



Hawkesbury City Council

Attachment 1
to
item 094

Draft Hawkesbury Local Housing
Strategy

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An aerial photograph of Hawkesbury City, showing a mix of residential houses, commercial buildings, and green spaces. The city is surrounded by a river and hills in the background.

Hawkesbury Local Housing Strategy

Prepared for
Hawkesbury City
Council

May 2020

HiIPDA
CONSULTING

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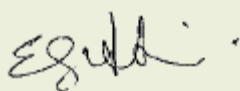
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EXECUTIVE SUMMARY

Hawkesbury Local Government Area is a unique place to live in the Greater Sydney Region. Its high-value natural environment and strong cultural heritage support communities and settlements that are diverse and rich in character. The LGA's productive agricultural lands and river systems provide a highly scenic setting for urban and semi-rural lifestyles.

The population of the LGA is growing, and a clear strategy is needed to guide and accommodate this growth. The strategy must balance growth with:

- The significant physical environmental constraints such as heritage, lands with high biodiversity value, flooding risk, bushfire risk and proximity to UNESCO World Heritage listed areas
- The importance of the character of the LGA's local centres and rural villages
- The need to protect productive agricultural land for its purpose
- The need to support communities and promote healthy, liveable urban environments.

Purpose of the housing strategy

This housing strategy outlines how housing growth can be managed, by identify locations suitable for additional housing supply in Hawkesbury LGA. The strategy will inform forthcoming updates to the Hawkesbury Local Environmental Plan. The strategy has been prepared to satisfy the requirements of the Greater Sydney Commission.

The strategy:

- Provides a comprehensive evidence base of housing supply and demand
- Examines constraints and opportunities to future housing delivery
- Considers options for future housing development and refinement of current planning controls
- Sets out strategies and actions to deliver housing priorities.

Demographic overview

The population of Hawkesbury LGA is estimated to be 67,083 and is growing ¹. In 2016 the LGA had 21,743 households living in predominantly detached, single dwellings with only 13% of the LGA's housing being medium or high density.

The population of the LGA has been increasing but this has varied across the LGA with the population of Windsor Downs declining by 0.7 per cent per annum in the decade 2006-2016, Bligh Park and Kurmond-Tennyson-The Slopes also registered marginal declines. In contrast, Pitt Town registered a significant increase at a rate of 5.6 per cent per annum. The remainder of the LGA had average growth or stable populations.

Hawkesbury LGA's median household income is \$1,663 per week which is below that of Greater Sydney (\$1,745)². An examination of differences in household income levels between Hawkesbury LGA and Greater Sydney demonstrates that there are higher proportions of lower-income households (those earning less than \$650 per week), and lower proportions of higher-income households, particularly over \$3,500 per week.

In 2016, around 10.5% of Hawkesbury LGA households were experiencing housing stress, compared with 11.8% in Greater Sydney. Whilst Hawkesbury had a lower proportion of housing stress than Greater Sydney, it is important to note that this is significantly varied across the LGA and pockets of high housing stress exist, including Wilberforce and South Windsor.

Discussions with local agents indicated that the market is starting to slow, with sale prices dropping as much as 20% to 40% over the last 18 months. Combined with the banks tightening lending to both developers and mums and dads, this has started to increase housing stress in the LGA. Agents suggest a strong need for a variety of smaller and mid-range developments suited to both the young professionals with young families and the over 55-year-olds who are looking to downsize near activated village areas.

Housing outlook

The demand for housing is likely to increase. The NSW Department of Planning Industry and Environment forecast that the annual population growth rate is expected to increase steadily from 0.9% (2016-2021) to 1.4% to (2031-36)³. In terms of total population forecasts, the LGA is forecasted to have 74,800 persons in 2026, 79,400 in 2031 and 85,050 in 2036. Population growth to date has primarily been driven by high fertility rates and development in new greenfield release areas.

Housing targets

The Greater Sydney Commission has set a housing target of 1,150 additional dwellings between 2016 and 2021 for Hawkesbury LGA. This target has been set to address the housing demand from a projected population of 85,050 in 2036.

Recent development approvals, dwelling completions and dwellings under construction have been reviewed to compare recent performance to the target. The LGA currently appears to be tracking slightly below the 2016-2021 target. This is largely the result of market forces as there is an adequate supply of zoned land to enable the target to be met. Prior to the COVID 19 Pandemic and associated economic crisis,

¹ ABS Estimated Resident Population, 2018

² ABS Census, 2016

³ NSW Department of Planning and Environment, NSW State and Local Government Area Population and Household Projections, 2016.

market commentators were predicting housing market conditions to improve in 2021, which was expected to fuel growth within the LGA. The market outlook is now uncertain.

Table 1: GSC Hawkesbury City LGA targets

Timeframe	District Plan target	Status
0-5 years (2016–2021)	1,150 dwellings	Dwellings completed 2016- 2019: 659 dwellings* Dwellings in pipeline 2019 to 2021: 385 dwellings**
20 years	No target stated	Suggested target of around 4,000 additional dwelling 2016- 2036 based on an average completion of 200 dwellings per annum.

Source: *DPIE housing activity database 1 July 2016- 30 June 2019; **Cordell Connect projects with completion dates listed 1 July 2019- 30 June 2019

Current capacity for new dwellings

The capability of the existing urban area to accommodate additional dwellings has been assessed on a theoretical basis. This work has focussed on the potential for additional housing in walking distance of centres. Lots with relatively fewer development constraints have been identified and the maximum extent of development has been estimated based on current planning controls. The maximum extent of development has been assumed to mean detached dwellings on R2 zoned land, medium density housing on R3 zoned land and residential flats on R1 zoned land (calculated to the maximum permissible height).

In determining the theoretical capacity for additional housing within the identified centres, constraints were mapped against each lot, with affected lots removed from the capacity calculation. The constraints mapped to the centres included: ANEF contours of 25 or over, lots affected by flooding at the 1 in 100 level, heritage items and land zoned for recreation or special purposes. Also, lots that were identified as being part of an existing strata plan or recently developed were eliminated on the principle of feasibility.

Existing greenfield urban release areas will accommodate a significant proportion of future housing growth, as indicated in the table below.

Projected capacity arising from release areas

Release area	Total dwelling yield
Vineyard (Stage 1)	2,400 additional net dwellings
Redbank	1,400 additional net dwellings (excl. existing seniors living facility)
Jacaranda Ponds	570 net dwellings

Source: HillPDA

The estimated capacity of existing centres is indicated in the table below. There is very limited potential for additional dwellings in Windsor. Of the centres investigated South Windsor has the largest capacity to accommodate additional dwellings. The analysis does not anticipate market trends or the willingness of property owners to develop to the maximum extent possible.

Estimated development capacity in existing centres

Centre	Estimated capacity
Windsor	150 additional dwellings
South Windsor	1,600 additional dwellings
Richmond	720 additional dwellings
Hobartville	1,320 additional dwellings
North Richmond	730 additional dwellings

Source: HillPDA

The estimated development capacity in centres and greenfield release areas is considered to be adequate for the short to medium term. However, additional housing opportunities will need to be identified for growth beyond 2031. A large number of factors influence the housing market and providing capacity does not guarantee that dwellings will be delivered. Monitoring of development and market trends will be necessary to better inform future decisions on how to ensure a long term supply of sites suitable for housing.

Development opportunities and constraints

Potential opportunities for future housing have been investigated. Initially, these investigations focussed on existing centres to maximise the benefits of good access to jobs, infrastructure (for example, public transport) and services. Small-scale opportunities for up-zonings and infill development have been identified. However, there are very limited opportunities within the centres due to the extensive constraints that apply. In particular, flooding and the limited capacity of flood evacuation routes discourage any significant increase in population in the 1,100 ARI. The severely restricts growth opportunities in the major centres of Windsor, Richmond and North Richmond. The ANEF zones of the RAAF Base Richmond also prohibits increased housing densities in key locations. Heritage and the community's desire to balance growth with the importance of maintaining character are also important considerations. Regardless, this strategy supports small scale infill development near centres, provided that character and safety are not compromised. Selected sites for rezoning in or adjacent to existing centres have been identified for detailed investigation and, if appropriate, rezoning in the forthcoming amendment to the Hawkesbury Local Environmental Plan 2012.

Options to expand the urban area of the LGA have been reviewed. Environmental constraints of flooding and bushfire limit options. The NSW State Government designated Metropolitan Rural Area (MRA) is also a significant constraint to urban expansion. While the principle of protecting important agricultural land in the LGA is strongly supported, the current mapping of the MRA takes in the entire LGA, except for the Vineyard Stage 1 release area. This strongly suggests that any rezoning for any rural zoned lands are not likely to be supported by the NSW Government, even though some area have been identified locally where rezoning would not jeopardising the productivity of the rural environment (for example McGraths Hill). At present, a place-based approach to determining locations for further urban development may be inconsistent with the objectives of the MRA established by the Greater Sydney Commission. This is considered further in the rural lands study that is currently in preparation.

Several opportunities have emerged for further investigation:

- Stage 2 Vineyard release area – planning for this area has not advanced due to uncertainty regarding the route of the proposed Outer Sydney Orbital, which hinders opportunities to confirm the details

of any stage 2 release area. Monitoring of the planning for the Orbital is required to determine the potential impact on the development potential of the release area.

- Redbank Investigation Area – the original planning proposal for the Redbank release area excluded a parcel of RU4 zoned land at 322 Grose Vale Road, which was previously identified as a longer-term opportunity area in the 2011 Hawkesbury Residential Land Strategy. The site has an approximate area of 34 hectares. It is suggested that environmental investigations be undertaken to determine the suitability of this land being rezoned to allow predominantly residential development. These investigations will need to consider any transport and/or traffic implications together with the appropriateness of the MRA in the context of this location and the very limited development opportunities elsewhere in the LGA.
- Wilberforce urban expansion options - A potential expansion of residential land to the east of the existing urban area, subject to servicing constraints. The additional housing capacity generated through the potential rezoning of rural areas to the north of Wilberforce to residential would create sufficient additional capacity to offset the expansion of the neighbourhood centre in the south, while also ensuring there is sufficient capacity within the neighbourhood centre to effectively meet the needs of an expanded population. This option is contingent upon resolution of the constraints imposed by the MRA and the outcome of site specific investigations.

Meeting housing needs through housing diversity

The assessment of development potential and constraints is focussed on providing adequate land supply for future needs, but this will only address part of the projected housing need. An increase in the supply of smaller dwellings suited to older people, lone person households and young couples is essential. Increased housing diversity will provide households with better housing options and increased choice. Due to the significant environmental constraints in the established urban areas, the greatest opportunity to provide increased housing diversity exists within the greenfield developments. Targeting a mix of dwelling types and sizes, with a particular emphasis on smaller dwellings near new centres or with access to public transport, would significantly improve housing options in the LGA. Opportunities to increase housing diversity in the established urban area should also be explored; however, these alone are unlikely to be of a scale that would meet the projected need.

The following strategic directions are proposed to guide the development of future housing:

- New growth should continue to be primarily focused within the state identified release areas and managed through the growth centres planning process
- Maximise the potential of existing urban areas which are well serviced by existing infrastructure (transport, health, education and other urban services) including shop top housing
- Increase the supply of smaller dwellings including dwellings that are suited to older persons in locations within walkable access to shops, health services and community facilities
- Continue to expand affordable housing through implementation mechanisms that encourage the provision of affordable housing
- Continue to address homelessness by working with community housing providers and increasing affordable housing options
- Accommodate continued incremental growth in rural villages, whilst maintaining the local character and respecting environmental constraints

- Establish a program to annually monitor development approvals and the supply of zoned and serviced land to inform future decisions on land release and servicing
- Continue to work with all levels of government, the community, local services and agencies to address homelessness implement the recommendations of the Hawkesbury Homelessness Action Plan.



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INTRODUCTION

1.0 INTRODUCTION

Hawkesbury City Council (Council) commissioned HillPDA to prepare a local housing strategy for the Hawkesbury Local Government Area (LGA). The local housing strategy is to comply with the NSW Government's *Guidelines for Local Housing Strategies* and has been developed concurrently with the Hawkesbury Local Strategic Planning Statement (LSPS). This report will also inform the forthcoming revised comprehensive Hawkesbury Local Environmental Plan (Hawkesbury LEP) for the Hawkesbury LGA.

Hawkesbury LGA is a unique place to live in the Greater Sydney Region. Its high-value natural environment UNESCO World Heritage sites and strong cultural heritage support communities and settlements that are diverse and rich in character. The LGA's productive agricultural lands and river systems provide a highly scenic setting for rural, urban and semi-rural lifestyles. The physical environment is highly constrained by natural hazards including flooding and bushfire prone land.

The population of the LGA is growing and a clear strategy is needed to guide and accommodate this growth. The strategy must balance the need for additional housing with:

- The significant physical environmental constraints such as heritage, flooding and bushfires prone land
- The importance of protecting the character of the LGAs local centres and rural villages
- The need to protect productive agricultural land for this purpose
- The need to support communities and promote healthy, liveable urban environments.

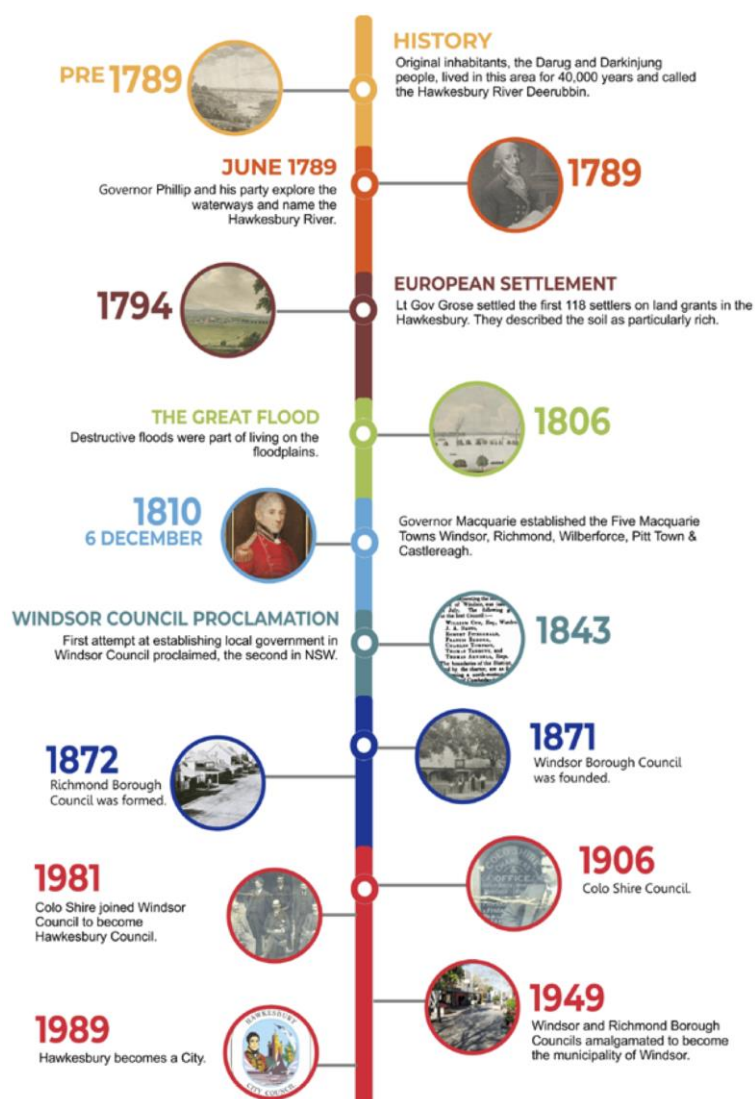
The Hawkesbury Local Housing Strategy outlines a proposed approach to the delivery of new housing in the LGA for the next 10 - 20 years.

1.1 Hawkesbury LGA snapshot

Hawkesbury LGA is located at the north-western fringe of Greater Sydney - about 50 kilometres from the Sydney CBD. Hawkesbury LGA is bounded by the Singleton LGA and Cessnock LGA to the north, the Central Coast LGA and The Hills LGA in the east, Blacktown LGA, Penrith LGA and Blue Mountains LGA in the south and Lithgow LGA in the west.

The LGA has been inhabited by the Darug and Darkinjung peoples for over 40,000 years. There were up to 3,000 Aboriginal people living in the Hawkesbury area in 1788. Hawkesbury is the third oldest European settlement in Australia. Europeans settled in the Hawkesbury LGA from 1794 in a bid to acquire arable land to feed the increasing population of the penal colony at Sydney.

Figure 1: Hawkesbury historical snapshot



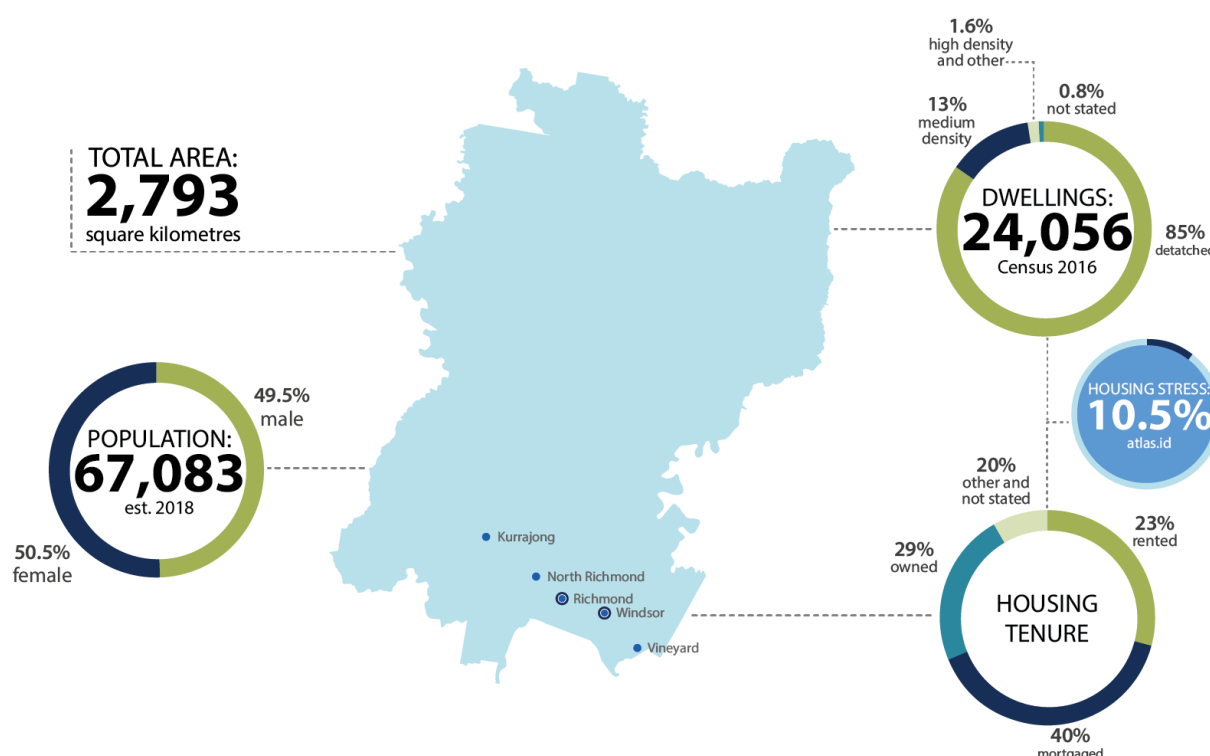
Source: Hawkesbury City Council

This rich past remains evident in today's urban settlements and the strong community pride in their heritage. Any plans for the future will need to value the LGA's past.

The Hawkesbury LGA has an area of approximately 2,800 square kilometres with a population of 67,083 people. The LGA has five Rivers including the Hawkesbury, Colo and MacDonald Rivers which provide an interesting landscape and productive rural base. The rivers support a rich biodiversity and provide scenic opportunities as well as a constraint arising from flooding. The LGA has also significant bushland, escarpment and floodplains.

Historically the LGA was settled along the banks of the Hawkesbury River and the floodplains provided agriculture for the early Sydney settlement. Today, most of the development within the LGA is based in the centres of Windsor and Richmond. The Richmond train line connects the centres in the south of the LGA. Major roads connect the LGA to the west via Bells Line of Road and north via Putty Road. Rural townships are located along these major roads

Figure 2: Hawkesbury LGA overview



Source: Australian Census of Population and Housing 2016

Through the Hawkesbury Community Strategic Plan 2017-2036 (CSP), Hawkesbury Council has adopted the following vision for the LGA:

We see the Hawkesbury LGA as a vibrant and collaborative community living in harmony with our history and environment, whilst valuing our diversity, striving for innovation, a strong economy and retaining our lifestyle and identity.

The Hawkesbury CSP includes directions and strategies directed at achieving this vision. In particular, the strategic plan commits Council to the following:

5.3.1 Growth and change in the Hawkesbury will be identified, planned for and valued by the community

5.3.2 The diverse housing needs of our community will be met through research, active partnerships and planned development.

The development of this Local Housing Strategy will contribute to the delivery of these commitments.

1.2 Housing vision

The Hawkesbury Local Strategic Planning Statement establishes a clear vision for Hawkesbury LGA to 2040. This strategy adopts to the following vision for housing:

Hawkesbury LGA will provide a diversity of housing to meet the future needs of the community without compromising safety, environmental quality and local character.

1.3 Study objectives and purpose

The Hawkesbury Local Housing Strategy is intended to set a clear plan to deliver the housing vision in the LGA over the next 20 years. The objectives of the strategy are:

- To identify housing needed to accommodate the future population to 2036
- To formulate a plan for housing delivery that is based in a considered analysis of a comprehensive evidence base on housing needs, infrastructure availability, physical constraints and present opportunities
- To align housing delivery with the NSW Government's strategic plans.

The housing strategy is to deliver on the Greater Sydney Commission's requirements set out in Objective 10 and Objective 11 of the Greater Sydney Region Plan which include:

- Creating capacity for more housing in the right locations
- Supporting planning and delivery of growth areas and planned precincts as relevant to each local government area
- Supporting investigation of opportunities for alignment with investment in regional and district infrastructure
- Supporting the role of centres.
- Supporting the delivery of a diversity of housing
- Ensuring that housing range and supply are better suited/matched to population over time

This Strategy sets out a local delivery response to the housing components of the NSW Government's *Western City District Plan* and *A Metropolis of Three Cities*.

This Strategy presents an evidence base of demographic factors, current and future housing supply and demand, development opportunities and constraints, among other factors. It considers the availability of infrastructure and services such as schools, health facilities, open spaces and public transport. The Strategy identifies locations suited to housing growth to support a growing population, ageing community and projected changes in household structure.

1.4 Approach

This housing strategy has been developed to comply with the NSW Government's Local Housing Strategy Guideline dated 2018.

Figure 3: Simplified approach to developing the Housing Strategy



The guideline requires consideration of demographic factors, local housing supply and demand, and local land use opportunities and constraints. A template for a housing strategy is provided in the Guidelines. This report includes all required information however the structure has been altered slightly. For example, information on constraints have been compiled into a separate chapter due to the extensive number of constraints that are relevant to housing outcomes in the LGA. The location of the required information is indicated in Table 1.

Table 2: Compliance with Guideline

Guideline reference	Required information	Location in this document
	Executive summary	Executive summary
1.1	Planning and Policy context (Provided in a separate section due to the length of content)	Section 2
1.2	LGA snapshot	Section 1.1
1.4	Housing Vision	Section 1.2
2.1	Demographic overview	Section 3.1
2.2	Housing demand	Section 3.2
2.3	Housing supply	Section 3.3
2.4	Land use opportunities and constraints	Section 4
2.5	Housing supply gaps	Section 3.6
2.5	Identifying areas with development capacity	Section 5

Guideline reference	Required information	Location in this document
3.1	Housing strategy objectives	Section 7.2
3.2	Land Use planning approach	Section 6
3.3	Mechanisms to deliver the options	Section 6.3
3.4	Evaluation of the options	Section 6.4
4.1	Implementation and delivery plan	Section 7.3
4.2	Planning proposal	N/A
4.3	Monitoring and review	Section 7.3.6

1.5 Structure of this document

This report is structured as follows:

- Section 1 | Introduction
- Section 2 | Policy Context
- Section 3 | Analysis of housing needs
- Section 4 | Constraints to future housing development
- Section 5 | Capacity within existing land supply
- Section 6 | Planning considerations
- Section 7 | Strategic directions.



PLANNING POLICY AND CONTEXT

2.0 PLANNING POLICY AND CONTEXT

The current planning and policy context establishes the parameters within which, the Hawkesbury Local Housing Strategy must operate. This includes:

- State and local government legislation
- NSW Government District plans and guidelines
- The statutory planning framework
- Policies relating planning, housing, infrastructure and the physical environment.

An overview of the relevant policy context that currently applies or influences housing delivery in Hawkesbury LGA is presented below.

2.1 NSW Government policies

2.1.1 Greater Sydney Region Plan

A *Metropolis of Three Cities - Greater Sydney Region Plan* sets out the Greater Sydney Commission's strategy to guide development in Greater Sydney to 2036.

The Greater Sydney Plan establishes a vision for a city where most residents live within 30 minutes of their jobs, education and health facilities, services and great places. The plan contains 10 strategic directions which establish the aspirations for the region over the next 40 years. Each direction is translated into objectives, with Objectives 10 and 11 being particularly relevant to housing supply, diversity and affordability for Hawkesbury LGA (Table 3).

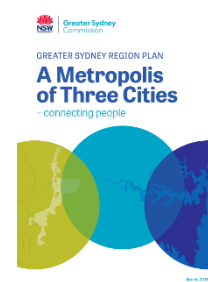


Table 3: Relevant directions from the Greater Sydney Region Plan

Direction: Housing the city	Implications for Hawkesbury LGA
Objective 10: Greater housing supply	<ul style="list-style-type: none"> ● A range of housing types, tenures and price points will be needed to meet demand across the Sydney Region ● A range of housing types is needed to cater for different stages of life and a diversity of household types ● Local planning needs to deliver new homes in the right locations with access to local infrastructure ● Planning and designing for better places means respecting and enhancing local character ● Councils are to work with the Greater Sydney Commission and State agencies to establish agreed 6–10-year housing targets for their local government area ● Councils are to identify specific attributes that make local areas suitable for housing supply beyond 10 years ● Housing strategies are to be prepared by councils for a local government area or district and be given effect through amendments to local environmental plans.
Objective 11: Housing is more diverse and affordable	<ul style="list-style-type: none"> ● There is a strong need for a more diverse housing supply ● Providing increased housing choice, including affordable rental housing, will reduce the need for people to go into

Direction: Housing the city	Implications for Hawkesbury LGA
	<p>social housing and supports a pathway for people to move out of social housing</p> <ul style="list-style-type: none"> • Delivering a diversity of housing types, sizes and price points can help improve affordability • Increasing the supply of housing that is of universal design and adaptable to people's changing needs as they age is also increasingly important across Greater Sydney • Social housing is a form of affordable housing that caters to households experiencing the highest housing stress and social disadvantage • Social housing delivery needs to be accelerated to cope with the growing waiting list • More affordable rental dwellings are needed as a stepping stone for people in social housing who are capable of entering the private rental market, thereby freeing up housing for those most in need • Rental accommodation needs to be delivered close to public transport and centres, and offer the opportunity to include Affordable Rental Housing Schemes if viable • Potential future innovative models should be explored to achieve more affordable homes through having smaller homes, shared facilities and having apartments and car spaces sold separately.

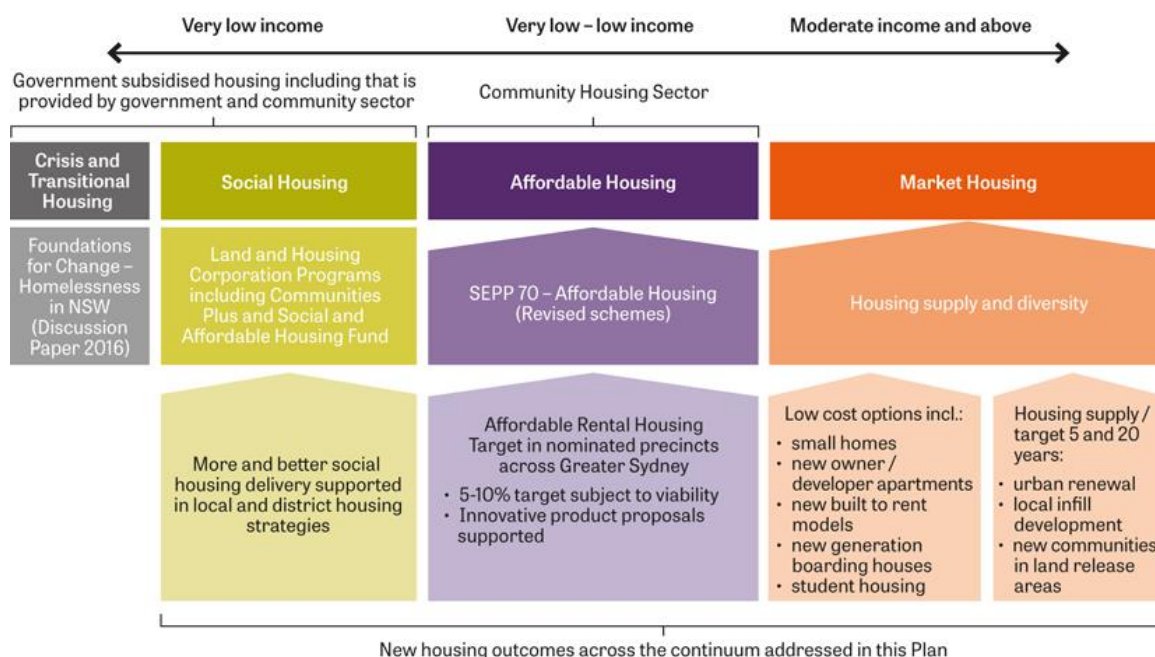
Source: Greater Sydney Region Plan (March 2018)

The Greater Sydney Region Plan outlines proposals for the delivery of the Western Sydney Airport and Badgerys Creek Aerotropolis which are expected to increase job creation and productive land uses with the Western Sydney Airport as the economic catalyst. The Aerotropolis will be driven by the Western Sydney City Deal of which Hawkesbury City Council is a partner. The City Deal will require collaboration across all tiers of government with the Australian and NSW governments working with local governments including Hawkesbury.

Housing targets have been established to support the delivery of housing supply for the short, medium and longer terms throughout the Greater Sydney Region. The Greater Sydney Commission has indicated that a range of housing types, tenures and price points are needed to improve affordability. The Western City District, which includes Hawkesbury LGA, sets a five-year housing target of 39,850 new dwellings in the district and a twenty-year target of 184,500 new dwellings.

The Greater Sydney Region Plan indicates that housing diversity means providing housing for a range of income groups at various points on the housing continuum as depicted below.

Figure 4: Housing continuum initiative and programs



Source: Greater Sydney Commission, Greater Sydney Region Plan (Figure 19), p. 69

The Greater Sydney Region Plan recommends the application of an Affordable Rental Housing Target, 'generally in the range of 5-10 per cent of new residential floor space' in defined precincts before rezoning as a mechanism to provide additional affordable housing supply in Greater Sydney. The Plan indicates:

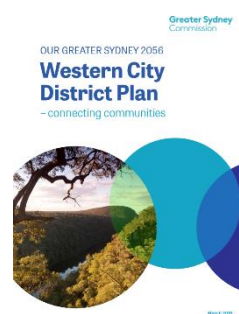
- Councils are to prepare Affordable Rental Housing Target Schemes (Strategy 11.1)
- State agencies are to employ a range of initiatives to target housing diversity and/or affordable rental housing when disposing of or developing surplus government land
- Councils are to implement Affordable Rental Housing Targets which will involve a range of measures including viability testing of affordable housing contributions.

2.1.2 Western City District Plan

Hawkesbury LGA is within the Greater Sydney Commission's Western City District Plan. The Western City District Plan is a 20-year plan to manage growth in the context of economic, social and environmental matters to achieve the 40-year vision for Greater Sydney. It contains the planning priorities and actions for implementing the *Greater Sydney Region Plan, A Metropolis of Three Cities* at a district level.

The Western City District Plan requires Councils to make provision for the anticipated growth associated with the 0–5 and 6–10 year housing targets. Housing delivery is to align with projected growth with existing and proposed local infrastructure and open space improvements.

The Western City District Plan sets a housing target of 39,850 additional dwellings in the District by 2021 of which 1,150 are to be in Hawkesbury LGA. This Local Housing Strategy will need to guide where and how these additional dwellings are going to be delivered.



The District Plan reveals that:

- Existing housing stock in the District continues to be dominated by detached dwellings
- Multi-unit dwellings provide transitional housing for seniors, homes for single people and more affordable homes for young people and young families
- Understanding need and capacity in individual housing markets will better satisfy residents' preferred housing locations
- Additional capacity for housing supply is well progressed across much of the District. This includes the State-led projects in Growth Areas and Planned Precincts including Vineyard Precinct in the North-West Growth Centre which is located within Hawkesbury LGA
- The NSW Government is progressing investigations into the Hawkesbury-Nepean Valley floodplain, to identify the extent of the constraints and considerations for extreme event floods. This will include consideration of the resilience of the new development to flooding and recovery, as well as the ability to evacuate the areas.

The District Plan indicates that the Hawkesbury Local Housing Strategy should address the following:

- The delivery of five-year housing supply targets for each local government area
- The delivery of 6–10 year (when agreed) housing supply targets for each local government area
- Capacity to contribute to the longer-term 20-year strategic housing target for the District
- Creating capacity for more housing in the right locations
- Supporting planning and delivery of growth areas and planned precincts as relevant to each local government area
- Supporting investigation of opportunities for alignment with investment in regional and district infrastructure
- Supporting the role of centres.

It should be noted that the place-based approach to urban development in the plan is inconsistent with the aims and current approach to implementation of the MRA.

The district plan identifies the need for further work by the Greater Sydney Commission to support the implementation of the Affordable Rental Housing Targets including consideration of allocation, ownership, management and delivery models. The plan commits the NSW Department of Planning and Industry and the Greater Sydney Commission to jointly investigate ways to facilitate housing diversity through innovative purchase and rental models.

2.1.3 Western Sydney City Deal 2018

The Western Sydney City Deal was signed between the NSW and Australian Governments in March 2018. It outlined a tri-level partnership between Federal, State and Local Governments (including Hawkesbury City Council) to deliver an agreed set of commitments across the Greater Western Sydney region. The agreement has been articulated to support the objectives of the Western Sydney District Plan and the Greater Sydney Region Plan, most notably the vision of people of Greater Sydney living within 30 minutes of their jobs, education and health facilities, services and great places. The plan integrates with initiatives specified under the Greater Sydney Plan and Western City District Plan.

2.1.4 Future Transport 2056

Future Transport 2056 is a 40 year strategy for Greater Sydney and NSW, supported by plans for regional NSW and for Greater Sydney.

In Greater Sydney, the plan builds upon the vision articulated in the Greater Sydney Region Plan of a metropolis of three cities, with each accessible within 30-minutes of its surrounding metropolitan area. Within the plan, Richmond-Windsor is identified as a strategic centre.

The plan identifies the following initiatives affecting the LGA:

- Initiatives for investigation (0-10 years)
 - Improved services on the Richmond Line
 - Bells Line of Road improvements
- Visionary initiatives (20+ years)
 - Outer Sydney Orbital from Great Western Highway to Central Coast

2.1.5 Hawkesbury-Nepean Valley Flood Management Review Stage One

The NSW Office for Water commenced the Hawkesbury-Nepean Valley Flood Management Review (the Review) in early 2013, in response to the Government's adoption of the *State Infrastructure Strategy 2012-2032* and ongoing community concerns about flood risk. The report seeks to develop a package of options to ensure the Hawkesbury-Nepean Valley is strategically managed, so the community is more resilient to flood risk.

Key points from the report are:

- Richmond, North Richmond, Windsor, McGraths Hill, Bligh Park, Pitt Town and Wilberforce are at risk of flooding
- A 1 in 100 year flood has a one per cent chance of occurring each year. Previous flood events do not make this flood more or less likely to occur
- The Probable Maximum Flood (PMF) defines the extent of the floodplain and the potential area to be evacuated. Management of risks from flooding, including danger to personal safety, needs to consider all floods up to the PMF although such an event is extremely rare
- Flows coming into the Hawkesbury-Nepean River and its tributaries are much higher than the flows that can flow out, creating a 'bathtub effect' with floodwaters spilling out of the main river and flooding the Valley
- Management of the flood risk in the Hawkesbury-Nepean Valley would benefit from a State-led strategic approach to land use planning.

Flooding constraints are considered further in section 4.

2.1.6 Resilient Valley, Resilient Communities Hawkesbury-Nepean Valley Flood Risk Management Strategy January 2017

In May 2017, the NSW Government released *Resilient Valley, Resilient Communities – Hawkesbury-Nepean Valley Flood Risk Management Strategy* to reduce and manage this significant risk. This strategy was responding to Government recognition that floods in the Hawkesbury-Nepean Valley pose a significant risk to people's lives, livelihoods and homes because of the valley's unique landscape and the size of its population.

Infrastructure NSW is overseeing and coordinating the delivery of the range of important Flood Strategy measures. These include:

Department of
Primary Industries
Office of Water

Hawkesbury-Nepean Valley Flood
Management Review
Stage One
Review Report

March 2014



www.dpi.nsw.gov.au

**Resilient Valley,
Resilient Communities**

Hawkesbury-Nepean Valley
Flood Risk Management Strategy
January 2017

we are **in** NSW
together

- Community awareness and education
- Warragamba Dam Raising proposal – EIS and detailed concept design
- Improved weather predictions and flood forecasting
- New flood evacuation road signage
- Regional land use and road planning framework
- Detailed planning for local road upgrades
- Better flood maps and information for the community
- Flood emergency response and recovery exercises
- Coordinated flood risk management.⁴

A key component of the Flood Strategy is a proposal to raise Warragamba Dam by around 14 metres to temporarily hold back floodwaters. This was considered the most effective infrastructure option to reduce flood risk in the valley because it would significantly reduce the risk to people's lives downstream, provide more time for evacuation and reduce flood damages by around 75 per cent on average, while balancing the impacts on the upstream environment.

Detailed planning, environmental assessments and community consultation for this proposal are underway. WaterNSW, as the dam owner and operator, is preparing a comprehensive Environmental Impact Statement (EIS) and detailed design for the proposal.

The Hawkesbury Nepean Flood Strategy includes a range of targeted actions designed to deliver the following relevant outcomes:

- Strategic and integrated land use and road planning including preparation of a Regional Evacuation Road Master Plan and a Regional Land Use Planning Framework to better manage flood risk in the Valley
- Improvements to the *Guideline for Residential Development on Low Flood Risk Land* to adopt a risk-based approach to planning (in preference to the 1 in 100-year flood) that considers the full range of flood sizes and includes provision for local councils to apply to the NSW Government for 'exceptional circumstances' to apply controls above the 1 in 100 chance per year flood level.

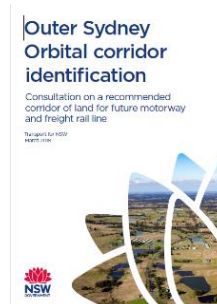
The strategy acknowledges that population growth needs to be carefully managed, both in terms of absolute numbers of people and the distribution of the population within the Valley and road planning will need to account for the cumulative impact of growth on road evacuation capacity.

2.1.7 Outer Sydney Orbital

The Outer Sydney Orbital is a proposed combined motorway and freight rail corridor which would provide a future north-south transport link connecting the North West and South West Growth Areas, via the future Western Sydney Airport and Aerotropolis. This link is intended to support the growth of Western Sydney and the distribution of freight across Sydney and regional NSW.

Transport for NSW reports that the Outer Sydney Orbital would:

- Support growing communities, businesses and the creation of new jobs in Western Sydney

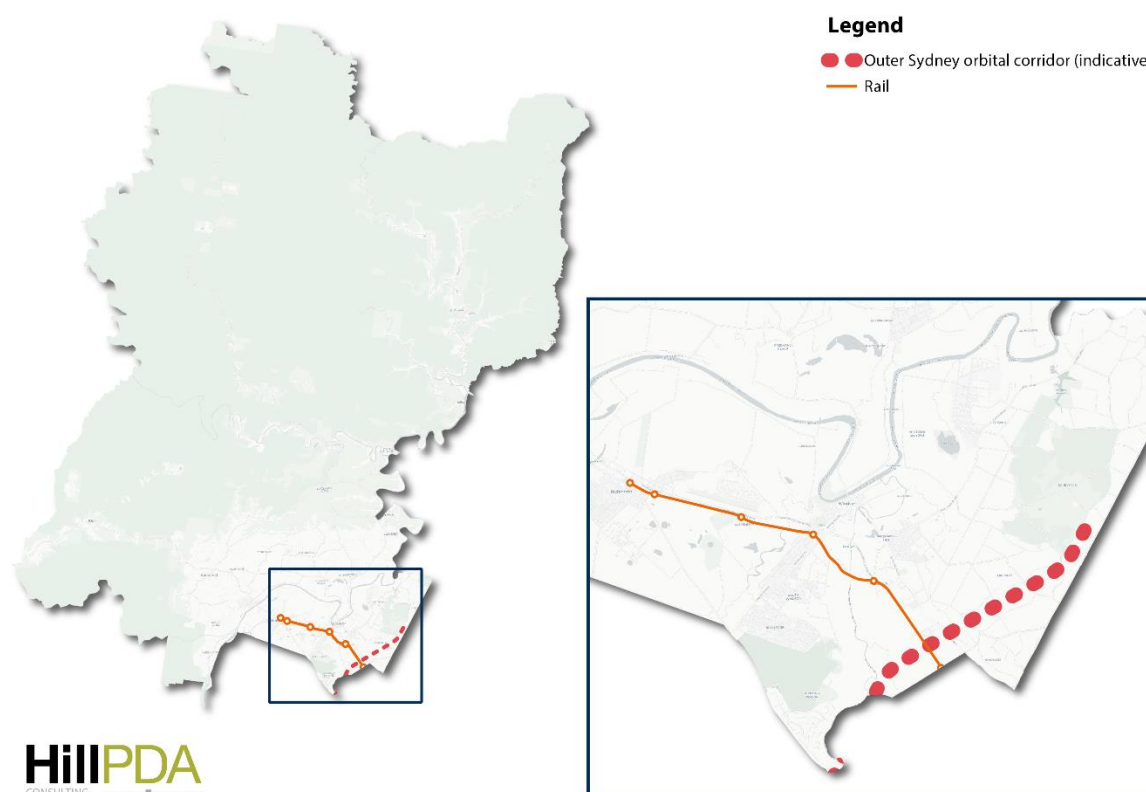


⁴ www.infrastructure.nsw.gov.au/expert-advice/hawkesbury-nepean-flood-risk-management-strategy

- Allow for freight to move efficiently and safely by rail.⁵

At the preparation of this strategy, the corridor has not been finalised north of Richmond Road.

Figure 5: Outer Sydney Orbital proposed route



Source: Outer Sydney Orbital corridor identification Consultation on a recommended corridor March 2018

2.2 Hawkesbury City Council policies

Hawkesbury City Council are currently developing a comprehensive framework of policies, including strategic land use studies, strategies for rural lands and employment lands that have informed this strategy. Some key policies relevant to housing delivery are summarised below.

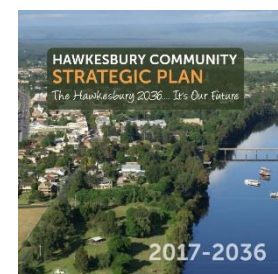
2.2.1 Hawkesbury Community Strategic Plan

Hawkesbury LGA's community strategic plan was prepared in 2017 based on extensive community input. The plan aims to guide social, cultural and financial investment to revitalise, re-energise the LGA's path into the future.

Key demographic learnings from the Strategy include Hawkesbury LGA's population growth is slowing with an ageing population and declining couple families with children. This has implications for housing delivery within the LGA.

The considerations for Hawkesbury LGA's future include commitments to:

- Provide affordable housing to meet the needs imposed by local demography
- Meet diverse housing needs of the community through research, active partnerships and planned development



⁵ <https://www.transport.nsw.gov.au/corridors/oso>

Plan for a balance of agriculture, natural environment and housing that delivers viable rural production and maintains rural character. The community strategic plan nominates indicators of success as follows, for housing:

- The community will be satisfied with the range of housing options available
- The community can get to homes, shops and places of work safely and easily
- Development will be in existing towns, increasing density to preserve agriculture, improve affordability and dwelling mix.

2.2.2 Hawkesbury Residential Lands Strategy 2011

The Hawkesbury Residential Land Strategy adopted by Council in 2011 sought to deliver 5,000 to 6,000 additional dwellings by 2031, primarily within the existing urban areas. The Strategy built on the assumptions and direction set by the Draft North West Regional Strategy. Areas of identified opportunity were around the existing centres of Richmond and Windsor (Richmond, Windsor, North Richmond, Wilberforce, Glossodia and Richmond-Windsor corridor investigation areas).



The Strategy adopted dwelling targets of 5,400 dwellings to be infill, or the greenfield expansion of existing urban and village areas and 600 dwellings located in the remaining localities.

The Strategy identified the following actions to address decreasing housing affordability combined with an ageing population and declining household size.

- Baseline servicing and delivering of infrastructure is needed to be delivered to facilitate projected additional dwellings. Provision of adequate sewerage was a main issue
- Ongoing significant constraints to development with flooding, bushfire risk, aircraft noise, productive agricultural lands and valued rural character
- Limited access to public transport and a strong reliance on private vehicles.

The Strategy identified five investigation areas for future housing. Two of these, North Richmond and Glossodia, have progressed to development in some form. The remaining investigation areas have been considered as part of this study. Appendix A provides a summary of the status of each of the investigation areas and the outcome of considerations in this strategy.

2.2.3 Hawkesbury Affordable Housing Policy

The Hawkesbury Affordable Housing Policy was adopted by Council in 2015 in response to the steady decline in the supply of housing that is affordable to families and individuals on low to medium incomes for purchase or in the private or social rental housing sectors. The number of NSW owned social housing properties (for low income and disadvantaged tenants) in the LGA also declined significantly and at a faster rate than social housing in Greater Western Sydney.

Council compiled evidence that the gap between household income and the cost of housing was widening with Hawkesbury households in the lowest and medium lowest income quartiles seeing the greatest negative growth. The continuing decline of affordable housing has been negatively impacting on the liveability for purchasers and renters in the low to middle-income brackets, leading to greater housing stress and homelessness for an increasing number of families and individuals.

The draft policy proposes that Council commit to:

- Monitoring demographic trends, housing demand-supply and affordability
- Developing appropriate strategies aimed at increasing affordable housing supply
- Advocating for increased affordable housing in suitable locations
- Working in partnership with key stakeholders and agencies to increase affordable housing options
- Reviewing Council policies, plans and fees and charges to increase opportunities for affordable housing
- Supporting government initiatives that increase the supply and understanding of the need for affordable housing
- Supporting research initiatives that explore affordable housing options and increase the understanding of the need for affordable housing

2.2.4 Hawkesbury Homelessness Action Plan (2014)

This plan was compiled by the Hawkesbury Housing Forum Working Group to identify actions for Council, other levels of government, the broader community, local services and agencies to support homeless people and reduce the occurrence of homeless in the LGA.

The plan was been developed to action all the recommendations and for the consideration of key agencies, local members and Council.

The plan's recommendations are:

- Planning and coordination
 - Develop a Homelessness Action Plan (HAP) for the Hawkesbury LGA
 - Establish a partnership framework (Homelessness Working Group) to coordinate the implementation of the agreed actions
- Policy and advocacy
 - Hawkesbury City Council to act as an advocate for homelessness
 - Make representations to John Morony and Dillwynia Correctional Facilities and Local/Nepean Health Boards to insure that people are not released into homelessness
 - Local health services have more flexible practices with homeless people (e.g. "3 strikes and out" practice with missed appointments)
 - Hawkesbury City Council to support the needs of the homeless by working with other levels of government in advocating for the necessary infrastructure
 - Review Council's Homelessness Policy and include training for council staff in how to respond to homeless people sleeping rough
 - Advocate for caravan parks to keep rent affordable
 - Advocate for increased funding (e.g. availability of crisis accommodation) or other identified funding needs for homeless people
- Partnership and resource sharing
 - Establish (local) partnerships for the funding of key priorities (e.g. funding for a Street/Outreach Worker)
 - Establish partnerships between local agencies to respond to the specific cultural needs of indigenous people

- Affordable housing and housing options
 - Council develop an Affordable Housing Policy, including an assessment of housing type and tenure requirements; use of developer contributions; and, other possible mechanism or sources of funding for affordable housing
- Transport
 - Council and Peppercorn Services Inc. to consider a transport solution to assist homeless people to access services
- Information
 - Council investigate the most appropriate mechanism for co-ordinating information with respect to homelessness services; and encourage the use of this mechanism by agencies
 - Investigate possibility of holding an Annual Homelessness Expo (like Blacktown does)
 - Council investigate the most appropriate mechanism for co-ordinating information to homeless people about what's available, where to go and how to get there
- Funding for new homelessness services and facilities
 - Investigate funding for a Street/Outreach Worker
 - Investigate the funding of a food van to/for the Hawkesbury
 - Council to investigate buildings (including private and vacant buildings) for a drop-in homelessness centre in a safe location, that is:
 - a) Large enough for more showers, dryers, and open more often
 - b) Provide more services, medical, pet care
 - c) Storage lockers
 - Investigate options for providing homeless people with access to community gardens (e.g. Peppercorn Services gardens at McGraths Hill; Norwest Disability - Secret Garden site in Richmond).

2.3 Statutory Planning framework

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

State Environmental Planning Policy (Housing for Seniors or People with a Disability) (Seniors Living SEPP) was introduced in 2004 to encourage the provision of housing that will meet the needs of senior people or people with a disability.

The Seniors Living SEPP applies to urban zoned land where a dwelling house, residential flat building, hospital or special uses (churches, convents, clubs etc) is permitted. Eligible sites must be at least 1,000 sqm with a frontage of 20 metres. Where residential flat buildings are not permitted, the maximum height of the development must be 8 m (i.e. two storeys). Otherwise, the standard height control applies.

Where seniors living residential development is proposed on a lot adjacent to urban purposes, special uses or a registered club then a development must be accompanied by a site compatibility certificate. Within the urban centres of Hawkesbury, many lots meet the requirements of the SEPP (including not requiring a site compatibility certificate), with potential for further lots being eligible with a certificate, however, some lots may need to be amalgamated to meet the minimum lot size. General principles for seniors living are that the site should have level access, manage environmental hazards and be located close to shops.

2.3.2 State Environmental Planning Policy (Affordable Rental Housing) 2009

The State Environmental Planning Policy (Affordable Rental Housing) (ARH SEPP) was introduced in 2009 to increase the supply and diversity of affordable rental and social housing throughout NSW. The ARH SEPP seeks to promote infill affordable rental housing in existing residential areas that are accessible by public transport. In the Hawkesbury LGA, there are several local centres with a B2 zoning with land zoned R2 or R3 zones within 400 metres, triggering the applicability of the ARH SEPP.

Under the SEPP, affordable rental housing is defined as housing for very low, low and moderate-income earning households as follows:

6 Affordable housing

(1) In this Policy, a household is taken to be a very low-income household, low-income household or moderate-income household if the household:

(a) has a gross income that is less than 120 per cent of the median household income for the time being for the Greater Sydney (Greater Capital City Statistical Area) (according to the Australian Bureau of Statistics) and pays no more than 30 per cent of that gross income in rent, or

(b) is eligible to occupy rental accommodation under the National Rental Affordability Scheme and pays no more rent than that which would be charged if the household were to occupy rental accommodation under that scheme.

(2) In this Policy, residential development is taken to be for the purposes of affordable housing if the development is on land owned by the Land and Housing Corporation.

The policy allows additional floor space to a private proponent to develop dual occupancies, multi dwelling housing or residential flat buildings where a component is built to be affordable housing for 10 years, managed by a community housing provider.

Requirements include:

- The use must be permitted with consent
- The site must not be a heritage item
- The site is within 400 metres walking distance of land within Zone B2 Local Centre or Zone B4 Mixed Use zones, or within a land use zone that is equivalent to any of those zones
- The development contains a proportion of affordable dwellings.

2.3.3 State Environmental Planning Policy No. 65 and Apartment Design Guide

SEPP 65 planning provisions for designing development of residential flat and mixed use buildings are contained in the Apartment Design Guide (ADG).

SEPP 65 aims to deliver a better living environment for residents who choose to live in residential apartments, while also enhancing streetscapes and neighbourhoods. It is intended that this be delivered through improved design quality that ensures sustainability, accessibility, amenity, safety, affordability and efficiency. The benchmarks that underpin these objectives are identified in the ADG, which are then applied by design review panels, which are constituted to provide independent advice regarding development applications under the SEPP. SEPP 65 specifies the constitution and function of the design review panels.

The ADG specifies several design requirements for apartments and apartment buildings which influences the number of and type of dwellings that can be delivered. This includes minimum apartment sizes,

apartment mix, balconies and other amenity considerations. For Hawkesbury LGA, SEPP 65 applies to shop top housing, which is permitted in the B1 Neighbourhood Centre and B2 Local Centre zones.

2.3.4 State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

The Low Rise Medium Density Housing Code State Environmental Planning Policy (Exempt and Complying Development Codes 2008 (Codes SEPP) allows for certain types of development to be assessed by a private certifier, rather than the development application process. This largely applies to detached or abutting dwellings that meet specific design criteria, such as setbacks, floor space and height.

A recent addition to the Code SEPP, Part 3B: Low Rise Medium Density Housing Code, will expand the complying development planning pathway to medium density housing types. Development proposals must meet requirements of the Codes SEPP and the design criteria contained in the supporting Low Rise Medium Density Design Guide to be complying development.

The code is currently set to take effect in the Hawkesbury LGA in July 2020. The delay in implementing the Low Rise Medium Density Housing Code was issued to give councils time to establish where it would most appropriately apply.

When in effect, the Low Rise Medium Density Housing Code will allow one and two-storey dual occupancies, multi dwelling housing (terraces), manor houses and terraces as complying development in the HLEP 2012 R1 General Residential, R2, and R3 Medium Density Residential zones, and RU5 zones where similar uses are currently permitted with development consent. Dual occupancies will be eligible for complying development in the RU5 Village zone.

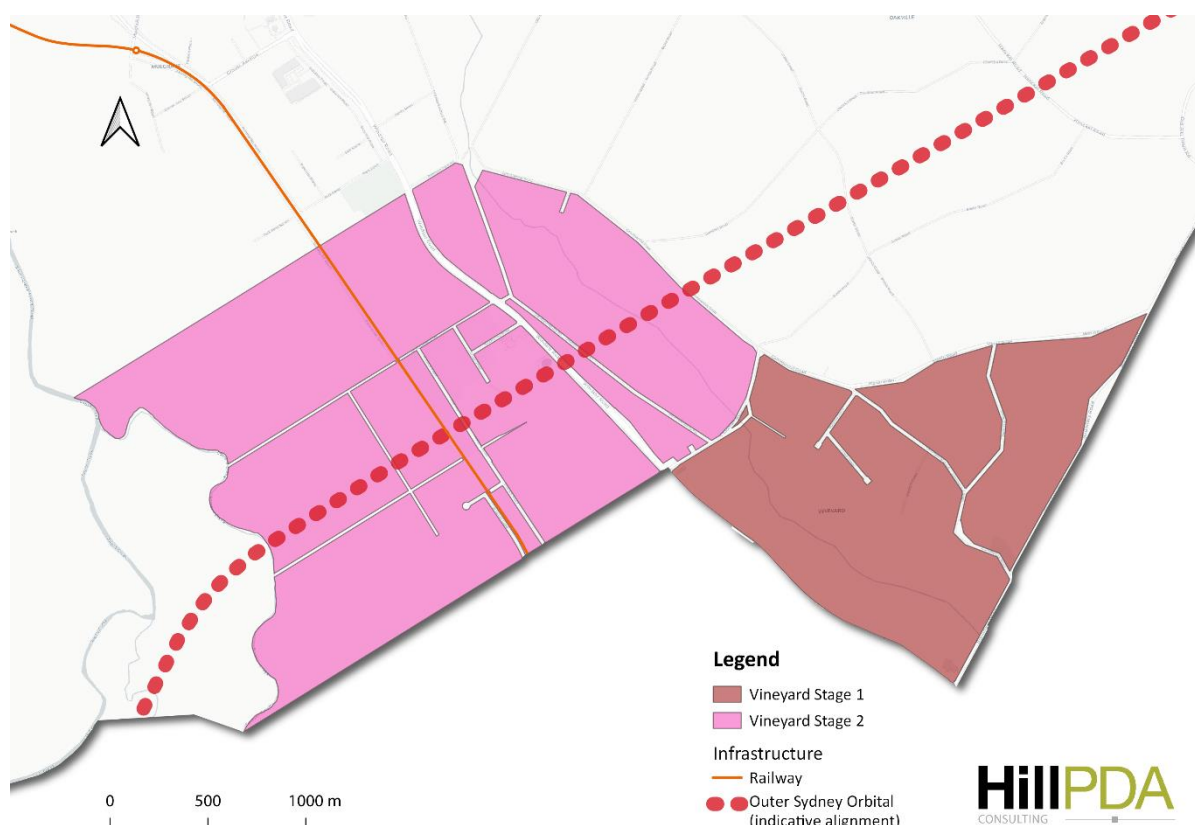
2.3.5 North West Growth Centre Structure Plan 2006 and State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (the Growth Centres SEPP)

The Growth Centres SEPP seeks to coordinate the release of land for residential, employment and other urban development in the North West Growth Centre. The Hawkesbury Growth Centres Precinct Plan, which incorporates the Vineyard Precinct, is included in this SEPP and sets the zoning and development standards for the release area. Stage 1 of the Vineyard precinct will include a proposed primary school, around 27 hectares of open space focused on Killarney Chain of Ponds and adjacent land for new playing fields, parks, and cycleways, a village centre and up to 2,500 new homes. Key infrastructure includes local roads, drainage and open space, which will be delivered to support the growing community.

The zoning applied to Vineyard Stage 1 is R2, R3, E4, B2 and B4. The precinct radiates out from a B4 and B2 core with densities stepping down towards the adjoining rural lands and Killarney Chain of Ponds with an E2 Environmental Conservation zone. Heights are also varied across the Vineyard Precinct with a maximum of 14 metres for the B2/B4 sites dropping down to 12 metres and 9 metres moving away from the town centre. Floor space ratio is not in use within the Precinct, except for the town centre where an FSR of 0.4:1 is applied. The land was rezoned by the NSW Government in 2017, without a Contribution Plan or Development Control Plan in place.

Vineyard Stage 2 is not yet in the detailed planning phase and may be impacted by the delivery of the Outer Sydney Orbital (see section 2.1.5). Stakeholders have commented that the outer Sydney orbital could impose a significant barrier to urban development and may act as an outer boundary for greenfield development within Hawkesbury LGA.

Figure 6: Vineyard release area



Source: HillPDA, base map ESRI

The planning work and the proposed rezoning of Stage 2 has been postponed until the preferred route of the proposed Western Sydney Orbital is determined.

2.3.6 S9.1 Local Planning Direction 1.5 – Rural Lands

Section 9.1 Ministerial Direction S.9.1 *Local Planning Direction 1.5 Rural Lands* was introduced on 28 February 2019. The direction applies to Hawkesbury LGA. This directive specifies that when considering planning considerations for a proposal relating to land within a rural or environment protection zone, planning proposals are to:

- For alterations of any existing rural or environment protection zone boundary:
 - Be consistent with any applicable strategic plan, including regional and district plans and any applicable local strategic planning statement
 - Consider the significance of agriculture and primary production to the State and rural communities
 - Identify and protect environmental values, including but not limited to, maintaining biodiversity, the protection of native vegetation, cultural heritage, and the importance of water resources
 - Consider the natural and physical constraints of the land, including but not limited to, topography, size, location, water availability and ground and soil conditions

- Promote opportunities for investment in productive, diversified, innovative and sustainable rural economic activities
- Support farmers in exercising their right to farm
- Prioritise efforts and consider measures to minimise the fragmentation of rural land and reduce the risk of land use conflict, particularly between residential land uses and other rural land uses
- Consider State significant agricultural land identified in State Environmental Planning Policy (Primary Production and Rural Development) 2019 to ensure the ongoing viability of this land.
- For changes the existing minimum lot size:
 - Consider the social, economic and environmental interests of the community
 - Be consistent with the priority of minimising rural land fragmentation and land use conflict, particularly between residential and other rural land uses
 - Ensure the amendment will not adversely affect the operation and viability of existing and future rural land uses and related enterprises, including supporting infrastructure and facilities that are essential to rural industries or supply chains where it is for rural residential purposes:
 - is appropriately located taking account of the availability of human services, utility infrastructure, transport and proximity to existing centres
 - is necessary taking account of existing and future demand and supply of rural residential land.

2.3.7 Hawkesbury Local Environmental Plan 2012

Hawkesbury LEP 2012 is the planning instrument that applies to the Hawkesbury LGA, apart from the Vineyard Precinct which is covered by the Growth Centres SEPP. The principal land use controls that relate to the built form of housing in Hawkesbury include:

- Land use zoning: Which housing types are permissible and where
- Built form and density related controls including:
 - Minimum lot size: How small a lot can be
 - Height: How tall a building can be.

Floor space ratio controls, which control the size of buildings relative to the lot they are on, are not enabled by the LEP. Other relevant controls relating to environmental constraints are discussed in Section 4.

Council has indicated that with the introduction of the Standard Instrument, there were certain limitations in the translation of the previous Hawkesbury LEP 1989 into the standardised template. Consequently, some provisions in the 2012 LEP did not always accurately reflect previous provisions.

2.3.8 Land use zones

The Hawkesbury LEP's land use table identifies the zones that are applied throughout the LGA and the permissible uses within those zones. Of the 24 zones identified in the LEP, 12 permit at least one type of housing. The application of land use zones is mapped on the Land Zoning Map, allowing for fine-grain application. The table below identifies the zones where housing is permissible, the objectives of the zone, and the setting where the zone is typically found.

Table 4: Housing types permitted in relevant land use zones

Zone	Objectives	Setting	Permissible dwelling types
B1 Neighbourhood centre	<ul style="list-style-type: none"> To provide a range of small-scale retail, business and community uses that serve the needs of people who live or work in the surrounding neighbourhood To promote the development and expansion of business activities to meet the optimum employment and social needs of Hawkesbury. 	Distributed neighbourhood centres across the LGA (South Windsor, North Richmond, Bligh Park, Kurrajong, Kurmond, Glossodia, McGraths Hill, Pitt Town)	<ul style="list-style-type: none"> attached dwellings boarding houses dual occupancies dwelling houses group homes hostels multi dwelling housing residential flat buildings rural workers' dwellings secondary dwellings semi-detached dwellings seniors housing shop top housing.
B2 Local centre	<ul style="list-style-type: none"> To provide a range of retail, business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area To encourage employment opportunities in accessible locations To maximise public transport patronage and encourage walking and cycling To promote the development and expansion of business activities to meet the optimum employment and social needs of Hawkesbury. 	Primary centres south of the Hawkesbury River (i.e. Windsor and Richmond)	<ul style="list-style-type: none"> attached dwellings boarding houses dual occupancies dwelling houses group homes hostels multi dwelling housing residential flat buildings rural workers' dwellings secondary dwellings semi-detached dwellings seniors housing shop top housing.

Zone	Objectives	Setting	Permissible dwelling types
R1 General Residential	<ul style="list-style-type: none"> To provide for the housing needs of the community To provide for a variety of housing types and densities To enable other land uses that provide facilities or services to meet the day to day needs of residents. 	Located on the periphery of local centres, typically between R2 Low Density Residential and R3 Medium Density Residential areas.	<ul style="list-style-type: none"> attached dwellings boarding houses dual occupancies dwelling houses group homes hostels multi dwelling housing residential flat buildings rural workers' dwellings secondary dwellings semi-detached dwellings seniors housing shop top housing.
R2 Low Density Residential	<ul style="list-style-type: none"> To provide for the housing needs of the community within a low density residential environment To enable other land uses that provide facilities or services to meet the day to day needs of residents To protect the character of traditional residential development and streetscapes To ensure that new development retains and enhances that character To ensure that development is sympathetic to the natural environment and ecological processes of the area To enable development for purposes other than residential only if it is compatible with the character of the living area and has a domestic scale To ensure that water supply and sewage disposal on each resultant lot of a subdivision is provided to the satisfaction of the Council To ensure that development does not create unreasonable demands for the provision or extension of public amenities or services. 	Generally centre based (Richmond, Windsor, Kurrajong, East Richmond), along with new release areas (Pitt Town, Vineyard, McGraths Hill, Glossodia).	<ul style="list-style-type: none"> boarding houses dwelling houses group homes secondary dwellings* seniors housing*.

Zone	Objectives	Setting	Permissible dwelling types
R3 Medium Density Residential	<ul style="list-style-type: none"> To provide for the housing needs of the community within a medium density residential environment To provide a variety of housing types within a medium density residential environment To enable other land uses that provide facilities or services to meet the day to day needs of residents To provide a wide range of housing choices close to commercial centres and railway stations To ensure that development is sympathetic to the natural amenity and ecological processes of the area To ensure that development does not create unreasonable demands for the provision or extension of public amenities or services. 	Typically located within the walking catchment of B1 and B2 zones, with the bulk of the zone within proximity to the Windsor and Richmond train stations.	<ul style="list-style-type: none"> attached dwellings boarding houses dual occupancies dwelling houses group homes hostels multi dwelling housing secondary dwellings* semi-detached dwellings seniors housing shop top housing.
R5 Large Lot Residential	<ul style="list-style-type: none"> To provide residential housing in a rural setting while preserving, and minimising impacts on, environmentally sensitive locations and scenic quality To ensure that large residential lots do not hinder the proper and orderly development of urban areas in the future To ensure that development in the area does not unreasonably increase the demand for public services or public facilities To minimise conflict between land uses within this zone and land uses within adjoining zones To provide primarily for low density residential housing and associated facilities. 	Provided in the semi-rural areas of the LGA alongside the river (Freemans Reach, Cornwallis, Pitt Town, Richmond Lowlands, Glossodia, Windsor Downs)	<ul style="list-style-type: none"> dwelling houses secondary dwellings* semi-detached dwellings seniors housing**.
RU1 Primary Production	<ul style="list-style-type: none"> To encourage sustainable primary industry production by maintaining and enhancing the natural resource base To encourage diversity in primary industry enterprises and systems appropriate for the area To minimise the fragmentation and alienation of resource lands To minimise conflict between land uses within this zone and land uses within adjoining zones 	Key agricultural areas (Kurmond, Agnes Banks, Mulgrave. Windsor)	<ul style="list-style-type: none"> boarding houses dual occupancies dwelling houses rural workers' dwellings seniors housing**.

Zone	Objectives	Setting	Permissible dwelling types
	<ul style="list-style-type: none"> • To encourage agricultural activities that do not rely on highly fertile land • To ensure that development occurs in a way that does not have a significant adverse effect on water catchments, including surface and groundwater quality and flows, land surface conditions and important ecosystems such as waterways • To promote the conservation and enhancement of local native vegetation including the habitat of threatened species, populations and ecological communities by encouraging development to occur in areas already cleared of vegetation • To ensure that development retains or enhances existing landscape values including a distinctive agricultural component • To ensure that development does not detract from the existing rural character or create unreasonable demands for the provision or extension of public amenities and services. 		
RU2 Rural Landscape	<ul style="list-style-type: none"> • To encourage sustainable primary industry production by maintaining and enhancing the natural resource base • To maintain the rural landscape character of the land • To provide for a range of compatible land uses, including extensive agriculture • To minimise the fragmentation and alienation of resource lands • To minimise conflict between land uses in the zone and land uses in adjoining zones • To ensure that development occurs in a way that does not have a significant adverse effect on water catchments, including surface and groundwater quality and flows, land surface conditions and important ecosystems such as waterways • To ensure that development retains or enhances existing landscape values including a distinctive agricultural component • To preserve the river valley systems, scenic corridors, wooded ridges, escarpments, environmentally sensitive areas and other features of scenic quality 	Provided adjacent to rural townships at elevation (Bilpin) often adjacent to E4 or RU1 (Freemans Reach, Windsor).	<ul style="list-style-type: none"> • boarding houses • dual occupancies • dwelling houses • rural workers' dwellings • seniors housing**

Zone	Objectives	Setting	Permissible dwelling types
	<ul style="list-style-type: none"> To ensure that development does not detract from the existing rural character or create unreasonable demands for the provision or extension of public amenities and services. 		
RU4 Primary Production Small Lots	<ul style="list-style-type: none"> To enable sustainable primary industry and other compatible land uses To encourage and promote diversity and employment opportunities in relation to primary industry enterprises, particularly those that require smaller lots or that are more intensive in nature To minimise conflict between land uses within this zone and land uses within adjoining zones To ensure that development occurs in a way that does not have a significant adverse effect on water catchments, including surface and groundwater quality and flows, land surface conditions and important ecosystems such as waterways. 	Provided in rural areas often where the area is constrained (Kurrajong, Oakville, Grose Vale, Pitt Town)	<ul style="list-style-type: none"> boarding houses dual occupancies dwelling houses rural workers' dwellings seniors housing**.
RU5 Village	<ul style="list-style-type: none"> To provide for a range of land uses, services and facilities that are associated with a rural village To maintain the rural character of the village and ensure buildings and works are designed to be in sympathy with the character of the village To protect hilltops, ridgelines, river valleys, rural landscape and other local features of scenic significance To ensure that development does not detract from the existing rural character or create unreasonable demands for the provision or extension of public amenities and services. 	Rural townships often surrounded by RU2 or RU1 (Ebenezer, Freemans Reach).	<ul style="list-style-type: none"> boarding houses dual occupancies dwelling houses seniors housing**.
E3 Environmental Management	<ul style="list-style-type: none"> To protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values To provide for a limited range of development that does not have an adverse effect on those values To protect varieties of wildlife and their associated habitats and corridors To retain the visual and scenic qualities of the escarpment ridges and foot slopes 	Provided in areas of environmental protection such as at elevation or near waterways.	<ul style="list-style-type: none"> dual occupancies dwelling houses.

Zone	Objectives	Setting	Permissible dwelling types
	<ul style="list-style-type: none"> To ensure that development occurs in a way that does not have a significant adverse effect on water catchments, including surface and groundwater quality and flows, land surface conditions and important ecosystems such as waterways. 		
E4 Environmental Living	<ul style="list-style-type: none"> To provide for low-impact residential development in areas with special ecological, scientific or aesthetic values To ensure that residential development does not have an adverse effect on those values To restrict development on land that is inappropriate for development because of its physical characteristics or bushfire risk To ensure that land uses are compatible with existing infrastructure, services and facilities and with the environmental capabilities of the land To encourage existing sustainable agricultural activities. To ensure that development does not create or contribute to rural land use conflicts To promote the conservation and enhancement of local native vegetation, including the habitat of threatened species, populations and ecological communities by encouraging development to occur in areas already cleared of vegetation To ensure that development occurs in a way that does not have a significant adverse effect on water catchments, including surface and groundwater quality and flows, land surface conditions and important ecosystems such as waterways. 	<p>Provided adjacent to areas of environmental protection (Colo River, Upper Colo, Upper, Central & Lower Macdonald, Vineyard) often adjacent to RU1.</p>	<ul style="list-style-type: none"> boarding houses dual occupancies dwelling houses seniors housing**.

* permissible via affordable rental housing SEPP

** may be permitted via Seniors Housing SEPP, if adjacent to urban land

Built form and density controls

The primary built form and density controls in the LEP relate to minimum lot size and height of buildings. These controls are applied via LEP maps, summarised below.

Table 5: Summary of built form and density controls in Hawkesbury LGA

Control	Typical application
Minimum lot size	<ul style="list-style-type: none"> New centre (Redbank): 180 sqm to 375 sqm Established centres: 450 sqm to 600 sqm Outlying villages: Generally 750 sqm to 4,000 sqm Rural areas: Generally 2 ha to 10 ha.
Height of building	<ul style="list-style-type: none"> Established centre cores/Vineyard: 12 m All other residential capable areas: 10 m.

2.3.9 Hawkesbury Development Control Plan

Council is currently reviewing its development control plans. At the present time, Hawkesbury Development Control Plan 2002 (Hawkesbury DCP) applies to the LGA and a separate DCP, Vineyard Precinct (Stage 1) Development Control Plan (Vineyard DCP), released after the rezoning of the precinct, also applies to the Vineyard Urban Release Area. There have been ad hoc amendments to the Hawkesbury DCP over the intervening 19 years.

Hawkesbury DCP controls are separated into LGA-wide and precinct-specific built form and character controls. Residential controls are a mixture of numerical- and performance-based. Some of the key controls are:

- General environmental guidelines: Encourage appropriate and low maintenance landscaping, minimise impacts associated with soil erosion, bushfire protection, effluent disposal and energy efficiency
- Subdivision: Encourage subdivision that minimise environmental impacts, are accessible during flooding and facilitate the creation of lots that provide a diversity of housing that aligns with the vision of the Hawkesbury LEP
- Building height planes: Controls the height of buildings in proximity to lot boundaries
- Street setbacks: Prohibits building in proximity to roads (eg 10 m from arterial roads)
- Landscaping and site coverage: Minimum landscaped and unpaved areas
- Private open space: Minimum areas for screened recreational areas
- Car parking: Minimum amount of car parking and design controls for driveways
 - Between one and two covered spaces per dwelling
 - For more than three dwellings on a site, one visitor car spot per five dwellings, rounded up
- Visual privacy: Design controls to prevent direct views between dwellings/private open space
- Safety and security: Encourage illumination of public spaces and passive surveillance.

DCP guidelines are generally dwelling house/dual occupancy focused even where they apply to other housing types. For example, the same rates for car parking apply equally to dwelling houses as an apartment and regardless of the location of the development.

The Vineyard DCP, prepared by the then Department of Planning and Environment in 2017 and adopted in 2018, considers similar subjects, but with specific local detail regarding flooding, environmental conservation and specific lot/neighbourhood design. It also contains more specific controls regarding residential flat buildings, shop top housing and public-facing design. The Vineyard DCP is maintained by DPIE, with changes to be considered by the Secretary (or Delegate).

2.4 Implications

The review of policy documents indicated that:

- The Greater Sydney Commission expects the LGA to accommodate 1,150 additional dwellings between 2016 and 2021 to meet the 0-5 year housing targets and to set targets for ten and twenty-year horizons to meet projected housing demand
- The Hawkesbury LGA contains environmental constraints and hazards (e.g. flooding and bushfires) and there are statutory requirements in place to address these which constrain the potential for additional housing as further discussed in Section 4.0
- Council recognises the need for affordable housing and has established a firm policy position for investigating and promoting further affordable housing provision
- State-managed growth areas in Vineyard are contingent on infrastructure staging with the proposed route of the Outer Sydney Orbital potentially impacting on development potential and timeframe for the Vineyard Stage 2 area
- All of the LGA, excluding the Vineyard Stage 1 area, is within the MRA. Currently, uncertainty around the future function of land use within the MRA is significantly constraining any urban development outside areas with existing residential, commercial or industrial zoning.

The review of Hawkesbury LGA's planning controls has the following implications for a Local Housing Strategy:

- Opportunities for denser typologies (eg residential flat buildings and shop top housing) are limited to R3 Medium Density Residential, B1 Neighbourhood Centre and B2 Local Centre zones
- B1 Neighbourhood Centre and B2 Local Centre zones permit residential flat buildings, potentially allowing for dwellings with no commercial components, with potential effects to the liveability of surrounding areas
- B1 Neighbourhood Centre and B2 Local Centre zones permit shop top housing, with Hawkesbury DCP providing limited design guidance to encourage high-quality outcomes
- Maximum height controls in centres are likely too low to encourage high-quality mid-rise development. Opportunities exist to fine-tune height controls to be sensitive to flood risk and mitigation measures, while encouraging targeted mid-rise residential outcomes in centres
- Landscaping and site coverage provisions in the Hawkesbury DCP provide clear expectations regarding the provision and protection of the natural environment. Additional guidance regarding centres would carry those principles into more built-up areas
- Relying on Hawkesbury DCP provisions to guide density outcomes, while not adopting FSR controls, relies on non-statutory controls and as the potential to lead to inconsistent application of variations to those controls. Targeted FSR controls in centres would provide clear guidance on Council's preferred built form outcomes
- Hawkesbury DCP provides limited guidance for non-separated house controls, potentially discouraging lower-impact housing types by requiring they conform with separated house-focused controls

- RU5 Large Lot Residential zones, combined with high minimum lot sizes, provide very limited housing supply while increasing stress on infrastructure and services
- Any proposal to rezone rural or environmental protection land will need to consider and meet the requirements outlined in s9.1 Local Planning Direction 1.5 Rural Lands, noting Hawkesbury's rural land is highlighted as part of the valued Metropolitan Rural Area within the Western City District Plan.

These matters are examined in further detail in Section 6.

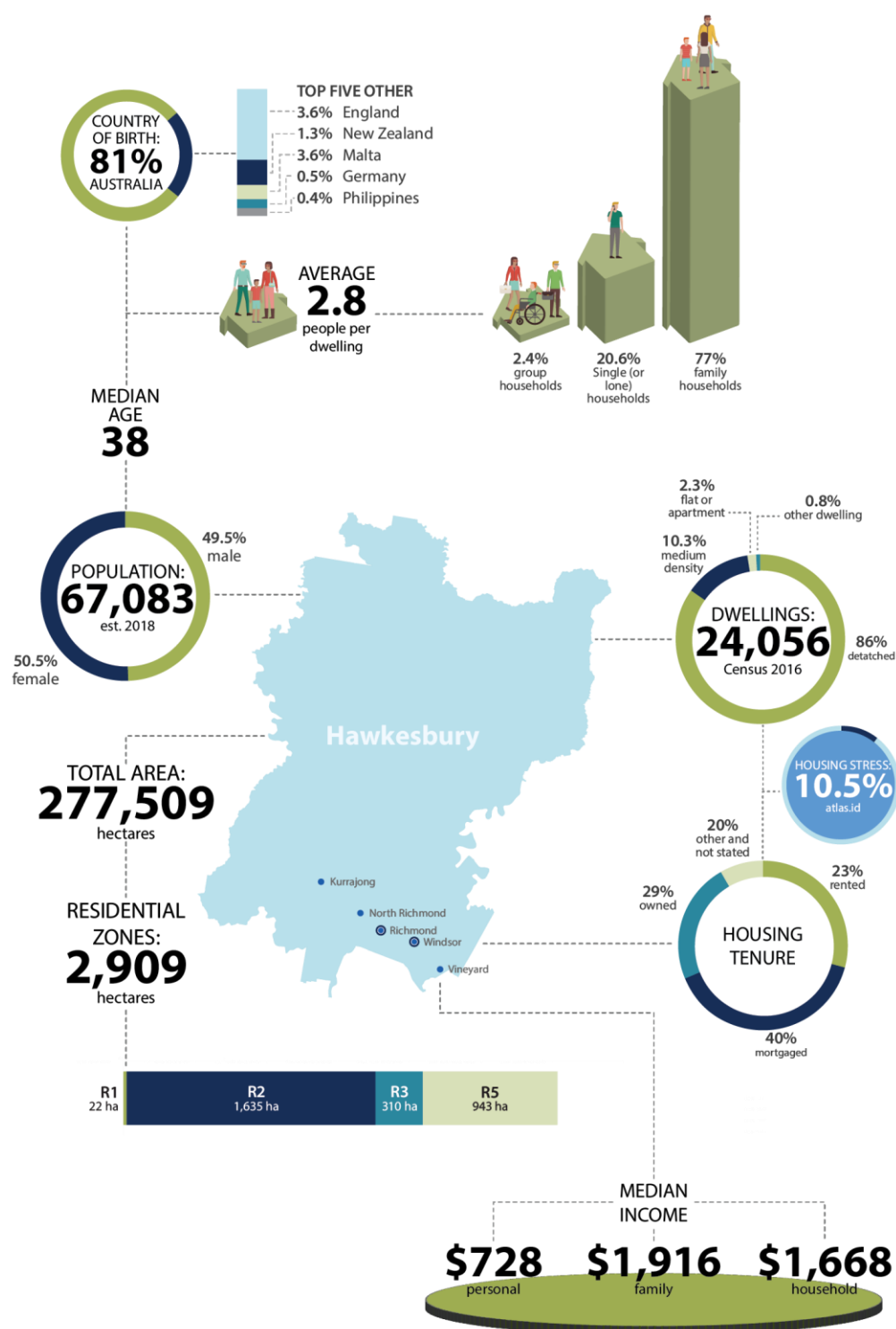


EVIDENCE OF HOUSING NEEDS

3.0 EVIDENCE OF HOUSING NEEDS

This section provides an evidence base on housing needs. It provides a snapshot of local demography along with an analysis of housing demand and supply. Indicators for future housing demand are also considered.

3.1 Demographic overview

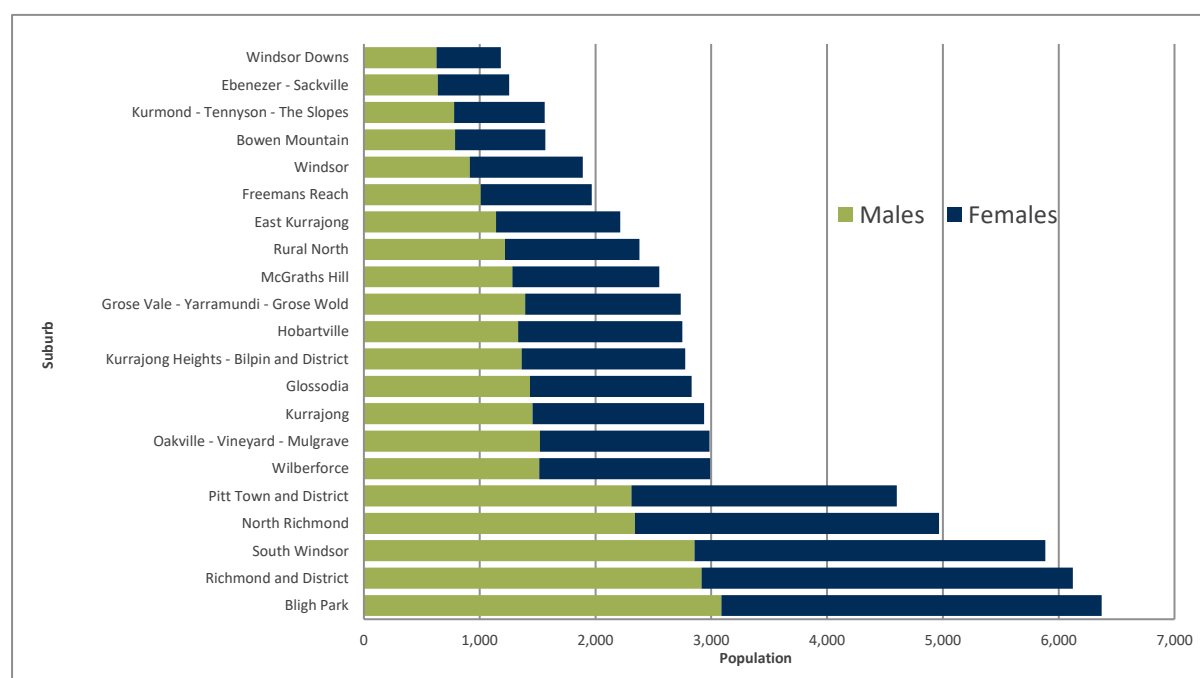


Source: ABS 2016

3.1.1 Population

The Hawkesbury LGA has a total population of 67,083.⁶ The Hawkesbury LGA includes large areas of non-residential land resulting in a relatively low overall population density: 0.23 persons per hectare compared with 3.90 in Greater Sydney. Figure 7 shows the distribution of the population by suburb and gender-based on Census 2016 data. The population is generally more concentrated within the southern parts of the LGA, with Bligh Park, Richmond, South Windsor, North Richmond and the Pitt Town area having the highest concentration of the LGA's population.

Figure 7: Hawkesbury suburbs and population, 2016



Source: ABS 2016

3.1.2 Population growth

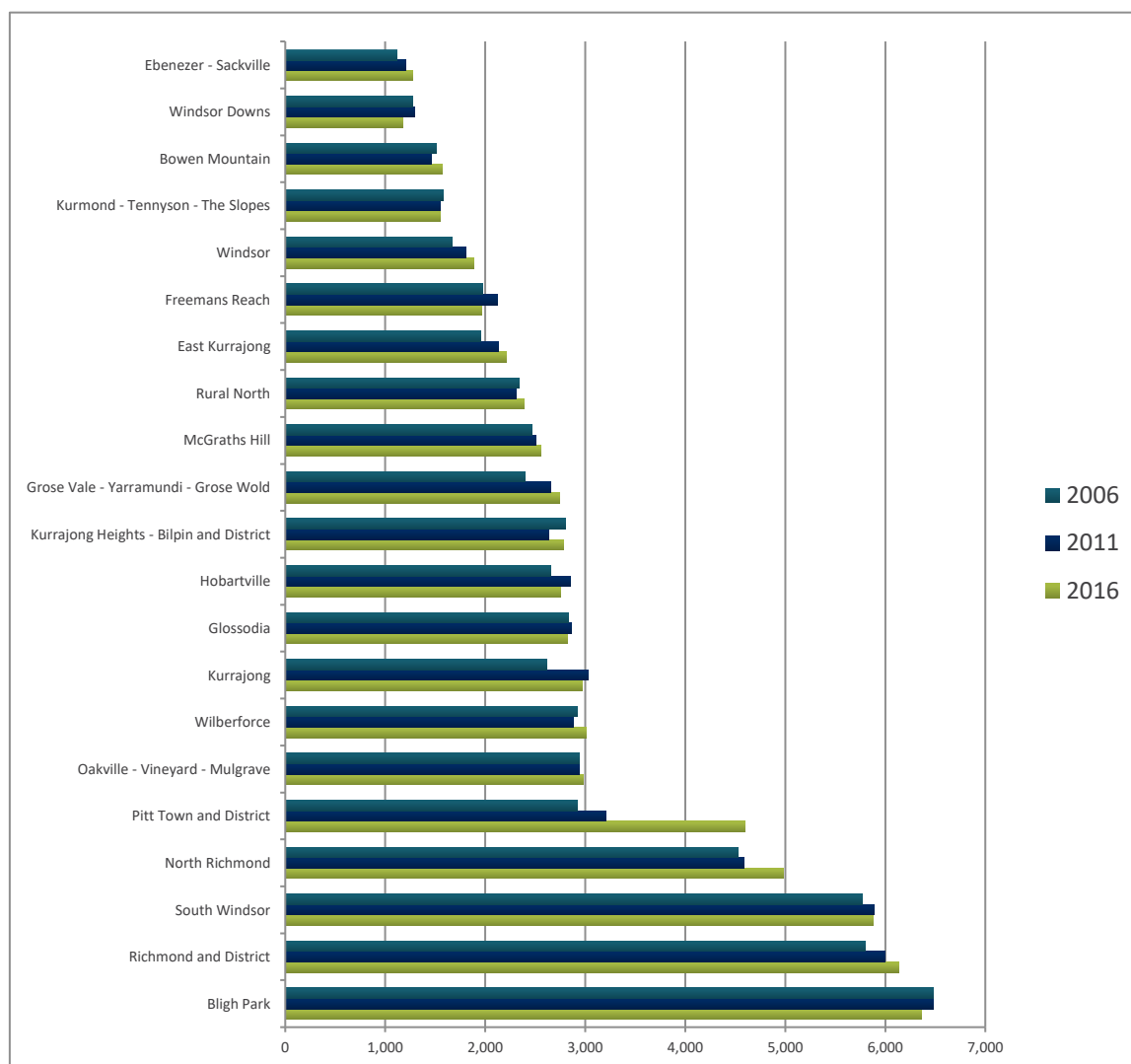
The population of the Hawkesbury LGA has been growing rate of 0.7 per cent per annum between 2006-2016, which is significantly below Greater Sydney of 1.7 per cent⁷.

The change in population between the 2006, 2011 and 2016 Census across LGA are shown in Figure 8. There is a significant mix of population growth and decline across the suburbs with Windsor Downs registering a decline of 0.7 per cent per annum in the decade since 2006. Bligh Park and Kurmond-Tennyson-The Slopes also registered marginal declines. Pitt Town registered a significant increase at a rate of 5.6 per cent per annum. The remainder had average growth or stable populations.

⁶ ABS Estimated Resident Population, 2018

⁷ .id (the population experts), 2019, based on ABS Census data.

Figure 8: Population of Hawkesbury LGA Suburbs: 2006, 2011, 2016

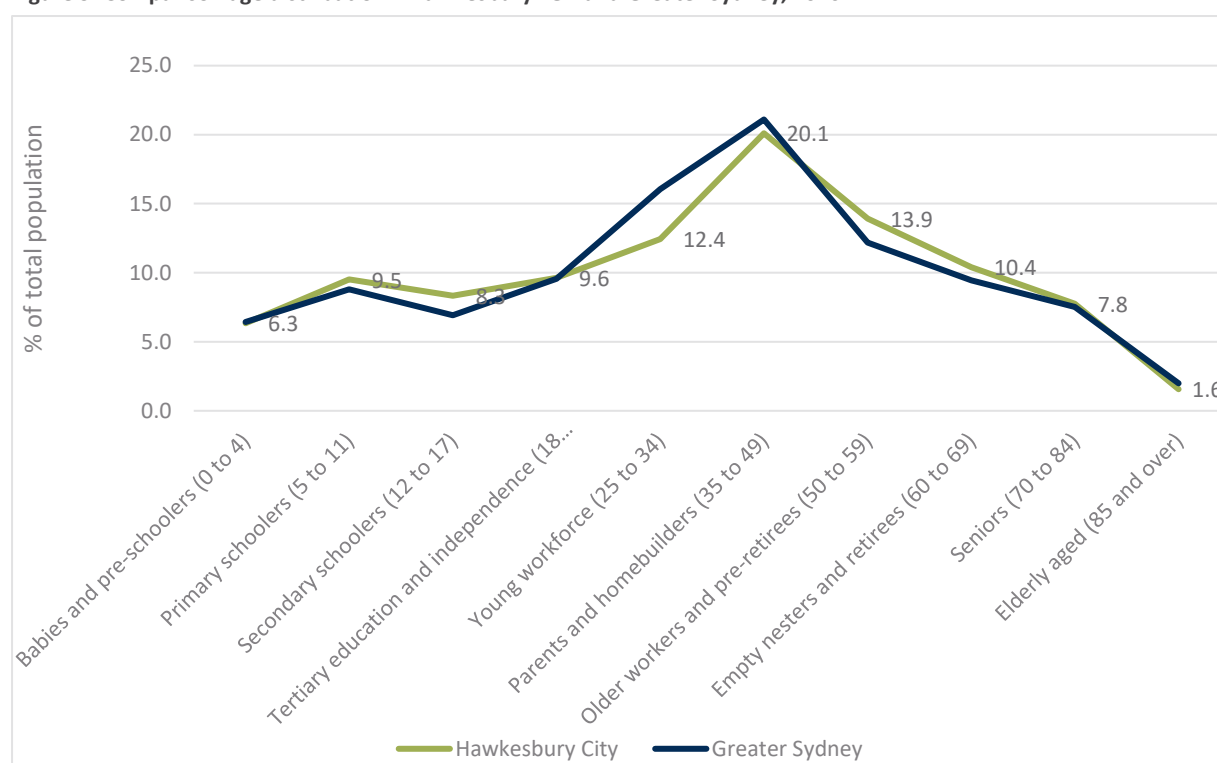


Source: ABS 2006, 2011, 2016

3.1.3 Age structure

The Hawkesbury LGA median age is 38 years old, matching the state average, but two years above the Greater Sydney median. Hawkesbury LGA's population profile is similar to that of other Sydney fringe LGAs, showing higher proportions of families with older children and higher empty-nesters than Greater Sydney and NSW.

Figure 9: Comparison age distribution – Hawkesbury LGA and Greater Sydney, 2016.

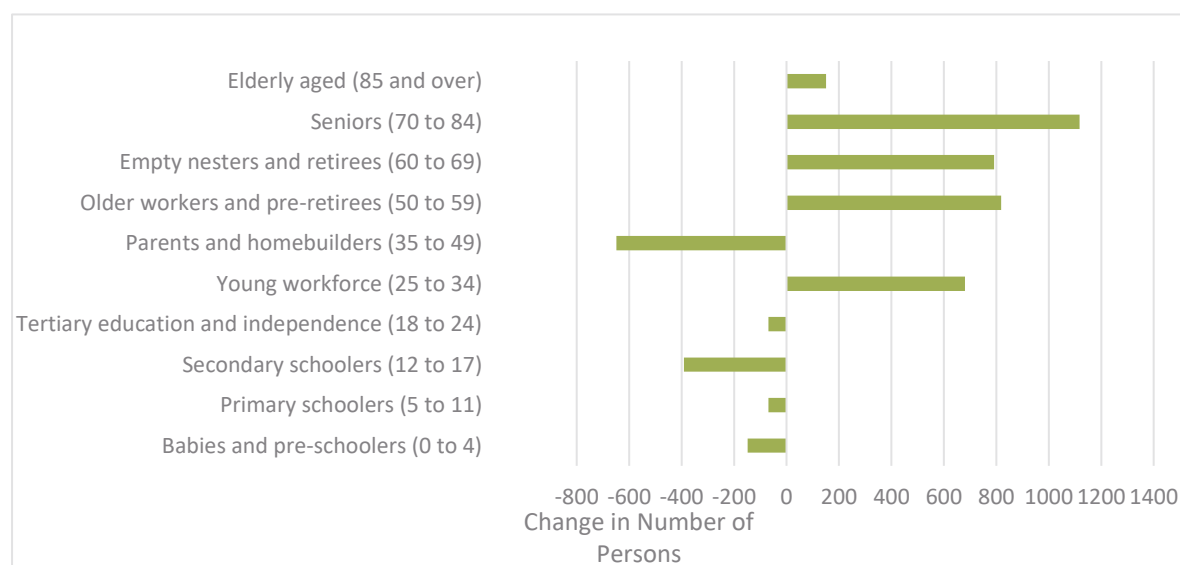


Source: Census 2016

However, upon examining the change in age groups, there has been a reduction in the number of families with children in the LGA between the 2011 and 2016 Census periods. The graph below shows there was a notable reduction in individuals aged 25-49 years, as well as children aged under 18 years. Conversely, there were increases in the number of individuals aged over 50 years, particularly the 70-84 years age group. Interestingly, there was also a smaller increase in the 25-34 years age group.

Population forecasts indicate a continuation of these trends, with average annual growth rates increasing only in the over 65 years age groups over the period 2011 to 2036.

Figure 10: Change in population age groups Hawkesbury LGA, 2011-2016

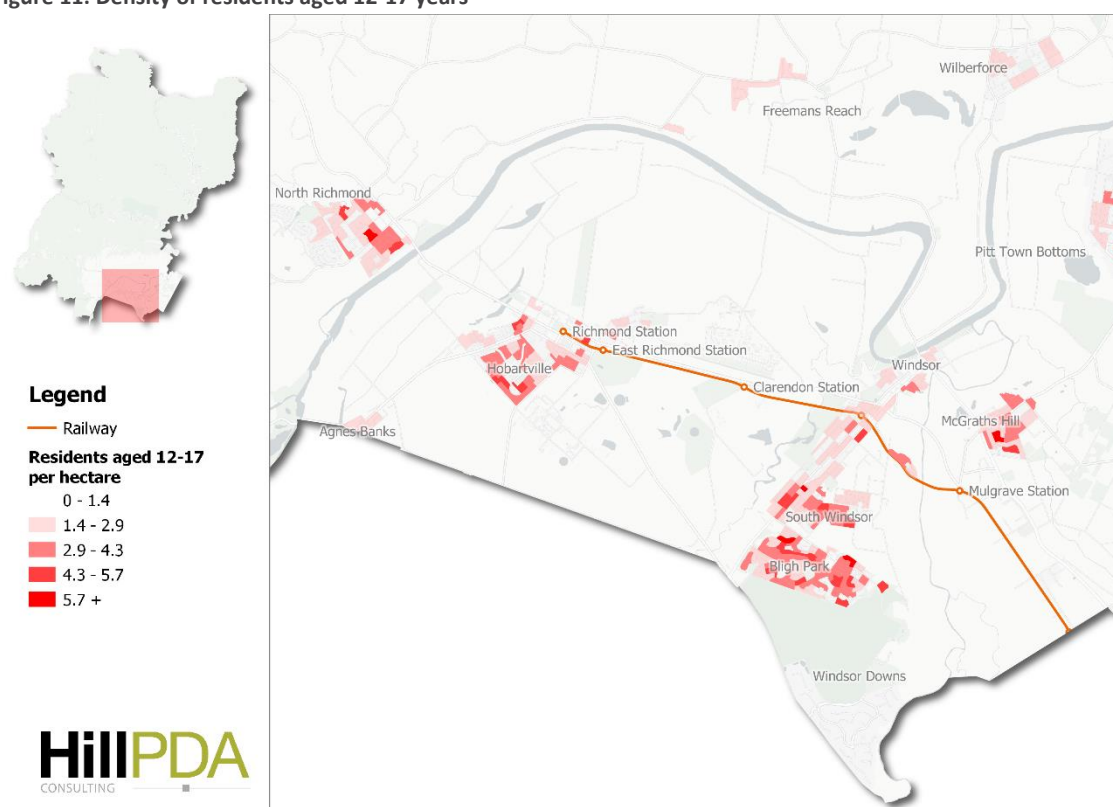


Source: ABS Census 2011, 2016

The distribution of individuals by key age groups is indicated in Figure 11, showing that:

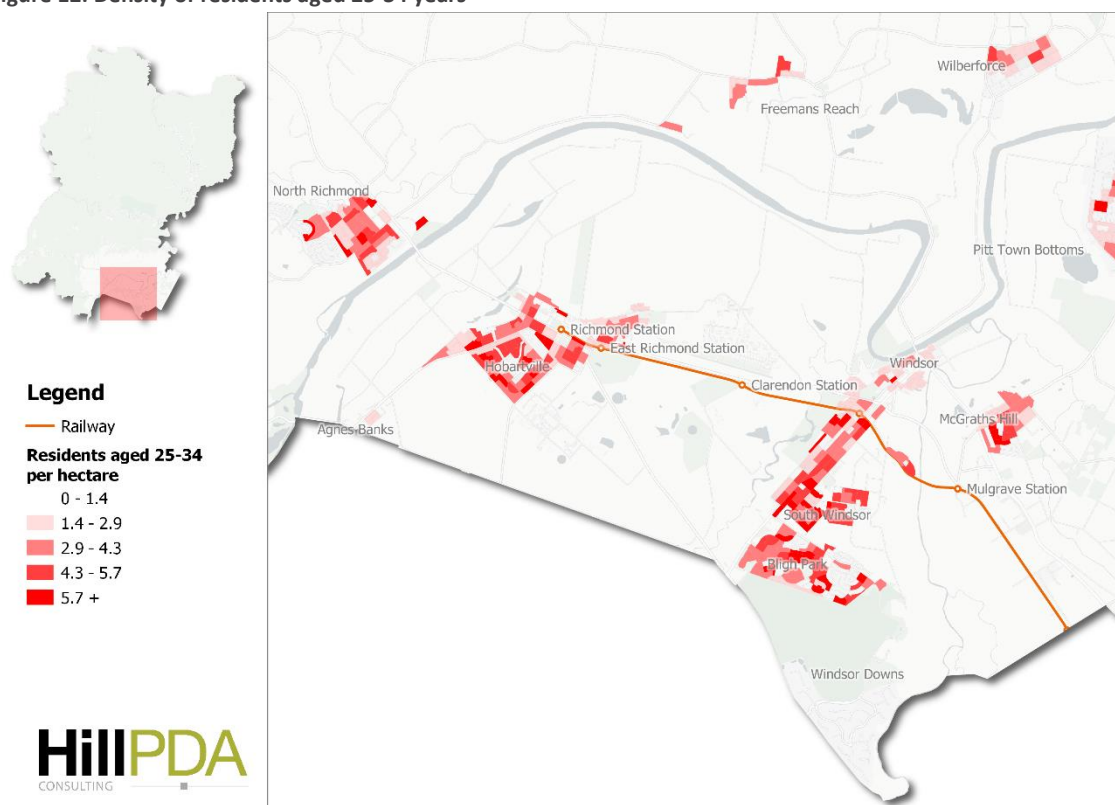
- The population aged 24-35-year-old are more likely to be living in newer residential development areas where retail and commercial centres, as well as public transport, are present
- There are concentrations of families in the outer suburban areas of Bligh Park, Glossodia, Pitt Town and Bowen Mountain. These areas typically have lower density and more affordable housing stock
- Seniors aged 70-84 are generally concentrated in areas where the 25-34 year age group are not: around the fringe of the new residential development areas, closer to commercial centres and where larger lot developments are including the Slopes, Wilberforce, Clarendon and Vineyard/Mulgrave.

Figure 11: Density of residents aged 12-17 years



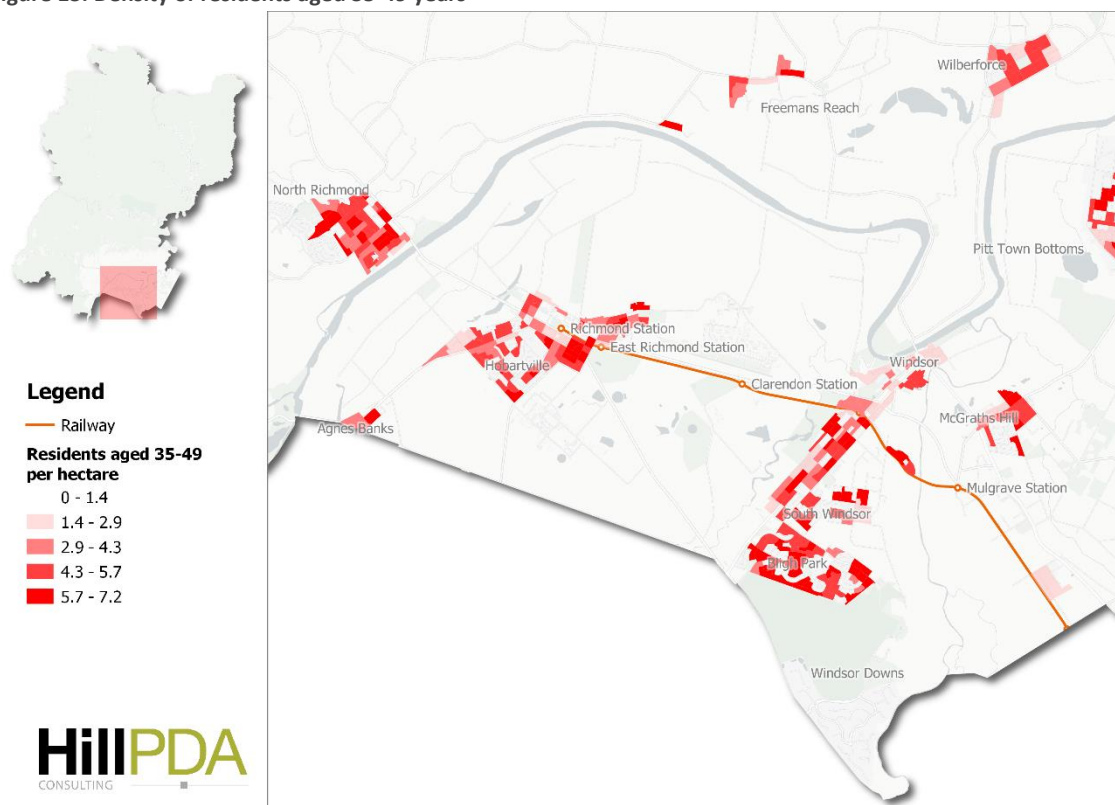
Source: ABS Census of Population and Housing 2016

Figure 12: Density of residents aged 25-34 years



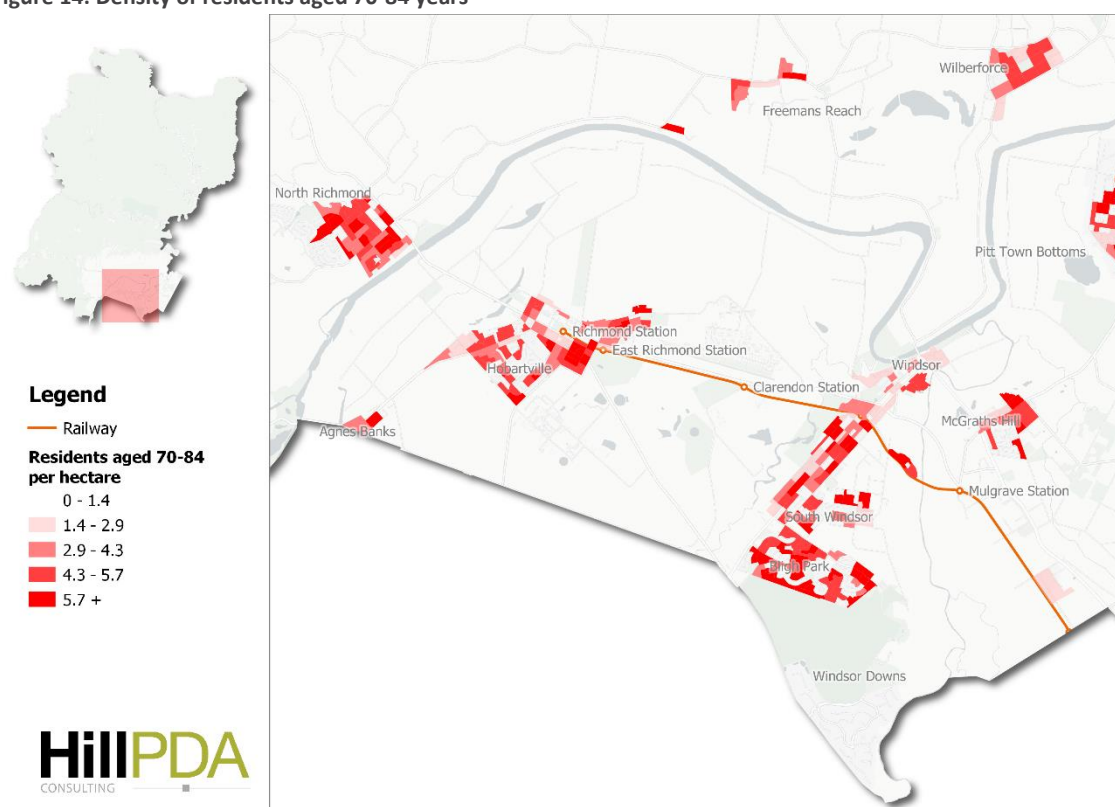
Source: ABS Census of Population and Housing 2016

Figure 13: Density of residents aged 35-49 years



Source: ABS Census of Population and Housing 2016

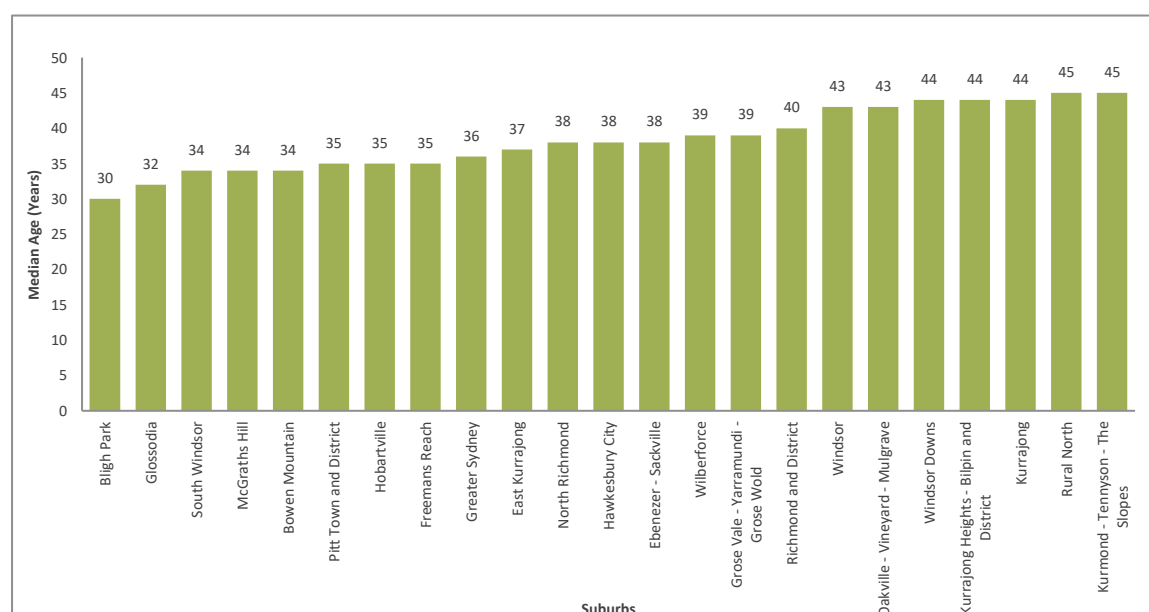
Figure 14: Density of residents aged 70-84 years



Source: ABS Census of Population and Housing 2016

Figure 15 shows the median age across suburbs in the Hawkesbury LGA. The suburbs with the lowest median age, similar to that of the maps for 12-17 years and 35-49 years group mentioned earlier, appear to be those suburbs with low density, neighbourhood centres. These include Bligh Park, Glossodia, Southern Windsor and McGraths Hill. These suburbs are characteristic of separate dwelling houses and are typically more affordable given they are not located in other more connected or commercially developed centres in the LGA.

Figure 15: Median Age across Hawkesbury LGA Suburbs - 2016

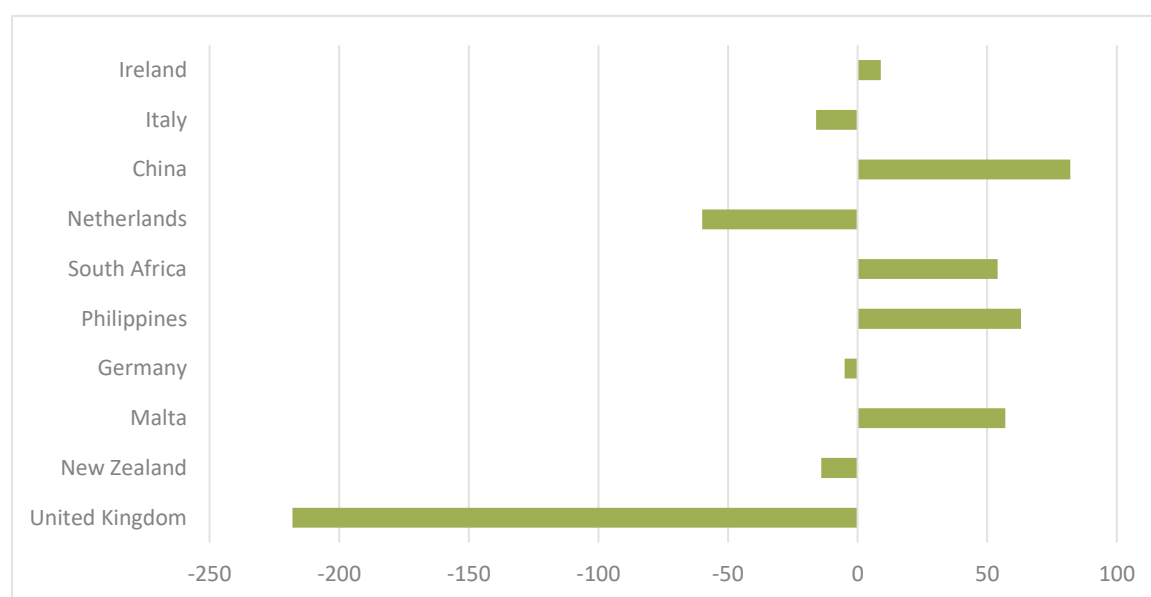


Source: Census 2016

3.1.4 Place of Birth

A total of 7,928 people, or 12.3 per cent of people in the Hawkesbury LGA were born overseas at the 2016 Census. This is significantly less than that of Greater Sydney which was 36.7 per cent. The proportion of overseas-born persons has decreased from the 2006 Census rate of 12.6 per cent. Figure 16 illustrates there has been a significant decrease in the number of people born in the United Kingdom and the Netherlands, with increases in people born in China, the Philippines, Malta and South Africa.

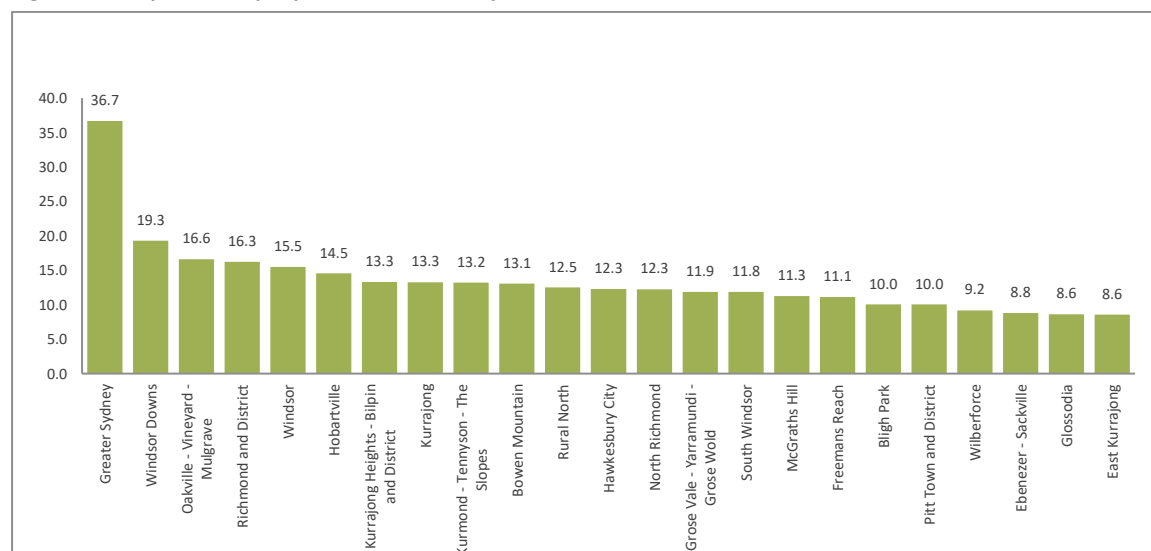
Figure 16: Change in Birthplace, 2011- 2016



Source: Profile .id

Figure 17 below demonstrates that overseas-born people are more likely to reside in and around the larger, more established centres, such as Richmond and Windsor.

Figure 17: Proportion of people born overseas by suburb, 2016



Source: Census 2016

3.1.5 Household Income

Hawkesbury LGA's median household income is \$1,663 which is below Greater Sydney (\$1,745).⁸ Examining differences in household income levels between Hawkesbury LGA and Greater Sydney, Figure 18 demonstrates that there are higher proportions of lower-income households (those earning less than \$650 per week), and lower proportions of higher-income households, particularly over \$3,500 per week.

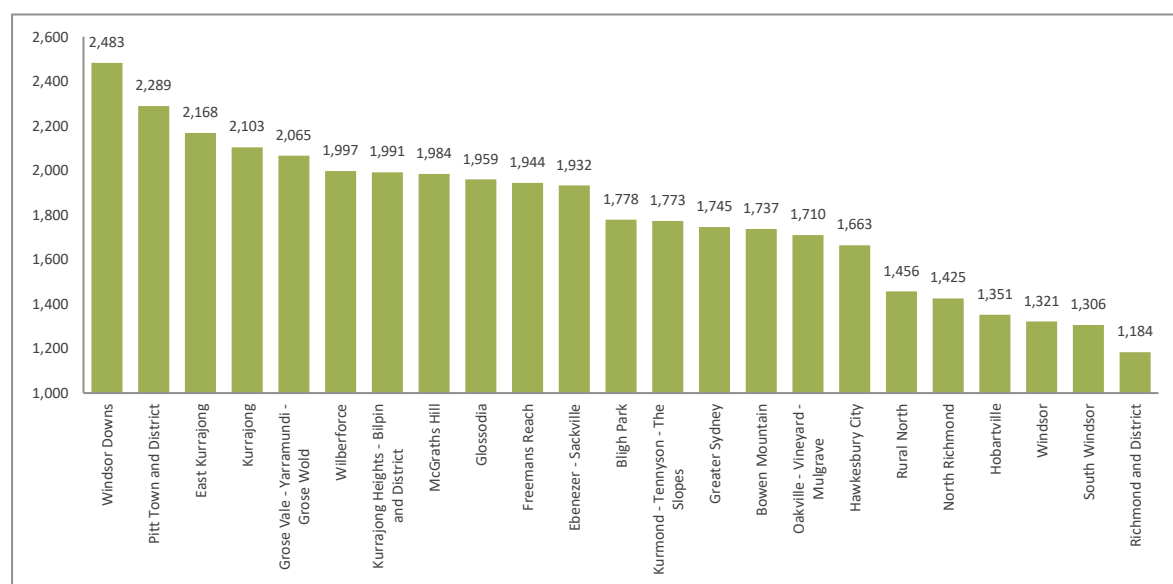
Figure 18: Weekly Household Income – Hawkesbury and Greater Sydney (2016)



Source: Profile .id

Examining household income within the Hawkesbury LGA, there is a significant variation in median incomes across the LGA, as illustrated in Figure 19. Windsor Downs, Pitt Town, and the Kurrajong and East Kurrajong areas all have significantly higher median household income when compared with Greater Sydney. Conversely, Richmond, South Windsor and Windsor have significantly lower median income levels.

Figure 19: Median Household Income by Suburb, 2016

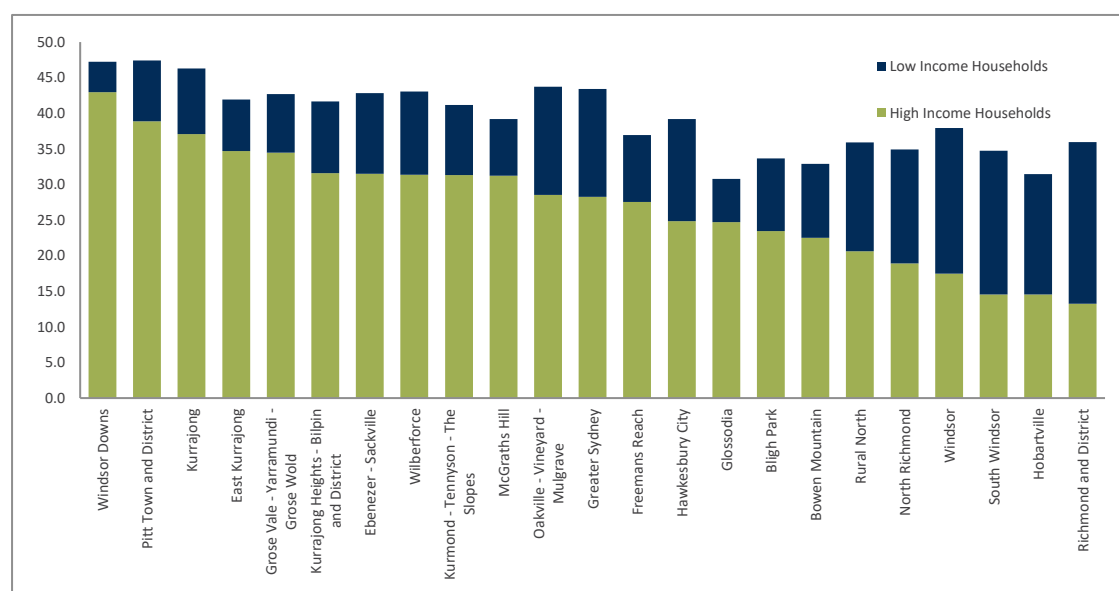


Source: Census 2016

⁸ ABS Census, 2016

Figure 20 further demonstrates the significant variation on household income across the suburbs of the Hawkesbury LGA. Specifically, the contrast between the suburbs on the left of the chart such as Windsor Downs where almost half of these households are high-income households, and suburbs to the right such as Richmond, where only around 13 per cent are high-income households.

Figure 20: Low Income and High Income Households by Suburb, 2016



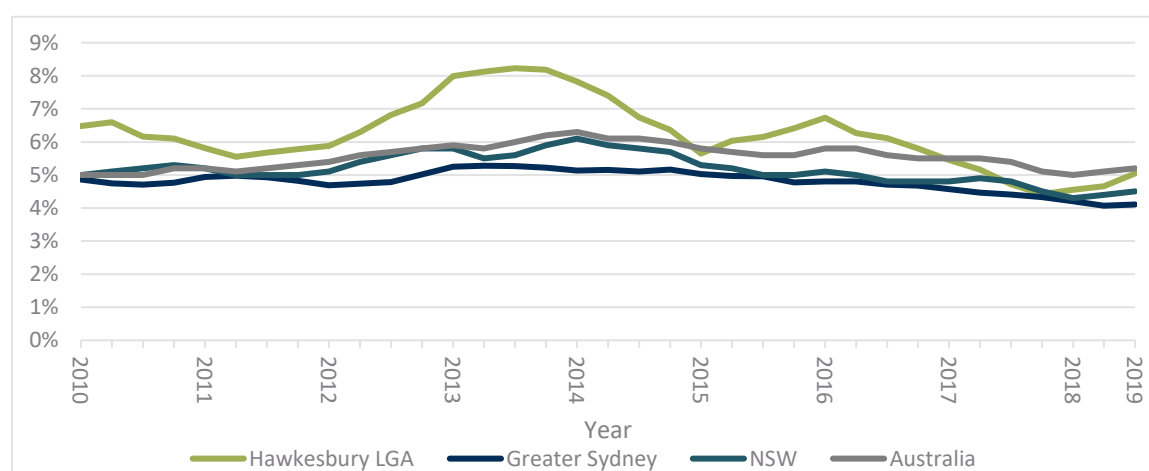
Source: Census 2016

NOTES: High-income households refer to those receiving more than \$2,500 per week (before tax in 2016). Low-income households refer to those receiving less than \$650 per week (before tax in 2016).

3.1.6 Employment

Unemployment in Hawkesbury LGA was 4.6 per cent in December 2018, which was slightly higher than greater Sydney at 4.3 per cent⁹. Figure 21 illustrates that historically there has been some fluctuation in the unemployment rate, although there has been a steady reduction since June 2016.

Figure 21: Quarterly unemployment rate, Hawkesbury and comparison areas, 2011-2018

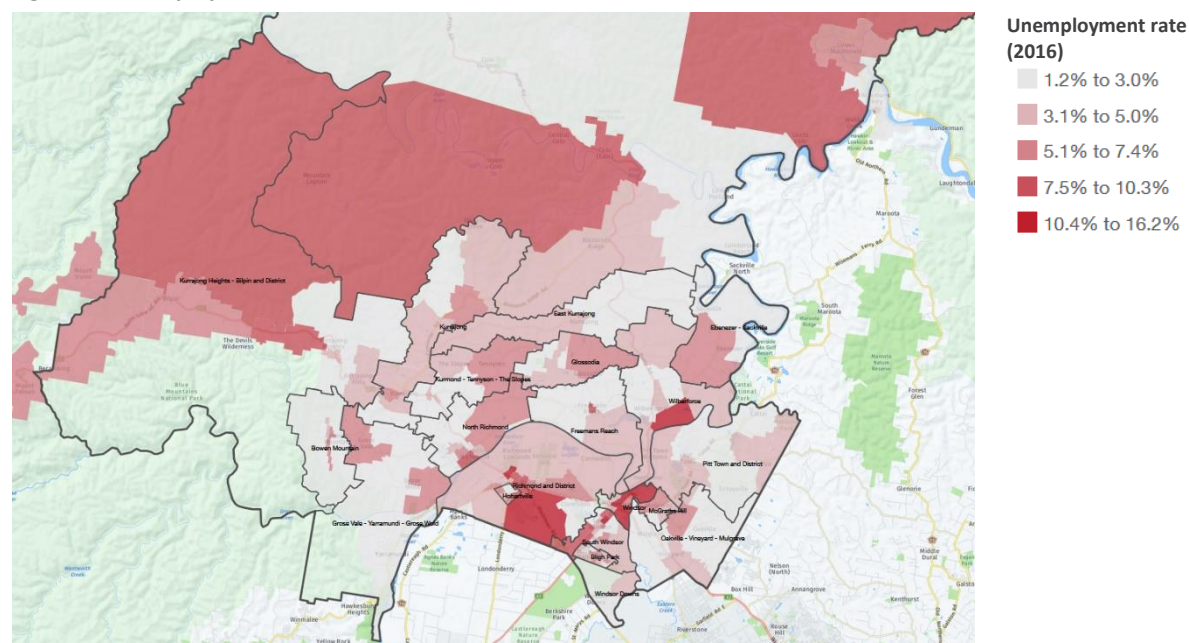


Source: profile .id

⁹ Department of Jobs and Small Business, *Small Area Labour Markets*, December 2018

Figure 22 maps the unemployment rate across the City LGA at the 2016 Census. It indicates that the more densely populated and older centre areas of Windsor, Richmond and South Richmond have higher unemployment rates.

Figure 22: Unemployment rates, 2016



Source: profile .id

Approximately 59.4 per cent of workers living in the Hawkesbury LGA are employed in the Hawkesbury LGA. Importantly, a total of 49.3 per cent of Hawkesbury resident workers travel outside of the LGA for work.

3.1.7 Industry of Employment

The three highest-ranking industry sectors in Hawkesbury are construction (15.2 per cent), health care and social assistance (9.9 per cent) and retail trade (9.5 per cent) (

Figure 23). When comparing Hawkesbury LGA to Greater Sydney, employment within the construction industry is almost double, and agriculture, forestry and mining, as well as manufacturing, are also relatively high. Lower employment was in the professional, scientific and technical services area, as well as financial and insurance services. Construction was the highest growth sector with an increase in 984 persons between 2011 and 2016. Manufacturing had the biggest decline, with a decline of 964 persons employed in this industry.

Figure 23: Industry of Employment, 2016 and 2011

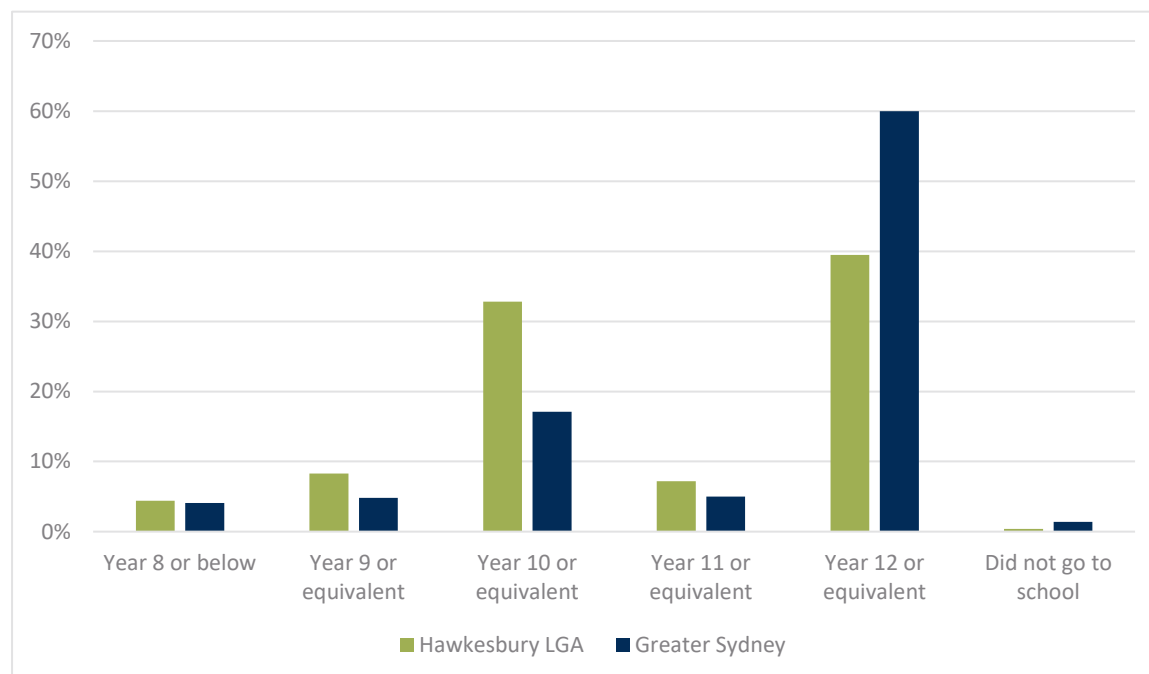
Hawkesbury LGA - Employed persons	2016			2011			Change
Industry sector	Number	%	Greater Sydney %	Number	%	Greater Sydney %	2011 to 2016
Agriculture, Forestry and Fishing	931	2.9	0.4	846	2.7	0.4	+85
Mining	113	0.3	0.2	83	0.3	0.2	+30
Manufacturing	2,403	7.4	5.8	3,367	10.8	8.5	-964
Electricity, Gas, Water and Waste Services	419	1.3	0.8	377	1.2	0.9	+42
Construction	4,910	15.2	8.2	3,926	12.6	7.1	+984
Wholesale trade	1,034	3.2	3.6	1,524	4.9	5.3	-490
Retail Trade	3,080	9.5	9.3	3,253	10.4	9.8	-173
Accommodation and Food Services	1,715	5.3	6.7	1,599	5.1	6.2	+116
Transport, Postal and Warehousing	1,496	4.6	5.0	1,510	4.8	5.3	-14
Information Media and Telecommunications	474	1.5	2.8	504	1.6	3.0	-30
Financial and Insurance Services	735	2.3	6.4	732	2.3	6.6	+3
Rental, Hiring and Real Estate Services	503	1.6	1.9	464	1.5	1.8	+39
Professional, Scientific and Technical Services	1,474	4.6	9.8	1,410	4.5	9.6	+64
Administrative and Support Services	945	2.9	3.6	814	2.6	3.5	+131
Public Administration and Safety	2,301	7.1	5.5	2,618	8.4	5.6	-317
Education and Training	2,762	8.5	8.0	2,548	8.2	7.6	+214
Health Care and Social Assistance	3,189	9.9	11.6	2,883	9.2	10.9	+306
Arts and Recreation Services	566	1.8	1.7	483	1.5	1.6	+83
Other Services	1,531	4.7	3.6	1,508	4.8	3.7	+23
Inadequately described or not stated	1,744	5.4	5.1	728	2.3	2.6	+1,016
Total employed persons aged 15+	32,325	100.0	100.0	31,177	100.0	100.0	+1,148

Source: ABS

3.1.8 Education

Hawkesbury LGA has lower levels of education with fewer people finishing Year 12 or equivalent (39.5 per cent) compared to the Greater Sydney Area (60 per cent).¹⁰

Figure 24: Proportion of population by highest Level of Schooling Completed, 2016



Source: profile .id

In terms of qualifications, there is a higher proportion of people with vocational qualifications in Hawkesbury (27.0 per cent) compared with Greater Sydney (15.1 per cent), and less with a bachelors or higher qualifications (13.1 per cent in Hawkesbury compared with 28.3 per cent in Greater Sydney).

Examining the suburbs, Kurrajong, Kurrajong Heights and Bowen Mountain appeared to have high proportions of people with Bachelor degrees, whereas South Windsor and Windsor had high proportions of people with no qualifications (

¹⁰ Population.id

Table 6).

Table 6: Educational qualifications by Suburb, 2016

Suburb	Bachelor or Higher degree	Advanced Diploma or Diploma	Vocational	No qualification
Bligh Park	9.9	9.5	30.5	44.6
Bowen Mountain	19.2	12.0	28.7	33.9
East Kurrajong	13.6	11.0	28.2	35.6
Ebenezer - Sackville	9.5	9.1	30.5	37.7
Freemans Reach	11.8	9.8	27.4	44.8
Glossodia	10.6	8.4	34.6	37.6
Grose Vale - Yarramundi - Grose Wold	18.1	11.2	27.7	36.1
Hobartville	12.4	9.3	25.1	44.8
Kurmond - Tennyson - The Slopes	16.1	11.7	25.3	38.2
Kurrajong	19.3	10.7	26.7	34.6
Kurrajong Heights - Bilpin and District	20.8	12.0	23.9	31.6
McGraths Hill	9.8	9.3	29.5	44.8
North Richmond	12.6	9.9	24.9	44.7
Oakville - Vineyard - Mulgrave	11.4	8.2	25.5	44.9
Pitt Town and District	14.2	10.9	30.2	37.4
Richmond and District	13.6	8.4	21.6	42.6
Rural North	12.4	8.4	27.0	34.1
South Windsor	8.6	6.8	25.5	38.6
Wilberforce	12.1	10.2	28.0	41.8
Windsor	14.7	7.3	22.5	45.2
Windsor Downs	14.5	9.1	26.2	42.8
Hawkesbury LGA	13.1	9.4	27.0	41.3
Greater Sydney	28.3	9.3	15.1	37.7

Note: Green denotes a score that is significantly above the average, red marks a score that is significantly below the average

Source: ABS 2016 Census, HillPDA

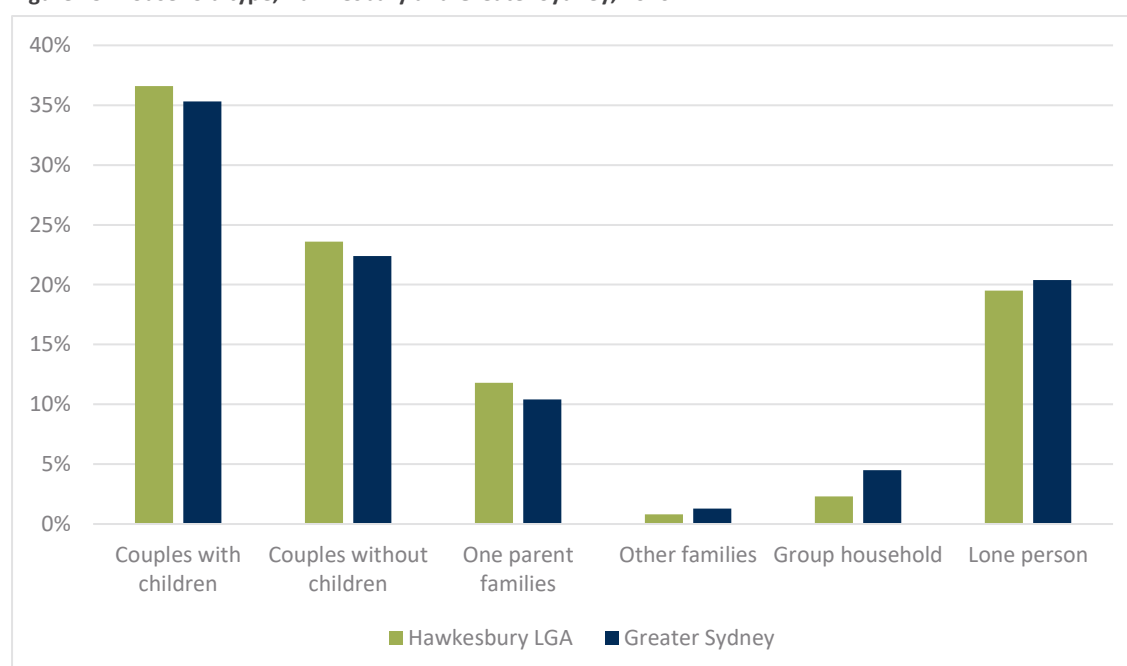
3.2 Housing demand

3.2.1 Household type

There are a total of 22,541 households in Hawkesbury LGA at the 2016 Census.

There are higher proportions of family households in Hawkesbury than the Greater Sydney area. Figure 25 shows 36.6 per cent of families were couple families and 11.8 per cent were one-parent families, compared with 35.3 per cent and 10.4 per cent respectively for Greater Sydney.

Figure 25: Household type, Hawkesbury and Greater Sydney, 2016



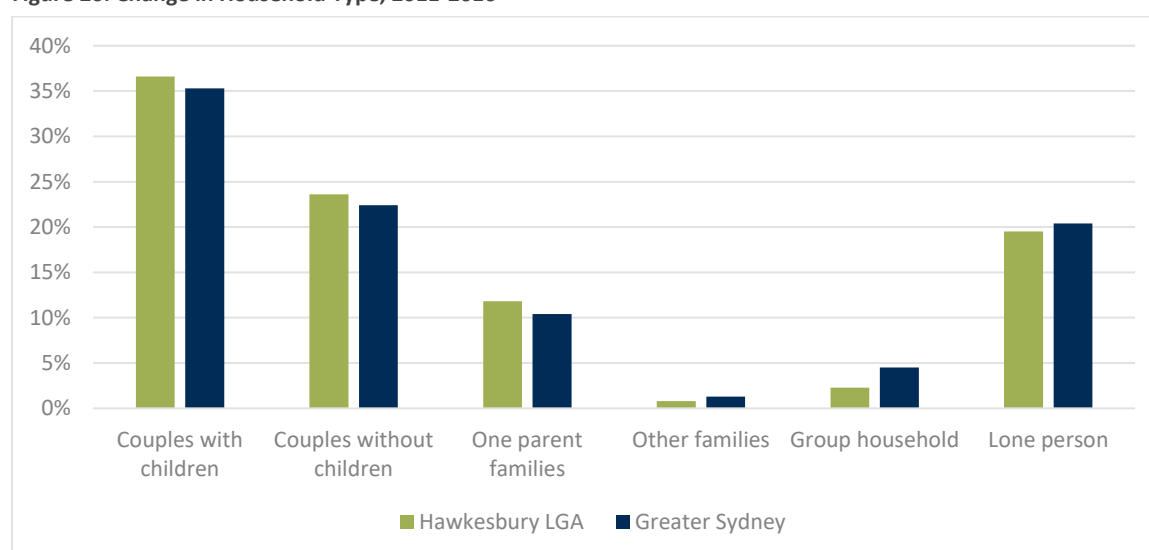
Source: profile .id

In terms of household composition over time, the largest changes from 2011 to 2016 were:

- Couples without children - +233 households and a 0.2 per cent increase
- Lone person households - +127 households and a 0.1 per cent increase
- Couples with children - +139 households, although a -0.7 per cent decrease.

Of significance, out of the couple families without children, there are higher proportions of middle-aged couples without children (8.9 per cent) and older couples without children (9 per cent) than Greater Sydney (6 per cent and 8.1 per cent respectively). There has also been significant growth since 2011 in older couples without children (+367). These patterns suggest an ageing population.

Figure 26: Change in Household Type, 2011-2016



Source: profile .id

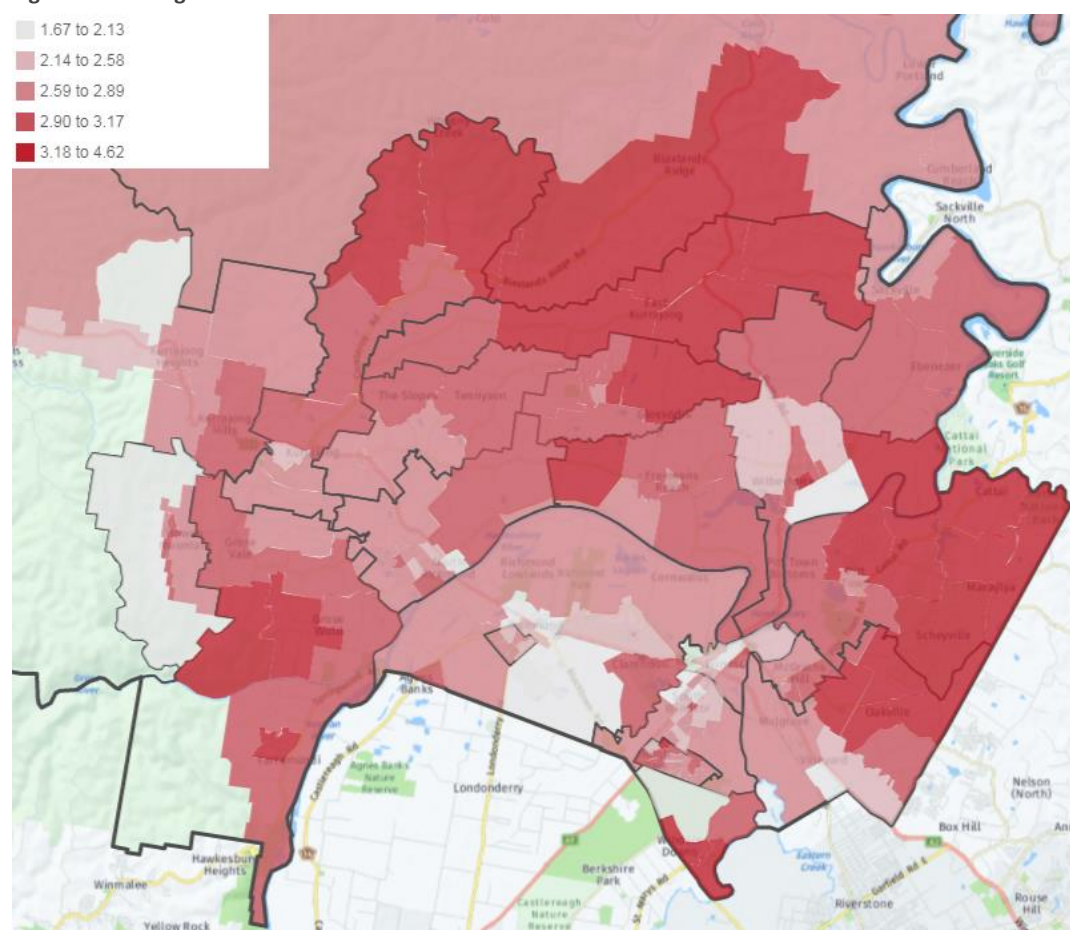
Population forecast indicate household types will continue along these historical growth patterns. There will be higher growth in non-family households than family households¹¹. Specifically, the average annual growth rate for lone person households for the period 2016-2036 is the highest of all the household types at 2.57 per cent, whereas couple families with children will have the smallest average annual growth rate at 0.85 per cent per annum.

3.2.2 Household size

The average household size in the Hawkesbury LGA at the 2006 Census was 2.79 persons per dwelling, which is slightly higher than the Greater Sydney average of 2.72 persons. It remained stable from the 2011 Census. Population forecasts indicate average household size will start to decline, reaching 2.63 persons in 2026, 2.61 persons in 2031 and 2.59 persons in 2036.¹²

Figure 27 shows household size variation across the southern portion of the LGA. Examining average household size by suburb, the older centres of Richmond, South Windsor and Windsor had smaller than average household sizes, whereas Windsor Downs, East Kurrajong, Grose Vale-Yarramundi-Grose Wold, and Pitt Town and District had significantly larger than average household sizes.

Figure 27: Average household size



Source: profile .id

Additional details regarding household size are shown in Table 7 and Figure 28. Hawkesbury LGA has a lower proportion of one-person households (20.6 per cent) than Greater Sydney (21.6 per cent). It has

¹¹ NSW Department of Planning and Environment, 2016.

¹² NSW Department of Planning and Environment, 2016.

slightly higher proportions of 5-person (9 per cent) and 6- or more person (5 per cent) households than Greater Sydney (8 per cent and 4.7 per cent respectively). The greatest change in household size was seen in the one-person households with an increase of 128 households between 2011 and 2016.

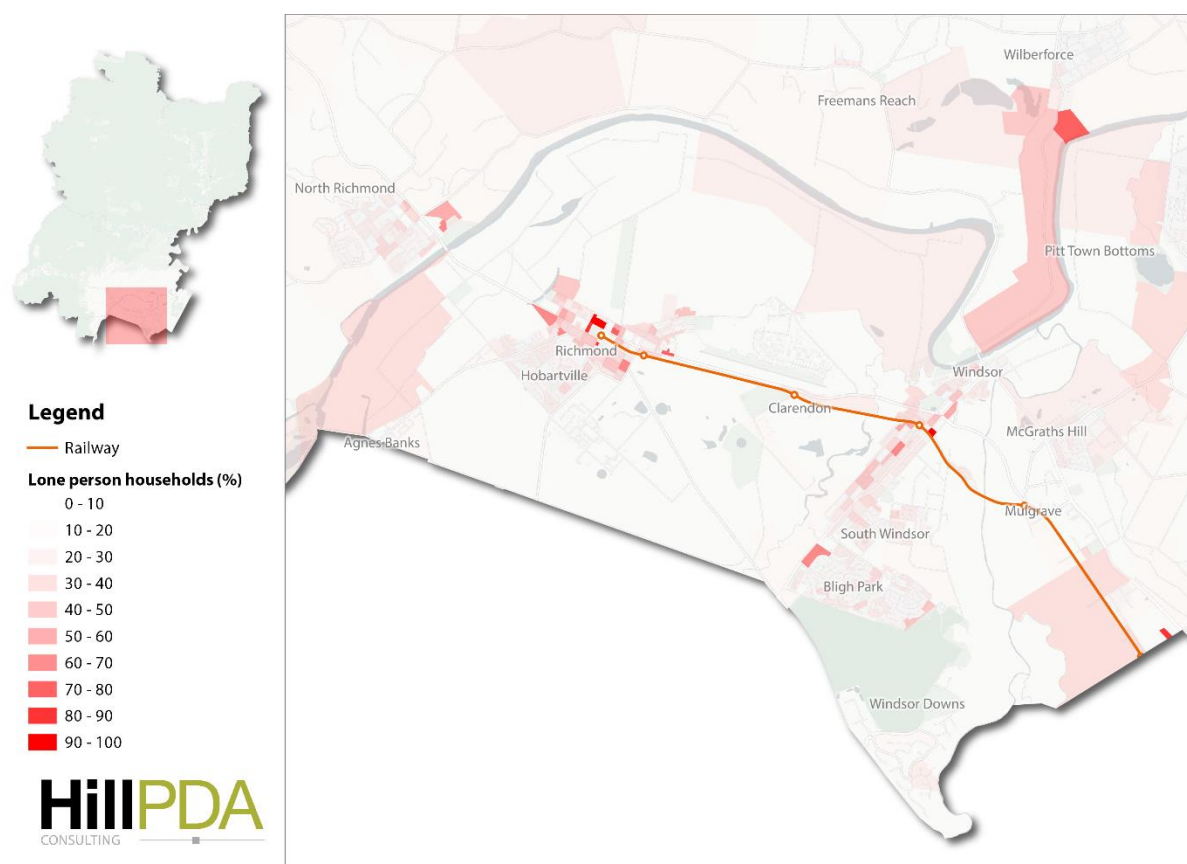
Table 7: Household Size – 2016 and 2011

Number of persons resident	2016			2011			Change
	Number	%	Greater Sydney	Number	%	Greater Sydney	2011 to 2016
1 person	4,389	20.6	21.6	4,261	20.4	22.6	+128
2 persons	6,493	30.5	29.9	6,419	30.8	30.7	+74
3 persons	3,676	17.3	17.6	3,589	17.2	17.2	+87
4 persons	3,773	17.7	18.1	3,696	17.7	17.5	+77
5 persons	1,916	9.0	8.0	1,866	9.0	7.8	+50
6 or more persons	1,062	5.0	4.7	1,014	4.9	4.2	+48
Total Classifiable households	21,309	100.0	100.0	20,845	100.0	100.0	+464

Source: ABS 2016 Census

Lone person households appear to be particularly concentrated around older established areas of Richmond, North Richmond and Windsor which have commercial centres, and higher density housing stock present.

Figure 28: Lone person households (2016)



Note: Figures based on enumerated population

3.2.3 Housing market

The NSW housing sales data as of September 2018 indicates that the Hawkesbury LGA median house prices are \$770,000, showing a negative 8 per cent growth over the past 12 months. The median unit price is \$495,000 representing a negative 4 per cent growth over the preceding 12 months. This negative growth in prices demonstrates the slowing of the residential market.

HillPDA contacted local real estate agents in September 2019. The discussions with local real estate agents indicated that the market is slowing with sale prices dropping as much as 20 per cent to 40 per cent over the last 18 months. Agents advise that

- There is a high demand for dwellings in the lower prices market
- There is buyer interest in a variety of smaller and mid-range developments suited to young professionals with young families and the over 55-year-olds who are looking to downsize near village centres. Seniors housing dwellings are in high demand especially in Windsor and Richmond due to the proximity to the hospital and services available
- One agent advised that there is speculation by some developers that seniors housing does not provide a good return, however not all agents support this view
- Demand for seniors housing is strong with seniors housing villas selling for \$650,000, generally in line with a brand-new house, which typically sells for around \$750,000
- Another agent suggested that apartments for senior housing would sell for similar prices as apartments, between \$400,000 and \$450,000
- One agent suggested that developer contributions hinder developers from developing in the area

- One agent suggested that there could be a demand for small scale apartment developments comprised of up to 25 apartments, meaning developments of only 3 storeys.

There was consensus among the agents contacted that the strain on households associated with a lack of affordable housing, means that residents are not spending the money back in the local area, and local business could be suffering. Agents suggested that increased housing diversity would encourage individuals aged over 55s year to move into the area, potentially activating areas during the daytime and increasing spending in local businesses.

3.3 Housing Supply

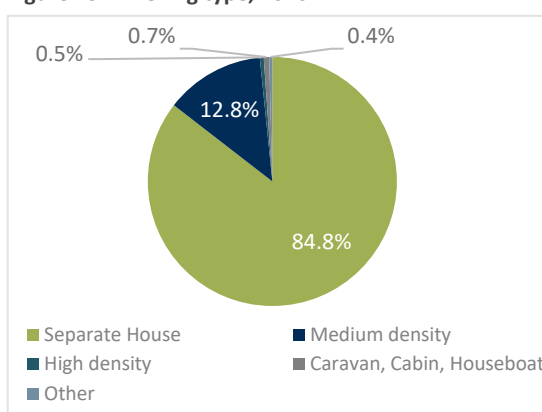
3.3.1 Dwelling Type

At the 2016 Census, there were 24,094 dwellings in the Hawkesbury LGA. Most of these were separate houses making up 84.8 per cent of all dwellings

The next most common housing type was medium density, largely consisting of dual occupancy and villa development, at 12.8 per cent. These housing types were primarily found in the larger centres of Richmond, South Windsor, Windsor and the newer developed area of Bligh Park.

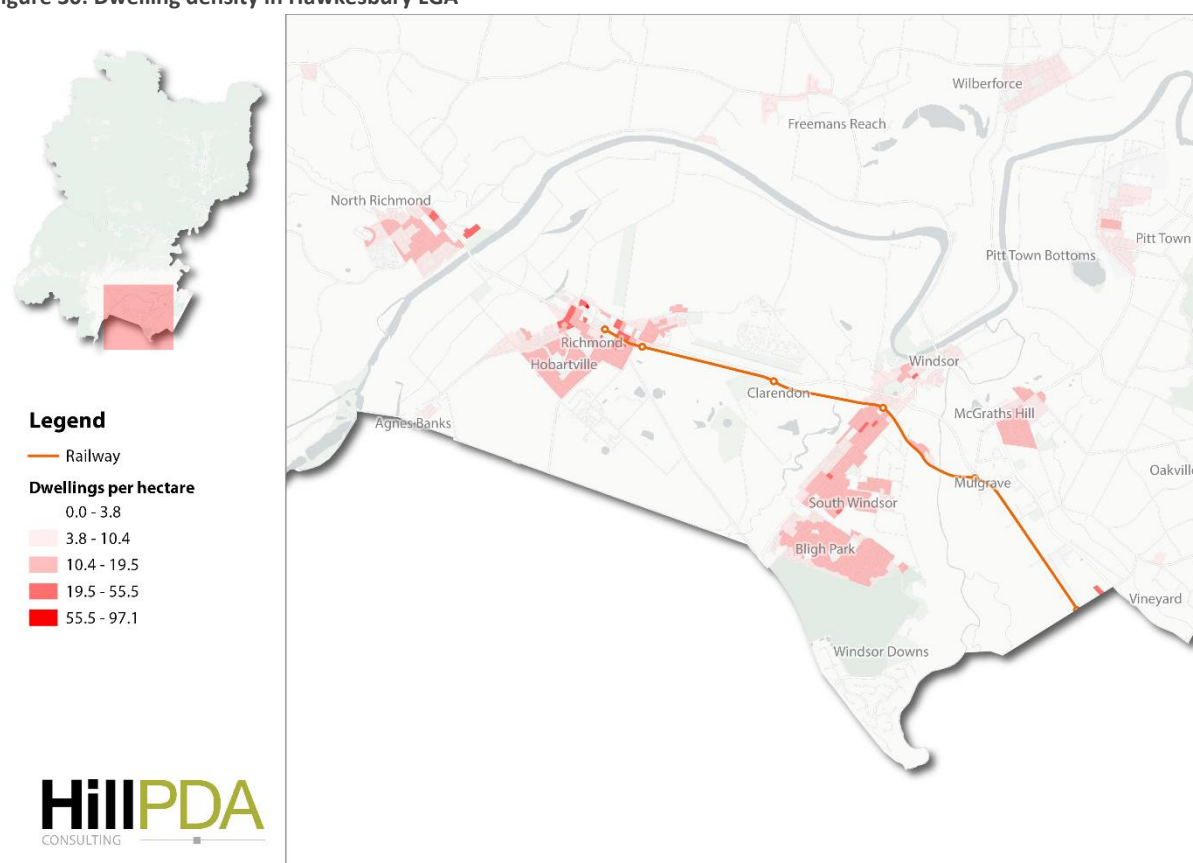
The only high density housing, amounting to 0.4 per cent was found in Richmond (4 per cent).

Figure 29: Dwelling type, 2016



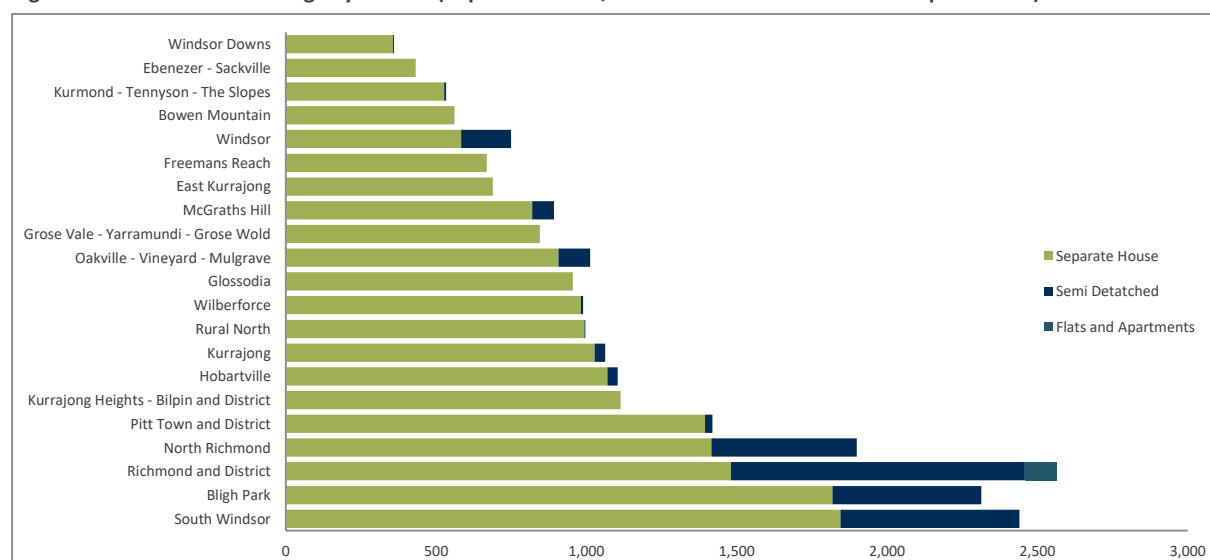
Source: ABS 2016 (excludes "not applicable" and "not stated")

Figure 30: Dwelling density in Hawkesbury LGA



Source: ABS 2016

Figure 31: Number of Dwellings by Suburb (Separate House, Semi-detached and Flats and Apartments) 2016



Source: ABS 2016

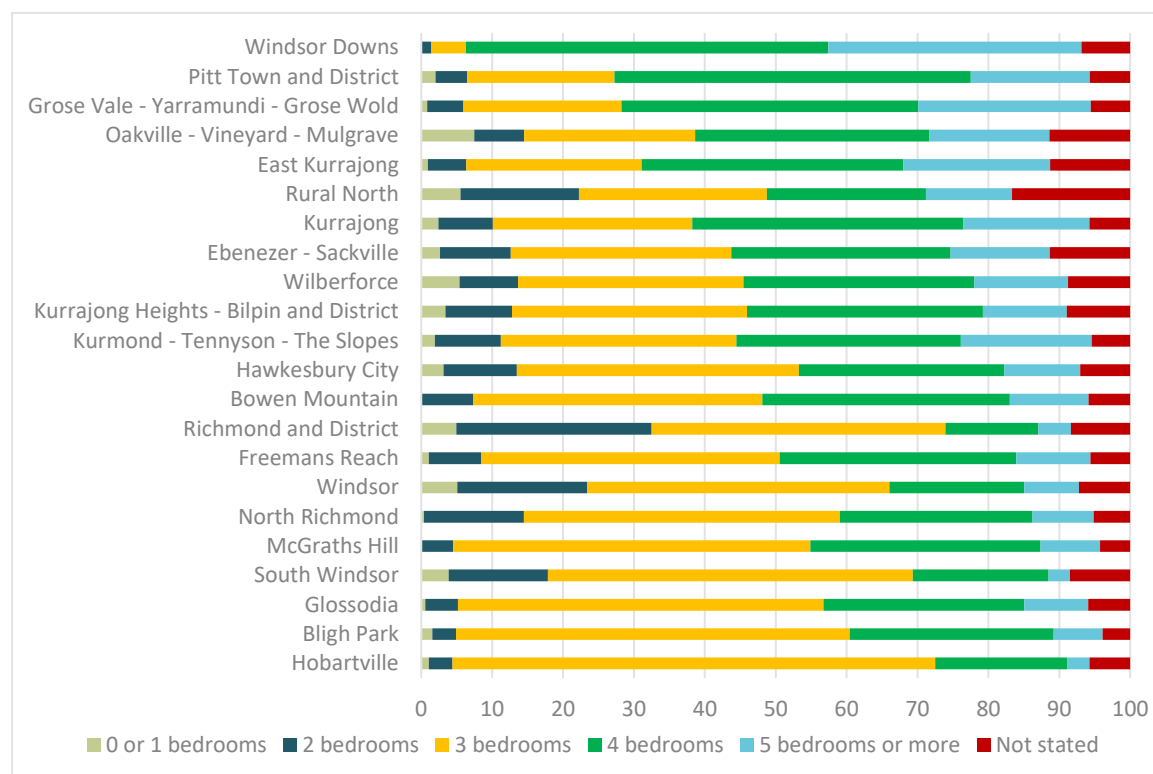
No people were identified in the 2016 Census as living in a boarding house. Five development applications were lodged for boarding houses over the previous five years. The NSW Register of Boarding Houses records a single boarding house in the LGA.

3.3.2 Number of Bedrooms

Overall, there were a higher proportion of dwellings with three or more bedrooms, and a lower proportion of dwellings with two bedrooms or less when compared to Greater Sydney. A breakdown of the number of dwellings by the number of bedrooms by suburb is shown in Figure 32.

It can be seen that a majority of dwellings in Hawkesbury LGA have at least three bedrooms, with almost half having 4 or more bedrooms. Richmond, Windsor, and Rural north are the only suburbs which have between a quarter and third of the housing stock with 2 or less bedrooms.

Figure 32: Bedrooms by Suburb, 2016



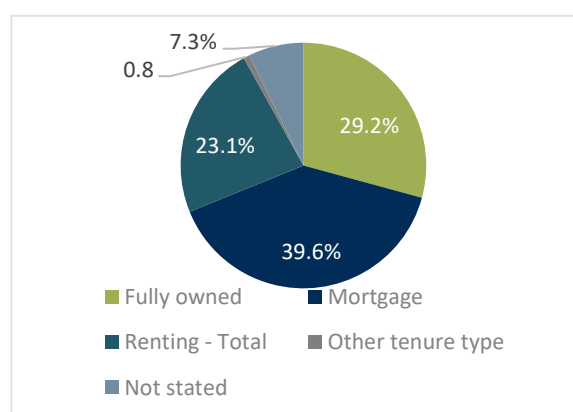
Source: HillPDA

3.3.3 Housing Tenure

In the Hawkesbury LGA, the 2016 Census indicated households owned with mortgages was the most common housing tenure, followed by houses owned outright, as seen in Figure 33.

The proportion of rental housing was significantly lower than rates for Greater Sydney (23.1 per cent and 32.6 per cent respectively). The largest change in housing tenure between the 2011 and 2016 Census period was with fully owned homes, increasing by 327.

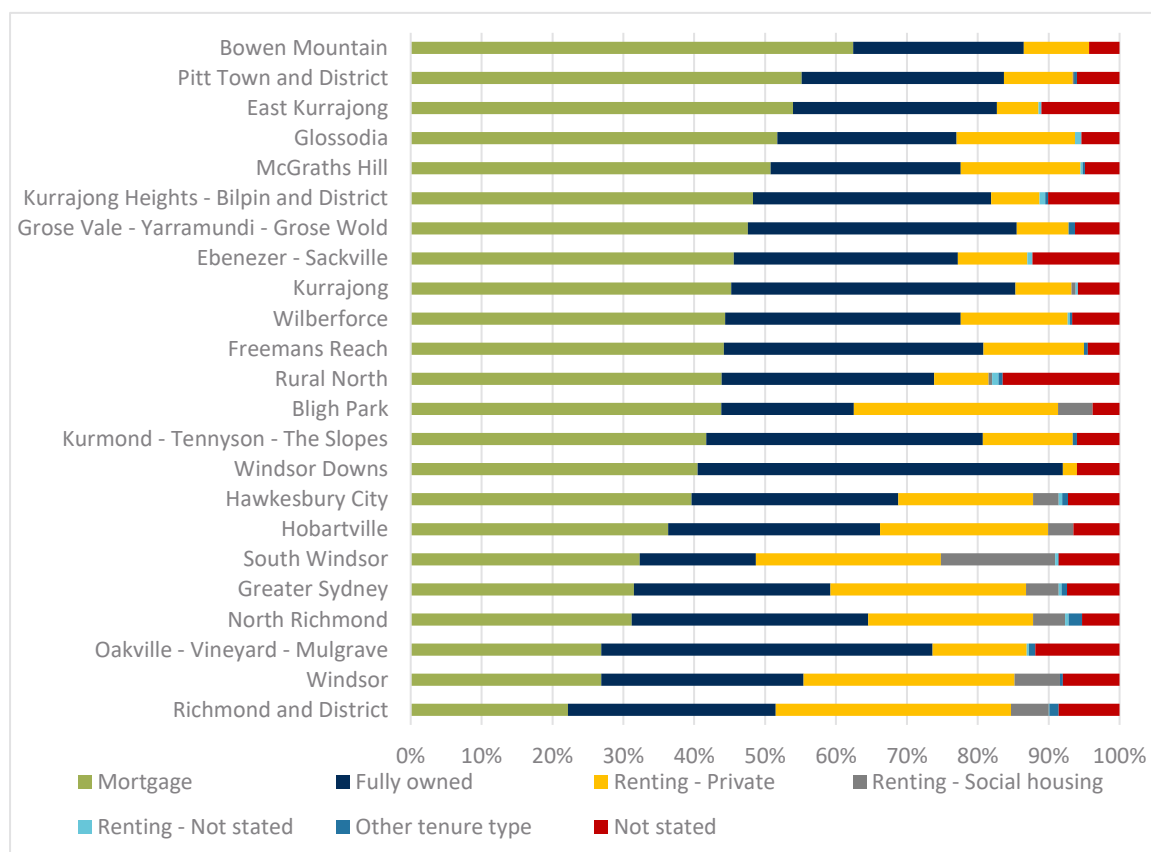
Figure 33: Housing tenure (2016)



Source: ABS 2016

Figure 34 further explores the tenure mix, showing the proportion of housing tenures within each suburb. From the graph, it can be seen that home ownership, with or without a mortgage is over 60 per cent of housing except for the suburbs of South Windsor, Richmond and District, and Windsor. Social housing is high in South Windsor (16.1 per cent), and Bligh Park has a significantly lower number of fully-owned households (18.7 per cent) compared to households with a mortgage (43.8 per cent) and rental households (total) (33.7 per cent).

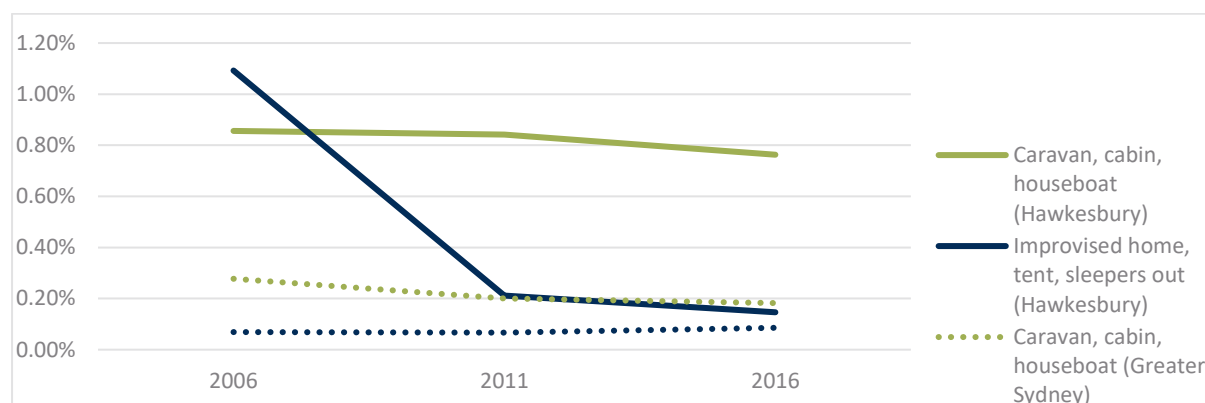
Figure 34: Housing Tenure by Suburb, 2016



3.3.4 Caravans and improvised homes

While caravans and improvised homes make up a small proportion of overall dwellings in the Hawkesbury (0.7 per cent), there was a higher proportion of the population living in accommodation described as a caravan, cabin or houseboat at the time of the 2016 Census compared to the Greater Sydney average.

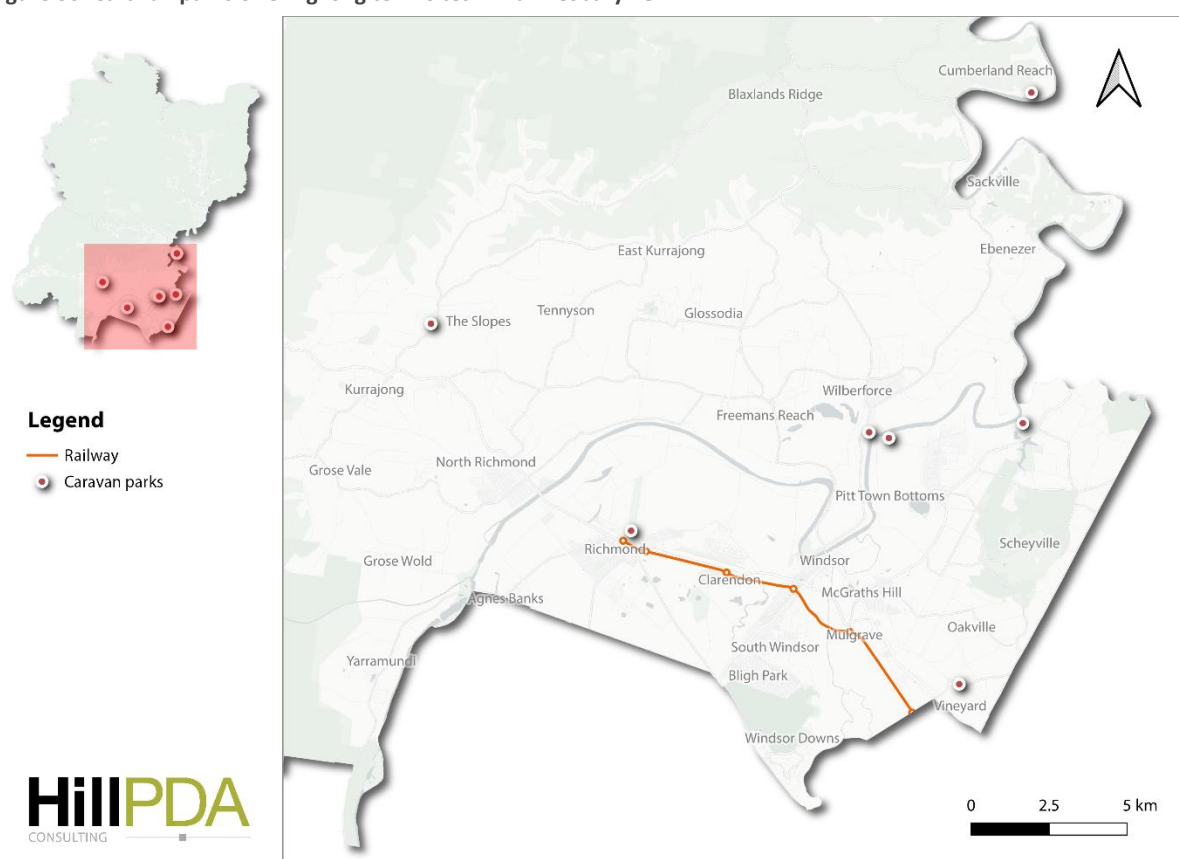
Figure 35: Change in proportion of population living in caravan, cabin, houseboat or improvised homes between 2006 and 2016



Source: ABS 2016

Notably, the proportion of temporary dwellings overall has declined over the period, at a rate in line with Greater Sydney. This may be a product of newer release areas and dwelling construction over that period, with no significant new capacity for caravans, cabins or houseboats.

Figure 36: Caravan parks offering long term sites in Hawkesbury LGA



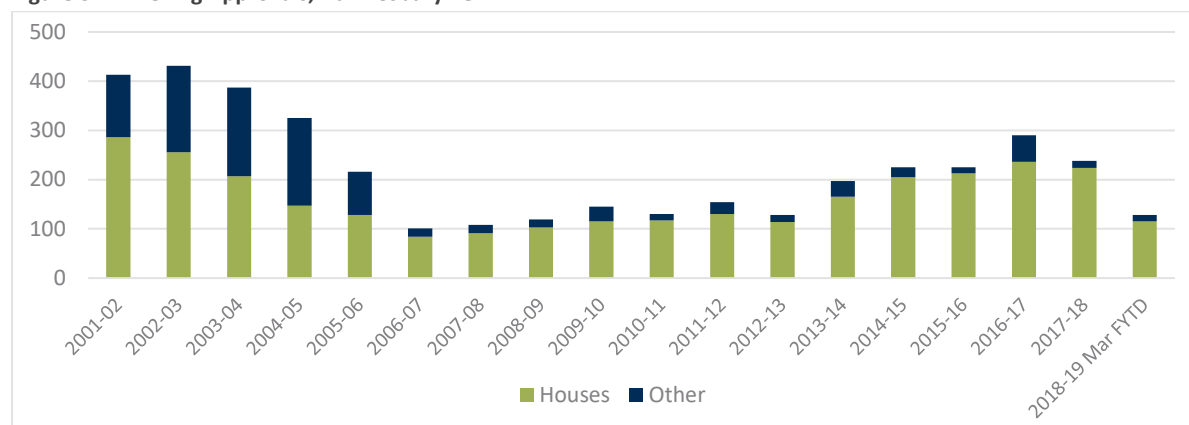
Source: Google

3.3.5 Dwelling approvals

An analysis of dwelling approvals indicates the cyclical nature of housing construction in Hawkesbury LGA, like other location in NSW. In the ten years 2008/09-2017/18, the average annual dwelling approvals was 185 dwellings.

Notably, the total number of approvals in recent years has been well below that of the last peak in 2002-03, largely due to the small number of “other dwellings” approvals that have occurred since 2006-07. It is thought that the reduction in other dwellings coincides with changes to the LGA’s planning controls which restricted dual occupancy dwelling development in the mid-2000s and the completion of Bligh Park release area which has a diverse housing mix.

Figure 37: Dwelling Approvals, Hawkesbury LGA



Source: profile .id

Table 8 provides further detail on dwelling approvals:

Table 8: Dwelling approvals 2001/02 – 2018/19

Hawkesbury LGA	Number			Annual change		
Year (ending June 30)	Houses	Other	Total	Houses	Other	Total
2018-19 Mar FYTD	172115	1329	128201	-52	+15	-37
2017-18	224	14	238	-12	-40	-52
2016-17	236	54	290	+23	+42	+65
2015-16	213	12	225	+8	-8	0
2014-15	205	20	225	+40	-12	+28
2013-14	165	32	197	+51	+18	+69
2012-13	114	14	128	-16	-10	-26
2011-12	130	24	154	+13	+11	+24
2010-11	117	13	130	+2	-17	-15
2009-10	115	30	145	+12	+14	+26
2008-09	103	16	119	+12	-1	+11
2007-08	91	17	108	+7	0	+7
2006-07	84	17	101	-44	-71	-115
2005-06	128	88	216	-19	-90	-109
2004-05	147	178	325	-60	-2	-62
2003-04	207	180	387	-49	+5	-44
2002-03	256	175	431	-30	+48	+18
2001-02	286	127	413			

Source: Hawkesbury Council profile .id

3.3.6 Dwelling completions

Dwelling completions have been steadily increasing. The table below provides annual dwelling completions since 2012/13. The data indicates that dwelling completions have almost tripled over the seven years. Average annual dwelling completions over the period were 169 dwellings.

Table 9: Dwelling completions 2012/13 – 2018/19

Year	Houses	Other	Total
2012/13	78	2	80
2013/14	73	9	82
2014/15	151	15	166
2015/16	186	8	194
2016/17	160	54	214
2017/18	193	19	212
2018/19	209	24	233
Total	1050	131	1181
Annual average	150	19	169

Source: Department of Planning Industry and Environment Housing Database, February 2020

3.3.7 Development pipeline 2019-2021

Development proposals that are likely to be completed between 2016 and 2021 have been identified through a search of Cordell connect database. At the time of writing, there were around 385 dwellings to be delivered in between 2019-2021, with more in the longer-term pipeline. Notably the development includes several boarding house and townhouse developments. The nature of development applications is indicated below:

Table 10: Development pipeline

Project Address	Project Details	Dwellings
52 (Lots 11 & 12) Macquarie St (DP1106196 & DP1106198) WINDSOR	Demolition of existing structures. Construction of a 4 storey residential flat building comprising 24 units, 6 x 1 & 18 x 2 bedrooms. Carparking for 40 vehicles. Landscaping.	24
108 (Lot 27) Grose Vale Rd (DP1042890) NORTH RICHMOND	Staged construction of part 1 part 2 storey 180 bed aged care facility. Construction of 197 serviced self-care dwellings comprising of 6 types of dwellings each with car parking for 2 vehicles. Construction of a residents' recreation clubhouse and associated works.	197
70 (Lot 4) Church St (DP383381) WINDSOR	Construction of 2 x 2 storey duplexes each with an entry porch, kitchen & living areas, 3 bedrooms with a separate bathroom, toilet & laundry. Each dwelling shall have a single garage & an additional external car parking spaces on the driveway in front of the garaged.	4
229 (Lot 1) Macquarie St (DP1040538) WINDSOR	Construction of 4 townhouses. Brick veneer with a tiled roof, concrete floor & timber frame. Floor area of 790.82sq m which includes both floors, garage, porch & alfresco areas. Landscaping	4

Project Address	Project Details	Dwellings
9 (Lot 6) Pearson St (DP13511) BLIGH PARK	Construction of 3 villas. First villa to have 3 bedrooms, a study, open living & covered car parking for 2 cars, with an area of 312sq m. Second villa, 3 bedrooms, a study, open plan living & covered car parking for 2 cars, with an area 251sq m. Third villa, a study, open plan living & covered car parking for 1 car & 1 additional car space. Concrete & timber floor, timber frame, brick veneer walls & metal roof. Landscaping	3
26 Conrad St, RICHMOND	Demolition of existing building & ancillary buildings. Construction of 3 villas. Walls double brick & veneer, metal roof, concrete floor & timber frame. Landscaping & car parking.	3
118-130 (Lot 22) King Rd WILBERFORCE	Construction of 81 townhouses and roads for a retirement village.	81
413 George St (Lot 20 DP1092348) WINDSOR	Construction of a 22 room, 3 storey boarding house. The ground floor will consist of 1 commercial space of 26sq m, 2 boarding room & 1 communal room. First floor 9 x boarding rooms & 1 manager residence. Second floor will have 11 boarding rooms, 1 communal room, 1 manager office. Double brick construction, metal roof & concrete floor.	22
19 Castlereagh Rd HOBARTVILLE	Demolition of the existing cottage & ancillary structures. Construction of 3 x 2 storey brick & clad townhouses, with tile roofing. The townhouses are a mixture of 3 or 4 bedrooms. Carparking. Landscaping.	3
179 Windsor St (Lot 40 DP1040134) RICHMOND	Demolition of outbuilding, brick wall & carport. Retention & refurbishment of existing heritage dwelling. Construction of a 3 storey boarding house at the rear of the site comprising 13 rooms with a common room & manager flat. GFA 739.95sq m. Brick veneer walls, fibre cement walls, timber walls, steel roof, concrete floor. Parking for 4 motorbikes. Landscaping.	13
140 March St (Lots 2-3 DP25709) RICHMOND	Demolition of existing residence. Construction of a 2 storey boarding house containing 27 rooms & a manager's residence. Brickworks walls, louvred screen, painted cement board, concrete floor, steel roof. Car parking for 6 vehicles.	27
6 Keda Crct (Lot 17 DP255010) NORTH RICHMOND	Demolition of existing structures. Construction of 4 x 2 storey units. Associated car parking & landscaping. 4 lot strata subdivision.	4
Total		385

Source: Cordell Connect

3.3.8 Recent rezonings

The table below shows that Council has been steadily increasing the supply of zoned residential land in the LGA.

Table 11: Planning proposal summary

LEP amendment	Area Name	Land Area	Address	Dwelling Yield	Net Dwelling Yield
Urban Area					
LEP001/18	Jacaranda Ponds	185ha	103 Spinks Road, Glossodia 211 Spinks Road, Glossodia 213 Spinks Road, Glossodia 361 Spinks Road, Glossodia 11 James Street, Glossodia 3 Derby Place, Glossodia 746A Kurmond Road, Freemans Reach 780A – 780C Kurmond Road, North Richmond	580	570
LEP11-002/11	Redbank	180ha	98 Grose Vale Road, North Richmond 96 Grose Vale Road, North Richmond 26 Arthur Phillip Drive, North Richmond 28 Arthur Phillip Drive, North Richmond	1,400	1,396
	Vineyard Precinct Stage 1	127.8ha	Vineyard	2,500	2,395
		650sqm	18 James Street, South Windsor	1	1
Total dwelling yield				4,481	4,362
Rural Area- Kurmond/Kurrajong Investigation Area					
LEP89005/10		11.5ha	1411 Kurmond Road, Kurmond	5	4
LEP11-001/12		10.95ha	1412 & 1442A Kurmond Road, Kurmond	13	11
LEP001/12		13.07ha	396 Bells Line of Road, Kurmond	32	31
LEP003/13		10.78ha	1026 Grose Vale Road, Kurrajong	2	1
LEP004/13		4ha	1059A Grose Vale Road, Kurrajong	6	5
LEP007/13		3.97ha	136 Longleat Lane, Kurmond	4	3
LEP002/14		11.03ha	1420 Kurmond Road, Kurmond	11	10
LEP003/14		8.92ha	431 & 431A Greggs Road, Kurrajong	8	7
LEP004/16		8359sqm	452 Greggs Road, Kurrajong	2	1
LEP001/15		19.2ha	219 Bells Line of Road, North Richmond	2	1
Total dwelling yield				85	74
Total Dwelling Yield Urban and Rural Investigation Area				4,566	4,436

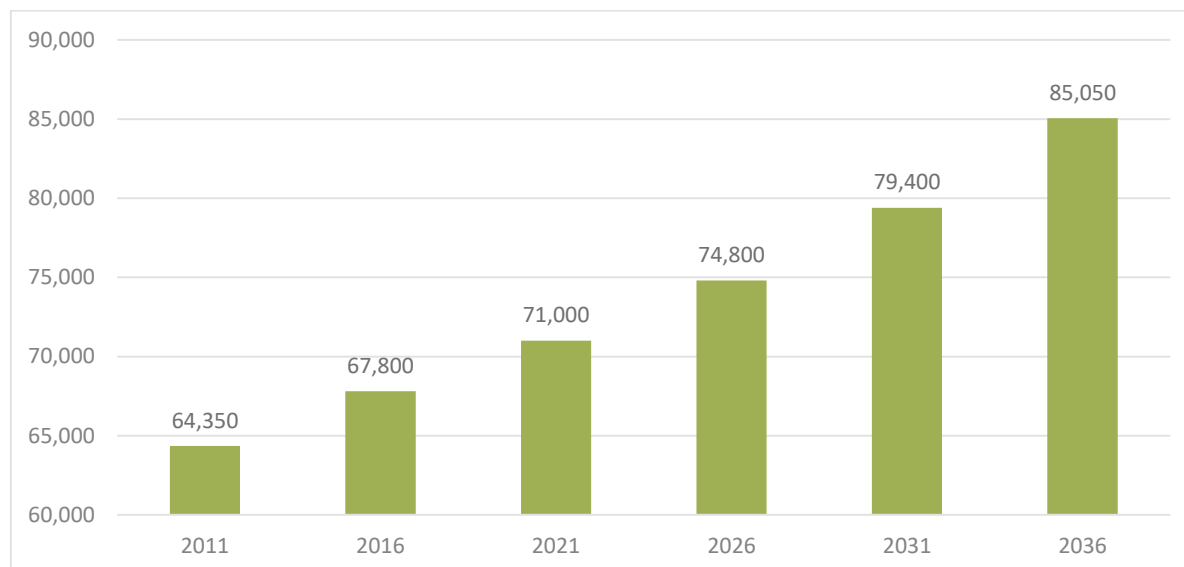
Source: Hawkesbury Council

3.4 Projected housing demand

3.4.1 Population projections

In 2016, DPIE forecast that the annual population growth rate is expected to increase steadily from 0.9 per cent (2016-2021) to 1.4 per cent to (2031-36).¹³ In terms of total population forecasts, the LGA is forecasted to have 74,800 persons in 2026, 79,400 in 2031 and 85,050 in 2036. Population growth is primarily being driven by natural change (i.e. more births than deaths) than migration.

Figure 38: Population projections, Hawkesbury LGA



Source: Department of Planning Industry Environment

While all age groups are expected to grow, the greatest increase will be in the older population. The projections indicate that the population aged 65-84 years will increase by 6,100 people between 2016 and 2036. The population aged 85 years and over is expected to triple, increasing from 1,050 to 3,050.

Table 12: Projected age structure, Hawkesbury LGA

Age Group	2016	2026	2036	Change 2016-36	
<15	13,850	15,400	16,750	2,900	20.9%
15-44	27,050	28,100	31,200	4,150	15.3%
45-64	17,500	17,900	19,650	2,150	12.3%
65-84	8,350	11,800	14,450	6,100	73.1%
85+	1,050	1,650	3,050	2,000	190.5%
Youth dependency	0.31	0.33	0.33		
Aged dependency	0.21	0.29	0.34		

Source: Department of Planning Industry Environment

¹³ NSW Department of Planning and Environment, NSW State and Local Government Area Population and Household Projections, 2016.

3.4.2 Household projections

The total number of households in Hawkesbury LGA will increase from 24,600 in 2016 to 29,700 in 2031 and 32,000 in 2036. The projected average annual household growth remains fairly constant (between 1.2 per cent and 1.5 per cent) over the 20 years.

The Department of Planning Industry and Environment's projections suggest that an additional 8,000 dwellings will be needed in the 20 years 2016 to 2036, requiring an annual average housing delivery of around 400 dwellings per annum. This is more than double the average annual housing approvals for the past 10 years of 185 dwellings per annum (see section 3.2.5). If historical trends continue, dwelling demand is more likely to be in the order of 2,600 to 3,700 dwellings.

While the Vineyard release area may attract increased dwelling approvals in the future, being part of the North West Growth Area, it is unlikely that this would increase dwelling delivery to the levels suggested by the below projections.

Table 13: Projected household growth

Projection	2011	2016	2021	2026	2031	2036
Total Population	64,350	67,800	71,000	74,800	79,400	85,050
Total Households	22,750	24,600	26,150	27,850	29,700	32,000
Average Household Size	2.78	2.71	2.66	2.63	2.61	2.59
Implied Dwellings	24,450	26,400	28,100	29,900	31,950	34,400
Change	2011-16		2016-21	2021-26	2026-31	2031-36
Total Population Change	3,450		3,200	3,800	4,600	5,650
Average Annual Population Growth Rate (%)	1.0%		0.9%	1.0%	1.2%	1.4%
Total Household Change	1,800		1,600	1,650	1,900	2,300
Average Annual Household Growth (%)	1.5%		1.3%	1.2%	1.3%	1.5%

Source: Department of Planning and Environment

Projected household types are indicated in Table 14. The greatest increases are expected in lone person households and couple households, suggesting an increased need for smaller dwellings.

Table 14: Projected household type

Households type	2016	2021	2026	2031	2036	Change 2016-2036
Couple only	5,700	6,150	6,600	7,050	7,550	1,850
Couple with children	9,100	9,400	9,700	10,100	10,650	1,550
Single parent	3,050	3,250	3,450	3,700	4,000	950
Other family households	250	300	300	300	350	100
Multiple-family households	700	750	750	800	850	150

Households type	2016	2021	2026	2031	2036	Change 2016-2036	
Total family households	18,800	19,800	20,800	21,950	23,450	4,650	24.7%
Lone person	5,250	5,850	6,500	7,200	7,950	2,700	51.4%
Group	500	500	550	550	600	100	20.0%
Total non-family households	5,750	6,350	7,000	7,750	8,550	2,800	48.7%
Total	24,600	26,150	27,850	29,700	32,000	7,400	30.1%

Source: Department of Planning and Environment

3.5 Housing Affordability

3.5.1 Rents

Weekly rents for new bonds signed for properties in the Hawkesbury LGA are shown in Table 15. Overall, the median and quartile rents are significantly lower than in Greater Sydney. Interestingly, despite the relatively low supply of flat and unit dwellings in Hawkesbury, these dwelling types appear to be more affordable when compared to rents in Greater Sydney. The interquartile range in Hawkesbury is narrower than Greater Sydney, suggesting more price homogeneity and less dispersal in the rental market.

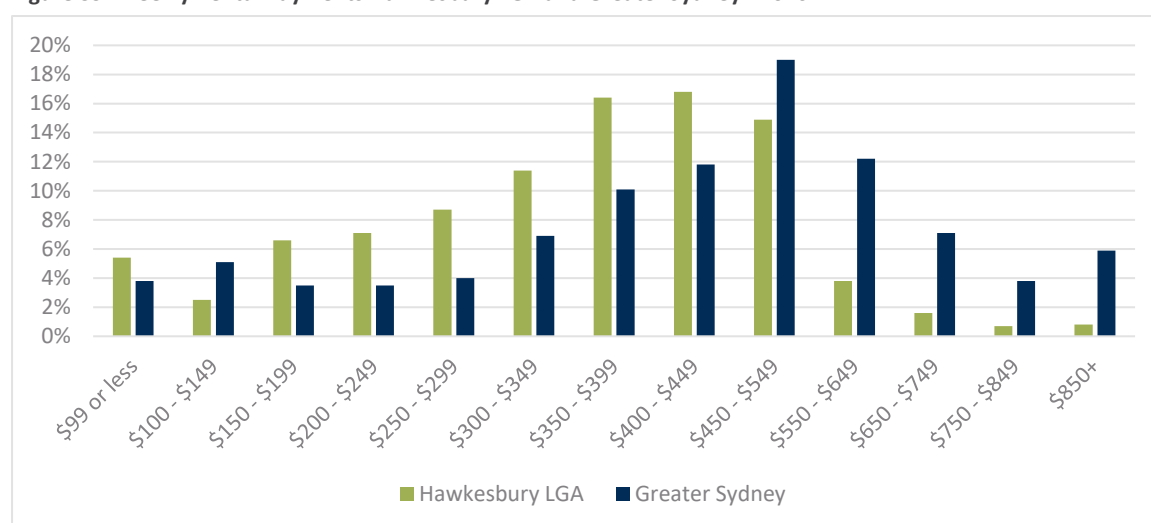
Table 15: Weekly Rents for New Bonds Hawkesbury LGA and Greater Sydney - December Quarter 2018

Dwelling type	First Quartile Weekly Rent for New Bonds		Median Weekly Rent for New Bonds		Third Quartile Weekly Rent for New Bonds	
	Hawkesbury	Gr. Sydney	Hawkesbury	Gr. Sydney	Hawkesbury	Gr. Sydney
Flat/Unit	\$260	\$430	\$330	\$530	\$380	\$650
Townhouse	\$384	\$450	\$420	\$560	\$451	\$720
House	\$403	\$440	\$450	\$550	\$538	\$700
Other	\$350	\$364	\$400	\$450	\$450	\$560
Total	\$385	\$430	\$430	\$530	\$500	\$650

Source: FACS 2018

Examining the distribution of rental payments in 2016 in Figure 39, there is a significantly higher proportion of households with low rental payments (less than \$250 per week), and low proportions of households paying high rental payments (more than \$450 per week), when compared with the Greater Sydney area.

Figure 39: Weekly Rental Payments Hawkesbury LGA and Greater Sydney - 2016

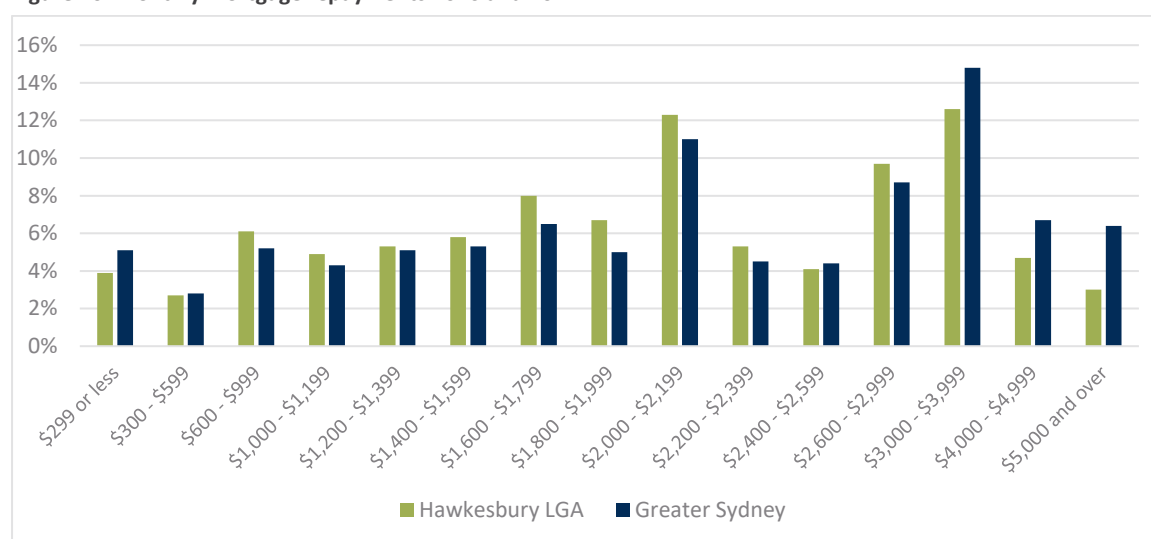


Source: profile .id

3.5.2 Mortgages

Analysing monthly housing loan repayments at the 2016 Census, Hawkesbury has a smaller proportion of households paying high mortgage repayments (\$2,600 or more) than the Greater Sydney area.

Figure 40: Monthly mortgage repayments 2016 and 2011



Source: profile .id

The most dominant mortgage repayment quartile group for the Hawkesbury LGA is the medium highest at 29.9 per cent in 2016, with a lower proportion of those in the highest quartile group than the Greater Sydney area. The higher quartile group, however, is the fastest-growing with an increase of 109 households between the 2011 and 2016 Census.

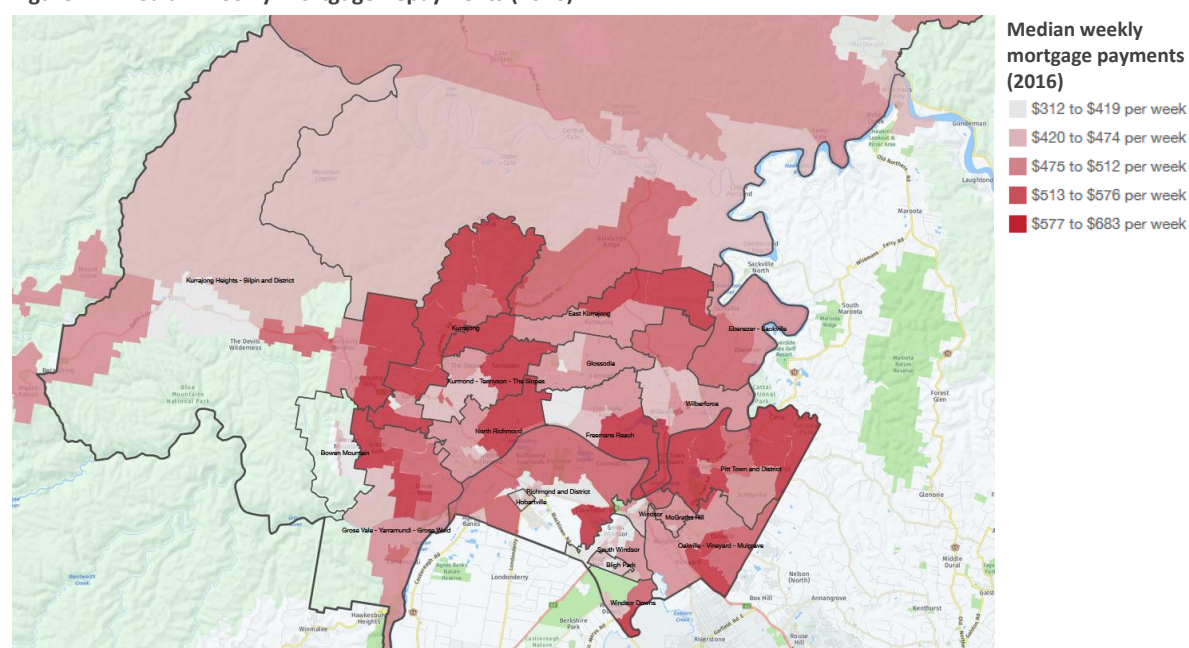
Table 16: Monthly mortgage repayment quartile groups – 2016 and 2011

Dwelling type	2016			2011			Change
Loan repayment quartile group	No	%	Greater Sydney	No	%	Greater Sydney	Greater Sydney
Lowest group	1,717	20.3	19.8	1,659	19.9	19.0	+58
Medium lowest	2,122	25.0	20.9	2,193	26.3	21.8	-71
Medium highest	2,537	29.9	27.1	2,512	30.1	27.3	+25
Highest group	2,098	24.8	32.2	1,988	23.8	31.8	+109
Total households with mortgage repayments	8,476	100.0	100.0	8,355	100.0	100.0	+121

Source: profile .id

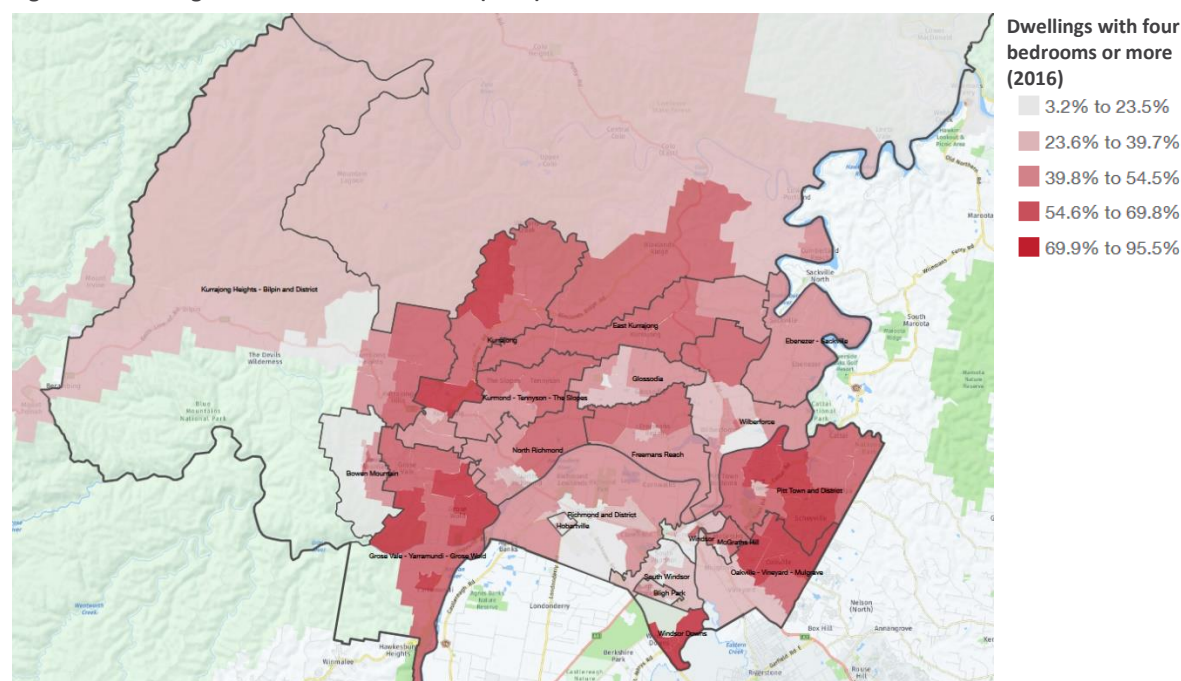
The median mortgage repayment for Hawkesbury in 2016 was \$479 per week, which was below that of Greater Sydney at \$495 per week. Median mortgage repayments appear to be strongly linked to the number of bedrooms in the Hawkesbury LGA, with the Highest Median mortgage repayment areas being: Windsor Downs, Pitt Town and East Kurrajong and the highest four or more bedroom areas being Windsor Downs, Grose Vale-Yarramundi-Grose World, and Pitt Town, as seen in Figure 41 and Figure 42.

Figure 41: Median Weekly Mortgage Repayments (2016)



Note: Figures based on the enumerated population. Source: .ID the Population Experts

Figure 42: Dwellings with 4 or more Bedrooms (2016)



Note: Figures based on the enumerated population. Source: .ID the Population Experts

3.5.3 Housing stress

Housing stress is defined using the NATSEM (National Centre for Social and Economic Modelling) model. Under this model, households are identified as being in stress if they fall within the lowest 40% of equivalised incomes (income adjusted by ABS using equivalence factors to remove the effect of household size and composition on income nationally), who are paying more than 30 per cent of their usual gross weekly income on mortgage or rent repayments. More specifically, a household is defined as being with housing stress when it:

- Is in the bottom two quintiles (40 per cent) of equivalent disposable household income distribution (in the respective state or territory); and
- Has a housing cost (rent plus mortgage minus rent assistance) that represents 30 per cent or more of its disposable income (exclusive of rent assistance).¹⁴

Mortgage stress and rental stress are defined using the same criteria but pertain only to households of those tenure types.

Overall, 10.5 per cent of Hawkesbury LGA households were experiencing housing stress compared with 11.8 per cent in greater Sydney. Whilst Hawkesbury LGA had a lower rate than Greater Sydney, it is important to note that this is significantly varied across the LGA. More detail on this is provided in the subsequent sections.

¹⁴ (Phillips, Chin, & Harding, 2006, p. 3)

Table 17: Proportion of overall housing stress, mortgage stress and rental stress, Hawkesbury LGA 2016

Area	Mortgage Stress	Rental Stress	Housing Stress
Bligh Park	5.2	22.8	11.8
Bowen Mountain	10.3	30.6	10.1
East Kurrajong	5.2	0.0	3.6
Ebenezer - Sackville	9.0	22.8	6.4
Freemans Reach	7.2	19.1	7.4
Glossodia	6.9	18.0	6.8
Grose Vale - Yarramundi - Grose Wold	4.4	16.9	4.2
Hobartville	11.7	29.3	13.7
Kurmond - Tennyson - The Slopes	13.0	12.1	6.1
Kurrajong	6.6	8.2	4.9
Kurrajong Heights - Bilpin and District	8.0	7.5	5.1
McGraths Hill	4.0	26.4	7.7
North Richmond	3.9	29.5	12.3
Oakville - Vineyard - Mulgrave	8.1	13.8	6.6
Pitt Town and District	7.6	16.7	6.5
Richmond and District	8.8	32.8	15.7
Rural North	9.5	19.7	6.7
South Windsor	9.7	33.7	17.8
Wilberforce	8.6	29.2	9.7
Windsor	1.6	31.3	12.4
Windsor Downs	7.1	0.0	2.8
Hawkesbury LGA	8.9	30.2	10.5
Greater Sydney	10.3	26.4	11.8

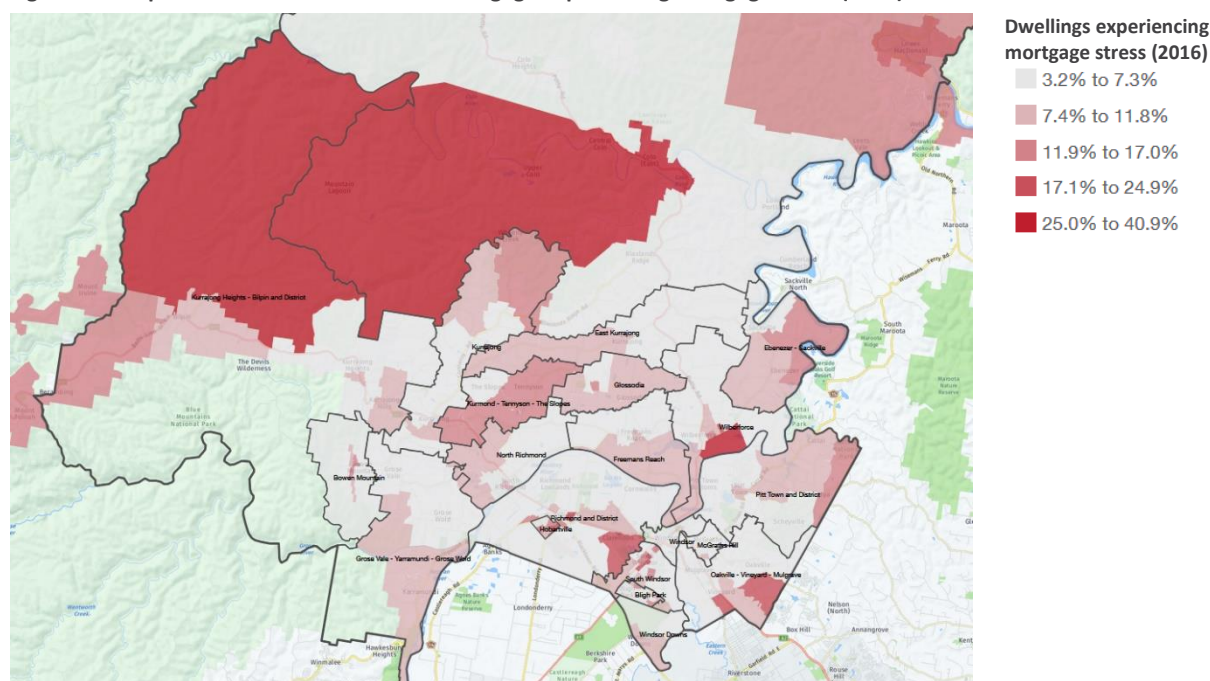
Source: .ID the Population Experts

Mortgage Stress

Approximately 8.9 per cent of households experienced mortgage stress in Hawkesbury LGA, which is less than Greater Sydney at 10.3 per cent. However, there is significant variation across the smaller areas of the LGA with 1.6 per cent in Windsor, and 13.0 per cent in Kurmond-Tennyson-The Slopes.

The spatial distribution of mortgage stress is shown in Figure 43. There are concentrations visible around Hobartville, South Windsor, Wilberforce and Vineyard.

Figure 43: Proportion of households with a mortgage experiencing mortgage stress (2016)



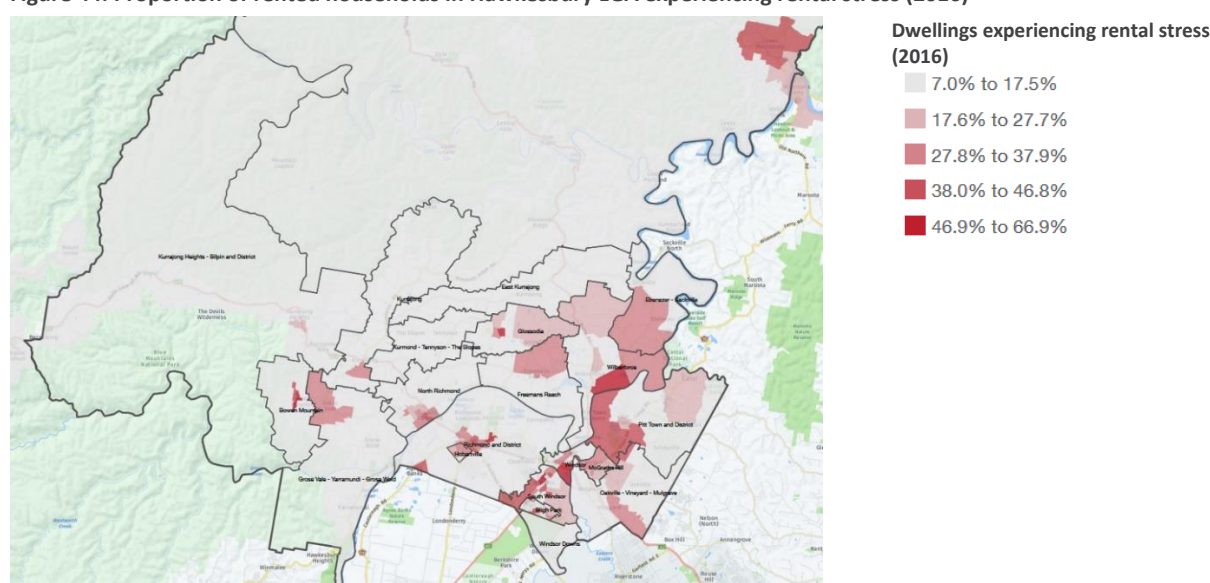
Source: Atlas.id 2019

Rental Housing Stress

Approximately 30.2 per cent of households experienced rental stress in Hawkesbury LGA, which is higher than Greater Sydney at 26.4 per cent. Like Mortgage Stress, there is significant variation across the smaller areas of the LGA with a high of 33.7 per cent in South Windsor, and 0 per cent in East Kurrajong and Windsor Downs, the latter two being reflective of high median household incomes and relatively low levels of rental housing in these areas.

This spatial distribution of households in rental stress is shown in Figure 44. The map indicates significant variation across the city, with concentrations in small areas of linked closely to local centres and areas with medium density housing and where young adults are located.

Figure 44: Proportion of rented households in Hawkesbury LGA experiencing rental stress (2016)



Source: Atlas.id 2019

3.6 Housing supply gaps

The key housing needs are summarised below.

Table 18: Summary of housing needs

Need	Implication
Housing a growing population	<ul style="list-style-type: none"> • Around 10,000 additional dwellings will be needed between 2016 and 2036 • Planning controls will need to ensure sufficient zoned land is available to accommodate additional housing
Increase housing diversity	<ul style="list-style-type: none"> • Around 85 per cent of dwellings are detached dwellings • Forecast changes in household type and size suggest that greater diversity in dwelling type will be needed.
Housing that is suitable for families	<ul style="list-style-type: none"> • Couples with children are the most common household types in the LGA and this is likely to continue • Future dwelling supply should include a significant supply of family style accommodation in multiple different price brackets • Continue to support secondary dwellings in low rise suburban locations to allow extended families to live together, whilst ensuring privacy, parking, and design are not compromised.
Smaller dwellings that are suitable for older people and singles	<ul style="list-style-type: none"> • Between 2011 and 2016, the greatest growth occurred in one-person households • More one and two-bedroom dwellings in locations with good access to transport and services, are needed to address this trend • Encouraging a growing proportion of accessible dwellings will also support this category.
More affordable housing for household on low-moderate incomes	<ul style="list-style-type: none"> • 10.5 per cent of Hawkesbury LGA households were experiencing housing stress compared with 11.8 per cent in Greater Sydney • Review Council's Planning Agreement Policy to address affordable housing • Prepare an Affordable Housing Contribution Scheme which identifies the urban release areas as locates where affordable housing can be delivered and funded via the zoning uplift • Consider requiring affordable housing in the urban release areas via the above mechanisms.



CONSTRAINTS

4.0 CONSTRAINTS AND OPPORTUNITIES

The section presents information on a range of factors that impact on the location of existing and future housing growth.

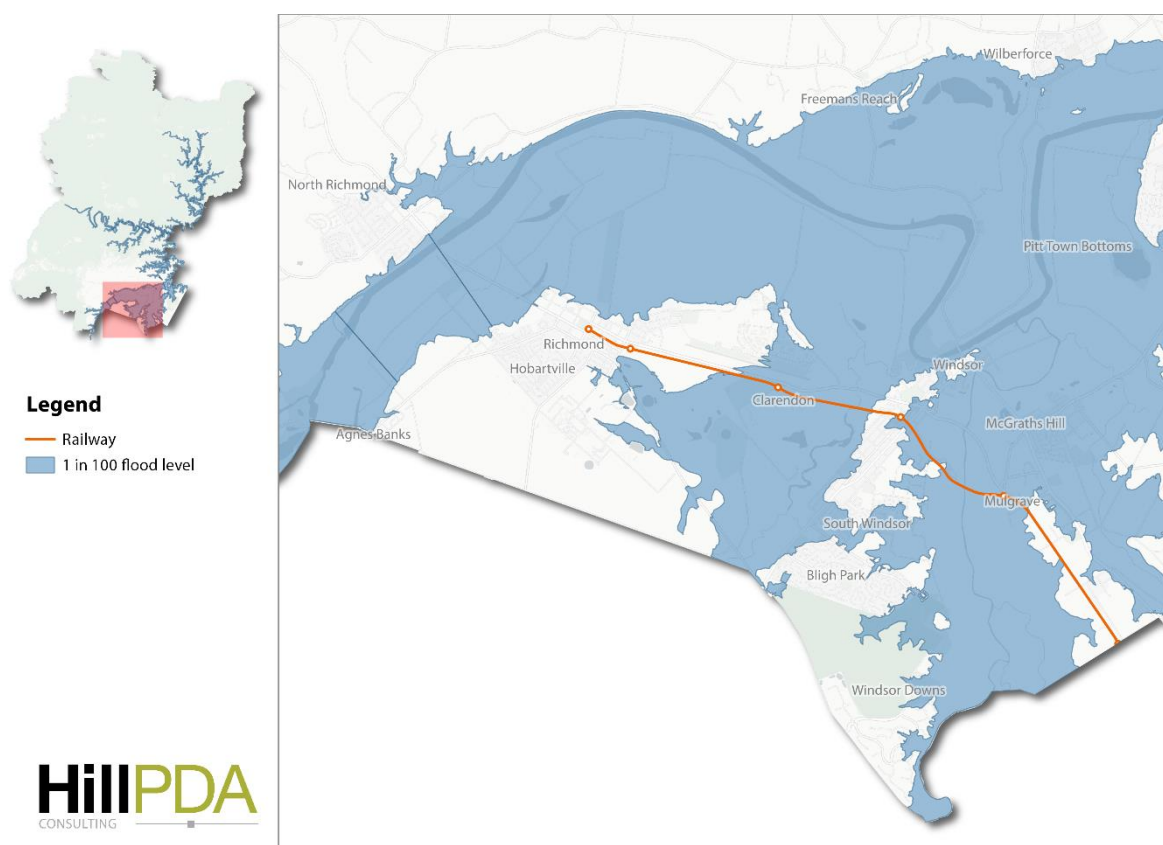
4.1 Constraints

4.1.1 Flooding

The Hawkesbury LGA is affected by flooding associated with the river systems of the Hawkesbury Nepean Catchment which includes the Hawkesbury River, Cattai Creek, South Creek, McDonald River, Grose River and Colo River. Flood planning levels have been adopted based on modelling undertaken in association with the Hawkesbury Floodplain Risk Management Study and Plan, adopted by Council in 2012.

The majority of the urban areas in the LGA and the south-eastern portion of the Hawkesbury LGA are susceptible to flooding events. Figure 45 shows the projected level inundation during a 1:100 Average Recurrence Interval (ARI), meaning an event that has a 1 per cent chance to happen any single year.

Figure 45: 1 in 100 flood extent in Hawkesbury LGA



Source: Hawkesbury Local Environmental Plan 2012

The heavy level of inundation not only directly impacts lower-lying areas, but also substantially impacts upon areas that may be transformed into flood islands during a flood event. Table 19 summarises the extent of inundation in a 1:100 ARI flood event in urban areas.

Table 19: Level of inundation 1 in 100 year flood event

Level of inundation at a 1 in 100 ARI flood event	Suburb
Full inundation	McGraths Hill, Clarendon
Significant inundation	Windsor, South Windsor, Mulgrave, Lower Macdonald, St Albans, Vineyard (North – excludes release area)
Partial inundation	Bligh Park, Windsor Downs, Richmond, Agnes Banks, Wilberforce, Pitt Town
Minor inundation	North Richmond

Additionally, several areas, while not becoming completely inundated, would become a flood island in the event of a 1:100 ARI, effectively cutting that area off from escape or supply. Homes in Windsor, Wilberforce, Nepean Park and Pitt Town would be affected in this way. This would also restrict the capacity of emergency services vehicles to access these areas.

Areas to the west and north, while not impacted by inundation, are affected by a loss of access from the south-east during flood events which restricts access to much more distant circuitous routes via the west and north.

The NSW State Emergency Service has undertaken reporting on the timings associated with community evacuation during flood events, the estimated timings for evacuations during a Probable Maximum Flood (PMF) event are shown in Table 20.

Table 20: Flood Islands in Hawkesbury LGA – Indicative Evacuation Timings

Sector	Estimated No. of Vehicles Requiring Evacuation (1)	Estimated time required for Community to Evacuate (2) (3)	Estimated time required for Warning (4) (5)	Level at which evacuation route is cut (AHD) (6)
McGraths Hill	2,756	8.09 hrs	5.46 hrs	13.5m
Pitt Town	1,071	4.77 hrs	3 hrs	16.0m
Windsor	8,494	19.16 hrs	14.77 hrs	17.3m
Bligh Park	5,611	13.85 hrs	10.18 hrs	18.5m
Richmond	9,088	20.65 hrs	15.79 hrs	20.2m

Source: NSW State Emergency Service (2015)

Table 20 is prefaced by noting that changes to the number of dwellings and vehicles will affect this estimate. As such, an increase in dwellings in the above locations would likely increase these evacuation time estimates.

The Hawkesbury-Nepean Valley Flood Risk Management Strategy Infrastructure NSW study, Resilient Valley, Resilient Communities identified that:

“Currently, there is not enough road capacity to safely evacuate the whole population on time, with multiple communities relying on common, constrained and congested road links as their means of evacuation¹⁵” (Infrastructure NSW, 2017, p. 22).

¹⁵ Hawkesbury-Nepean Valley Flood Risk Management Strategy, Infrastructure NSW 2017

As a result, in both areas at risk of inundation and areas at risk of becoming a flood island, effective and organised evacuation procedures are essential.

The *Hawkesbury-Nepean Valley Flood Management Review Stage One* (2014) was commissioned in early 2013, pursuant to the adoption of the *State Infrastructure Strategy*. The terms of reference for the review required Stage 1 work to evaluate the adequacy and effectiveness of the current flood management arrangements in the Hawkesbury-Nepean Valley. A key outcome from the Stage 1 work was ten proposed strategies to improve flood risk management in the Hawkesbury-Nepean Valley. Chief amongst them was a suggestion that raising the wall at Warragamba Dam was the most effective measure to reduce regional flood damages across the Valley, as this would allow a large volume of floodwater to be temporarily stored and released in a controlled manner.

The proposed strategies in the report, if implemented, would have significant implications for the nature and severity of flood events, and the capacity of local communities to effectively evacuate in severe flooding events. This could reduce the constraints to housing delivery in the flood-affected area.

The recommendation to raise Warragamba Dam to create a flood mitigation zone of around 14 metres is being progressed. WaterNSW, as owner and operator of the dam, is consulting widely about the effects and benefits of the proposal to inform the environmental assessment, concept design and, subject to all planning approvals, a business case to assist decision-making in 2020 about whether to proceed with these major flood mitigation works. As yet, the time frame for the raising of the wall is uncertain.

Hawkesbury LEP 2012 includes planning provisions at clause 6.3 to manage development in flood-prone lands as follows:

(1) The objectives of this clause are as follows:

- (a) to minimise the flood risk to life and property associated with the use of land,*
- (b) to allow development on land that is compatible with the land's flood hazard, taking into account projected changes as a result of climate change,*
- (c) to avoid significant adverse impacts on flood behaviour and the environment.*

(2) This clause applies to land at or below the flood planning level.

(3) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development:

- (a) is compatible with the flood hazard of the land, and*
- (b) is not likely to significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties, and*
- (c) incorporates appropriate measures to manage risk to life from flood, and*
- (d) is not likely to significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses, and*
- (e) is not likely to result in unsustainable social and economic costs to the community as a consequence of flooding.*

(4) A word or expression used in this clause has the same meaning as it has in the Floodplain Development Manual (ISBN 0 7347 5476 0), published by the NSW Government in April 2005, unless it is otherwise defined in this clause.

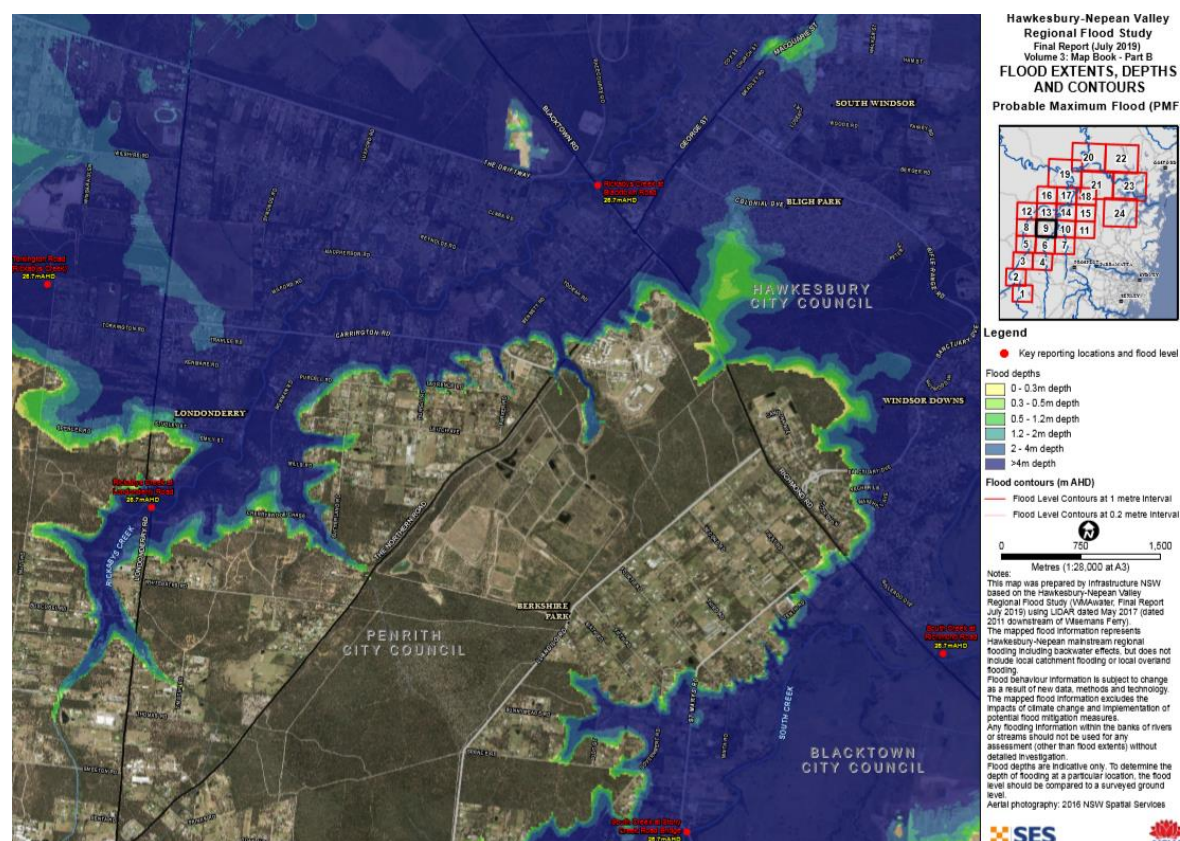
(5) In this clause:

flood planning level means the level of a 1:100 ARI (average recurrent interval) flood event.

The above provision affords Council the power to refuse development applications in circumstances where the risks from flooding are, as determined by Council, considered to be unreasonable having regard for the 1:100 ARI flood event.

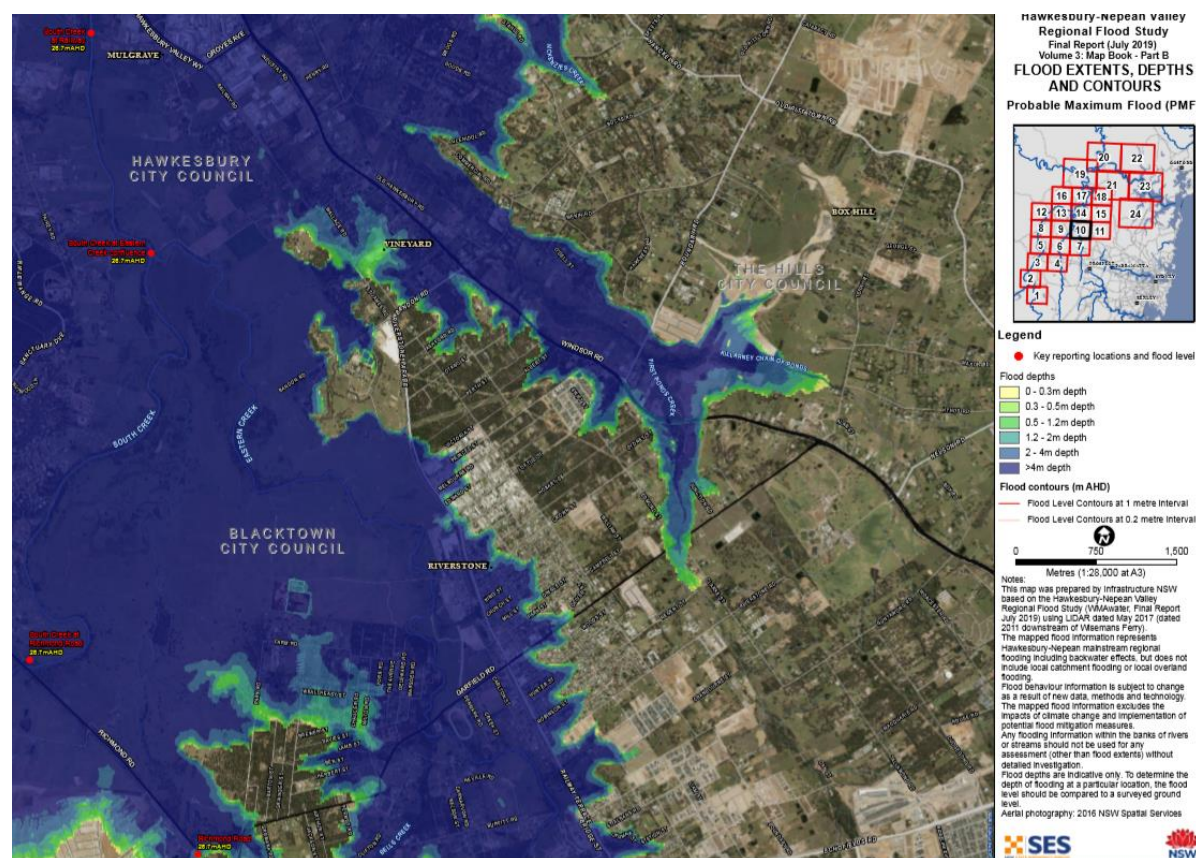
Any future proposal to apply the Maximum Probable Flood (PMF) event, in place of the 1:100 year ARI, would significantly increase the level of flooding constraint to urban development as indicated in Figure 46 and Figure 47. This report has assumed that planning will continue, as per the current 1:100 ARI mapping.

Figure 46: Probable maximum flood – Image A



Source Hawkesbury Nepean Regional Flood Study

Figure 47: Probable maximum flooding – Image B



Source Hawkesbury Nepean Regional Flood Study

4.1.2 Bushfire

Bushfire considerations are important to regulating the location of new dwellings and requiring materials of new dwellings be resistant to bushfire attack. The extent of the bushfire prone zone established by Council and the Rural Fire Service (RFS) is indicated in Figure 48.

All developments on land that is designated as bush fire prone have a legal obligation to consider bush fire and meet the requirements of *Planning for Bush Fire Protection 2006* and AS3959 – 2009. The updated *Planning for Bush Fire Protection 2019* has been released and is expected to be adopted into legislation in March 2020. A review has been conducted of *Planning for Bush Fire Protection 2006*, which included a period of targeted and full public consultation. It is anticipated that the next iteration of the document will be finalised in late 2019/early 2020, to coincide with the enactment of the National Construction Code 2019¹⁶.

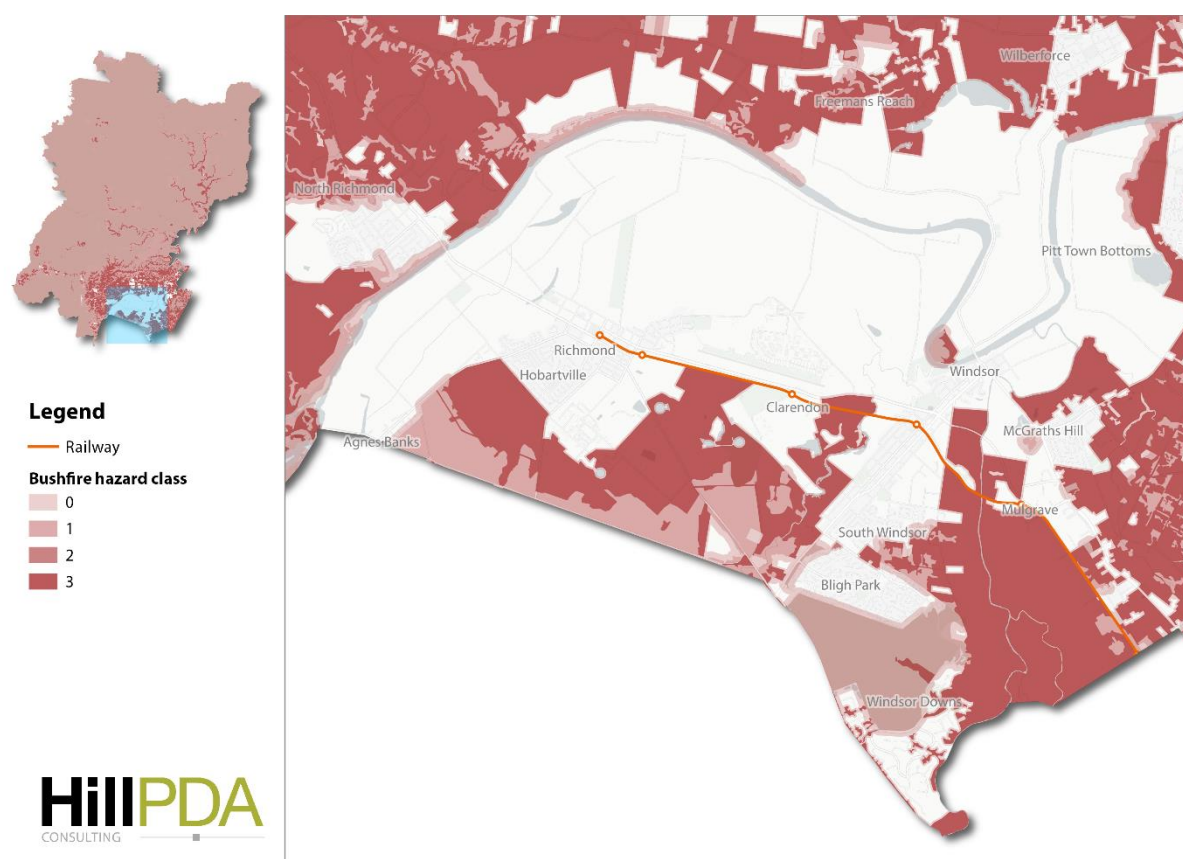
According to the Hawkesbury Bush Fire Prone Land Map 2017, shown in Figure 48, the areas of greatest bushfire risk lie to the west and north, with many smaller towns enclosed by woodland that forms the outer sections of national parks. Housing in Glossodia, Bowen Mountain, Kurrajong Heights, Kurrajong Hills, Ebenezer and Vineyard are all bushfire prone, with the potential for roads to be cut during a bushfire. Land identified for future housing development should aim to minimise the risk to life and property in the event of a severe fire. In particular:

¹⁶ <http://www.rfs.nsw.gov.au/plan-and-prepare/building-in-a-bush-fire-area>

The urban areas of Windsor and Richmond are not mapped as being bushfire prone, and as such, are not subject to the above bushfire provisions. However, some land in other urban settlements are affected by Bushfire provisions as follows:

- Category 3 land, which is considered to be medium bush fire risk vegetation, generally limits opportunities for urban expansion, as indicated in Figure 48
- Category 2 bushfire land includes parts of Wilberforce, North Richmond, Bligh Park and Vineyard. This category presents a low-level risk

Figure 48: Map of identified bushfire prone areas in the south of Hawkesbury LGA



Source: Hawkesbury Bush Fire Prone Land Map 2017

4.1.3 Biodiversity

Hawkesbury Council has committed to sustainable development practices and seeks to protect and enhance the biodiversity value of the LGA.¹⁷

Of the almost 2,800 km² of land within the Hawkesbury LGA, 71 per cent is contained within National Parks, Nature Reserves and State Recreation Areas. Large areas of vegetation are generally under the management of NPWS in Blue Mountains National Park, Wollemi National Park, Yengo National Park and Cattai National Park. Important vegetation communities are also located on private land.

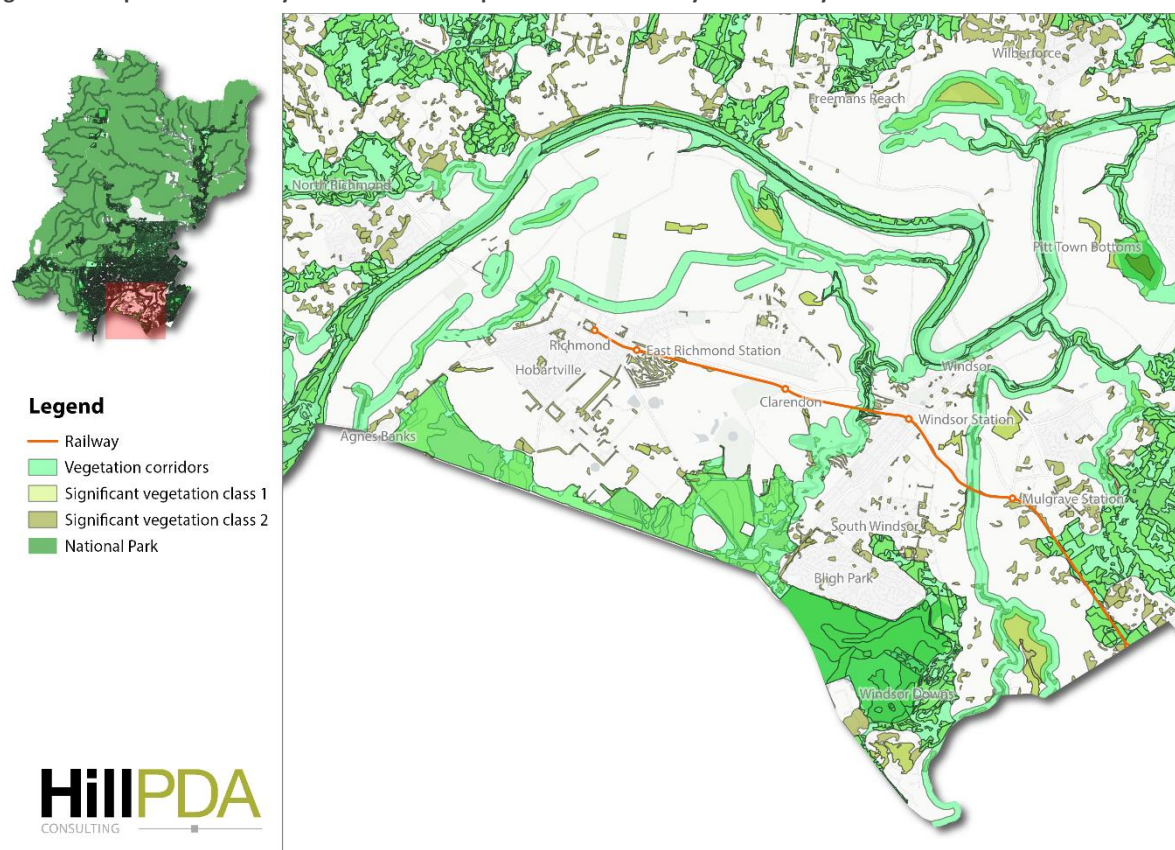
As for other areas of the Greater Sydney Metropolitan area, areas that are good agricultural land and/or easily utilised for urban development have been extensively cleared. Even where some canopy species remain the understorey and herbaceous layers have generally been removed by clearing and grazing. Those

¹⁷ *Ibid.*

areas that represent a challenge in terms of development (due to flooding or steep topography etc) are typically those that retain significant areas of vegetation¹⁸. Council is currently reviewing its position in light of the Biodiversity Conservation Act 2016, which became effective in August 2017.

Any future urban development must be located to minimise impacts to important biodiversity areas.

Figure 49: Map of Hawkesbury LGA with national parks and biodiversity area overlays



Source: Hawkesbury Bush Fire Prone Land Map 2017, Hawkesbury LEP 2012

4.1.4 Heritage

The heritage character of Hawkesbury LGA includes influences from Indigenous, European and natural heritage. Indigenous heritage dates back to 40,000 years ago.

Hawkesbury LGA contains some of Australia's oldest European settlements with early settlers locating along the Hawkesbury River. State and local items are generally located within the old settlements and slab barns located along the river banks or creeks.

The two older centres of Windsor and Richmond have a high prevalence of heritage items, with much of their respective business districts listed with heritage items or conservation areas. Conservation areas identified in Windsor are shown below in Figure 50. It should be noted that while these items are constraining from the perspective of developing additional housing, they contribute positively in a variety of other ways.

It should also be noted that Council is currently undertaking a Heritage study to review existing listings and inventory sheets and to consider potential new listings.

¹⁸ <https://www.hawkesbury.nsw.gov.au/environment/natural-environment/natural-environment#spatialvariation>

Figure 50: Windsor's heritage items and conservation areas listed in Hawkesbury LEP 2012



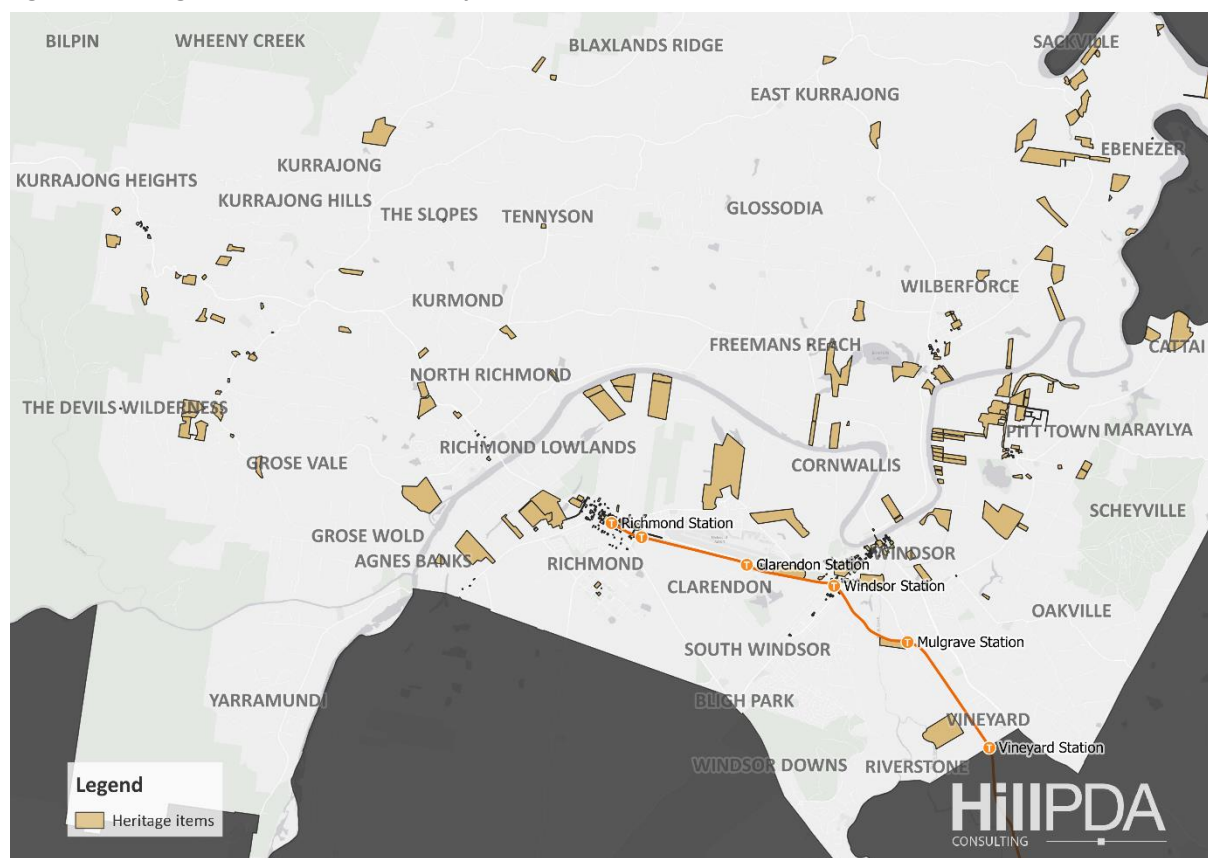
Figure 51: Heritage items identified under the Hawkesbury LEP 2012 in Richmond



Generally across Hawkesbury LGA heritage is largely managed through the listing of individual items and heritage conservation areas. The implications for looking at future housing delivery is that individual items and their curtilage needs to be considered when identifying opportunities for growth but individual items are unlikely to exclude an area or precinct from the identification of uplift. Heritage significance will be an additional design consideration with the identification of precincts with the potential for growth.

Figure 52 shows the location of heritage items within the centres of Richmond and Windsor. Blue Mountains National Park to the West of the LGA is also classified as a UNESCO World Heritage site.

Figure 52: Heritage items listed in Hawkesbury LEP 2012



Source: HillPDA

4.1.5 Village and landscape character

The Hawkesbury CSP indicates that the community values the character of its villages. This includes celebrating the unique character of the villages in the LGA as well as the LGA's rural character.

Housing market demand shows that there is interest in the villages of Hawkesbury LGA and that there is an opportunity to understand the needs and capacity of individual housing markets to provide sufficient housing choice in the right locations. Increasing housing diversity in the villages of Hawkesbury LGA will require careful consideration of existing environmental constraints as well as character. There remains an opportunity to provide a mix of dwelling types including secondary dwellings, low rise medium density, affordable rental housing and seniors living without the need for a significant increase in density and incremental growth.

Within the Hawkesbury DCP, some controls seek to support the scenic value of the LGA including recognition of the landscape rural/residential setting. These settings are often located alongside the

villages of Hawkesbury LGA where incremental growth that is consistent with market demand and manages environmental constraints is an opportunity.

4.1.6 Metropolitan Rural Area

The Greater Sydney Region Plan and Western City District Plan identify significant rural areas contributing to habitat and biodiversity, supporting productive agriculture, providing mineral and energy resources, and sustain local rural towns and villages. The Plans define a Metropolitan Rural Area that has a wide range of environmental, social and economic values. It covers almost one quarter of Greater Sydney and contains farms; rural towns and villages; rural residential developments; heritage, scenic and cultural landscapes; mineral resources; and locations for recreation and tourism.

The Metropolitan Rural Area includes large areas where natural hazards such as flooding need to be managed as well as large areas that serve as locations for people to live in a rural setting amongst bushland, farms and other rural industries. Agriculture in the Metropolitan Rural Area is recognised as being integral to the supply of Greater Sydney's fresh food and resilience. The Metropolitan Rural Area also contains mineral resources, particularly in the Western City District where commercial quantities of coal and coal seam gas are being extracted. Valuable supplies of sand, stone, clay and other materials are sourced from within Greater Sydney. Protection of these resources is important in supporting the construction industry.

The Greater Sydney Commission has indicated that land use in the Metropolitan Rural Area will be influenced by:

- increasing demand for biodiversity offset sites creating additional value for landowners with areas of vegetation of high environmental value (refer to Objective 27)
- local demand to live and work in a rural town or village • opportunities to conserve and enhance cultural heritage
- opportunities for more tourism and recreation, linked to the Western Sydney Airport and improved transport infrastructure, which can bring more visitors to the Metropolitan Rural Area and the Protected Natural Area
- new opportunities for growing fresh food close to a growing population and freight export infrastructure associated with the Western Sydney Airport (refer to Objective 20 of the Greater Sydney region Plan).

The Greater Sydney Commission advocates for place-based approaches for landscape units within the Metropolitan Rural Area will help manage its environmental, social and economic values and maximise the productive use of the land. Urban development is not considered to be consistent with the values of the Metropolitan Rural Area.

The Greater Sydney Region Plan states that:-

"This Plan identifies that Greater Sydney has sufficient land to deliver its housing needs within the current boundary of the Urban Area, including existing Growth Areas and urban investigation areas associated with the development of the Western Sydney Airport. This eliminates the need for the Urban Area to expand into the Metropolitan Rural Area. From time to time, there may be a need for additional land for urban development to accommodate Greater Sydney's growth, but not at this stage. Future region plans will

identify if additional areas of land in the Metropolitan Rural Area are required for urban development.”¹⁹

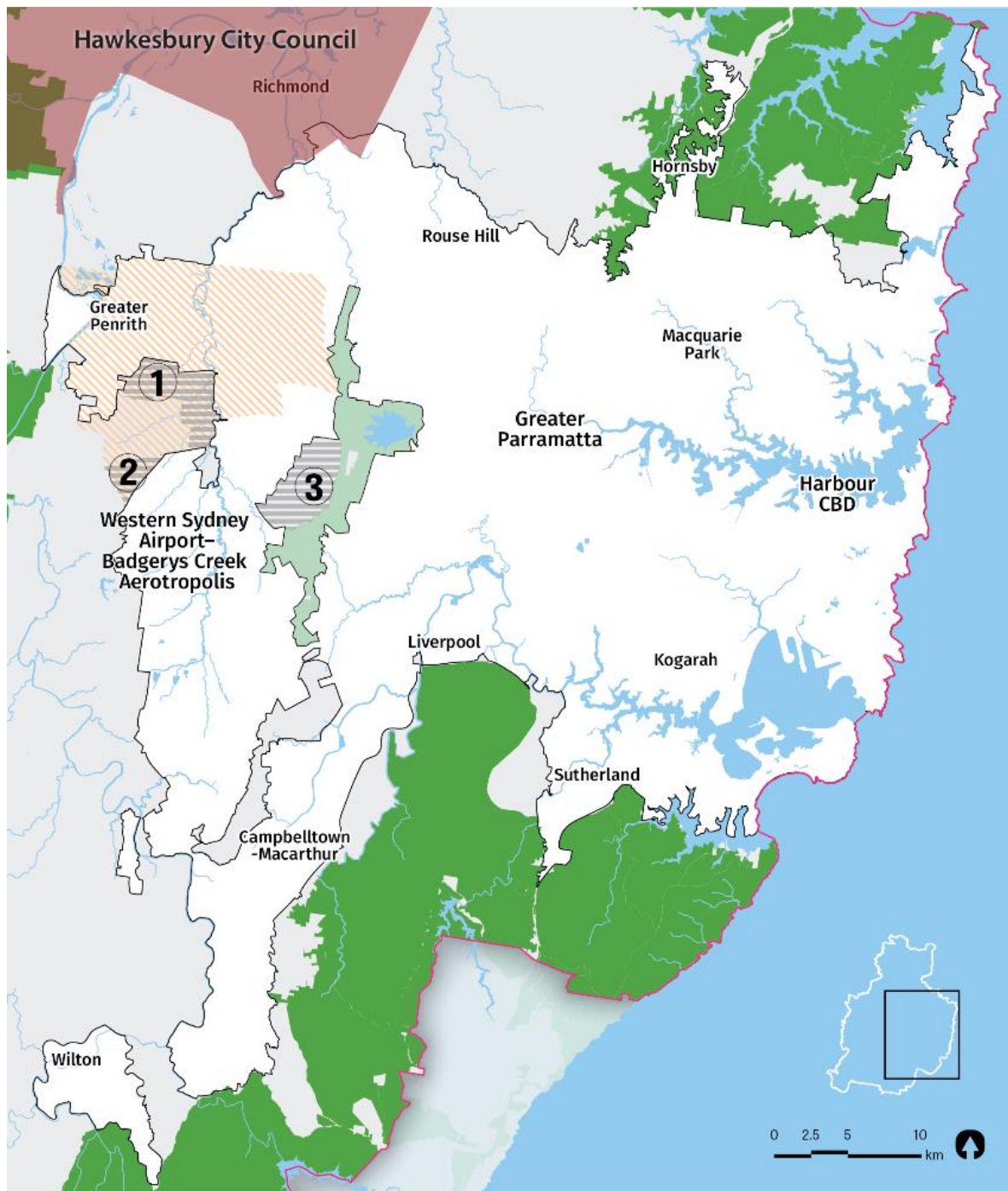
The Western City District Plan reinforces this approach by indicating, at actions 78 and 79, a desire to:

- Maintain or enhance the values of the Metropolitan Rural Area using place-based planning to deliver targeted environmental, social and economic outcomes.
- Limit urban development to within the Urban Area, except for the investigation areas at Horsley Park, Orchard Hills, and east of The Northern Road, Luddenham²⁰.

¹⁹ Greater Sydney Commission (2019) *A Metropolis of Three Cities – Greater Sydney Region Plan*, page 160.

²⁰ Greater Sydney Region Plan (2019) *Western City District Plan*, p 127.

Figure 53: Map showing the Metropolitan Rural Area with Hawkesbury LGA overlayed (top left)



Region Boundary	Urban Area	1 Orchard Hills, north of the Defence Establishment Orchard Hills and west of St Clair
Waterways	Urban Investigation Areas	2 east of The Northern Road at Luddenham between the Western Sydney Airport Growth Area and the water pipeline.
Protected Natural Area	Metropolitan Rural Area	3 Horsley Park and Mount Vernon located west of the M7 Motorway.
Western Sydney Parkland	Greater Penrith to Eastern Creek Growth Area	

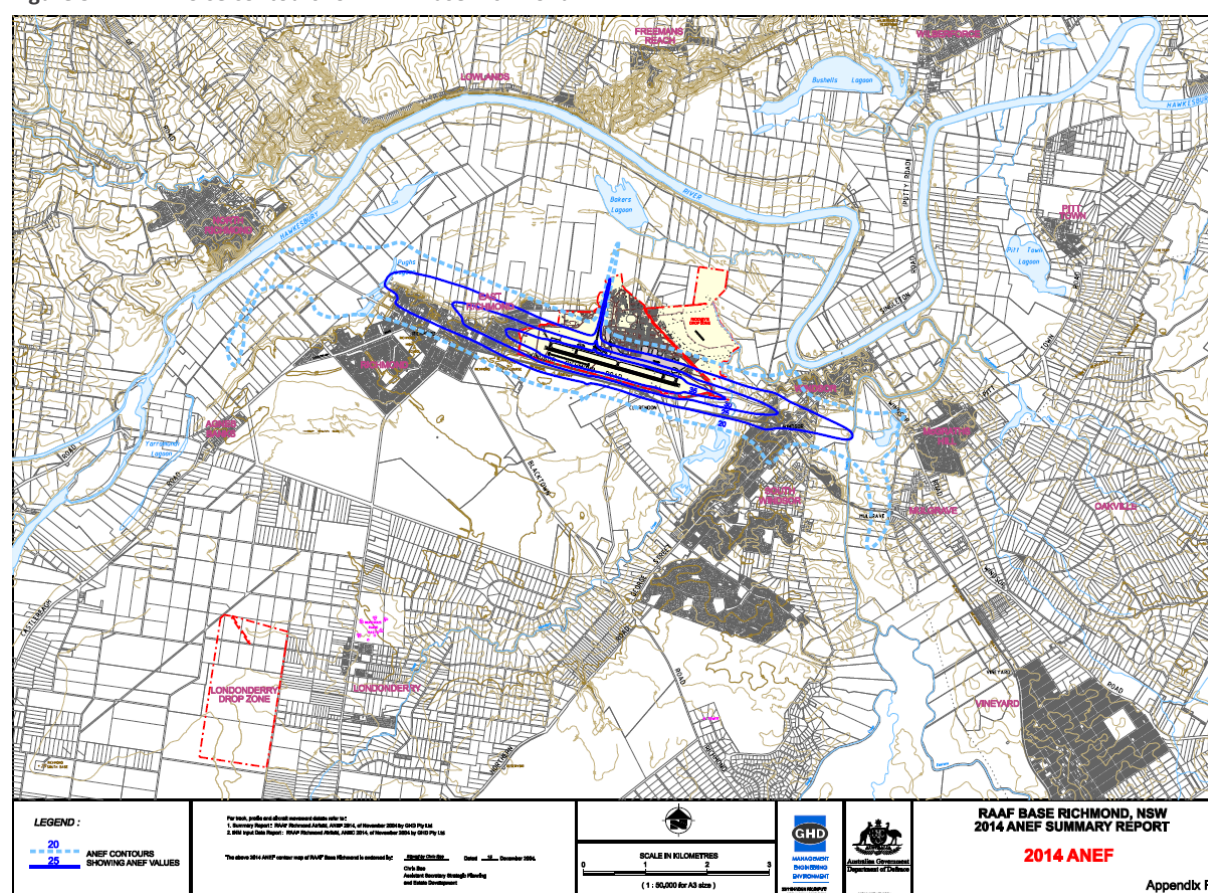
Source: Greater Sydney Commission

4.1.7 RAAF Base and ANEF zones

RAAF Base Richmond is located between the town centres of Richmond and Windsor. The airport is the largest military base in New South Wales and the second largest in Australia. It commenced military flying operations in 1916 and became a RAAF base until 1925. Previous investigations into a second airport included Richmond however with the recent announcement of Badgerys Creek as the site of Western Sydney Airport, the RAAF base seems set to remain a military base.

Australian Noise Exposure Forecast (ANEF) charts are contour maps that show a forecast of aircraft noise levels that are expected to exist in the future. ANEF charts are used to inform land use zoning around the airport. ANEF is used to assist in identifying areas where noise-sensitive development should be controlled, and to help to ensure the long-term development and sustainability of airport operations. Figure 8 shows the noise contours for RAAF Base Richmond.

Figure 54: ANEF noise contours for RAAF Base Richmond



Nearby localities that are affected by ANEF 30 are parts of East Richmond and Windsor, ANEF 25 are parts of Windsor and East Richmond and ANEF 20 parts of Agnes Banks, Mulgrave, Richmond and South Windsor.

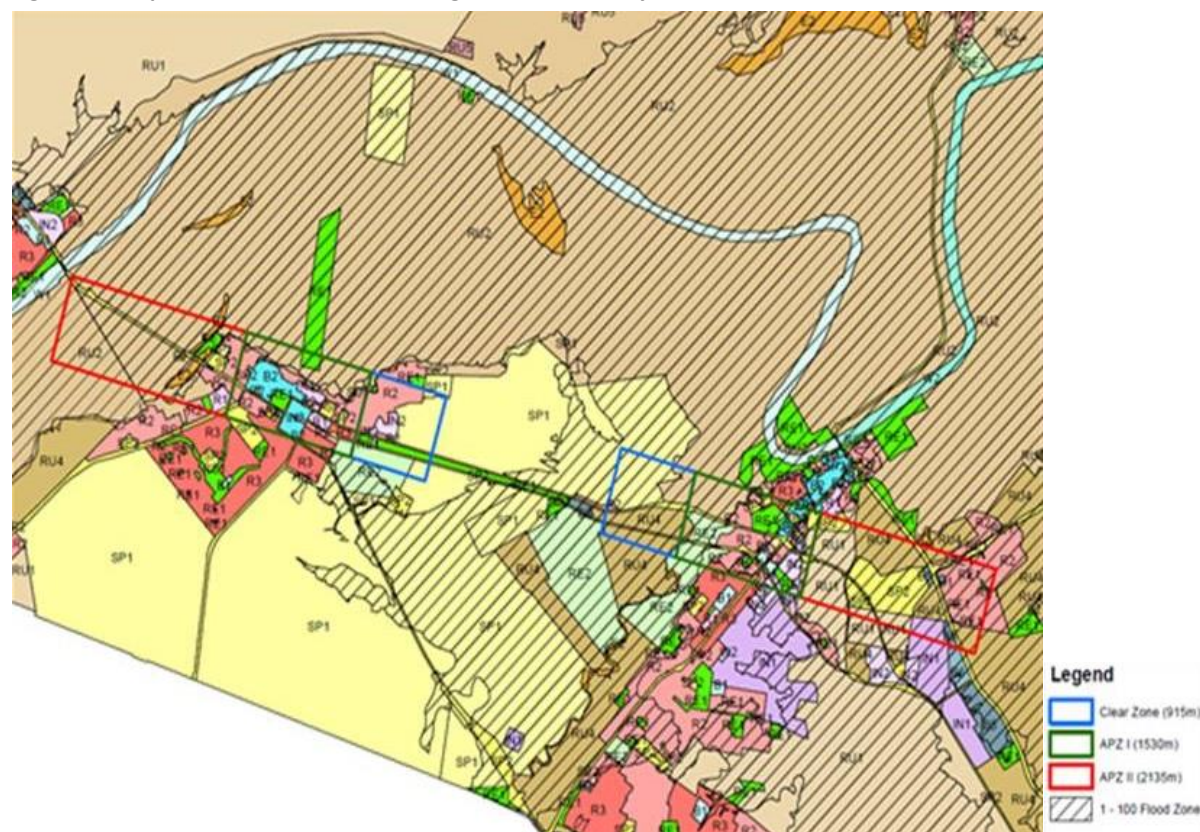
The National Airports Safeguarding Advisory Group (NASAG) recently agreed on a national land use planning framework for land surrounding and affected by airports. Guideline I: Managing the Risk in Public Safety Areas at the Ends of Runways includes recommendations for airports to introduce areas of control to manage development in areas impacted by aircraft activity at the end of runways.

These areas, defined as Public Safety Areas (PSAs) or Accident Prevention Zones (APZs) are defined as “designated areas of land at the end of airport runways within which certain planning restrictions may apply. While air crashes are rare events, the majority occur in the vicinity of airports during take-off and

landing. The PSA Guideline was developed to mitigate the risk of on-ground fatalities from an aircraft incident, by informing a consistent approach to land use at the end of Australian airport runways.”²¹

A map of the draft zones surrounding Richmond Airport are shown in Figure 55. The extent of these zones is still at a draft stage, as are the planning controls that may come into force within them.

Figure 55: Map of Richmond airbase showing draft Public Safety Areas or Accident Prevention Zones



Clause 6.6 of the Hawkesbury LEP 2012 is a local provision that, in part, requires the assessment of whether a development will increase in the number of dwelling or people affected by aircraft noise. It requires:

6.6 Development in areas subject to aircraft noise

(1) The objectives of this clause are as follows:

- (a) to prevent certain noise-sensitive developments from being located near the RAAF Base Richmond and its flight paths,
- (b) to assist in minimising the impact of aircraft noise from that airport and its flight paths by requiring appropriate noise attenuation measures in noise-sensitive buildings,
- (c) to ensure that land use and development in the vicinity of that airport do not hinder or have any other adverse impacts on the ongoing, safe and efficient operation of that airport.

(2) This clause applies to development that:

- (a) is on land that:
 - (i) is near the RAAF Base Richmond, and

²¹ (Factsheet: National Airports Safeguarding Framework, 2018)

(ii) is in an ANEF contour of 20 or greater, and

(b) the consent authority considers is likely to be adversely affected by aircraft noise.

(3) Before determining a development application for development to which this clause applies, the consent authority:

(a) must consider whether the development will result in an increase in the number of dwellings or people affected by aircraft noise, and

(b) must consider the location of the development in relation to the criteria set out in Table 2.1 (Building Site Acceptability Based on ANEF Zones) in AS 2021—2000, and

(c) must be satisfied the development will meet the indoor design sound levels shown in Table 3.3 (Indoor Design Sound Levels for Determination of Aircraft Noise Reduction) in AS 2021—2000.

(4) In this clause:

ANEF contour means a noise exposure contour shown as an ANEF contour on the Noise Exposure Forecast Contour Map for the RAAF Base Richmond prepared by the Department of the Commonwealth responsible for airports.

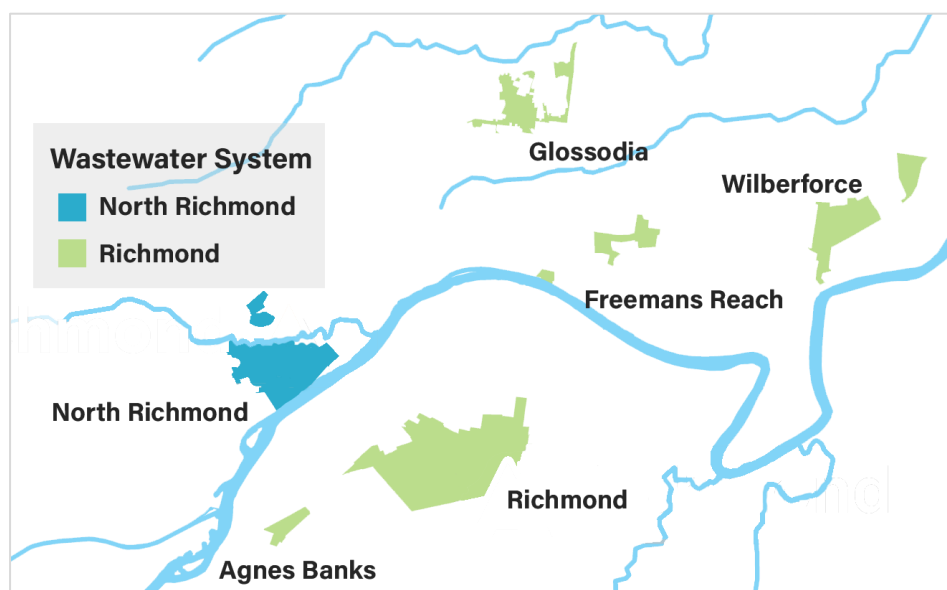
AS 2021—2000 means AS 2021—2000, Acoustics—Aircraft noise intrusion—Building siting and construction.

4.1.8 Infrastructure

4.1.8.1 Water and Sewer

Hawkesbury LGA sewage infrastructure has limited capacity with several schemes and some reliance of septic treatment. Hawkesbury City Council has plans to augment its sewage treatment, collection and transfer systems to cater for future growth. System capacity is based on a historical demand analysis as well as modelling and future predicted development.

Figure 56: Wastewater system extent in Hawkesbury LGA



Source: Sydney Water, HillPDA

Presently, the wastewater services provided by Sydney Water are available in selected centres only. Maps available from Sydney Water, shown in Figure 56, identify that services are available in North Richmond, Redbank, Freemans Reach, Richmond, Agnes Banks, Glossodia and Wilberforce. Outside of those centres, wastewater is processed through septic systems and communal pump systems in newer development, such as that proposed for Jacaranda Ponds.

It is understood that sewer services in more isolated centres such as Glossodia and Freemans Reach have very limited capacity, which is substantively taken up by existing population in those centres

Hawkesbury LEP 2012 has a local provision relating to essential services. Before consent is issued, this provision requires consideration of whether there is adequate:

- Supply of water
- Supply of electricity
- Disposal and management of sewage
- Stormwater drainage or on-site conservation
- Suitable road access.

While this provision safeguards against development occurring where there are inadequate utility services, strategic planning for housing will need to consider the high costs of delivering infrastructure to new urban areas noting that incremental urban expansion combined with maximising the potential on the existing urban areas is likely to be cost-efficient, compared to servicing disparate new release areas.

4.1.8.2 Education facilities

The area is well served by schools, with a significant number of primary and secondary institutions throughout the populated areas of the LGA, as shown in Figure 57 below.

Figure 57: Schools located within Hawkesbury LGA (Windsor-Vineyard area)

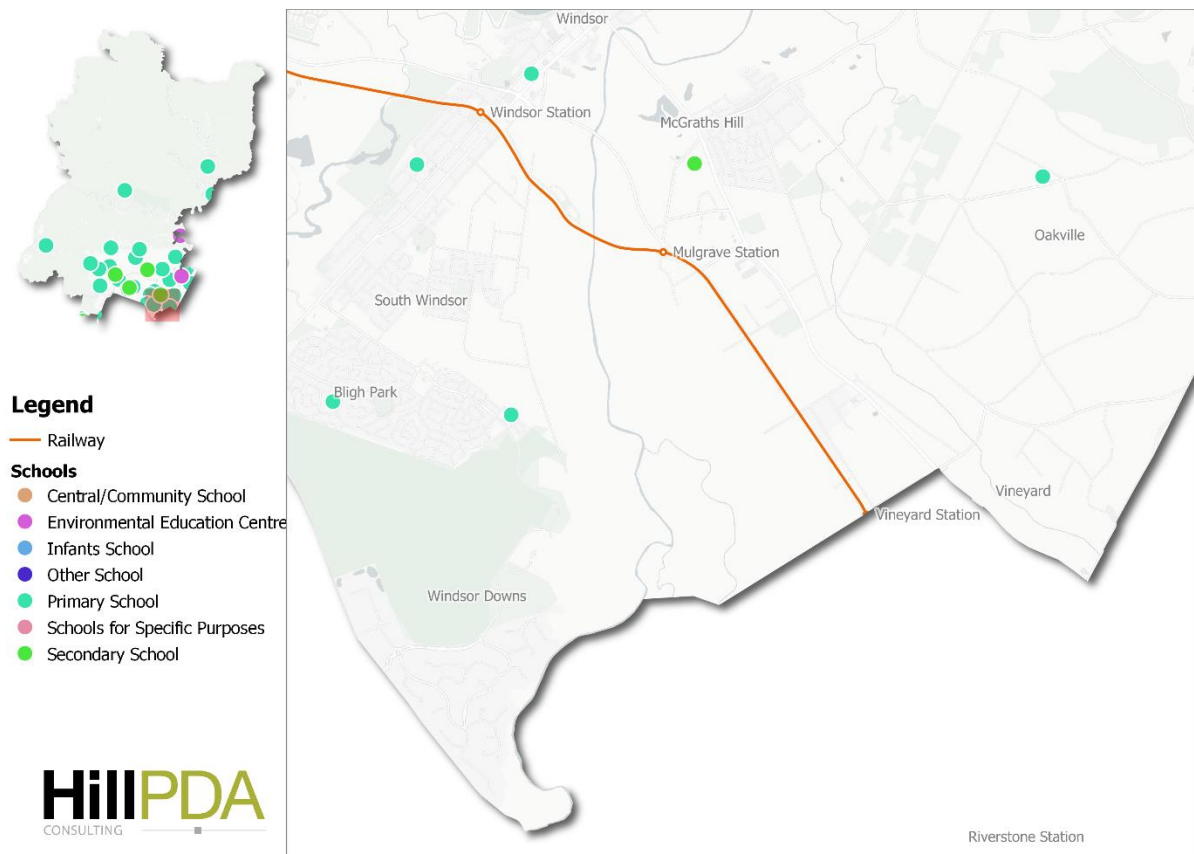


Figure 58: Schools located within Hawkesbury LGA (Richmond area)



4.1.8.3 Western Sydney University - Hawkesbury Campus

Tertiary education institutions in the LGA include the Western Sydney University Hawkesbury Campus at Richmond.

Locating housing near tertiary education institutions may support education facilities and to encourage growth in education particularly as the TAFE and University are closely located. The provision of housing that is located close to these facilities or with good access to education facilities could generate demand for housing growth.

Current student accommodation on campus includes Western Sydney University Village - Hawkesbury which offers year-round short stay accommodation. The Village offers a range of facilities that are accessible via security card. Self-service laundry facilities are also available. Each villa features four single bedrooms, one bathroom, an open-plan kitchen and a combined living and dining area. You can book a whole four bedroom villa or one or more single rooms in a shared villa.

Figure 59: On campus accommodation



Source: HillPDA

On 22 October 2019, there was only one property listed in domain.com.au for under \$200 per week, located in Windsor suggesting that there is very limited low-cost rental accommodation in the LGA suited to students

4.1.8.4 Open space

The Hawkesbury Open Space Strategy (2013) provides a comprehensive assessment of open space needs and opportunities to support the future population of the LGA. The Objectives of the open space strategy were to:

- Improve open space provision in terms of quality, quantity, accessibility and safety
- Improve linkages within and between the open space networks
- Ensure open spaces meet the needs of the Hawkesbury community and promotes
- Greater social inclusion
- Ensure open spaces enhance the quality of the local environment
- Provide a clear framework for investment priorities and action.

The Strategy identifies the following open space needs:

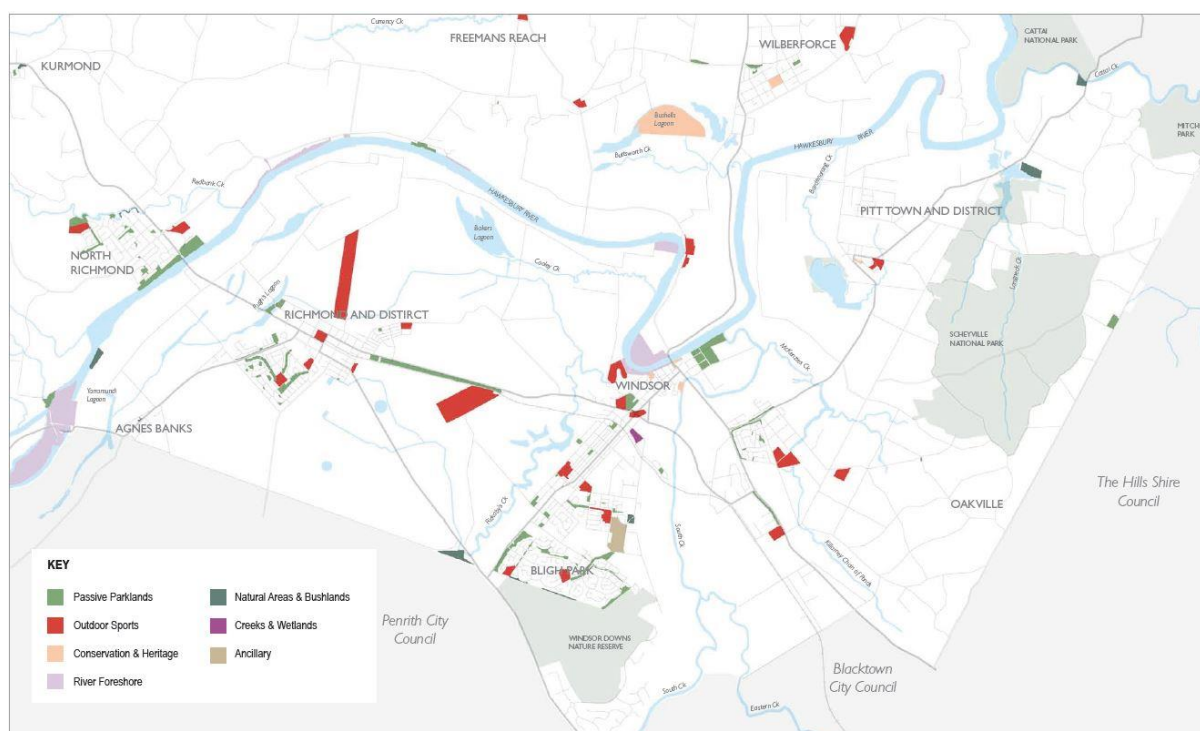
- Greater level of linkages and accessibility (local and district)
- River and foreshore access and links to open up use of a major asset
- Foster partnership with the NSW NPWS to open opportunity for the major towns to become the doorways into the National Parks
- A review of sports strategy to open up new opportunities for future changes in sports trends
- Increase of multi-functional recreation and open space in the smaller towns
- Pursue regional sports/events/recreation to improve local tourism economy

The Strategy contains a detailed Implementation Plan which provides recommended actions to enhance the City's recreation and open space qualities and opportunities, classifying these in priority, identifying roles and responsibilities for their realisation and identifying where they integrate with the Community Strategic Plan. In brief summary the core threads of the Implementation Plan encompass:

- Providing more shade, seating, paths, planting and play
- Providing for basic kickabout in local parks
- Ensuring that sports parks also provide for passive recreation and spectator amenity
- Meeting changing trends in sport by greater facility flexibility and adaptability
- Addressing flood and climate change impacts through design and planning
- Focusing on enhanced natural environment health
- Better connecting residential areas to the park system by cycle and walking routes
- Improving access to and onto the rivers and creeks
- Improving universal access for all ages
- Promoting more walking and cycling through enhanced off road facilities

The Strategy, includes an audit of open space within the Hawkesbury LGA, as shown in Figure 60. The map demonstrates the location of recreation options within and surrounding the major centres in the South East area of Hawkesbury LGA, [particularly smaller suburban parks and larger sporting facilities. The strategy was commissioned before the commencement of the Redbank release area and therefore does not reflect additional parcels of recreational land that were created as part of that development.

Figure 60: Identified recreation spaces shown by type in the South East region of Hawkesbury LGA



Source: Hawkesbury Open Space Strategy 2013

4.2 Opportunities for housing growth

4.2.1 Dwelling potential in centres

Locating housing development in centres maximises access to jobs and services and increases the efficiency of infrastructure delivery. The LGA has five key centres with potential to contribute to overall dwelling supply being Windsor, South Windsor, Richmond, North Richmond and Hobartville. Future dwelling supply arising within release areas, will also make an important contribution to overall dwelling supply through incremental expansions to the urban area. The section identifies the capacity of additional housing in urban centres and release areas.

The capacity of each centre to contribute to future dwelling supply has been estimated having regard for:

- Land available within 800 metres of a centre
- Development constraints, whereby lots affected by flooding, lots within ANEF contours exceeding 25 (the maximum acceptable level for residential development), lots with heritage items present, lots which have been recently developed and lots with strata were identified as constrained and not suited to development in the future lots which are not zoned for residential use
- Liveability projects like the town centre masterplans for Windsor, Richmond and South Windsor currently in preparation
- The capacity for unconstrained lots to deliver new housing under the current planning controls.

A theoretical maximum capacity for development was calculated assuming that all unconstrained lots could be developed to their maximum potential, allowing for the demolition of an existing dwelling on the site. The approach gives an overall assessment of existing centres ability to accommodate growth under the

current planning controls. In reality, not all lots will be expected to be developed to their maximum potential and the approach is theoretical.

Theoretical development capacity has been projected in line with two scenarios: existing planning controls (scenario 1), full implementation of the Medium Density Housing Code (scenario 2). These scenarios do not assume any variations to existing controls relating to minimum lot size or maximum building height, only permissible uses within each zone. Assumed permissible uses underpinning calculations for each scenario are detailed in Table 21.

Table 21: Assumed maximum permissible capacity under scenarios

Land use zone	Scenario 1	Scenario 2
R1	Residential flats permitted	Residential flats permitted
R2	Detached dwellings permitted	Medium density residences (terraces) permitted
R3	Medium density residences (terraces) permitted	Medium density residences (terraces) permitted

4.2.1.1 Windsor

Windsor is Hawkesbury LGA's second historic centre, it lies on the northern side of the T1 Western Line and is serviced by Windsor Railway Station.

Residential zoning within Windsor Centre is predominantly R3, with B2 zoning dominating the commercial core. Most areas have a maximum building height of 10 metres. A small proportion of the lots identified with a B2 zoning have a maximum height of 12 metres.

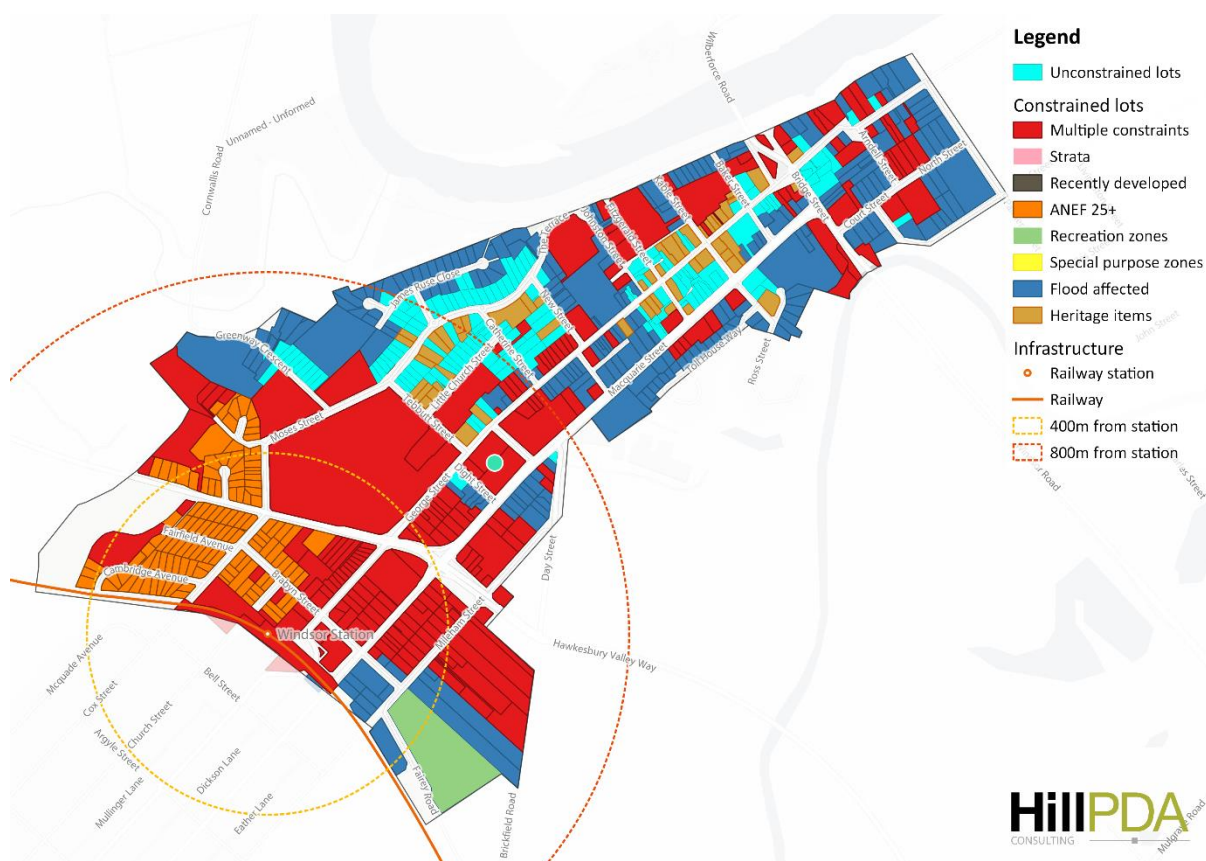
Windsor has a significant number of heritage listings and is extensively flood-prone. The town centre of Windsor is removed from the train line being located approximately 1.6km to the north-east. Lots to the south of the centre, near Windsor Railway Station, are affected by ANEF noise contours between 20-30 towards the West.

Areas within the over 25 ANEF contour (deemed unacceptable for residential development under Australian Standard 2021:2015), are in closest proximity to the railway station, which is compounded by flooding and other constraints in that vicinity. The contours within this area are within the conditionally acceptable range for commercial buildings. Consequently, land within closer proximity to the railway station are better suited for commercial use, although much of the land is presently residential.

Within the past five years, no multi-unit developments have been approved and one multi dwelling and one secondary dwelling have been approved in the last five years.

It is also noted that Council currently has an urban design study underway for Windsor looking at connectivity and placemaking opportunities to revitalise the town centre. Options to encourage modest increases in housing would support the revitalisation of the centre by increasing population in the local catchment which would support local business.

Figure 61: Lots with development capacity and constrained lots within Windsor centre



Opportunities

Given the significant ANEF, flooding and heritage constraints it is considered that capacity within the centre is significantly limited for additional residential growth. Shop top housing around the commercial core, sympathetic to heritage items could be considered. An increase of the commercial core and expansion of the existing B1 zoning towards Hawkesbury Valley Way could also be explored. These options can be further considered as part of Council's current project on liveability and centre masterplanning.

Theoretical capacity

Under existing controls, it is projected that unconstrained sites in Windsor could accommodate an approximate 113 additional dwellings at its theoretical maximum, over 91 per cent of which would be medium density dwellings within R3 zones, with 4 residential flats in unconstrained R1 lots and 6 detached dwellings in larger unconstrained R2 lots.

Under the second scenario, where medium density housing is permissible in R2 zoned areas, approximately 148 additional dwellings are projected, with the additional 45 dwellings arising from additional development within those unconstrained R2 lots.

4.2.1.2 South Windsor

The South Windsor centre is located to the south of Windsor centre, on the southern side of the T1 Western Line. It is also serviced by Windsor Railway Station.

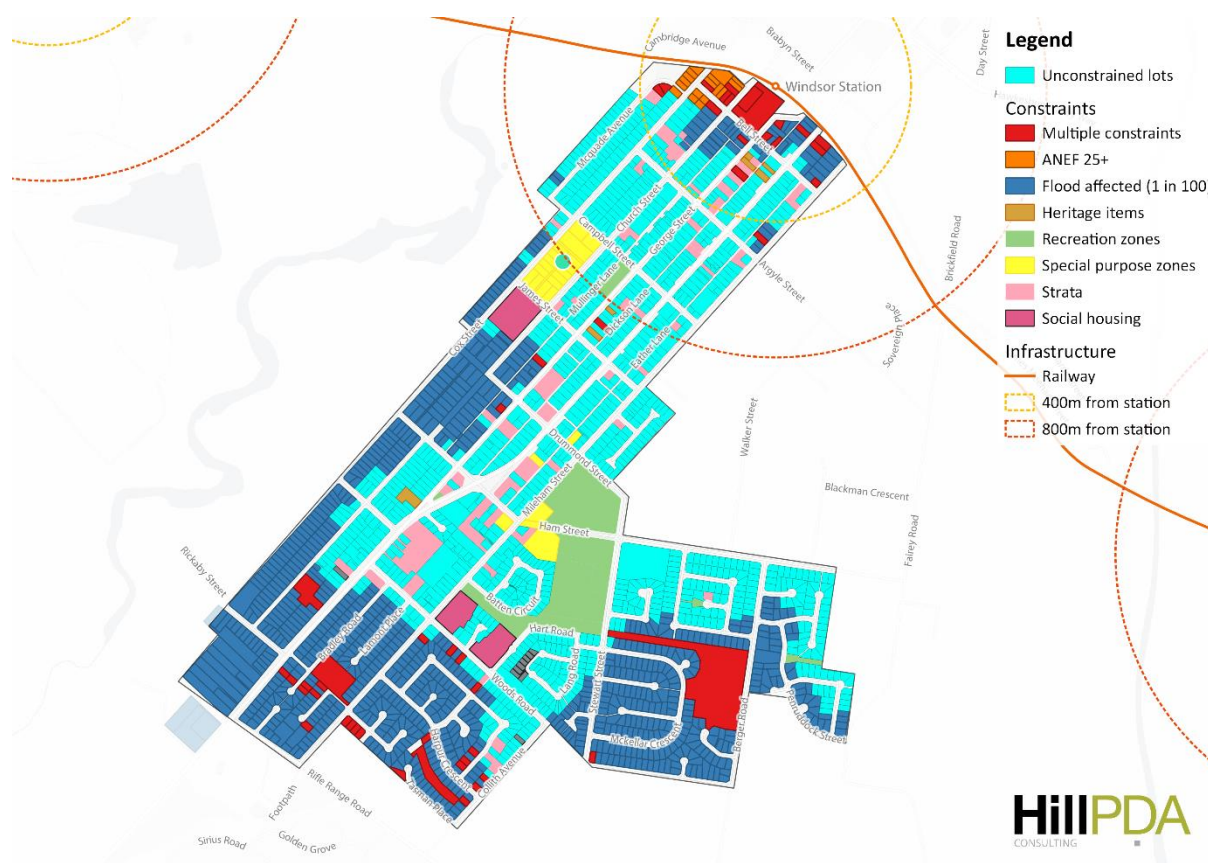
The predominant zoning of the suburb is residential with a mix of R1, R2 and R3. R3 forms a central core just outside of the ANEF noise contour.

It is affected by significant flooding, aircraft noise exposure (again more intense towards to train station) and has some heritage listed buildings. Along the eastern boundary of South Windsor is an industrial precinct. This will limit the extent of development that could occur East of Eather Lane/Mileham St to minimise impacts between the uses. A local centre is created with a strip of shops that are zoned B1. These shops are located within 800m of Windsor Train Station. The block to the South-West of the B1 zoning, bounded by Dickson Ln and George St between Campbell St and James St is a block of R1. There appears to be little take up of the uses permitted under this zoning.

One multi-unit development (strata) has been approved in the last five years. Within the past five years, there has also been one dual occupancy, four secondary dwellings (3 under the ARH SEPP) and a boarding house.

Social housing at 77-89 Church Street, 30 Woods Road and 200 Mileham Street have been excluded from calculations, although this site may be suitable for more intensive residential use this would be a decision to be made by Housing NSW.

Figure 62: Lots with development capacity and constrained lots within South Windsor centre



Opportunities

Despite significant constraints near the southwest and northwest boundary, particularly from flooding, it is considered that there is additional capacity within the centre is significantly for additional residential growth. A significant concentration of unconstrained lots exists in the north with good access to Windsor Railway Station and other amenities. These can be further considered as part of Council's liveability and Town Centre Masterplan project which is currently underway.

Theoretical capacity

Under existing controls, it is projected that unconstrained sites in South Windsor could accommodate an approximate 804 additional dwellings at its theoretical maximum, over 73 per cent of which would be medium density dwellings within R3 zones, with 136 residential flats in unconstrained R1 lots and 80 detached dwellings in larger unconstrained R2 lots.

Under the second scenario, where medium density housing is permissible in R2 zoned areas, approximately 1,609 additional dwellings are projected, with the additional 805 dwellings arising from additional development within those unconstrained R2 lots.

4.2.1.3 Richmond

Richmond is a historical town centred on the terminus of the T1 Western Line, Richmond Railway Station.

The centre is generally zoned R3 Medium Density Residential, the shopping centre is zoned B2 local centre with a small amount of R2 to the West.

Richmond has significant heritage listings particularly within the vicinity of the railway station which constrains renewal. Land fragmentation is significant to the South-West of the Station. The centre includes two schools, proximity to community facilities (community precinct – March St facing Cricket Park) and retail.

Much of the centre is within 800m of the train station with some portions of the centre within 400m. Richmond is affected by significant flood risk. ANEF noise contours affect areas to the north and east of the Railway Station. As a result, unconstrained lots are concentrated on the south-western side of the railway station, as shown in Figure 63.

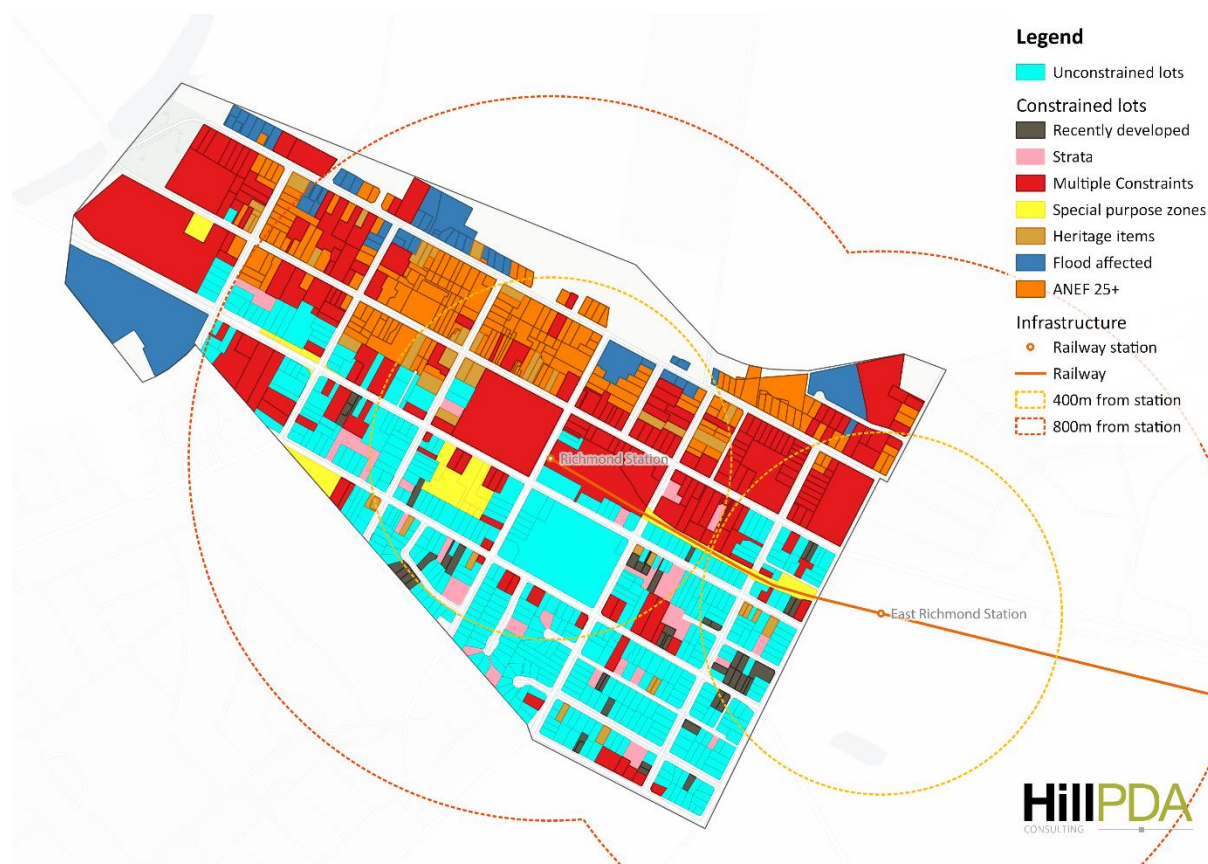
Some seniors housing is attached to the community precinct. The maximum height of the centre is 12m with some sites 10m. Two medium density multi-unit developments, six secondary dwellings (five under the ARH SEPP), 18 dual occupancies and one boarding house have been approved in the last five years.

Opportunities

Given excellent access to public transport, comparatively higher densities and access to shops, services and community facilities opportunities to provide additional housing in this centre should be explored. Figure 63 below shows an area to the South of the Railway Station which could support higher densities.

The maximum height for Richmond marketplace (land zoned B2) heights could be increased to enable redevelopment to provide shop top housing with new ground floor retail floor/commercial space with residential above. The R3 surrounding the marketplace is predominantly single storey. Increasing the height for this land could also encourage medium density development. Land zoned R2 to the west of West Market St within 800m of a station could also be up-zoned to R3 to increase capacity. Council's current project on liveability will include masterplanning and identifying strategies to better link the town centre with Western Sydney University.

Figure 63: Constrained lots and lots with opportunity within the identified Richmond Centre



Theoretical capacity

Under existing controls, it is projected that unconstrained sites in Richmond could accommodate an approximate 558 additional dwellings at its theoretical maximum, 83 per cent of which would be medium density dwellings within R3 zones, with 57 residential flats in unconstrained R1 lots and 38 additional detached dwellings in larger unconstrained R2 lots.

Under the second scenario, where medium density housing is permissible in R2 zoned areas, approximately 723 additional dwellings are projected, with the additional 165 dwellings arising from additional medium density dwellings within the unconstrained R2 lots.

4.2.1.4 North Richmond

North Richmond is located on the Northern side of the Hawkesbury River and does not have access to rail. The centre has a couple of heritage items, focused adjacent to Bells Line of Road. Lots to the South of the suburb are flooding affected, all the suburb other than to the West (Redbank) is bushfire prone. During a flooding event access to the suburb is constrained.

The suburb is predominantly zoned R2 with a maximum height of 10m. The eastern portion of the site has a zoning of B1 and a height of 12m, forming a town centre. Over the past five years, no multi-unit developments have been approved, two multi-dwelling, two dual occupancies and 18 secondary dwellings (six under the ARH SEPP) developments have been approved in the last five years.

North Richmond has a primary school, over 7,400 sqm of open space and will benefit from proposed upgrades to Bells Line of Road, which will improve road access to the East and West.

Figure 64: Constrained lots and lots with opportunity within the identified North Richmond Centre



Opportunities

Given the minimal constraints currently affecting the majority of lots, it is considered that there is capacity within the centre. However, with this centre's location north of the Hawkesbury River, any growth needs to be carefully considered in the context of potential flood evacuation scenarios. There are also opportunities for increasing densities in the B1 zoned land by increasing heights to facilitate shop top housing of 3-4 storeys. This can be further considered as part of Council's liveability and masterplanning project.

Theoretical capacity

Under existing controls, it is projected that North Richmond could accommodate an approximate 683 additional dwellings at its theoretical maximum, all of which would be medium density, save 4 additional dwellings on R2 lots large enough for subdivision.

Under the second scenario, where medium density housing is permissible in R2 zoned areas, approximately 731 additional dwellings are projected.

4.2.1.5 Hobartville

Hobartville is a late 1960s subdivision to the south-west of Richmond. Hobartville has a high degree of land fragmentation with suburban residential lots in separate ownership. While not a major centre when considered from the perspective of the wider LGA, Hobartville forms a significant part of the Richmond Centre. The larger blocks and R3 zoning throughout, coupled with its proximity to the railway and Western Sydney University Hawkesbury Campus make it well suited to additional infill, potentially for students and academics using the nearby campus.

The zoning of the suburb is R3 Medium Density Residential however due to the smaller lot sizes, higher density development such as dual occupancies or multi-unit development cannot proceed without land consolidation. The average lot size is 650 sqm. Given the age of the predominant housing stock, landowners may be open to renewal or redevelopment opportunities. The locality has no heritage or environmental constraints. At the centre of the subdivision is a school surrounded by significant open space which provides opportunities for high residential amenity. A small strip of neighbourhood shops is also located at the centre of the subdivision.

Approximately 2km to the South-East of Hobartville is Western Sydney University Campus and TAFE NSW – Richmond. The Southern boundary of Hobartville is 1.9km from Richmond Train Station however the Northern boundary is 500m.

No multi-unit developments or seniors housing have been approved within the last 5 years. The only substantial development has been five dual occupancy approvals in the last five years. Four secondary dwellings were approved in the last five years, of which three were under the Affordable Rental Housing SEPP. No dedicated student accommodation has been approved either.

Figure 65: Constrained lots and lots with opportunity within the identified Hobartville Centre



Opportunities

With the absence of environmental constraints, opportunities for additional dwellings exist within Hobartville, particularly in areas with proximity to Richmond Railway Station and the Western Sydney University campus. This could be considered further as part of Council’s liveability and masterplanning project.

Theoretical capacity

Under existing controls, it is projected that Hobartville could include an approximate 1,320 additional dwellings at theoretical maximum, which would be entirely medium density owing to the high proportion of R3 zoned land within the centre.

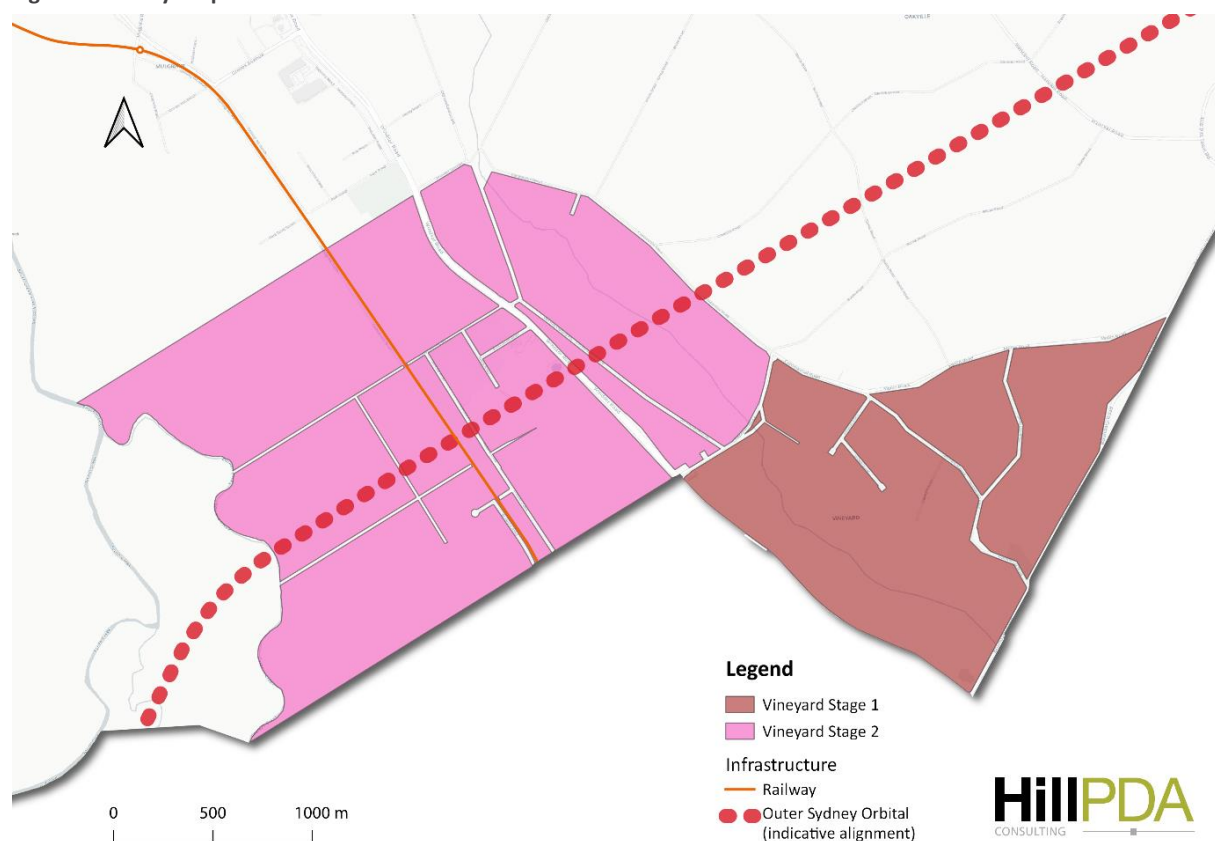
Under the second scenario, where medium density housing is permissible in R2 zoned areas, maximum capacity is identical.

4.2.2 Dwelling potential in release areas

4.2.2.1 Vineyard

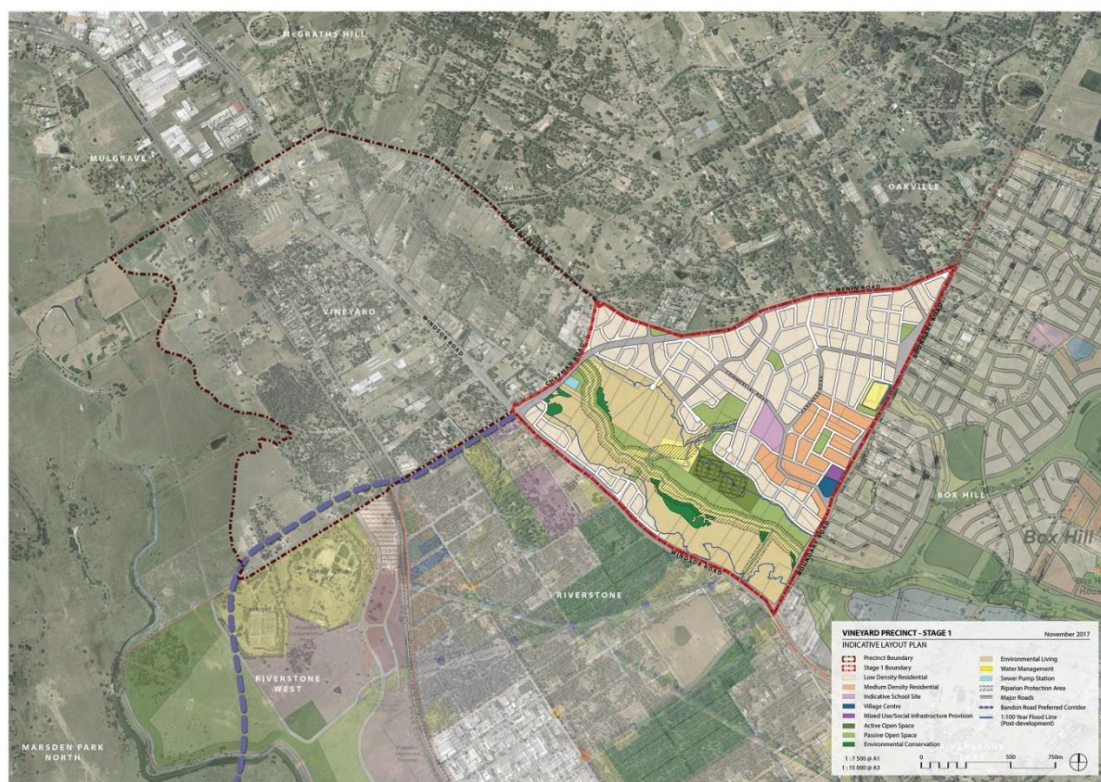
Vineyard (Stage 1) is an identified growth precinct at the far southern end of Hawkesbury LGA, which is planned to include around 27 hectares of open space focused on the Killarney Chain of Ponds and adjacent land for new playing fields, parks and cycleways, a village centre and up to 2,500 new homes.

Figure 66: Vineyard precincts



Source: HillPDA

Figure 67: Detailed map of Vineyard Precinct (Stage 1)



Source: NSW Planning & Environment

Parameters for the development of Stage 1, being overseen by DPIE, are shown in Table 17.

Table 22: Proposed land use outcomes for Vineyard Precinct (Stage 1)

Parameter	Stage 1
Land area	230 ha
Low Density Residential (min. 15 – max. 18 dw/ha)	1,764 homes (98 ha)
Medium Density Residential (min. 20 – max. 30 dw/ha)	570 homes (19 ha)
Neighbourhood Shops	0.8 ha
Environmental Living (E4 zone)	93 homes (46.7)
Planned Public Open Space (sports fields)	8 ha
Planned Public Open Space (passive recreation space)	16.1 ha
Drainage and water management	16.3 ha
Schools (primary)	2.8 ha
Maximum dwelling yield	2,427 homes
Net dwelling yield	2,395 homes
Estimated Population	7,400 people

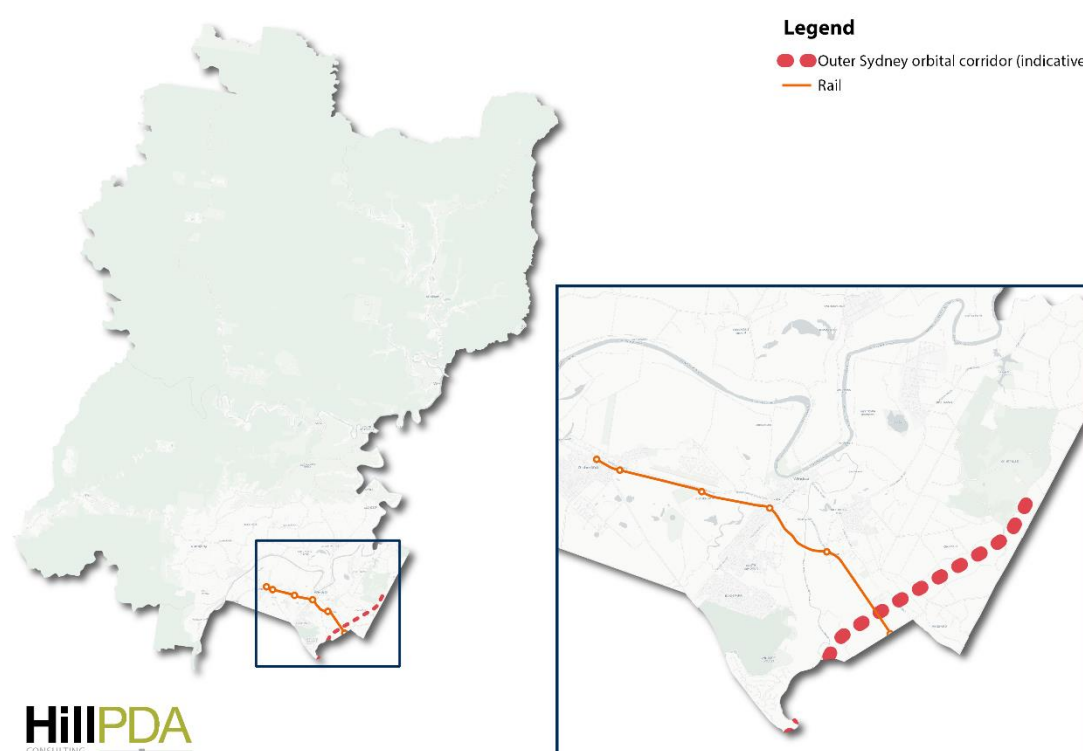
Source: NSW Planning and Environment (2016)

Currently only Vineyard Stage 1 is in development, with the final plans for Stage 2 to be determined. A significant proportion of the land contained in the Stage 2 area is constrained by flooding which will likely defer finalisation of plans for this area pending the finalisation of the flood management strategy. The Vineyard Infrastructure Precinct Planning Report prepared by Mott MacDonald found that Stage 2 remains contingent upon significant additional infrastructure becoming available, specifically:

- Reticulated water (new trunk lines planned for construction by 2026 and 2040)
- Reticulated sewer
- Additional electrical capacity (two substations in Riverstone East/Box Hill and North Box Hill, respectively)
- Roads (existing roads to form arterial/sub arterial network, subject to improvement)
- Telecommunications and gas infrastructure have been assessed as being installed as development dictates.

Transport for NSW and Roads and Maritime Services are also investigating options for a planned future extension of the outer Sydney orbital beyond Colebee, towards the Central Coast (Figure 68). The final alignment of this motorway will impact upon the availability of land in this area for future residential growth and future investigation should be undertaken once more clarity is available around the final alignment.

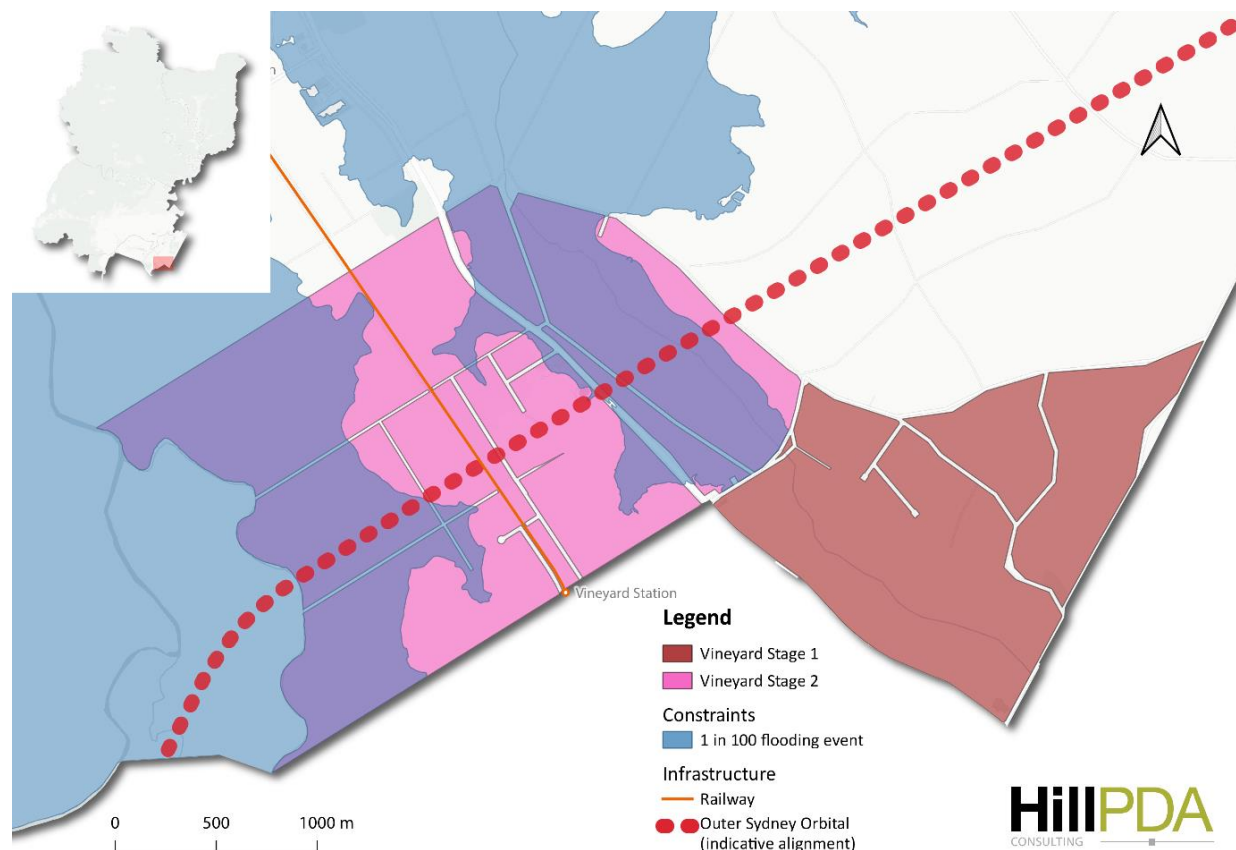
Figure 68: Indicative alignment of future Outer Sydney Orbital (currently under investigation)



Source: RMS (2018)

Figure 69 shows the 1:100 ARI flooding constraints and indicative Outer Sydney Orbital Corridor (still to be finalised) superimposed over the Vineyard Growth Precincts.

Figure 69: Vineyard Growth Precincts with flooding constraints and indicative Outer Sydney Orbital Corridor



Source: Hawkesbury City Council, RMS, OpenStreetMap

4.2.2.2 Redbank release area

Redbank is a release area located three kilometres to the west of North Richmond. This residential subdivision is to include a variety of block sizes, town centre and seniors living comprising independent living (village) dwellings and an 80-bed nursing home.

Figure 70: Map of Redbank Precinct



Source: Hawkesbury City Council

Parameters for the development of this precinct, being overseen by the NSW Department of Planning, Industry and Environment, are shown in Table 23.

Table 23: Proposed land use outcomes for Redbank Precinct

Parameter	Description
Land area	180 ha
Open space	35 ha
Net dwelling yield	1,396 homes (excl. existing seniors living facility)
Estimated Population	3,900 people

Source: Redbank Communities, Hawkesbury City Council

Redbank is currently under development with lots at all stages of development.

4.2.2.3 Jacaranda Ponds

Jacaranda Ponds is a subdivision located to the south of Glossodia. In addition to 580 residential lots, the subdivision will include a range of community-recreation facilities, environmental corridors and a new package plant sewer system.

Figure 71: Map of Jacaranda Ponds



Source: Hawkesbury City Council

Parameters for the development of this precinct, being overseen by the NSW Department of Planning, Industry Environment, are shown in Table 24.

Table 24: Proposed land use outcomes for Jacaranda Ponds

Parameter	Description
Land area	185 ha
Open space	35 ha
Net dwelling yield	570 homes
Estimated Population	1,600 people

Source: Hawkesbury City Council, Celestino

Jacaranda Ponds is currently in the planning stage. While it was previously approved, in 2018 the developers sought to vary the previously approved plans, requiring further approvals.

4.2.3 Urban investigation areas

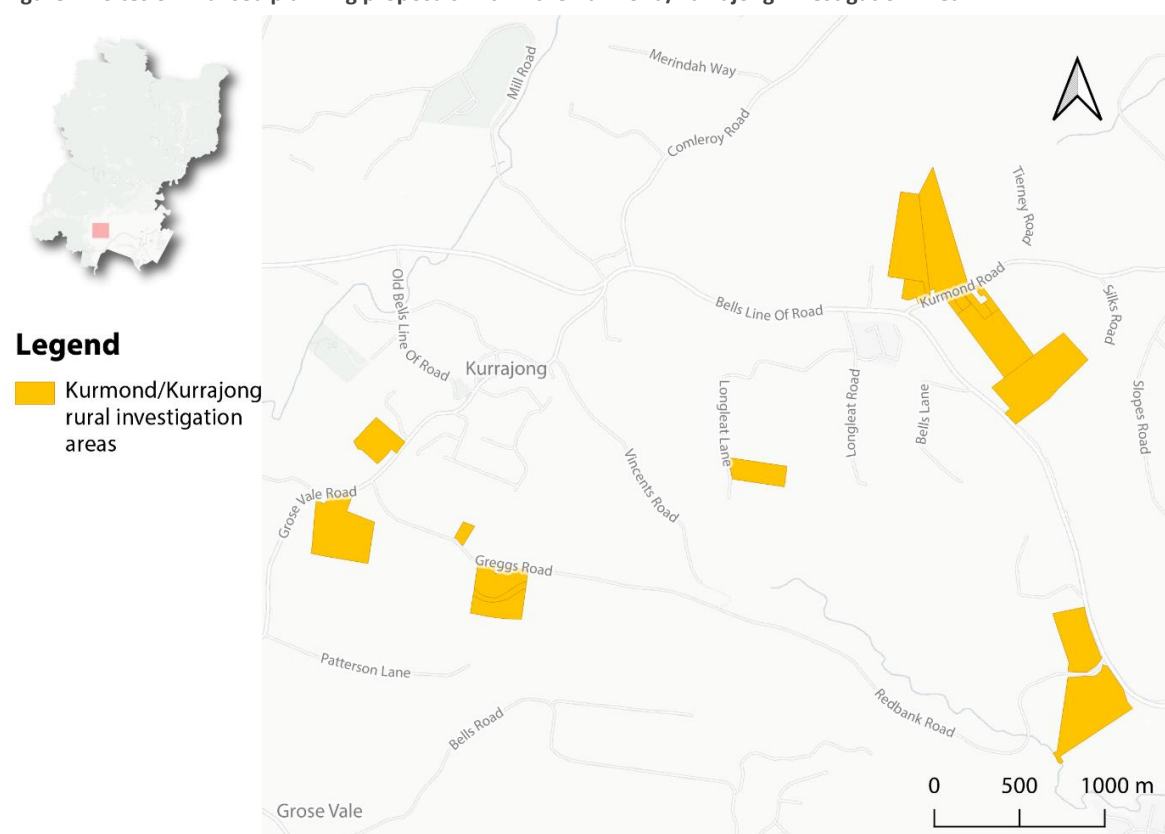
4.2.3.1 Kurmond/Kurrajong investigation areas

Council has received a number of individual planning proposals for the creation of “lifestyle lots” or rural residential subdivisions on the edge of Kurmond and Kurrajong villages. Assessing individual planning

proposals on a piecemeal approach has been problematic. There is a need to undertake a more holistic approach.

Given this, Hawkesbury City Council commenced an investigation into the suitability of areas on the periphery of Kurmond and Kurrajong currently zoned as RU1 Primary Production and RU4 Primary Production (Small Lots) for large lot residential or rural residential development. Sites of finalised planning proposals within the investigation area are shown in Figure 72.

Figure 72: Sites of finalised planning proposals within the Kurmond/Kurrajong Investigation Area



Source: HillPDA, Hawkesbury City Council, OpenStreetMap

The possible yield from these sites as projected by Council is shown in Table 25. The overall structure planning within the investigation area is nearing completion.

Table 25: Possible dwelling capacity of finalised individual planning proposals within Kurmond/Kurrajong Rural Investigation Area

Parameter	Description
Total land area	95 ha
Total dwelling yield	54 homes
Net dwelling yield	74 homes

Source: Hawkesbury City Council

4.2.3.2 Vineyard North

There is further potential in Vineyard to release unconstrained land to the north of the existing Vineyard release area. This land is largely unconstrained and will be well situated to access strategic centres within the North West Growth Centre, particularly with planned infrastructure upgrades in the area. The final

alignment of the Outer Sydney Orbital extension to the north poses a significant constraint on this area and investigation for release could not proceed until the alignment has been finalised.



HOUSING PRIORITIES

5.0 HOUSING PRIORITIES

5.1 Current issues

5.1.1 Land use constraints

As discussed in Section 4, the Hawkesbury LGA is heavily constrained by both natural and built form constraints. The Hawkesbury LGA is approximately 2,800 square kilometres in area, with the primary residential zones of R1 General Residential, R2 Low Density Residential, R3 Medium Design Residential and R5 Large Lot Residential comprising 2,909 ha. Of that area, approximately 494 ha (17 per cent) is flood affected, 1,313 ha (45 per cent) is bushfire prone and 1,571ha (54 per cent) is neither mapped as flood-affected or bushfire prone. Additional concerns, such as biodiversity and rural production further constrain development within the LGA.

Planning controls relating to these constraints are largely contained within Part 5 and 6 of the LEP, requiring Council to be satisfied that on and off-site impacts are suitable. While impacts of development are mitigated through on-site design responses or a statutory prohibition of development, development can potentially impact environmental elements or safety in the surrounding area. Impacts relating to flooding can be long-lasting, with development potentially increasing or intensifying flooding by reducing permeable land area or diverting flows. On-site design responses, such as increasing the height of development, may reduce on-site impacts at the expense of the surrounding area. Similarly, development in bushfire prone areas can increase exposure to bush fire attack or pressure evacuation routes.

These constraints place multiple statutory responsibilities on Council to ensure that development is appropriate both from an environmental conservation, but also from a property and human safety perspective. The nature and severity of these constraints severely limit opportunities for additional housing. In particular, key stakeholders have confirmed that there is very limited potential to increase housing and population within the established urban areas due to capacity constraints on flood evacuation routes and limited evacuation times. At present, only modest increases in housing delivery in these areas can be considered. This situation could change in the future depending on the outcome of the NSW Government's Warragamba Dam Raising project and other flood mitigation measures.

5.1.2 Low-rise centre development

The Hawkesbury LGA contains three primary centres, Windsor, Richmond and North Richmond. These centres support residential growth in addition to retail and services for the surrounding population. The centres are typified by low-rise development of one or two stories, built in response to planning control, market and environmental conditions. These conditions include the following factors, amongst others:

- Significant flooding constraints in Richmond and Windsor, as noted above
- State and local heritage constraints in Windsor
- OLS/ANEF restrictions associated with the RAAF Base at Richmond.

The local character of the centres, particularly Richmond and Windsor, has evolved in response to historical development and overall conditions. In general, there is a strong desire by the community that development will be compatible with the current character of these centres. This expectation and overall sentiment are evident in the consultation outcomes associated with the Community Strategic Plan.

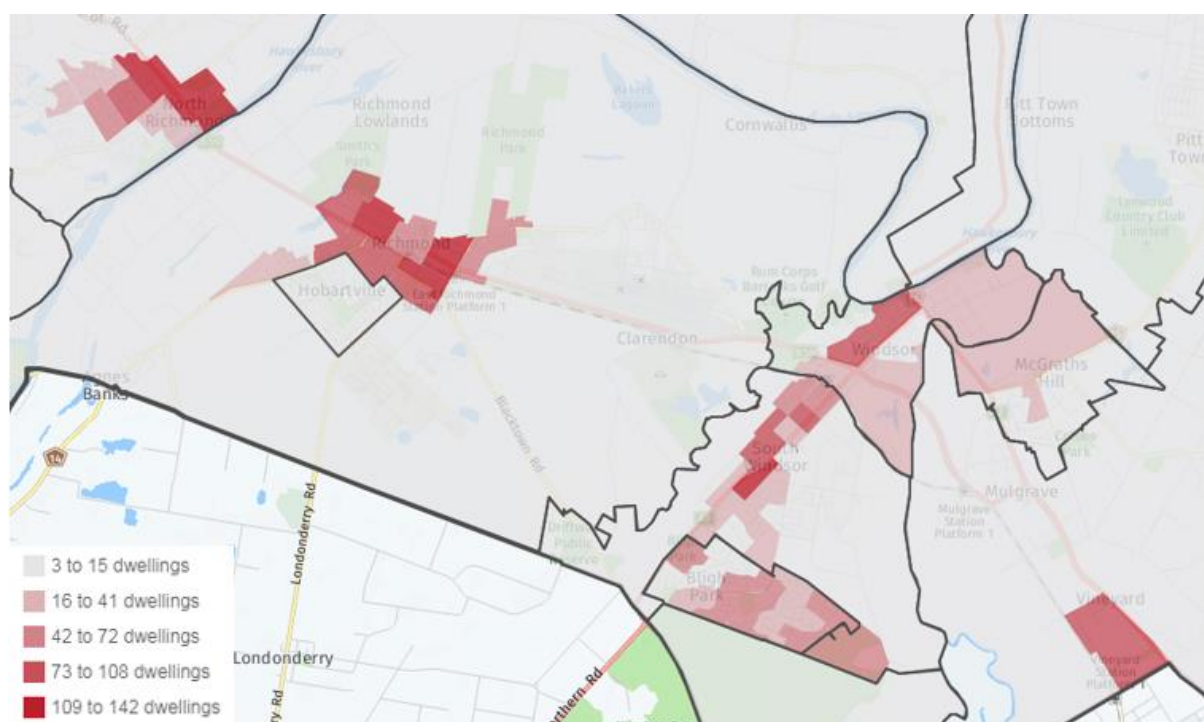
Further, environmental constraints have not changed, with any significant densification of centres likely to be associated with substantial impacts. As such, any additional density, such as shop top housing, would need to be targeted as mid-rise development that does not unreasonably increase population and impact evacuation routes or flooding in the surrounding area.

Looking to the future, existing land use controls are not promoting a consistent vision for the development of areas immediately surrounding centres. Generally, the centres of Windsor and Richmond are complemented by zones capable of a variety of medium and targeted high density built forms. For the reasons discussed in Section 6.1, this range of housing diversity next to centres offers several benefits for residents and businesses alike. However, there are also pockets of R2 Low Density Residential zoned lands, which are much more limited in the types of housing that can be provided. Over the longer term, as the surrounding centre develops, this zoning pattern would have the effect of lowering the potential servicing capacity of centres and applying an inconsistent edge to centres that may lead to an inconsistent character.

5.1.3 Mismatch in medium density housing delivery

The R3 Medium Density Residential zone is currently capable of medium density housing types such as dual occupancies, multi dwelling housing, attached and semi-detached dwellings. Approximately 13 per cent of Hawkesbury's 24,056 dwellings were medium density as of the 2016 Census²². While this is less than the Greater Sydney average of 20 per cent, medium density is mostly concentrated in or near centres. Figure 73 shows the distribution of medium density dwellings from North Richmond to Vineyard.

Figure 73: Medium density distribution



Source: profile .id

Development of medium density housing is occasionally mismatched with development outcomes. As an example, Hobartville contained approximately 1,100 dwellings at the 2016 Census, with approximately 35 dwellings (3 per cent) being medium density, despite the suburb being zoned R3 Medium Density

²² Sourced from Profile .id who define dual occupancies, multi dwelling housing, attached and semi-detached dwellings, as well as flats in one or two storey blocks.

Residential. However, the area between Hobartville and Kurrajong Road, which is zoned a mix of R2, R3 and B2, contained 622 dwellings, with approximately 302 (49 per cent) being medium density.

Notably, the area to the northwest of Chapel Street in Richmond contains one of the highest concentrations of medium density housing (81 of 117 dwellings or 69 per cent are medium density), despite medium density housing types being prohibited.

The concentration of medium density housing in proximity to centres generally conforms with planning best practice by allowing for housing in locations with access to jobs, transport and services. However, as shown above, the delivery of medium density dwellings is not consistent with the intended outcomes of the current zones, providing uncertainty for the desired and future character.

5.1.4 Other issues

A review of planning controls has also identified the following issues:

- B1 Neighbourhood Centre and B2 Local Centre zones technically permit residential flat development and other residential-only development types, potentially conflicting with the need to provide commercial spaces at street level in these locations
- Implementation of Part 3B (Low Rise Medium Density Housing Code) of the Codes SEPP will make types of medium density development 'complying development' in R1 General Residential and R3 Medium Density Residential zones. Complying development applications may set aside LEP and DCP considerations and the outcome of this has not yet been tested with potential for unforeseen development outcomes
- Residential zones allow for commercial (and rural) uses, potentially drawing commercial uses away from centres
- The standard height control of 10 m technically allows for three-storey development across most of the LGA, without FSR controls to limit the bulk and scale of development
- Broad application of the R5 Large Lot Residential zone has the potential to fragment land and distribute density beyond the capability of infrastructure and facilities to service the population. This matter is further considered in the Hawkesbury Rural Lands Strategy which is currently in preparation.

Land use planning approaches to responding to these issues are considered below.

5.2 Housing diversity

The Hawkesbury LGA is to provide housing to suit the varying needs of the community. The Hawkesbury LGA contains a variety of housing types, ranging from shop top housing in the historical centres of Richmond and Windsor, established detached dwelling communities in Hobartville and Glossodia, and newer diverse housing developments being planned and delivered in Redbank and Vineyard.

Specific housing typologies are discussed below, examining typical planning controls and typically built form outcomes. Strengths and weaknesses associated with the typologies are explored, providing insights into how housing for existing and future populations can be delivered with positive outcomes.

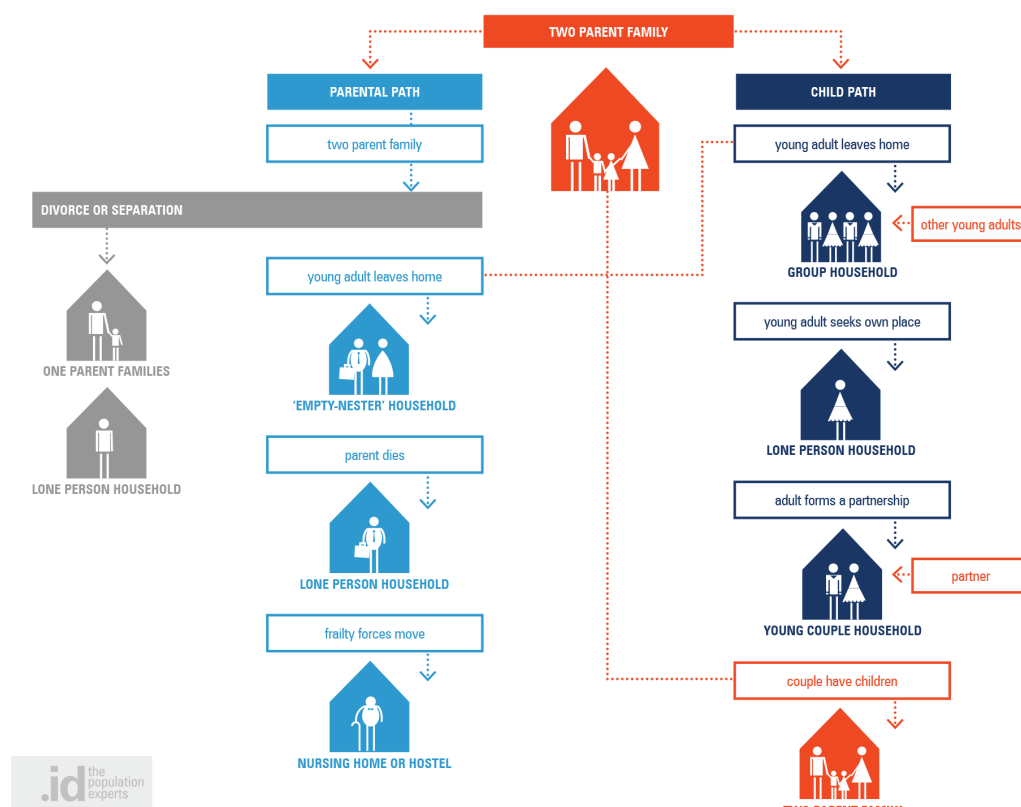
Ultimately, a diverse range of housing will be needed in Hawkesbury, building upon commitments to deliver traditional detached dwellings and lower impact medium density typologies. These housing typologies will accommodate the varied and complex mix of households expected in the future. These household types are best described through the evolution of households in the context of a family life cycle.

Stages in the family life cycle have traditionally been linked with the housing choice. Housing needs per household are largely defined by the life cycle stages of individuals and families. The traditional lifecycle stages are:

- Stage 1: the life cycle begins by the first move from the parental home - a time when two partners in a relationship decide to move into a (commonly rented) dwelling which is often a small self-contained apartment, and the occupants are saving to purchase a home. Renting the dwelling is often thought of as a transitory period, with ownership as the long term goal
- Stage 2: the arrival of children which corresponds with the need for larger living and sleeping areas, in the form of a separate dwelling. The family dwelling is often purchased with a mortgage, with the intention of becoming an owner-occupier
- Stage 3: As the family grows, more space is required and alterations to the family home are made or upgrading or relocation is the next housing choice. Children are now teenagers or young adults and may be seeking a place of their own although more commonly, young adults are staying in the family home longer to save for their own housing choice
- Stage 4 the departure of children from the family home (who will begin their housing life cycle at stage one) results in parents downsizing their housing choice, seeking a smaller dwelling.

LGA requires a diversity of housing types to cater for the varied and complex mix of household stages.



Figure 74: Lifecycle and housing choice



Source: .ld, 2016

This section reviews existing planning considerations for each housing type with a view to identifying opportunities for refinement.


5.2.1 Dwelling houses

 <p>Dwelling house</p>	
Definition:	A building that contains only one dwelling
Permissible zones:	B1 Neighbourhood centre B2 Local centre R1 General residential R2 Low density residential R3 Medium density residential R5 Large lot residential RU1 Primary production RU2 Rural landscape RU4 Primary production small lot RU5 Village E3 Environmental management E4 Environmental living
Key controls:	Typical LEP controls: <ul style="list-style-type: none"> Minimum lot size of 450 sqm Maximum height of 10 m Typical DCP controls: <ul style="list-style-type: none"> Maximum ceiling height of 7 m from ground level Built form to be within a height envelope (1.8 m at the site boundary and 45 degrees) A minimum front setback of 7.5 m (local road) to 10 m (major roads) Landscaped/undeveloped site coverage: 30 per cent Car parking: One covered space if under 55 sqm, otherwise two covered spaces Design considerations such as visual/acoustic privacy, external noise buffering, safety and security, and infrastructure provision.
Strengths <ul style="list-style-type: none"> Popular housing types that provide a range of designs and sizes. Smaller minimum lot sizes allow for increased density and housing diversity DCP controls support variation in housing design, site coverage and envelope 	Issues and observations <ul style="list-style-type: none"> Permissible in zones that may push out more appropriate uses (eg B and higher-order R zones) Typically requires two covered car parks, which may be excessive, promoting large garages beyond the needs of residents Controls do not appear to require dwellings to address the street (possibly a consideration of safety and security controls) Maximum height of 10 m is excessive and appears to relate to pitched roofs.

5.2.2 Secondary dwellings



 <p>Secondary dwellings</p>	
Definition:	A self-contained dwelling that is within, attached or on the same lot as another 'principal dwelling'
Permissible zones:	B1 Neighbourhood centre B2 Local centre R1 General residential R2 Low density residential R3 Medium density residential R5 Large lot residential
Key controls:	Typical LEP controls: <ul style="list-style-type: none"> Maximum height of 10 m Maximum size: 60 sqm or 10 per cent of principal dwelling GFA Further controls outside in Affordable Housing SEPP Typical DCP controls: <ul style="list-style-type: none"> None. The Affordable Housing SEPP contains controls that would typically apply. A development application would consider how the development would impact DCP controls that relate to the principal dwelling.
Strengths <ul style="list-style-type: none"> Secondary dwellings are effective in increasing overall dwelling density, as well as housing diversity by adding smaller dwellings to the mix. 	Issues and observations <ul style="list-style-type: none"> Permissible in zones that may push out more appropriate uses (eg B and higher-order R zones) Primary controls are under the Affordable Rental Housing SEPP with minimal Council control Potentially allows for development that reduces landscaping/permeable areas to below Council controls.

5.2.3 Dual occupancies



 <p>Dual occupancy</p>	
<p>Definition:</p>	<p>Attached: Two dwellings on one lot of land that are attached to each other, but does not include a secondary dwelling Detached: Two detached dwellings on one lot of land, but does not include a secondary dwelling Semi-detached: A dwelling that is on its own lot of land and is attached to only one other dwelling</p>
<p>Permissible zones:</p>	<p>B1 Neighbourhood centre B2 Local centre R1 General residential (semi-detached only) R3 Medium density residential RU1 Primary production (attached only) RU2 Rural landscape (attached only) RU4 Primary production small lot (attached only) RU5 Village (attached only) E3 Environmental management (attached only) E4 Environmental living (attached only)</p>
<p>Key controls:</p>	<p>Typical LEP controls:</p> <ul style="list-style-type: none"> Minimum lot size of 450 sqm Maximum height of 10 m <p>Typical DCP controls:</p> <ul style="list-style-type: none"> Maximum ceiling height of 7 m from ground level Built form to be within a height envelope (1.8 m at the site boundary and 45 degrees) A minimum front setback of 7.5 m (local road) to 10 m (major roads) Landscaped/undeveloped site coverage: 30 per cent Car parking: One covered space if under 55 sqm, otherwise two covered spaces Design considerations such as visual/acoustic privacy, external noise buffering, safety and security, and infrastructure provision.
<p>Strengths</p> <ul style="list-style-type: none"> Lowest impact full-size option to increase density Typology potentially allows for development that appears to be a single larger dwelling in bulk and scale. 	<p>Issues and observations</p> <ul style="list-style-type: none"> Permissible in zones that may push out more appropriate uses (eg B zone and E zones) Controls potentially allow for ‘battle-axe’ style dual occupancies, with one dwelling behind another, with poor design outcomes Lack of frontage/FSR requirements may lead to bulky buildings that maximise site coverage Car parking requirements may require up to four covered car parks on a single lot of land, and associated driveways

	<ul style="list-style-type: none"> Introduction of Code SEPP controls will allow for complying development on R zoned lands, which will not be required to consider Council's design controls.
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5.2.4 Multi dwelling housing

 <p>Multi dwelling housing</p>	
Definition:	Three or more dwellings (whether attached or detached) on one lot of land, each with access at ground level, but does not include a residential flat building.
Permissible zones:	B1 Neighbourhood centre B2 Local centre R1 General residential R3 Medium density residential
Key controls:	<p>Typical LEP controls:</p> <ul style="list-style-type: none"> Minimum lot size of 450 sqm Maximum height of 10 m <p>Typical DCP controls:</p> <ul style="list-style-type: none"> Maximum ceiling height of 7 m from ground level Built form to be within a height envelope (1.8 m at the site boundary and 45 degrees) A minimum front setback of 7.5 m (local road) to 10 m (major roads) Landscaped/undeveloped site coverage: 30 per cent Private open space site coverage: 20 per cent Car parking: One covered space if under 55 sqm, otherwise two covered spaces Visitor parking: One car park per 5 dwellings (rounded up) Design considerations such as visual/acoustic privacy, external noise buffering, safety and security, and infrastructure provision.
<p>Strengths</p> <ul style="list-style-type: none"> Villa development can provide efficient housing on long lots without wide frontages Allows for higher densities within lots without increased height. 	<p>Issues and observations</p> <ul style="list-style-type: none"> Long narrow blocks lead to a high proportion of land for driveways Lack of FSR control has the potential to result in very bulky dwellings Land typically requires clearing to develop due to building footprints Side-loaded development can back to adjacent neighbours, resulting in privacy issues Introduction of Code SEPP controls will allow for terraces and manor houses as complying development on R-zoned lands, which will not be required to consider Council's design controls.

5.2.5 Residential flat buildings

 <p>Residential flat buildings and shop top housing</p>	
<p>Definition:</p>	<p>Residential flat building: A building containing 3 or more dwellings but does not include an attached dwelling or multi dwelling housing. Shop top housing: Three or more dwellings (whether attached or detached) on one lot of land, each with access at ground level, but does not include a residential flat building.</p>
<p>Permissible zones:</p>	<p>B1 Neighbourhood centre B2 Local centre R1 General residential</p>
<p>Key controls:</p>	<p>Typical LEP controls:</p> <ul style="list-style-type: none"> Minimum lot size of 450 sqm (nil in B zones) Maximum height of 10 m to 12 m <p>Typical DCP controls:</p> <ul style="list-style-type: none"> Maximum ceiling height of 8 m from ground level Built form to be within a height envelope (3.5 m at the site boundary and 45 degrees) A minimum front setback of 7.5 m (local road) to 10 m (major roads) Landscaped/undeveloped site coverage: 30 per cent Common open space is to be provided may be provided towards landscaped areas Car parking: One covered space if under 55 sqm, else two covered spaces (potentially reduced in B zones) Visitor parking: One car park per 5 dwellings (rounded up) Design considerations such as visual/acoustic privacy, external noise buffering, safety and security, and infrastructure provision.
<p>Strengths</p> <ul style="list-style-type: none"> Densest and potentially the most affordable housing form available in built-up areas Allows for centralisation of support transport and social infrastructure Potential to provide foot traffic customers for local businesses, with appropriate pedestrian facilities. 	<p>Issues and observations</p> <ul style="list-style-type: none"> Residential flat buildings in B zones may push out commercial uses at the ground level DCP controls allowing for a maximum ceiling height of 8 m does not reliably allow for three-storey flat buildings, limiting implementation, and conflicting with 12 m LEP height limit Hawkesbury centres are largely heritage affected, reducing viability Increases demand for public amenity and infrastructure Typically, unable to provide for sufficient common or private open space as required by DCP Vehicle crossovers in centres can disrupt active frontages and reduce pedestrian amenity Flooding/water table increases the cost of underground parking, limiting the potential size of developments.

5.2.6 Boarding houses

 <p>Boarding houses</p>	
<p>Definition:</p>	<p>a building that:</p> <ul style="list-style-type: none"> (a) is wholly or partly let in lodgings, and (b) provides lodgers with a principal place of residence for 3 months or more, and (c) may have shared facilities, such as a communal living room, bathroom, kitchen or laundry, and (d) has rooms, some or all of which may have private kitchen and bathroom facilities, that accommodate one or more lodgers, but does not include backpackers' accommodation, a group home, hotel or motel accommodation, seniors housing or a serviced apartment.
<p>Permissible zones:</p>	<p>B1 Neighbourhood centre B2 Local centre R1 General residential R2 Low density residential R3 Medium density residential RU1 Primary production* RU2 Rural landscape* RU4 Primary production small lot* RU5 Village* E4 Environmental living*</p>
<p>Key controls:</p>	<p>Statutory controls: Zones B1, B2, R1, R2, R3: Controls are largely set by SEPP (Affordable Rental Housing), with height and density built upon LEP controls:</p> <ul style="list-style-type: none"> • Height: As permitted by the LEP • Density: As permitted by the LEP, unless a residential flat building is permitted. In that case, typically an additional 0.5:1 FSR is permitted • Landscaping: Front setback area is to be consistent with the surrounding streetscape • Solar access: At least one communal living room is to have 3 hours of direct sunlight access between 9 am and 3 pm in mid-winter • Private open space: At least 20 sqm with a minimum dimension of 3m for lodgers. If a building manager is present, at least another 8 sqm with a minimum dimension of 2.5 m • Parking: Between 0.2 and 0.5 parking spaces for each boarding room • Size: Boarding rooms are to be at least 12 to 16 sqm • Maximum number of rooms: 12 rooms in R2 Low Density Residential zone

	<ul style="list-style-type: none"> Character: Design is to be compatible with the character of the local area <p>Zones RU1, RU2, RU4, RU5, E4: Controls are set by the LEP and DCP:</p> <p>Typical LEP controls:</p> <ul style="list-style-type: none"> Minimum lot size of 2,000+ sqm Maximum height of 10 m <p>Typical DCP controls:</p> <ul style="list-style-type: none"> Maximum ceiling height of 7 m from ground level Built form to be within a height envelope (1.8 m at the site boundary and 45 degrees) A minimum front setback of 7.5 m (local road) to 10 m (major roads) Landscaped/undeveloped site coverage: 30 per cent Car parking: One covered space if under 55 sqm, otherwise two covered spaces. <p>Design considerations such as visual/acoustic privacy, external noise buffering, safety and security, and infrastructure provision</p> <p>Additional controls: A plan of management must be included in the development application After consent is granted, boarding houses must be registered with 28 days of commencing operations. Further, inspections must be organised with Council twice a year.</p>
Strengths	Issues and observations
<ul style="list-style-type: none"> Provides private market rate homes Shared common areas reduce build costs and increase density Permissibility tied to access to public transport May be incorporated into existing housing with minimal external adaptations May provide density in otherwise undevelopable sites. 	<ul style="list-style-type: none"> Only one boarding house is registered in the LGA, with the 2016 Census recording no people living in boarding houses B and R zones: <ul style="list-style-type: none"> Standard controls applied by a SEPP do not allow for local customisation for the housing type DCP provisions relating to internal characteristics (eg kitchens, bathrooms, common rooms and room amenity) are difficult to enforce Largely subjective character controls are difficult to interpret and enforce A subject of community concern (See below) RU and E zones: <ul style="list-style-type: none"> Standard LEP and DCP controls apply. Boarding Houses are more well placed in proximity to transport and employment options than RU and E zones are.

5.2.7 Affordable housing

Affordable housing requirement

As established as part of the housing needs analysis in Section 0, housing in Hawkesbury LGA is generally more affordable than the average across greater Sydney, with an expanded number of existing dwellings within the lowest loan repayment quartile group. This information is reflected in data from NSW FACS shown in Table 26.

Table 26: Percentage of affordable stock in Hawkesbury LGA (September 2017)

	Hawkesbury	Greater Sydney
Very low income	9.2%	3.9%
Low income	45.0%	23.1%
Moderate	88.5%	69.9%

Source: NSW FACS

The 2016 Census showed that most low-income in Hawkesbury households were in detached housing stock with about 73 per cent, compared with over 84 per cent across all households in the LGA. About 17 per cent in semi-detached housing, compared to 10 per cent of all households and about 5 per cent in flats or apartments, compared to about 2.5 per cent across all households. When compared to all households, this showed that low-income households are more representative in medium and higher density housing types. As previously identified, there are lower levels of these housing typologies in Hawkesbury LGA and while it can be said that housing is more affordable in the LGA compared to Greater Sydney overall, the lower level of diversity, particularly in locations with good access to community, health education and affordable transport options could be reducing the overall affordability of these options.

Information obtained from Wentworth Community Housing indicates that annual growth of 7.1 per cent in the number of affordable dwellings is required to meet projected demand in 2036, with an unmet demand of 1,929 social and affordable dwellings in 2016 and a shortfall between current supply and forecast demand of 2,999 social and affordable housing dwellings by 2036.²³

Planning mechanisms for affordable housing

Affordable housing in NSW has been developed in a range of ways and funded through a mix of sources including government (local/State/Commonwealth) grant or land contributions, planning incentives, philanthropic sources, community housing provider equity contributions and from finance secured against assets owned by community housing providers.

Inclusionary zoning

Inclusionary zoning is where development within a designated zone contributes towards supplying affordable housing according to a prescribed percentage of the affordable housing development. Inclusionary zonings have been in operation in Sydney, Waverley and Willoughby Local Government Areas. This approach has also become widely used in the United Kingdom and the United States.

There are now more than 500 inclusionary planning schemes operating in municipalities across the US and some require developers to include affordable housing as part of development in a particular zone (usually a fixed percentage of units or floor space). For example, inclusionary planning programs in the city of San Francisco, California (population of around 830,000) generate around 150–250 affordable units per year (around 12 per cent of the city's total supply).

Other schemes allow variations to planning rules in return for affordable housing. These variations may permit additional density in certain areas or waive certain requirements that would normally apply or expedite the development assessment process. Other schemes require financial contributions from developers to offset the impact of a project on affordable housing demand or supply. Inclusionary zoning

²³ http://www.wentworth.org.au/files/news_51_3146056848.pdf

provides a way for governments to ensure affordable housing for lower-income residents even in rapidly gentrifying neighbourhoods.

Affordable housing contributions scheme

In March 2019, the NSW Government issued a new policy direction that requires Councils to have an Affordable Housing Contribution Scheme. Affordable housing contribution schemes apply to selected precincts, areas or developments where an uplift is created by revisions to planning controls. A reference to the scheme in a relevant LEP gives statutory weight to the Scheme, allowing the Council to, via a condition of development consent, require monetary or in-kind contributions for the provision of affordable housing where identified in the affordable housing contributions scheme.

The contribution rate is based upon development feasibility analysis for each precinct in the scheme. This approach is new and as yet largely untested. However, it is the NSW Government's preferred approach to extracting affordable housing contributions.

Planning agreements

Negotiated Planning Agreements are where affordable housing contributions occur on a case-by-case basis and are used by planning authorities to obtain community benefits from developments. Planning Agreements provide planning authorities and developers the opportunity to negotiate flexible outcomes, either at the planning proposal or development application stage. Planning agreements are negotiated between planning authorities and developers in the context of applications by developers for changes to planning instruments or for consent to carry out development.

A fundamental principle in the operation of planning agreements is that planning decisions cannot be bought or sold. Planning agreements usually facilitate an increase in development yield and so changes to planning instruments or consents must be acceptable on planning grounds and environmental impacts. The negotiations between Council and a developer are based on the uplift in value received from an increase in height or FSR.

Councils such as the City of Canada Bay, City of Ryde, Waverley and Randwick have successfully negotiated numerous Planning Agreements to deliver a range of public benefits including affordable housing. The supply of affordable housing via this mechanism can vary greatly, be opportunistic and is dependent upon development occurring and the goodwill of developers. It is not a reliable method in comparison to inclusionary zoning and negotiations can be resource and time intensive.

5.2.8 Planning considerations by dwelling type

All urban land use zones in which residential development is permissible have been reviewed. While the overall application of zones and land use permissibilities were found to be sound, the assessment of planning provisions relating to each dwelling type above has identified some matters for consideration when reviewing Hawkesbury LEP 2012.

Table 27: Planning considerations for LEP review

Area	Consideration
B-zone permissibility	Business zones permit all residential accommodation types without non-residential components. Transitioning commercial lands to residential may reduce the servicing of existing residential lands, as well as compromise the viability of commercial clusters.
Medium density housing	Planning controls largely relate to separate housing, with few specific considerations for medium density options (eg frontage, lot size, orientation). Car

Area	Consideration
	<p>parking controls generally require two covered car parking spaces for new dwellings, increasing the built form of new dwellings, impermeable surfaces and vehicle circulation areas.</p> <p>This has led to medium density housing typologies that are commonly homes on smaller lots, or two standard houses that are attached, rather than a variety of housing typologies permitted in the R3 Medium Density Residential zone.</p> <p>Providing greater guidance on medium density options may assist in encouraging these forms of development. This may include:</p> <ul style="list-style-type: none"> Developing medium density specific DCP controls with examples for attached dwellings and other typologies Reducing minimum lot sizes for specific housing typologies Master planning new release areas with requirements for subdivisions to include minimum dwellings per hectare Implementation of the Code SEPP's Low Rise Medium Density Housing Code will allow for medium density housing types to be assessed as complying development, rather than as a development application. <p>Future release areas could target smaller lots and abutting dwellings in selected areas to increase housing diversity (southside of Altitude Street in Redbank has 180 m², minimum lot size).</p>
Shop top housing and residential flat buildings	<p>Current LEP, DCP and SEPP 65 controls appear to conflict. LEP maximum heights in residential zones is between 10 and 12m. The DCP setting a maximum ceiling height for apartments of 8m, effectively capping apartment buildings at two storeys. This controls assume a pitched roof within an angled building envelope. SEPP 65 controls, which do not require a pitched roof, would effectively override DCP controls, potentially allowing for three-storey apartments.</p> <p>The DCP controls largely relate to separate housing, with minimal design guidance for higher density housing. Providing greater guidance on shop top housing options may assist in encouraging these forms of development.</p> <p>Gap in design guidance may lead to inappropriately strict or lax design considerations being applied to future applications.</p>
Boarding houses	<p>Boarding houses are permitted across Business, Residential and Rural zones, beyond the scope of the Affordable Rental Housing SEPP.</p> <p>A review of community submissions has identified several concerns regarding boarding house development, some of which are beyond the scope of planning considerations.</p> <p>This suggests demand for the housing type in the immediate to short term is low.</p>
Affordable housing	<p>Housing in Hawkesbury LGA is relatively more affordable than in Greater Sydney. Regardless affordable housing is needed to address "pockets" of housing stress. Wentworth Community Housing has an inadequate supply of housing to meet demand.</p> <p>Release areas and any future planning proposals or significant redevelopments present an opportunity to require affordable housing contributions.</p> <p>A Planning Agreement Policy and/or affordable housing scheme could be applied to these areas to deliver affordable housing.</p>

5.3 Consideration of options

Several sites were identified in collaboration with Council by Council officers for investigation and consideration of a zoning review. These are outlined below.

5.3.1 Review remnant R2 Low Density lands in or adjacent to centres

Pockets of R2 Low Density Residential land have been identified adjacent to the Richmond and Windsor centres (Figure 75 and Figure 76). Transitioning these lands to B2 Local Centre, to align with the zoning of the adjacent land, would establish a more refined edge to the centres and allow for some increase in the capacity for shop-top housing near existing services. Any development would need to be compatible with the existing character and built form of the centre, to meet the community's expectations and respect the heritage character of the centres.

The exact numerical impact of the change is unclear, since some sites currently contain business uses and the willingness of the business to relocate or develop is uncertain. The total approximate area of R2 residual lots identified is 20,000 sqm in Richmond and 14,000 sqm in Windsor, with a total of 38,000 sqm. Assuming two levels of shop top housing are provided, this could allow up to approximately 250 to 300 additional units beyond the estimated 30 existing units. Development outcomes would be influenced by local constraints, such as heritage, ability to amalgamate lots and other design and development assessment concerns.

Figure 75: R2 zoned land adjacent to the Richmond centre



Figure 76: Remanant R2 zoned land adjacent to the Windsor centre



5.3.2 Hobartville zoning review

Hobartville is currently zoned R3, as shown in Figure 77, which allows for significant additional capacity under existing controls, particularly under the Low Rise Medium Density Housing Code. Lots to the far north of Hobartville benefit from being within the walking catchment of Richmond railway station and lots to the south benefit from proximity to WSU Hawkesbury Campus. However, the area is largely developed at low densities and redevelopment in the short term seems unlikely given the age of existing dwellings.

While flooding constraints are limited under existing controls (based on a 1:100 ARI FPL) it has been identified that all lots within the suburb would be affected by flooding at the PMF level. If there is any future decision to transition flooding controls from the 1 in 100 ARI to the PMF, Hobartville will become considerably more constrained. As previously stated in Section 4.1.1, without a final recommendation on an alternative flooding constraint level from the relevant NSW Government, and not knowing the ongoing developments regarding future flood mitigation projects upstream, this report has been prepared to align with the existing measure, the 1:100 ARI FPL.

Hobartville currently functions as a low density residential area despite its R3 Medium Density Residential zoning. Any proposed rezoning of Hobartville to R2 Low Density Residential would be a significant downzoning which seems unlikely to be supported by the community. It would also remove the potential for increased housing diversity through infill development under the Codes SEPP and when the existing development reaches an age that is appropriate for redevelopment. For these reasons, it is suggested that the current zoning be generally retained.

Figure 77: Land in Hobartville centre currently zoned as R3



Council has suggested that additional commercial space could be considered at the centre of this community through an expanded B1 Neighbourhood Centre zone, allowing the centre to offer expanded retail and services to the local community and staff and students at UWS Hawkesbury Campus. The impetus for this proposal arises from the limited size of the existing centres in Hobartville shown in section and the significant additional capacity under the current R3 Medium Density Zone, discussed in Section 4.2.1.5.

Existing dwelling capacity could also be retained through the use of shop top housing, which is permissible within the B1 Neighbourhood Centre zone. Any potential expansion to the Hobartville centre would potentially compete with existing centres for retail trade, requiring further investigation of economic impacts. While this proposal would result in some reduction in future housing capacity, compared to that under the existing controls, the scale of this reduction would be minimal, particularly if potential shop-top dwelling capacity is considered.

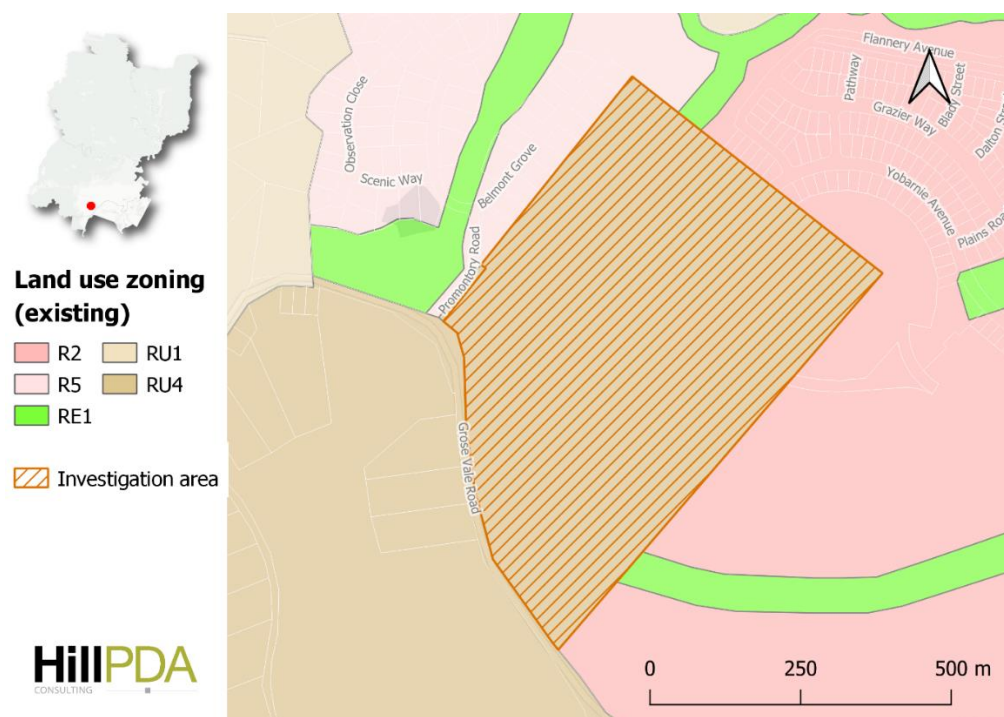
5.3.3 Redbank expansion option

The Redbank release area, discussed in Section 4.2.2.2, is undergoing a staged development process. The planning proposal that preceded the development rezoned rural zoned land to a mixture of R2 Low Density Residential and RE1 Public Recreation. Given the sensitivities of rezoning land from rural to less productive uses, the agricultural capability of the land was considered in detail as part of an agricultural land study.

The planning proposal excluded a parcel of RU4 zoned land at 322 Grose Vale Road, approximately 34 ha in size from the rezoning request (Figure 78). However, it did note that the site was identified as a longer-term opportunity area in the 2011 Hawkesbury Residential Land Strategy.

This land continues to be a potential area for further residential development, pending further consideration of the MRA (discussed in Section 4.1.6) and further confirmation of planning merit. Assuming that the land is suitable for residential uses, it would provide an option for residential development in the future.

Figure 78: Redbank investigation area

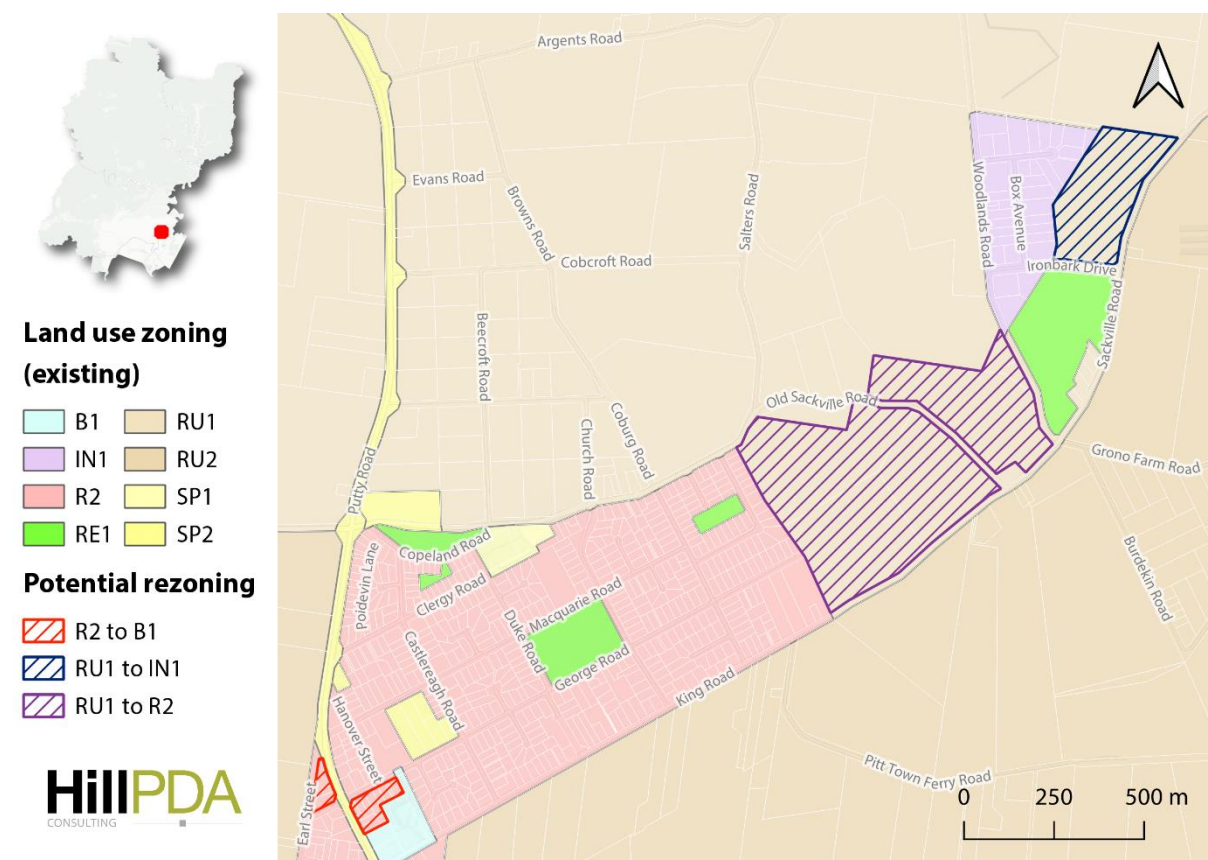


5.3.4 Wilberforce long term urban expansion options

Previous studies have identified land in Wilberforce that is currently zoned RU1 but suitable an R2 zoning, subject to the 1 in 100 flood level, as shown in Figure 79. Options identified include:

- A potential expansion the existing B1 Neighbourhood Centre to the south, to ensure that the existing neighbourhood centre has sufficient capacity to adequately serve the local population. This option would result in a loss of residential zoned land
- A potential expansion of the industrial area to the north onto land currently zoned RU1 between the existing IN1 are and Sackville road is also shown, although this is a matter for consideration in the Employment Lands Strategy and Rural Lands Strategies which are in preparation at the time of writing
- A potential expansion of residential land to the east of the existing urban area, subject to servicing constraints.

Figure 79: Land in Wilberforce currently zoned R2 (purple) with potential to be rezoned B1 and RU1 (blue) with potential to be rezoned to R2



Wilberforce	Existing capacity	No shop-top housing	With shop-top housing
R2 Low Density Residential	26 (R2), 3 (RU)	26* (R2)	26* (R2)

*assumptions based upon the application of dwelling density in Jacaranda Ponds

**assumed on 110 square metre floorplate built to a max building height of 10m

The additional housing capacity generated through the potential rezoning of rural areas to the north of Wilberforce to residential would create sufficient additional capacity to offset the expansion of the neighbourhood centre in the south, while also ensuring there is sufficient capacity within the neighbourhood centre to effectively meet the needs of an expanded population.

These options are considered to be long term and would require further detailed investigations.

5.3.5 South Windsor Neighbourhood Centre

Council requested HillPDA to consider the potential to rezone land cross-hatched in Figure 71 to B1 Neighbourhood Centre. The land is currently zoned R2 Low Density Residential. A rezoning of this land to B1 Neighbourhood Centre could assist in establishing active street frontages extending from Windsor Station to Windsor town centre to the northeast. Some lots are currently in use as commercial premises, despite the existing R2 Low density residential zoning.

A B1 Neighbourhood Centre zone would allow a greater range of housing types close to jobs and services. However, the lots are all constrained by an ANEF contour making them potentially unsuitable for increased

residential development. The proposal also would result in a mid-block zoning change on the Hawkesbury Valley Way between George Street and Cox Street, which in principle is not supported. Further, this amendment may prohibit existing low density residential uses, pending prohibition of non-shop-top housing uses in the B1 Neighbourhood Centre zone. This would make existing uses reliant on existing use rights.

The proposed zoning amendment could represent a significant increase in the potential for commercial floorspace associated with South Windsor neighbourhood centre. Further investigation would be required to determine the economic effects of expanding the centre, including the potential of diverting trade away from the primary Windsor town centre.

Given the limited potential of the proposal to increase housing diversity, these lots have been assumed in HillPDA's projections, to remain as R2 Low Density Residential.

Figure 80: Potential R2 lots to be rezoned B1



5.3.6 South Windsor zoning alignments

Council has requested that the potential for rezoning of land identified in Figure 81, to be rezoned to R1 General Residential (shown in purple) and IN2 Light Industrial (shown in red). These areas are currently zoned R2 Low Density Residential.

The impetus for rezoning the areas with purple hatching to R1 General Residential is to maintain consistency in zoning with the uses of surrounding lots which are zoned R1 General Residential. The proposed rezoning would encourage increased housing diversity near Windsor town centre and Windsor station. However, the lots are within the 25-30 ANEF contour and could therefore only be considered for low scale residential intensification. Tourist and visitor accommodation uses, which are also permitted in

the zone, could be appropriate in this location. Notably, this area contains the Windsor Police Station, potentially limiting redevelopment for housing outcomes to the long term.

The impetus for considering the areas hatched in red to be rezoned to IN2 Light Industry arises from a desire to add and preserve industrial and employment lands within the existing centres. The identified lots fall within the 25+ ANEF contour, potentially constraining these lots for intensified residential development. The proposed rezoning to IN2 Light Industry would be highly dependent on the rezoning land along Macquarie street to B1 Neighbourhood Centre, discussed above. Otherwise, the rezoning would simply shift the boundary between the industrial and residential uses to a lot boundary, rather than a public road, which is not supported. The range of uses permissible in the IN2 zone could lead to future land use conflicts arising with neighbouring residential and commercial development in principle the retention of residential land near mass transit and commercial centres is supported.

Figure 81: Potential R2 lots to be rezoned



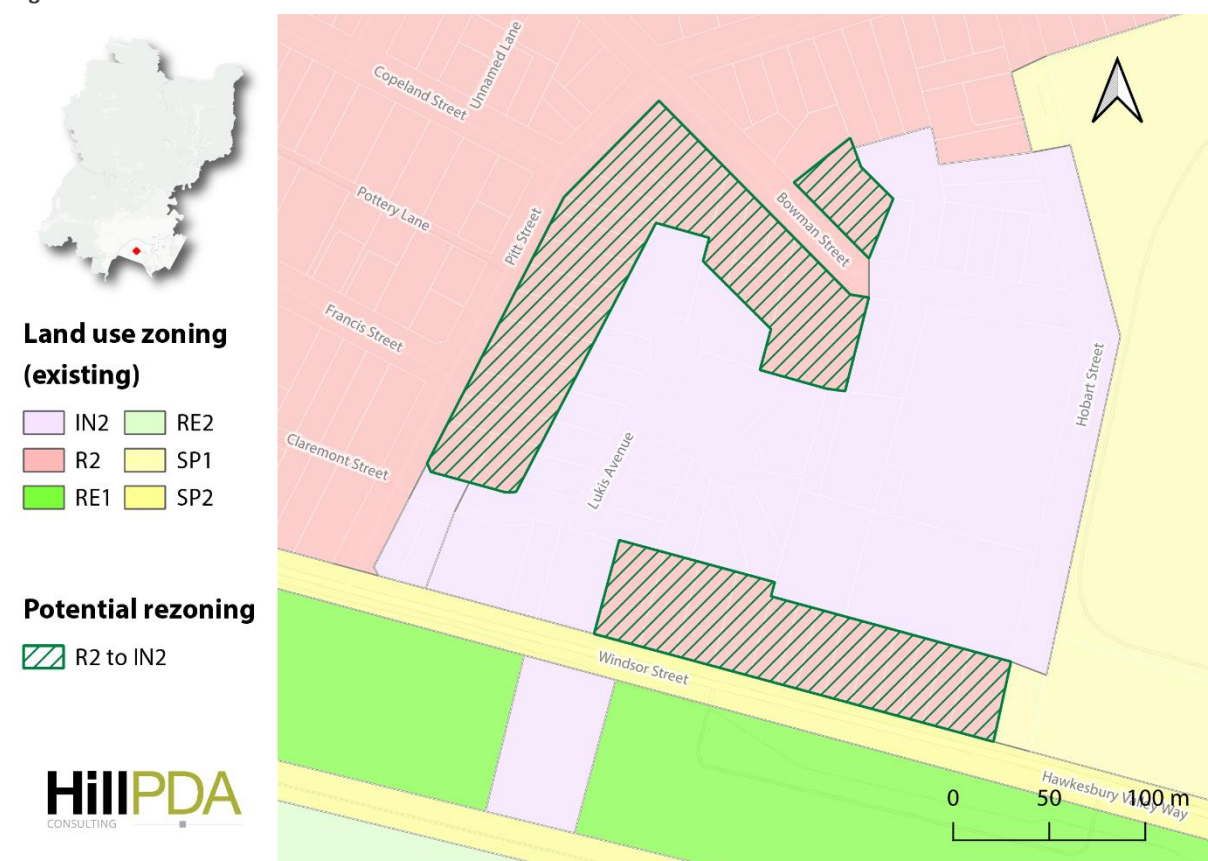
5.3.7 Richmond industrial uses

Council requested HillPDA to consider the housing-related impacts of a proposal to rezone areas identified in Figure 82 to IN2 Light Industrial. The impetus for this proposal arises from a need to strengthen the boundary of IN2 Light Industrial zoned land surrounding these lots to the east and promote uses more consistent with the neighbouring Richmond Airbase. The proximity of these lots to Richmond Airbase places them within the highest ANEF contour, posing a significant constraint and potentially rendering these lots unsuitable for future intensified residential development. Given the acoustic constraints, these sites were not considered as part of HillPDA's capacity projections within the Richmond centre.

According to relevant guidelines, industrial uses are considered most appropriate in the higher contours. Pending investigation as part of an economic study, additional employment lands within existing centres may positively impact upon nearby areas by providing jobs near homes. Additional consideration would need to be given to access requirements associated with the rezoning, as well as potential amenity impacts associated with adjusting the industrial boundary. The feasibility of industrial development where residential uses would continue to be permitted, via existing use rights, should also be explored.

While the proposal would respond to amenity constraints, it would, over time, see around 20 dwellings transition to industrial uses. Notably, the area proposed for rezoning includes a heritage item at 31 Pitt Street Richmond and the potential heritage impacts would require investigation. The proposal would be a significant down-zoning which seems unlikely to be supported by the community. The views of current residents should be sought before proceeding with further investigations relating to this proposal.

Figure 82: Potential R2 zoned land to be rezoned as IN2



5.4 Planning mechanisms

5.4.1 Zoning and numerical controls

The table below sets out suggested changes to the Hawkesbury Local Environmental Plan to address the issues above. This report does not consider potential to Rural zones or E3 Environmental Management zoned land due to the non-residential focus of those lands and other ongoing investigations.

Table 28: Planning implications for LEP for each zone

Zone	Purpose of the zone	Proposed changes	Potential Impact	Rationale
R1 General Residential	<ul style="list-style-type: none"> Allows for medium density housing types, along with residential flat buildings Applied in centres where residential flat buildings, villas or townhouses are a desired outcome. 	<ul style="list-style-type: none"> Examine area-specific height controls to allow for three-storey development with exceptions for flood management height Examine potential FSR of 0.8:1 to 1:1. 	<ul style="list-style-type: none"> Potential development of low-rise apartment buildings in key areas 	<ul style="list-style-type: none"> Zone currently promotes housing diversity and most-dense housing types Compensate for removal of residential flat building land use from B1 and B2 zones
R2 Low Density Residential	<ul style="list-style-type: none"> Allow for low density residential uses, primarily around primary and local centres Allow for certain small-scale commercial, tourist and agricultural uses 	<ul style="list-style-type: none"> Transition centre-based R2 zones with non-residential uses to B1 or B2 zones Transition medium density R2 zones to R3 Medium density zones Reduce heights to allow for two-storey development, with exceptions for flood management height Examine potential FSR of 0.5:1 Examine existing benefits and economic effects of removing higher impact commercial and tourist uses. 	<ul style="list-style-type: none"> Transition to B1/B2 zone may result in two-storey shop top housing in centres Transition to R3 Medium density zone may enable low rise medium density complying development. 	<ul style="list-style-type: none"> Transitioning zones would promote development in line with current or desired uses Formalising existing commercial uses in new B1 zones and removing those uses from the R2 zone would help establish new centres for future development.
R3 Medium Density Residential	<ul style="list-style-type: none"> Allow for low and medium density development, primarily adjacent to supporting uses 	<ul style="list-style-type: none"> Transition non-performing R3 zones to R2 (eg Hobartville see section 6.4.4) Transition targeted R3 zones to R1 (eg allowing for residential flat buildings) Establish supporting height and FSR controls to encourage medium density housing types Require street-adjacent multi dwelling housing to address the street Examine potential FSR of 0.5:1 to 0.7:1. 	<ul style="list-style-type: none"> Reduced ‘theoretical’ housing supply by transitioning to R2 Low Density Residential Increased variation in dwelling types by encouraging street-fronting terrace housing through minimum lot size or FSR controls Potential development of low-rise apartment buildings in selected areas 	<ul style="list-style-type: none"> Certain R3 zoned land may be underdelivering due to an inability to satisfy environmental and character control limits R3 zones around centres may have the ability to transition to appropriately sized flat buildings with minimal impacts.

Zone	Purpose of the zone	Proposed changes	Potential Impact	Rationale
R5 Large Lot Residential	<ul style="list-style-type: none"> Provide very low density housing outside of centres, with limited rural and commercial uses. 	<ul style="list-style-type: none"> Maintain or increase minimum lot sizes. 	<ul style="list-style-type: none"> Prevent further density associated with the zone. 	<ul style="list-style-type: none"> The zone is suitable as it is, but should not be permitted to subdivide further, to mitigate further unsupported development.
B1 Neighbourhood Centre	<ul style="list-style-type: none"> Provide small scale retail, business and community uses for a neighbourhood catchment 	<ul style="list-style-type: none"> Prohibit all residential uses except for shop top housing Reduce heights to allow for two-storey development (including 4 m commercial height), with exceptions for flood management height. 	<ul style="list-style-type: none"> Potential marginal loss associated with residential flat buildings. 	<ul style="list-style-type: none"> B1 zones are limited and should be used primarily for commercial purposes Shop top housing in the zone would provide low density housing in better serviced areas Permissibility of non-commercial residential uses is inconsistent with the objectives of the zone and may lower the viability of these centres in the future.
B2 Local Centre	<ul style="list-style-type: none"> Provide small to medium scale retail, business and community uses for a local catchment 	<ul style="list-style-type: none"> Prohibit all residential uses except for shop top housing Modify heights to allow for two to three-story development, as best suits the character of the area. 	<ul style="list-style-type: none"> Potential marginal loss associated with residential flat buildings. 	<ul style="list-style-type: none"> B2 zones are limited to centres and should be used primarily for commercial purposes Shop top housing in the zone would provide low/medium density housing in better serviced areas Permissibility of non-commercial residential uses is inconsistent with the objectives of the zone and may lower the viability of these centres in the future.
E4 Environmental Living	<ul style="list-style-type: none"> Provide very low density housing outside of centres, with limited rural and commercial uses. 	<ul style="list-style-type: none"> Maintain or increase minimum lot sizes. 	<ul style="list-style-type: none"> Prevent further density associated with the zone. 	<ul style="list-style-type: none"> The zone is suitable as it is, but should not be permitted to subdivide further, to mitigate further unsupported development.

5.4.2 Other controls

The following changes to the Hawkesbury LEP and DCP have also been identified

Potential change	Rationale
Introduce medium density-specific minimum lot sizes	<ul style="list-style-type: none"> Minimum lot sizes for medium density development provide expectations for built form outcomes The specific minimum lot size may be paired with a lower 'default' lot size, encouraging a mix of smaller dwellings that are sensitive to the constraints of the sites The Low-Rise Medium Density Housing Code also references dual-occupancy specific minimum lot sizes in an LEP to override the 400 sqm minimum lot size referenced in the code.
Develop DCP design controls for medium density housing	<ul style="list-style-type: none"> Current DCP housing controls largely relate to detached dwellings, potentially discouraging medium density development Develop DCP controls that guide developers regarding the design of medium density housing Controls should encourage development by providing clear advantages over detached dwellings, while also encourage high quality design
Develop structure plans for new release areas	<ul style="list-style-type: none"> Existing medium density areas have a high proportion of low density, detached dwellings Before releasing further land for development, develop master plans that identify minimum dwelling density, desired subdivision patterns and example typologies.
Simplify minimum subdivision lot size clauses	<ul style="list-style-type: none"> The Hawkesbury LEP currently contains 12 clauses that relate to minimum subdivision sizes. These could be reviewed with the goal of rationalising them based on land use or zone to make interpretation and application simpler.
Floor space ratio control implementation	<ul style="list-style-type: none"> Floor space ratio controls to guide owners and potential developers as to the maximum size of potential dwellings. These controls could be designed to work in concert with landscaping controls currently in the DCP Sample FSR controls have been provided in the numerical control table above.
Review car parking controls	<ul style="list-style-type: none"> Current car parking controls required covered car parking based on the size of a dwelling, with two (1.5 rounded up) covered car parks required for a dwelling of 55 sqm or larger. This is likely result in two+ car garages, where otherwise a single car garage (or uncovered driveway) may be required by households The DCP also notes that reduced car parking rates for residential development in commercial zones may be considered. This could be expanded to certain residential flat buildings in proximity to a rail station. It may also be tied to the number of bedrooms, reflecting the occupancy of the apartments.
Develop local character statements and overlays	<ul style="list-style-type: none"> Options for preserving and shaping character may also be achieved through the proposed local character statement process, currently being development by DPIE. As currently proposed, Council may identify local character areas on a new LEP map, which would reference a local character statement. The statement would identify

Potential change	Rationale
	<p>objectives relevant to preserving or shaping the character in an area, to allow for growth that is sensitive to the character of the area</p> <ul style="list-style-type: none"> • A discussion paper and interim guideline for the process were made available in mid-2019, with the final process yet to be formalised. Pending formalisation of the process, local character statements will provide valuable methods for ensuring the long term viability of Hawkesbury's local character.



STRATEGIC DIRECTIONS AND ACTIONS

6.0 STRATEGIC DIRECTIONS AND ACTIONS

6.1 Vision

Hawkesbury LGA will accommodate continued steady growth whilst maintaining local character and respecting environmental constraints. New housing will be mainly focused in emerging urban areas and managed through North West Growth Area planning processes and site-specific master planning. Increasing the diversity housing delivered in new urban areas will be important to improving housing choice in the LGA.

New housing, including more diverse types of housing, will be encouraged near existing centres that provide access to public transport, shops, services and community facilities. However, the potential for substantial growth in the established centres of Richmond, North Richmond and Windsor are severely limited by environmental constraints.

For the rural villages of Hawkesbury LGA, incremental growth will respect the natural environment, appropriately manage environmental constraints and will not impact on the viability of rural land and agricultural activities.

The provision of new opportunities for housing growth in the longer term will be influenced by future decisions on major infrastructure including the route of the Outer Sydney Orbital and any future extension of the rail network.

6.2 Principles

- 1 Continue to plan for 1,150 new dwellings 2016-2021 consistent with Greater Sydney Commission's target, noting that delivery may be slightly below target
- 2 Plan for delivery of up to around 4,000 new dwellings 2016-2036, while balancing character and environmental considerations
- 3 Minimise the risks from environmental constraints by focussing additional housing growth into 2036 in the North West Growth Area
- 4 Allow a modest incremental increase in densities in urban centres close to services, open space and public transport without compromising flood evacuation timelines
- 5 Increase housing diversity to deliver housing choice to meet the needs of the ageing population with more lone person households
- 6 Continue to plan for stage 2 of Vineyard release area as part of the North West Growth Area to secure a long term supply of residential land, subject the impact of the proposed Greater Sydney Orbital
- 7 Encourage the provision of more affordable rental housing to support the 30 per cent of the community currently experiencing rental stress
- 8 Refine planning controls to address current issues and encourage increased housing diversity in selected locations

6.3 Strategies and actions

6.3.1 Focus new housing growth in urban release areas

Vineyard presents the largest opportunity in the LGA to providing new housing. Planning for the release area is being progressed as part of the North West Growth Area. The NSW Government has indicated that Vineyard will be:

“an attractive and well-connected community, where people can live with good access to public transport, community facilities, jobs, open spaces, shops and cafes. The development of Vineyard (Stage 1) precinct will include a proposed primary school, around 27 hectares of open space focused on the Killarney Chain of Ponds and adjacent land for new playing fields, parks and cycleways, a village centre and up to 2,300 new homes. Key infrastructure includes local roads, drainage and open space, which will be delivered to support the growing community. The Vineyard community will benefit from a central green spine along the Killarney Chain of Ponds providing recreational uses and extensive views to the Blue Mountains. The suburb also offers great connection to nearby rural land.”

Within this vision, it will be important to encourage a diversity of housing types in Vineyard to meet the housing needs of the LGA, particularly as there are limited opportunities to increase housing in other parts of the LGA.

Council could advocate for increased housing diversity in Vineyard when working with the NSW Government to plan for Vineyard. This could include:

- Reviewing the Hawkesbury Growth Centres Precinct DCP to require a minimum dwelling mix of dwelling density
- Introducing incentives to encourage multi-unit dwellings near the town centre
- Targeting a proportion of one and two-bedroom dwellings in multi-unit developments
- Encouraging innovative housing types such as small lot subdivisions, rear lane dual occupancies and secondary dwellings, build to rent schemes.

6.3.2 Maximise the potential of existing urban lands

The significant environmental constraints in the LGA and the restrictions of the Metropolitan Rural Area require the existing urban area to be a key location for continued housing growth, within the limits set by evacuation timelines.

The housing density of the LGA is generally low, with an effective limit of two to three storeys set for many areas. Areas that are located within 800m of a train station are the ideal location for new housing unless environmental constraints apply.

Council could encourage small scale infill development in the established urban areas provided that it respects the local character, including the heritage attributes of the local centres and responds appropriately to environmental constraints.

To achieve this outcome, Council could:

- Investigate rezoning remnant R2 low density residential sites in Windsor and Richmond, as outlined in section 6.3.1
- Advocate for housing on surplus government sites
- Review planning controls to encourage increased densities in infill development on under-utilised sites (see below).

6.3.3 Increase the supply of smaller dwellings

As the population of the Hawkesbury LGA ages and as the prevalence of lone person households increases, there will be a growing need for smaller dwellings. Dwellings that are suited to older persons would be in locations within walkable access to shops, health services and community facilities and would be designed to meet a growing need. Similarly, dwellings that are suited to the needs of a downsizing couple within the vicinity of existing social networks will also be needed.

In established areas, Council may encourage development by introducing minimum lot sizes for desired medium density typologies that encourage lot consolidation and redevelopment near centres. Council may also introduce DCP controls that clearly differentiate between the standards required for low density and medium density residential development. These controls should demonstrate how privacy, setbacks, private open space and car parking can be adjusted to suit smaller typologies.

Outside of infill areas, smaller dwellings are most likely to be delivered as part medium density development in new land releases. As part of the land release process, Council could develop masterplan controls that clearly outline expectations regarding the types and sizes of medium density housing, sample subdivision and building envelope designs, and numerical controls for minimum dwelling density. Review planning controls to encourage increased housing diversity

Council is required to review and update the Hawkesbury Local Environmental Plan every five years. In preparing this strategy, the application of planning controls for residential development have been reviewed and found to be generally appropriate.

Established centres provide the most opportunity to allow for increase housing diversity while strengthening the integrity of those centres and encouraging revitalisation. Centres are predominantly where housing diversity is found in the form of multi dwelling housing and apartment buildings, meaning that considered expansion of those uses would be consistent with their broader character.

Potential refinements to planning controls within and immediately surrounding centres include:

- Permit low rise apartment buildings in selected areas/sites in the R1 zone by:
 - Allow for three-storey development with exceptions for flood management heights
 - Examining the potential FSRs of 0.8:1 to 1:1.
- Expand shop top housing by transitioning centre-based R2 Low Density Residential zones with non-residential uses to a B1 or B2 zone
- In consultation with SES, transition R2 Low Density Residential land directly adjacent to the centres of Richmond and Windsor to R3 Medium Density Residential to enable low rise medium density complying development
- Expand centre zoning to include neighbouring residual R2 zoned land to promote density and establish stronger boundaries
- Encourage attached dwellings adjacent to centres through mapped additional local provisions.

Protect the integrity of centres by prohibiting all residential uses in B1 Neighbourhood Centre and B2 Local Centre except for shop top housing and modify heights to allow for two or three-story development, as best suits the character of the area.

6.3.4 Continue to expand affordable housing options

Council has already adopted an affordable housing policy, demonstrating a commitment to addressing this need. While this policy position is important, implementation mechanisms to encourage the provision of affordable housing could be further considered by Council. On larger scale developments, it is appropriate

that developers contribute to the supply of affordable housing either through cash contributions or dedication of dwellings to Council. Council could then appoint a community housing provider to manage the affordable dwellings.

Affordable housing practices have been successfully implemented by many Councils throughout NSW. Increased delivery of affordable dwelling can be targeted to key workers such as police, teachers and nurses. The affordable housing policy could be strengthened by confirming an expectation that:

- In large scale developments, such as release areas, Council anticipates that the developer would contribute to affordable housing, through an in-kind or cash contribution
- Initially, affordable housing contributions would be administered via a Voluntary Planning Agreement with the rate of contribution to be determined through feasibility testing, with Council to obtain an independent peer review of the feasibility testing
- The rate of contributions would be determined on a case by case basis with reference to development feasibility, but council could aim to achieve between 5% and 10 % of new residential GFA as affordable housing by 2036, consistent with the Greater Sydney Commission's Western Sydney District Plan
- Council could monitor opportunities to capture zoning uplift for the benefit of affordable housing and if appropriate, develop an Affordable Housing Contributions Scheme consistent with the NSW Government's requirements, which sets out the areas where an affordable housing contribution is to be paid and the rate based on feasibility testing
- Require, on large developments, the dedication of affordable rental housing in Council ownership in perpetuity
- Continue to support the development of micro-apartments (boarding houses), secondary dwellings, however, carefully consider the location of boarding houses to ensure they are appropriately located near transport and amenities
- Investigate and adopt innovative models which achieve more affordable homes through build to rent schemes, compact layouts, shared facilities and fewer car spaces in accessible locations
- Dwellings contributed will be held in perpetuity as Affordable Housing and managed by a community housing provider
- Affordable dwellings are to be made available to households on low and moderate incomes (defined above).

In addition to the above, Council could undertake a review of its assets to identify sites that are surplus to requirements and suited to development to meet a specific housing need such as affordable housing.

Council could also advocate for more crisis housing in Windsor and Richmond to help address homelessness in the region.

6.3.5 Maintain a long term supply of residential land

The environmental constraints outlined above, combined with the need to preserve prime agricultural land, mean that there are very limited options available to future urban expansion. The Vineyard release area (Stage 1 and 2) presents significant opportunities for future housing growth. However, it will be important to identify further future urban areas at an early stage to:

- Allow adequate time for planning and infrastructure delivery
- Maintain a buffer of zoned and serviced land to allow for market fluctuations.

Areas have been identified for investigation for suitability for future urban land in section 5.3. Sources of increased residential land supply that are under investigation include the following:

- Potential investigation area to the north of Vineyard Stage 1 and 2 areas (pursuant to the finalisation of Outer Sydney Orbital)
- Redbank expansion option
- Potential rezoning scenarios within centres to focus new housing in areas with existing or planned services.

Council could undertake environmental investigations of these sites to determine future development potential, if any. If no urban potential is found, alternative investigation areas will need to be identified.

6.3.6 Develop a program to monitor housing land supply and housing delivery

Council could establish a program to annually monitor development approvals and the supply of zoned and serviced land supply. The program would provide Council with a means of tracking progress towards delivering housing targets and monitoring the need for rezonings in the medium to longer term.

This study has established the development potential of various release areas and infill areas. Annual tracking of development approval and constructions activity against the development potential would assist Council to monitor residential land supply to inform decisions on rezoning and land release.

It is suggested that Council:

- Establish a database of residential land supply disaggregated into land that is:
 - Zoned for residential development
 - Zoned and serviced for residential development
 - Zoned, serviced and subdivided
- Establish a program to investigate potential new urban areas as indicated in section 6.3.

6.3.7 Continue to work with other all levels of government, the community, local services and agencies to address homelessness

Like most part of Greater Sydney, homelessness continues to be an issue affecting Hawkesbury LGA. Work undertaken by Wentworth Community Housing in 2016 included a three day street survey in Windsor, contacting 24 respondents, of whom over 70 per cent were rough sleepers²⁴.

As previously identified in Section 2.2.4, the *Hawkesbury Homelessness Action Plan* was conceived by a working group across local community, government (all levels), service and agency stakeholders to devise a coordinated approach to addressing homelessness in the LGA. The plan was adopted in 2014 and a range of measures, as well as measures and performance indicators.

In addition to the steps outlined in 6.3.4 which aim to address affordability issues, Council could continue to work to implement the recommendations of the *Hawkesbury Homelessness Action Plan* and:

- Consider preparing an updated Homelessness Action Plan which identifies updated needs and actions
- Advocate for the needs of the LGA's homeless people by seeking increased funding opportunities to address homelessness
- Investigate the need for additional outreach services targeted to homeless people in the LGA.

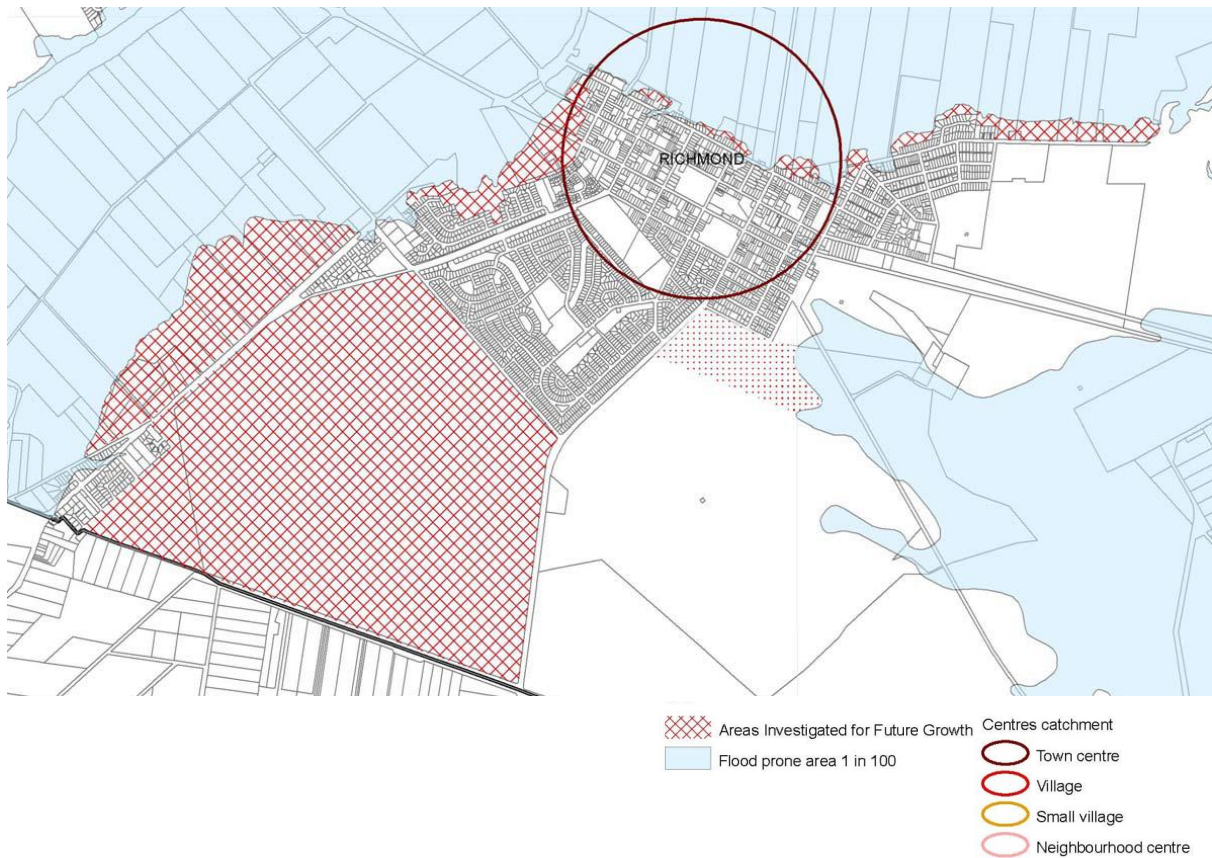
²⁴ Wentworth Community Housing (2017), "*Heading Home: Stage 1 Report*". <http://www.wentworth.org.au/files/resources-annual-reports_12_2906068819.pdf>

Appendix A: 2011 INVESTIGATION AREAS

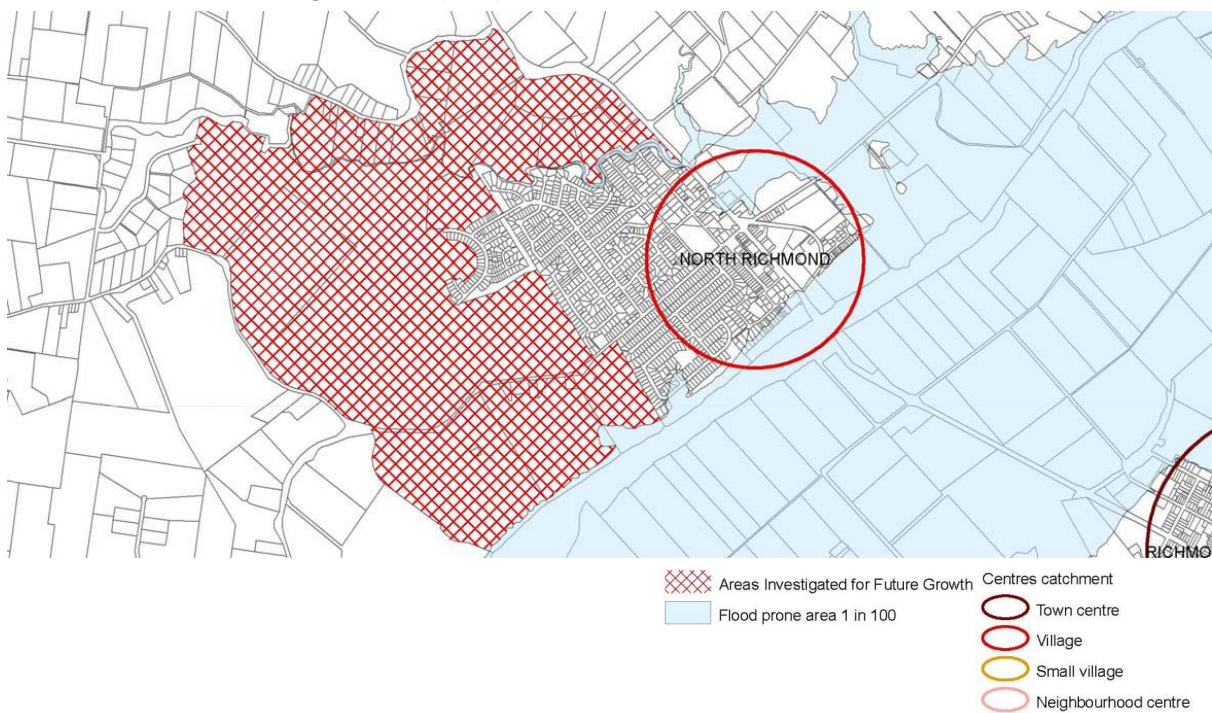
The following table refers to land identified in the Hawkesbury Residential Land Strategy 2011 and identifies the current status of those proposals and the recommendation of this Local Housing Strategy for each investigation area. Maps of the 2011 investigation areas are below.

Area	Investigation areas to be retained/ removed	Justification/Comments
Richmond	The investigation area identified through Hawkesbury RLS 2011 is no longer viable	<ul style="list-style-type: none"> The areas identified for future investigation are zoned: SP1, RU4, and RU2 The SP1 site belongs to Western Sydney University The Sydney Region Plan classed Hawkesbury LGA (except for Vineyard Precinct) as part of the Metropolitan Rural Area (MRA). The MRA objectives do not support new urban development Hobartville is zoned R3 Medium Density Residential and has capacity under the current planning controls to meet the housing targets set by the Western City District Plan The identified area is not serviced by reticulated sewer The area would be inundated at PMF levels Given the constraints of flooding and pressure on the evacuation routes, further development in this area is not warranted.
North Richmond	<p>The investigation area can be retained for further investigation</p> <p>Lot 260 DP 1237271 can be investigate to be rezoned to merge with the development within the Redbank development</p>	<ul style="list-style-type: none"> The areas identified for future investigation are zoned RU4 and RU1 Parts of the investigation area has been rezoned and developed. Some sites still have the potential for further investigation. However, the MRA objective of the Greater Sydney Region Plan may object to any further rezoning to Residential zones The remaining investigation area lacks sewer and water connections. The area can get isolated during a major flood event.
Wilberforce	The investigation area can be retained for further investigation	<ul style="list-style-type: none"> The areas identified for future investigation are zoned RU1 and RU2 The area lacks sewer connections but has reticulated water infrastructure The area can get isolated during a major flood event The MRA objective of the Sydney Region Plan may object to any further rezoning to Residential zones.
Glossodia	The investigation area identified has been fully rezoned	<ul style="list-style-type: none"> The investigation area identified has been fully rezoned.

Richmond investigation areas (2011)



North Richmond future investigation areas (2011)



Wilberforce future investigation areas (2011)



Glossodia future investigation areas (2011)



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