
Protect and maintain land that provides a transition between rural and other land uses of varying intensities or environmental sensitivities.		N/A		N/A	N/A	N/A	N/A
Minimise conflict between land uses within this zone and land uses within adjoining zones.							
Encourage innovative and sustainable tourist development, sustainable agriculture and the provision of farm produce directly to the public.							

Source: SGS Economics and Planning, 2019, based on the relevant LGA Local Environmental Plans.

APPENDIX 3

Data tables

Demographic profile

HORNSBY PAST POPULATION GROWTH (2006-16)

Geography	2006	2011	2016	Growth	Growth rate 2006 to 2016	Average annual growth rate
Rural area*	11,992	12,572	13,171	*+1,179*	*9.83%*	*0.94%*
Urban area	120,238	124,646	134,489	*+14,251*	*11.85%*	*1.13%*
Hornsby Shire LGA total	136,162	143,273	147,661	*+11,499*	*8.45%*	*0.81%*
NSW	6,742,690	7,218,529	7,732,858	*+990,168*	*14.69%*	*1.38%*

Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

Note: Here and throughout, 'rural area' refers to the combined profile areas: Arcadia-North Western Dural, Dural, and Galston-Middle Dural.

HORNSBY RURAL AREAS: PAST POPULATION GROWTH (2006-16)

Geography	2006	2011	2016	Growth	Growth rate 2006 to 2016	Average annual growth rate
Arcadia - North Western Rural	3,683	3,906	4,031	*+348*	*9.45%*	*0.91%*
Dural	5,258	5,432	5,658	*+400*	*7.61%*	*0.74%*
Galston - Middle Dural	3,051	3,234	3,482	*+431*	*14.13%*	*1.33%*

Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

HORNSBY PROJECTED POPULATION GROWTH (2021-41)

Geography	2021	2026	2031	2036	2041	Growth	Total growth rate	Average annual growth rate
Hornsby Shire total	157,538	166,158	173,721	179,582	185,263	26,241	18.18%	0.84%
Rural area	13,202	14,140	14,431	14,564	14,686	27,725	17.60%	0.81%
Urban area	144,334	152,018	159,292	165,017	170,575	1,484	11.24%	0.53%

Source: id Consultants, based on ABS Census data, 2016.

HORNSBY RURAL AREAS PROJECTED POPULATION GROWTH (2021-41)

Geography	2021	2026	2031	2036	2041	Growth	Total growth rate	Average annual growth rate
Arcadia - North Western Rural	3,863	3,866	3,917	3,970	4,010	+147	3.81%	0.19%
Dural	5,741	6,309	6,242	6,268	6,309	+568	9.89%	0.47%
Galston - Middle Dural	3,598	3,965	4,272	4,326	4,367	+769	21.37%	0.97%

Source: id Consultants, based on ABS Census data, 2016.

HORNSBY LGA AGE PROFILE TOTALS (2016)

Geography	Children	Youth	Young Adult	Adult	Mature Adult	Retiree
Rural area	651	2,794	1,484	2,066	3,777	2,400
Urban area	8,295	27,320	15,046	27,856	35,145	20,826
Hornsby Shire	8,944	30,116	16,528	29,921	38,923	23,230
NSW	465,135	1,369,618	1,016,834	1,543,253	1,867,756	1,217,646

Source: Profile.id

HORNSBY LGA RURAL AREAS AGE PROFILE TOTALS (2016)

Geography	Children	Youth	Young Adult	Adult	Mature Adult	Retiree
Arcadia - North Western Rural	211	851	454	650	1,213	653
Dural	264	1,236	678	858	1,643	977
Galston - Middle Dural	176	707	352	558	921	770
Total	*651*	*2,794*	*1,484*	*2,066*	*3,777*	*2,400*

Source: Profile.id

HORNSBY LGA FUTURE AGE PROFILE (2036)

Geography	Children	Youth	Young Adult	Adult	Mature Adult	Retiree
Rural Area	763	3,017	1,429	2,334	3,549	3,470
Urban Area	9,735	31,144	19,142	34,777	40,578	29,643
Hornsby Shire	10,498	34,159	20,570	37,115	44,130	33,109

Source: Forecast.id

HORNSBY LGA RURAL AREAS AGE PROFILE (2036)

Geography	Children	Youth	Young Adult	Adult	Mature Adult	Retiree
Arcadia - North Western Rural	226	781	457	619	997	889
Dural	306	1,330	564	970	1,474	1,623
Galston - Middle Dural	231	906	408	745	1,078	958
Total	*763*	*3,017*	*1,429*	*2,334*	*3,549*	*3,470*

Source: Forecast.id

Households

HORNSBY RURAL AREAS HOUSEHOLD TOTALS BY HOUSEHOLD TYPE (2016)

Geography	Two parent families	Couples without children	One parent families	Other families	Lone person household	Group household	Total
Arcadia - North Western Rural	545	348	99	78	158	38	*1,266*
Dural	835	462	145	92	263	30	*1,827*
Galston - Middle Dural	454	341	89	54	222	18	*1,178*
Total	*1,834*	*1,151*	*333*	*224*	*643*	*86*	*4,271*

Source: Profile.id

HORNSBY RURAL AREAS AGE PROFILE IN LONE PERSON HOUSEHOLDS (2016)

Geography	Children	Youth	Young Adult	Adult	Mature Adult	Retirees	Total
Arcadia - North Western Rural	0	0	9	14	71	74	*166*
Dural	0	0	14	14	66	154	*246*
Galston - Middle Dural	0	0	3	13	55	129	*204*
Total	*0*	*0*	*27*	*51*	*198*	*353*	*617*

Source: Profile.id

HORNSBY FUTURE HOUSEHOLD TOTALS BY HOUSEHOLD TYPE (2036)

Geography	Two parent families	Couples without children	One parent family	Other families	Lone person household	Group household	*Total*
Rural Area	1,883	1,299	350	229	1,034	89	4,884
Urban Area	23,871	14,419	4,675	2,158	12,610	1,535	59,268
Hornsby Shire	25,756	15,716	5,026	2,388	13,645	1,626	64,157

Source: Forecast.id

HORNSBY RURAL AREAS FUTURE HOUSEHOLD TOTALS BY HOUSEHOLD TYPE (2036)

Geography	Two parent families	Couples without children	One parent family	Other families	Lone person household	Group household	Total
Arcadia - North Western Rural	479	365	101	70	316	40	1,371
Dural	825	520	149	91	432	29	2,046
Galston - Middle Dural	579	414	100	68	286	20	1,467
Total	1,883	1,299	350	229	1,034	89	4,884

Source: Forecast.id

Dwelling structure

DWELLING STRUCTURE IN EACH PROFILE AREA, HORNSBY LGA

Classification	Geography/profile area	Separate house	Medium density	High density	Other	Total
Rural area	Arcadia - North Western Rural	1,300	6	0	16	1,322
Urban area	Asquith	1,035	129	143	13	1,320
Urban area	Beecroft - Cheltenham	2,650	180	76	6	2,912
Urban area	Berowra	1,495	84	0	0	1,579
Urban area	Berowra Heights - North Eastern Rural Balance	2,444	100	9	42	2,595
Urban area	Castle Hill	1,189	591	257	8	2,045
Urban area	Cherrybrook	4,907	1,177	0	11	6,095
Rural area	Dural	1,520	288	0	99	1,907
Urban area	Epping North	1,414	125	0	0	1,539
Rural area	Galston - Middle Dural	1,021	121	37	8	1,187
Urban area	Hornsby Town Centre	3,246	1,099	4,667	28	9,040
Urban area	Hornsby Heights	2,064	45	0	0	2,109
Urban area	Mount Colah - Mount Kuring-gai	2,898	132	5	11	3,046
Urban area	Normanhurst	1,448	311	70	11	1,840
Urban area	Pennant Hills	1,961	406	300	8	2,675
Urban area	Thornleigh	2,379	529	26	3	2,937
Urban area	Wahroonga	1,130	270	129	2	1,531
Urban area	Waitara	263	351	1,901	11	2,526
Urban area	West Pennant Hills	1,250	153	1	0	1,404
Hornsby LGA total	**Hornsby Shire**	**37,149**	**6,280**	**7,607**	**384**	**51,420**

Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

^Medium density refers to townhouses, terraces, villa units and semi-detached dwellings, flats in 1 and 2 storey blocks and flats attached to houses.

^^High density refers to flats in 3 or more storey blocks. *Other includes the category, 'caravans, cabin, houseboat'.

Employment profile

HORNSBY EMPLOYMENT BY ANZIC 1-DIGIT EMPLOYMENT (2016)

INDP - 1 Digit Level	Rural Area	Urban Area	Hornsby Shire	NSW
Agriculture, Forestry and Fishing	588	116	704	73,132
Mining	48	32	77	30,443
Manufacturing	360	1,921	2,278	196,910
Electricity, Gas, Water and Waste Services	33	221	250	31,695
Construction	919	2,611	3,532	280,552
Wholesale Trade	342	1,044	1,381	103,955
Retail Trade	946	4,669	5,616	325,234
Accommodation and Food Services	714	2,729	3,439	238,757
Transport, Postal and Warehousing	400	967	1,365	158,294
Information Media and Telecommunications	34	741	778	73,036
Financial and Insurance Services	165	903	1,064	167,192
Rental, Hiring and Real Estate Services	164	568	736	59,304
Professional, Scientific and Technical Services	493	2,738	3,230	272,194
Administrative and Support Services	202	940	1,144	116,824
Public Administration and Safety	46	1,292	1,344	196,609
Education and Training	935	4,753	5,687	280,281
Health Care and Social Assistance	767	6,759	7,520	419,986
Arts and Recreation Services	101	484	588	51,516
Other Services	378	1,647	2,024	123,842
Total	7,635	35,135	42,757	3,199,756

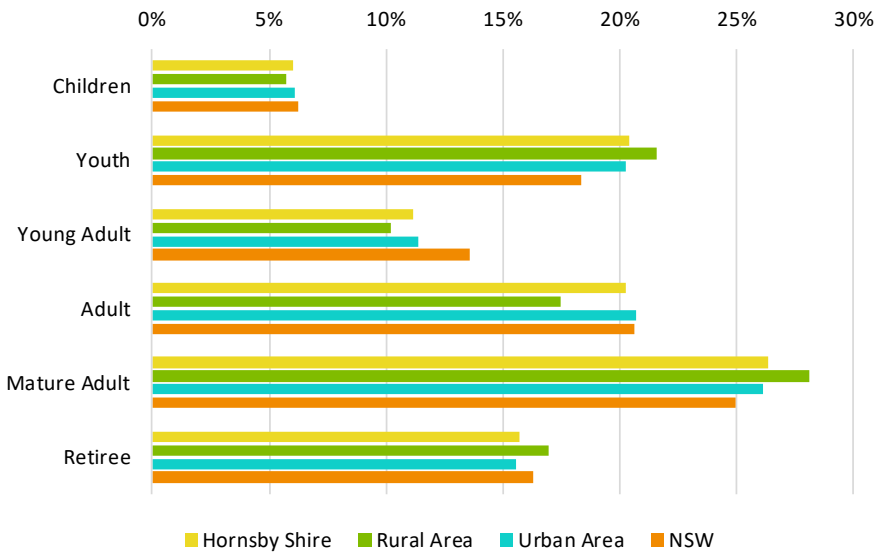
Source: ABS Census TableBuilder (2016)

HORNSBY RURAL AREAS EMPLOYMENT BY ANZIC 1-DIGIT EMPLOYMENT (2016)

INDP - 1 Digit Level	Arcadia – North Western Rural	Dural	Galston – Middle Dural
Agriculture, Forestry and Fishing	**318**	148	124
Mining	51	0	0
Manufacturing	151	91	115
Electricity, Gas, Water and Waste Services	8	22	4
Construction	**220**	497	**200**
Wholesale Trade	56	244	37
Retail Trade	170	**659**	115
Accommodation and Food Services	167	463	92
Transport, Postal and Warehousing	59	316	23
Information Media and Telecommunications	13	9	12
Financial and Insurance Services	21	94	46
Rental, Hiring and Real Estate Services	46	94	26
Professional, Scientific and Technical Services	184	224	94
Administrative and Support Services	46	121	40
Public Administration and Safety	9	13	23
Education and Training	182	**594**	165
Health Care and Social Assistance	68	**559**	134
Arts and Recreation Services	16	48	34
Other Services	90	229	59
Total	1,875	4,425	1,343

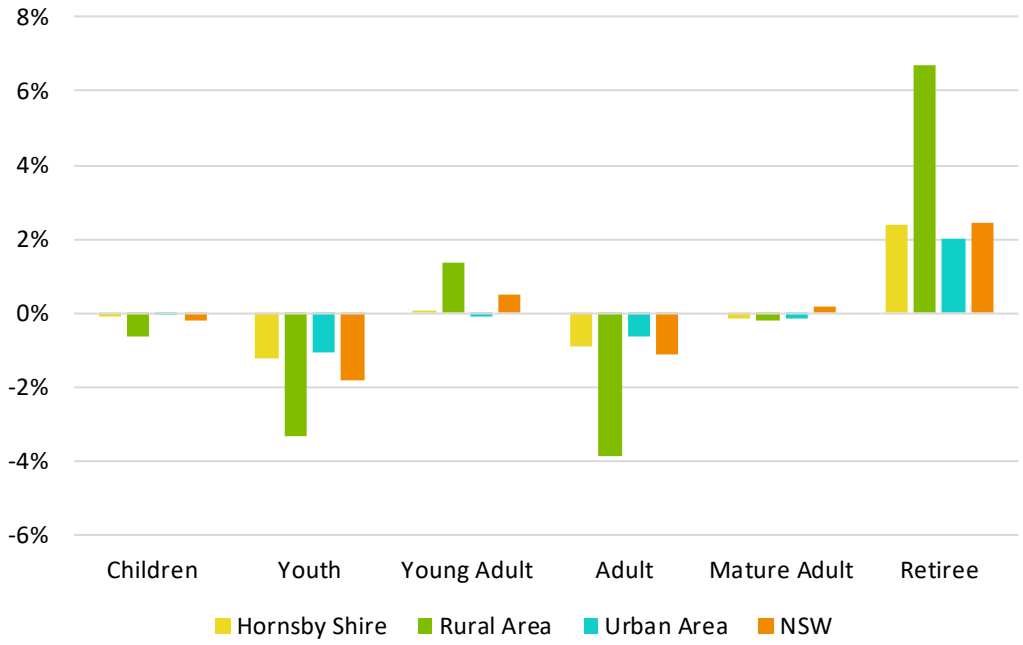
Source: ABS Census TableBuilder (2016)

RURAL/URBAN AGE PROFILE BY LOCATION, COMPARED TO NSW AND THE LGA AVERAGE (2016)



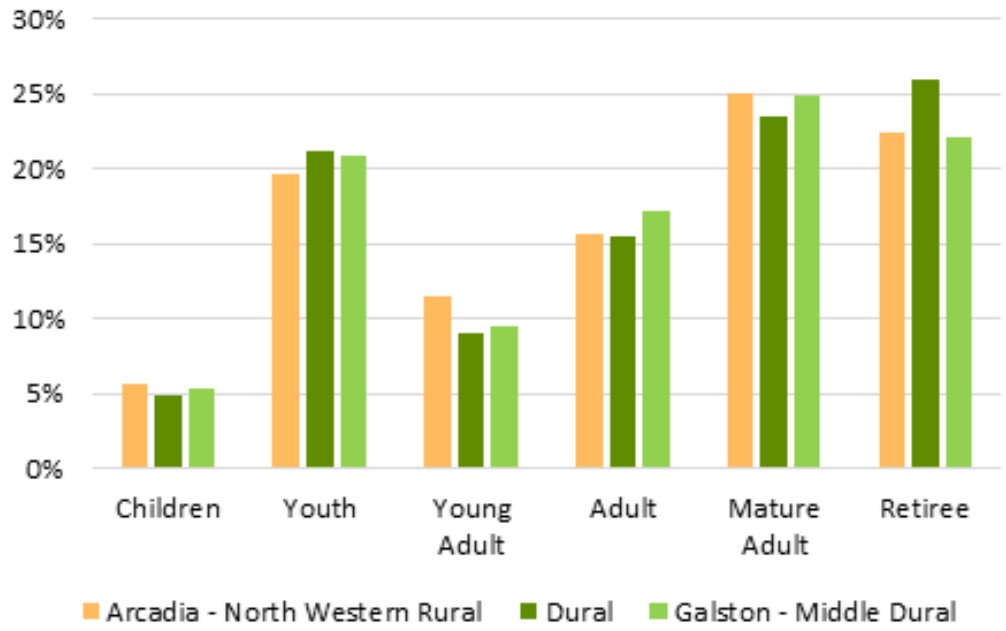
Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

HORNSBY AGE PROFILES PROPORTIONAL CHANGE (2006-16)



Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

HORNSBY RURAL AREAS AGE PROFILES PERCENTAGE SHARE (2036)



Source: SGS Economics and Planning based on .id Consultants, from ABS Census data, 2016.

HORNSBY RURAL AREAS BY ANZIC 4-DIGIT EMPLOYMENT- AGRICULTURE, FORESTRY AND FISHING (2016)

Agriculture, forestry and fishing	Arcadia – North Western Rural	Dural	Galston – Middle Dural	Total
Nursery Production (Outdoors)	107	111	27	244
Floriculture Production (Outdoors)	41	10	39	94
Vegetable Growing (Outdoors)	57	10	15	71
Agriculture, nfd	18	3	7	30
Horse Farming	18	0	8	24
Stone Fruit Growing	19	0	0	19
Fruit and Tree Nut Growing, nfd	14	0	0	18
Poultry Farming, nfd	5	0	13	15
Other Agriculture and Fishing Support Services	9	0	0	10
Citrus Fruit Growing	6	3	0	9
Poultry Farming (Meat)	0	0	8	9
Nursery and Floriculture Production, nfd	3	0	0	6

Source: SGS Economics and Planning, based on ABS Census data, 2016.

HORNSBY RURAL AREAS BY ANZIC 4-DIGIT EMPLOYMENT- MINING (2016)

Mining	Arcadia – North Western Rural	Dural	Galston – Middle Dural	Total
Mineral Sand Mining	22	0	0	22
Gravel and Sand Quarrying	15	0	0	15
Mining, nfd	5	0	0	5
Other Construction Material Mining	3	0	0	3

Source: SGS Economics and Planning, based on ABS Census data, 2016.

HORNSBY RURAL AREAS BY ANZIC 4-DIGIT EMPLOYMENT- MANUFACTURING (2016)

Manufacturing	Arcadia – North Western Rural	Dural	Galston – Middle Dural	Total
Poultry Processing	4	0	73	72
Manufacturing, nfd	10	14	3	32
Human Pharmaceutical and Medicinal Product Manufacturing	30	0	0	30
Veterinary Pharmaceutical and Medicinal Product Manufacturing	28	0	0	28
Printing	6	9	0	19
Bakery Product Manufacturing (Non-factory based)	11	10	0	13
Boatbuilding and Repair Services	7	0	0	12
Wooden Furniture and Upholstered Seat Manufacturing	5	10	0	12
Prepared Animal and Bird Feed Manufacturing	10	0	0	11
Wooden Structural Fitting and Component Manufacturing	0	8	6	10
Other Non-Metallic Mineral Product Manufacturing	10	0	0	10
Bread Manufacturing (Factory based)	5	0	0	8

Source: SGS Economics and Planning, based on ABS Census data, 2016.

HORNSBY RURAL AREAS BY ANZIC 4-DIGIT EMPLOYMENT- TRANSPORT, POSTAL AND WAREHOUSING (2016)

Transport, Postal and Warehousing	Arcadia – North Western Rural	Dural	Galston – Middle Dural	Total
Urban Bus Transport (Including Tramway)	0	148	0	148
Postal Services	4	42	5	54
Road Freight Transport	26	3	4	35
Road Passenger Transport, nfd	0	32	0	31
Interurban and Rural Bus Transport	0	26	0	28
Taxi and Other Road Transport	0	17	0	17
Other Warehousing and Storage Services	6	7	5	17
Transport, Postal and Warehousing, nfd	4	12	4	13
Water Passenger Transport	10	0	0	10
Courier Pick-up and Delivery Services	5	5	0	10
Rail Transport, nfd	0	0	0	7
Freight Forwarding Services	6	0	0	6

Source: SGS Economics and Planning, based on ABS Census data, 2016.

HORNSBY RURAL AREAS BY ANZIC 4-DIGIT EMPLOYMENT- CONSTRUCTION (2016)

Construction	Arcadia – North Western Rural	Dural	Galston – Middle Dural	Total
Electrical Services	16	102	8	129
House Construction	17	68	28	113
Plumbing Services	33	53	17	98
Building Construction, nfd	15	35	15	63
Other Residential Building Construction	14	38	12	63
Site Preparation Services	30	7	22	62
Landscape Construction Services	17	26	15	60
Non-Residential Building Construction	10	31	13	53
Carpentry Services	13	28	13	48
Other Heavy and Civil Engineering Construction	17	21	11	39
Construction, nfd	8	16	7	33
Painting and Decorating Services	5	15	6	27

Source: SGS Economics and Planning, based on ABS Census data, 2016.

HORNSBY RURAL AREAS BY ANZIC 4-DIGIT EMPLOYMENT- PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES (2016)

Professional, scientific and technical services	Arcadia – North Western Rural	Dural	Galston – Middle Dural	Total
Veterinary Services	73	13	7	93
Accounting Services	17	41	21	81
Computer System Design and Related Services	21	22	15	62
Engineering Design and Engineering Consulting Services	17	27	12	53
Legal Services	7	29	12	47
Architectural Services	14	24	6	44
Management Advice and Related Consulting Services	6	18	9	37
Other Specialised Design Services	10	6	3	21
Surveying and Mapping Services	3	9	0	13
Professional Photographic Services	3	5	4	13
Advertising Services	4	4	3	12
Architectural, Engineering and Technical Services, nfd	0	4	0	6

Source: SGS Economics and Planning, based on ABS Census data, 2016.

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Certified B Corporation

NEED HELP?

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Chinese Simplified
需要帮助吗?

本文件包含了重要的信息。如果您有不理解之处，请致电131 450联系翻译与传译服务中心。请他们代您致电9847 6666联系Hornsby郡议会。郡议会工作时间为周一至周五，早上8:30 - 下午5点。

Chinese Traditional
需要幫助嗎？

本文件包含了重要的信息。如果您有不理解之處，請致電131 450聯繫翻譯與傳譯服務中心。請他們代您致電9847 6666聯繫Hornsby郡議會。郡議會工作時間爲周一至周五，早上8:30 - 下午5點。

German
Brauchen Sie Hilfe?

Dieses Dokument enthält wichtige Informationen. Wenn Sie es nicht verstehen, rufen Sie bitte den Übersetzer- und Dolmetscherdienst unter 131 450 an. Bitten Sie ihn darum, für Sie den Hornsby Shire Council unter der Nummer 9847 6666 zu kontaktieren. Die Geschäftszeiten der Stadtverwaltung sind Montag bis Freitag, 8.30-17 Uhr.

Hindi
क्या आपको सहायता की आवश्यकता है?

इस दस्तावेज़ में महत्वपूर्ण जानकारी दी गई है। यदि आप इसे समझ न पाएँ, तो कृपया 131 450 पर अनुवाद और दुभाषिया सेवा को कॉल करें। उनसे हॉर्न्सबी शायर काउंसिल से संपर्क करने के लिए आपकी ओर से 9847 6666 पर फोन करने का निवेदन करें। काउंसिल के कार्यकाल का समय सोमवार से शुक्रवार, सुबह 8.30 बजे-शाम 5 बजे तक है।

Korean
도움이 필요하십니까?

본 문서에는 중요한 정보가 포함되어 있습니다. 이해가 되지 않는 내용이 있으시면, 통역번역서비스(Translating and Interpreting Service)로 전화하셔서(131 450번) 귀하를 대신하여 혼즈비 셔 카운슬에 전화(9847 6666번)를 걸어 달라고 요청하십시오. 카운슬의 업무시간은 월요일~금요일 오전 8시 30분~오후 5시입니다.

Tagalog
Kailangan ng tulong?

Itong dokumento ay naglalaman ng mahalagang impormasyon. Kung hindi ninyo naiintindihan, pakitawagan ang Serbisyo sa Pagsasalinwika at Pag-iinterprete (Translating and Interpreting Service) sa 131 450. Hilingin sa kanilang tawagan ang 9847 6666 para sa inyo upang kontakin ang Hornsby Shire Council. Ang oras ng opisina ng Council ay Lunes hanggang Biyernes, 8.30n.u.-5n.h.

Hornsby Shire Council
ABN 20 706 996 972

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Fax: **(02) 9847 6999**
Email: **hsc@hornsby.nsw.gov.au**
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Office hours: Please check the website for the latest opening hours for the Customer Service Centre and Duty Officer.

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