The Rowville Plan

Background Report, Part 1: Context & Research

Knox City Council

November 2013

Table of Contents

lr	ntrodu	ction	3
	1.1	Context	4
	1.2	Purpose	5
	1.3	How to Read this Document	5
2	Rov	vville Context	6
	2.1	A Brief History of Rowville's Development	7
	2.2	Demographic Data Sources	9
	2.3	People	12
	2.4	Land Use	28
	2.5	Natural Environment	43
	2.6	Infrastructure	45
	2.7	Community Services	55
3	Pol	icy Context	61
	3.1	Knox Vision and City Plan	61
	3.2	Council Plans and Policies	61
	3.3	Current Planning Context	69
4	Wh	at it means for the Rowville Plan	79
	4.1	Drivers of Change	79
	4.2	Key Conditions and Trends	80
	4.3	Issues Requiring Response	83

Introduction

The Rowville Plan is a strategic document that sets out a vision and direction for the Stud Park Shopping Centre and surrounding neighbourhoods over the next 20 years. Its purpose is to help guide decisions on a wide range of issues important to the future of Rowville, from housing and development to infrastructure and community services. The Rowville Plan addresses the area bounded by Wellington Road, Taylors Lane, Kelletts Road, and the Corhanwarrabul Creek, referred to in the Plan as the Study Area.

The Rowville Plan is supported by a three-part Background Report that provides detailed evidence to the support the directions in the Plan.

- This document forms Part 1 of the Background Report, which provides detail and supporting evidence about the existing context as well as the factors and trends driving future change in Rowville.
- Part 2 of the Background Report gives a summary of the process and results of an extensive community engagement program designed to develop a decision-making framework to help quide recommendations in the Rowville Plan.
- Part 3 of the Background Report applies the decision-making framework developed in consultation with the community in order to address questions about land use and development.

1.1 Context

The Rowville Plan replaces the Stud Park Structure Plan (Stage 1 and 2), which previously defined and guided development in the Stud Park (Rowville) Major Activity Centre. The Stud Park Shopping Centre Structure Plan (Stage 1) was adopted by Knox City Council in 2007. This document supported the Stud Park Shopping Centre Development Plan adopted by Council in 2009. The Stud Park (Stage 2) Structure Plan, which applied to the residential areas around the shopping centre, was adopted by Council in June 2010.

The impetus for a new Rowville Plan was a decision by Council in April 2011 to halt the implantation of the Stud Park (Stage 2) Structure Plan through an amendment to the Knox Planning Scheme and review the findings. This decision was largely a response to a change in project conditions which included public opposition to plans for development over two storeys in the area, a change in ownership of and long-term vision for the Stud Park Shopping Centre, and challenges in coordinating with DPCD for the approval and implementation of an Activity Centre Zone (ACZ).

In April 2011, Council passed the following resolution:

That Council:

- 1. Defer public exhibition of Amendment C92 (as resolved at the 8 June 2010 Strategic Planning Committee meeting) until further resolved by Council at a future Council meeting.
- 2. Conduct a review of the Stud Park Structure Plan (Stage 2) focusing on objectives and planning guidelines relating to built form outcomes in the proposed Substantial and Moderate Change areas to provide greater certainty.
- 3. Adopt an interim 3 storey height limit (9 metres) in the proposed Substantial and Moderate Change areas pending the outcome of the Stud Park Structure Plan review.
- 4. Refer the Stud Park Structure Plan review to the Housing Advisory Committee to ensure that the findings are consistent with the Housing Policy review currently underway.
- 5. Receive a further report with the findings of the Stud Park Structure Plan (Stage 2) review for consideration.

The Rowville Plan provides the strategic basis for an Implementation Plan that will address actions by many different stakeholders across many disciplines with the goal of meeting the objectives in the Rowville Plan. One of the first actions the Rowville Plan will enable is a new amendment to the Knox Planning Scheme which will implement the state government's new zones and changes related to the new Knox Housing Strategy.

1.2 Purpose

The purpose of this document is to provide a basis of evidence and technical support for the objectives and directions contained in the Rowville Plan. It contains a summary of many years worth of research by Council, the State of Victoria, and a range of expert consultants on issues relating to Rowville's future. This includes research and studies undertaken specifically to inform the Rowville Plan, background documents and inputs into the previous Stud Park Structure Plan, current Knox strategies and policy, and studies related to other state, regional, and local initiatives.

The intention of this document is to provide evidence and direction based on research and data. A detailed summary of community goals and ideas appears in the Rowville Plan Background Report Part 2: Community Engagement.

1.3 How to Read this Document

The body of this document is divided into three main sections:

- Rowville Context Section 2 describes the current state of play Rowville and the Study Area that is the focus of the Rowville Plan, and examines the trends and changes that are likely to shape Rowville's future. This includes an examination Rowville's people, land use, natural environment, infrastructure, and community services.
- Policy Context Section 3 describes the state and local policies that influence the Rowville Plan, starting with the Knox City Plan which provides the head of power for and guiding structure for the main Rowville Plan document. The Rowville Plan is influenced by a wide range of Council plans and policies across a range of disciplines, and in turn aims to provide support for a wide range of initiatives and actions to be delivered by Council and community stakeholders.
- What it Means for the Rowville Plan Section 4 provides a summary of the factors will require future decisions and responses by Council and the community in order to work towards a shared vision for Rowville's future. These influencing factors are presented within the framework of 'Drivers of Change' developed for Knox City Council's Knox@50 project to inform the development of the most recent Council Vision and Plan.

2 Rowville Context

The suburb of Rowville is located in the southern portion of the City of Knox, near the foothills of the Dandenong Ranges in Melbourne's eastern suburbs. Home to over 34,000 people across 2100 hectares, Rowville is both the largest and most populous suburb in Knox.

The Study Area shown in Figure 3 includes the commercial areas and residential neighbourhoods in and around the Stud Park Shopping Centre: from the Corhanwarrabul Creek in the west to Taylors Lane in the east, and Kelletts Road to the north to Wellington Road in the south.

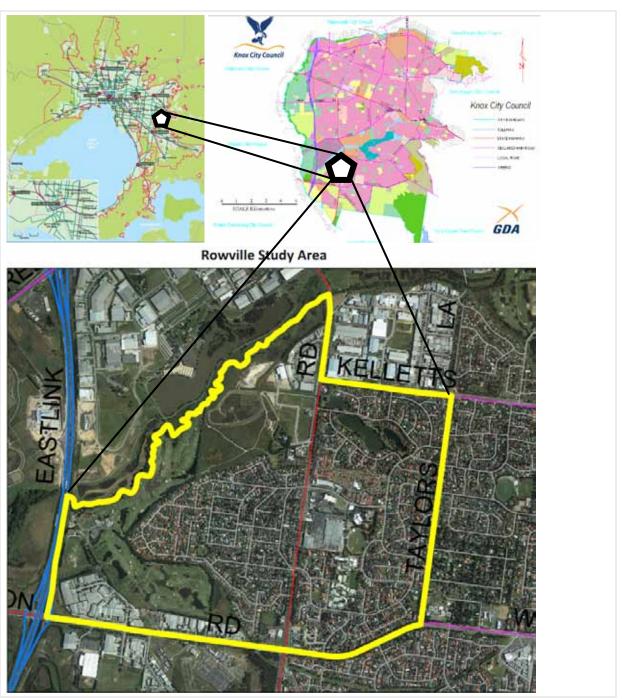


Figure 1: Rowville Plan Study Area

2.1 A Brief History of Rowville's Development

In order to understand Rowville in 2013, it is important to look at where the suburb has been and how it has grown. Rowville has moved through a few distinct periods of growth and development over the last 150 years, each with its own aspects and challenges. Rowville today stands at the beginning of a new chapter in its history, with a whole new set of challenges and strengths that will require new approaches to planning for the future.

I. Pre-Settlement:

Before 1837

The area that is now Rowville has been home to the Woi-wurrung people for at least 40,000 years. The clans who occupied the broader region were the *Ngaruk willam* (*Bun wurrung*) and the *Bulug willam* of the *Wurundjeri-Balluk* (*Woi wurrung*) The *Bulug willam* belonged to the moiety of *Waa* (the crow), while the *Ngaruk willam* belonged to the moiety of *Bunjil* (the eagle). These clans led a subsistence lifestyle in balance with the ecology. Following the arrival of John Batman and other settlers from Van Dieman's Land (Tasmania) at indented Head in 1835, rapid land clearing, grazing of sheep and cattle and exclusion of aborigines from water and food resources by European settlers quickly and dramatically reduced the population of the Woiwurrung and Bunwurrung people. A Native Police Corps comprised of local tribal elders was established by the Colonial Government at the Police Paddocks just south of Rowville in 1837 to help stem the decline, but was largely ineffective in doing so.

II. Rural Settlements:

1840s - 1960s

The earliest settlement in what is now the City of Knox, was in 1838 when Reverand James Clow took possession of the Corhanwarrabul pastoral run and built a homestead named Tirhatuan close to modern day Wellington Road. The Row family, after whom the suburb is named, emigrated to Australia from England and established a homestead at Stamford Park in 1864, expanding it in 1882. The Homestead and surrounding land was purchased by Knox Council in 1988. Another notable historical fact about Rowville is that land on the south-west corner of Stud and Wellington Roads was the site of a military and later, prisoner of war camp during World War 2. Rowville/Scoresby/Lysterfield area remained predominantly rural until the 1970s.

III. Suburban Boom:

1960s - 2000s

The City of Knox was established in 1963, and in the decade that followed Rowville began a period of rapid population growth that would see it become the largest suburb in Knox today. Significant commercial development occurred from the 1980s, including the opening of the Stud Park Shopping Centre in 1989. The early 1990s saw continued rapid population growth, with the number of people living in Rowville doubling in 15 years time, from around 16,000 people in 1991 to nearly 34,000 people in 2006. Much of the growth was driven by families with children, who were drawn to the relatively affordable houses in the growth areas of the time. Much of Rowville's current housing stock was built during this time.

IV. Infill & Consolidation:

2000s - 2010s

By the early 2000s, much of the residential land in Rowville had been built out. With few new houses were added to the area during this period the growth in population slowed. Between 2006 and 2011, the population remained relatively unchanged at around 34,000 people. Average household sizes began to decline. With few new houses built, fewer young families moved into the area while children of existing families finished school and moved out of their parents' homes. As a result, between 1991 and 2010 the only age groups whose population declined were Babies and Preschoolers (ages 0-4) and Young Professionals (ages 25-24).

V. Redevelopment:

2010 and Beyond

Townhouses, apartments, and other new types of residential development began to appear in other parts of Knox near the turn of the century, and in the last few years, Rowville has entered its own new phase of growth and development. Much of the housing stock that was built in the 1960s and 1970s has begun to reach replacement age, which has lead to renovation and redevelopment. Average household sizes have continued to shrink, as children move out of their parents' homes and the population of Rowville ages in place. As the demographic changes, the community service needs of the suburb a shifting away from childcare and family services towards aged care. The Rowville Plan is a response to these changing conditions.

2.2 Demographic Data Sources

The following sections provide a discussion of current conditions and recent trends in Rowville. Demographics information is based on the Profile.id assessment from id Consulting. At the time this version of the Background Report was prepared, the Profile.id for Knox was based on second release 2011 Census data, and was last updated on 22 Nov 2012.

Overall Rowville statistics for Rowville represent the data from the three Statistical Local Areas (SLAs) as shown in Figure 4 below: Rowville (south), Rowville (central), and Rowville (north). These have been collated into a single overlay area for Rowville by id Consulting, and are included in the Profile.id as a separate selection to the other small areas.

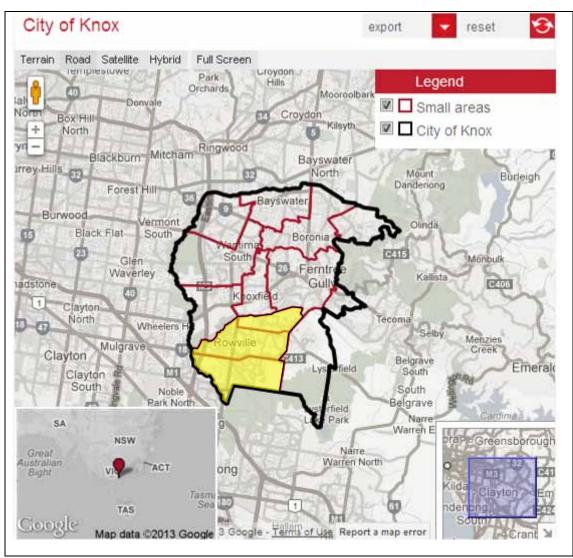


Figure 2: Statistical Local Areas for Rowville

Knox City Council employs id Consulting to compile and analyse census statistics in a number of different ways. The consultants produce four sets of data analysis, which can be accessed at http://www.id.com.au/knox.

- Profile.id Analysis of time series Census data for Knox and its small areas (based on second release 2011 Census data, last updated on 22-Nov 2012)
- Atlas.id Interactive thematic maps showing spatial patterns for communities across
 Knox (based on data from the 2001 and 2006 Census of Population and Housing, update
 to 2011 Census data expected in early 2013.)
- Forecast.id Population and household forecasts for Knox and its small area, showing how the population will change in the future (based on data from the 2006 Census, update to 2011 Census data expected in mid-2013.)
- Economy.id Analysis of Knox's economy and workforce based on Census and modelled data

There are three types of population estimates, which are described by on the Profile.id "Notes" pages as the following:

Enumerated population refers to the population counted in the City of Knox on Census night. Because it is impossible to catch everyone at home on one night, the Census counts people wherever they were sleeping that night. This might include people who usually live somewhere else but were staying in the area on business or holiday. ¹

Usual Residence population refers to the population that usually lives in the City of Knox rather than the population that was counted there on Census night. Each person completing the Census is required to state their address of usual residence and this information is used to derive the Usual Residence population. To be counted as the usual residence, a person has to have lived or intend to live in the dwelling for six months or more of the year. ²

Estimated Resident Population (ERP) is the official ABS estimate of the Australian population. The ERP is based on results of the Census and is compiled as at 30 June of each Census year. It is updated between Censuses - quarterly for state and national figures, and annually for local government areas and provides a population figure between Censuses. ³

³ ibid

¹ http://profile.id.com.au/knox/population-types?WebID=160, accessed 2 January 2013.

² ibid

These population numbers are released at different times and represent different estimates of population. For example, Enumerated Population is the first estimate to be released by the ABS, and may be higher or lower than Usual Residence Population depending on the number of visitors in an area on Census night. The figures for Estimated Resident Population are usually higher than Census counts, as they factor in people missed by the Census. In addition, some population estimates such as the ERP are continually updated as new information becomes available. Thus when comparing population figures, it is important to consider not only the type of estimate used but also the date those figures were accessed.

All figures and comparisons that use data prior to 2001 use Enumerated Data, as this was the only estimate available from the ABS prior to the 2001 Census. All figures and comparisons in this report representing data from 2001 or later only use Usual Residence population unless otherwise cited. Unless otherwise noted, all demographic projections are based on 2006-11 forecasts updated with 2011 Census based population estimates, with residential development assumptions last reviewed on 7 September 2010.

The data used in this report was accessed between December 2012 and October 2013. Individual figures are subject to change, as both the ABS and id refine their estimates and projections on a continual basis.

2.3 People

2.3.1 Total Population

Rowville is this largest suburb in the City of Knox, with a population of 34,006 people according to the ABS 2011 Census⁴. This represents about 24% the total Knox population of 149,300 people. The population of the Around 6,511⁵ people live in the Rowville Plan Study Area, which represents 19% of Rowville's total population and 4.4% of the total population of Knox. The numbers in Table 1 show different estimates of Rowville's population since 1991. The Enumerated Population estimate has been published for Rowville since 1991, while the ABS began publishing the Usual Residence Population estimate in 2001. The difference in the two numbers reflects the different methods of estimation, described in Section 2.2.

Table 1: ABS Population Estimates for Rowville, 1991-2011

	1991	1996	2001	2006	2011
Enumerated Population	16,479	23,533	29,735	33,205	33,354
Five Year Change		42.8%	26.4%	11.7%	0.45%
Five Year Annual Growth Rate		7.4%	4.8%	2.2%	0.09%
Usual Residence Population			29,977	33,833	34,006
Five Year Change				12.9%	0.51%
Five Year Annual Growth Rate				2.5%	0.10%

Source: ABS, Census of Population and Housing 2001-2011. (Usual Residence) Compiled & presented by Knox City Council.

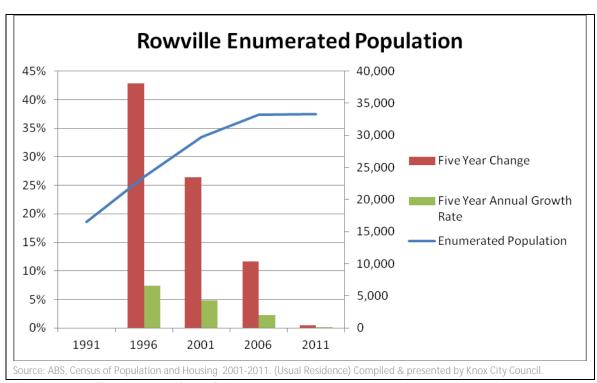


Figure 3: Rowville Enumerated Population, 1991-2011

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⁴ Usual Residence Population

⁵ Usual Residence Population

Projections to 2031

Although Rowville's population has more than doubled over the last 20 years⁶ in recent years the rate of growth has slowed to near zero. Current projections⁷ estimate that Rowville's population will remain steady near current levels for the next 20 years.⁸

Table 2: Rowville Population Projections from .id

Rowville Projections	2011	2016	2021	2026	2031
Population	35,043	34,586	34,612	34,618	34,737
Change in Population (5yrs)	35	-457	26	6	119
Average Annual Change (%)	0.02	-0.26	0.02	0	0.07

Source: .2006-11 forecasts updated with 2011 Census based population estimates. Residential development assumptions last reviewed 7 September 2010. Compiled and presented by .id , the population experts.

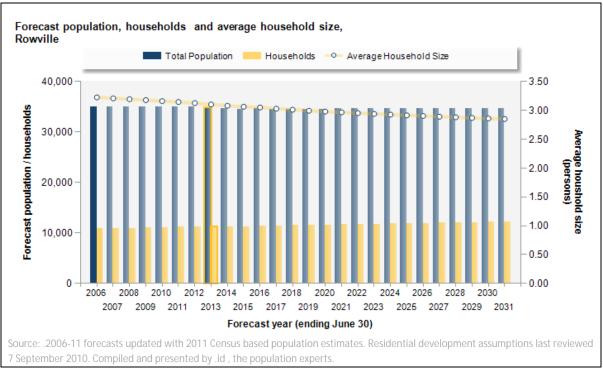


Figure 4: Rowville Population and Household Projections from .id

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⁶ The population of Rowville has only been counted as a separate entity since 1991, when the Enumerated Population began to be broken out by the ABS. In 2001, the ABS added the Usual Residence estimate to their population counts for Rowville.

⁷ The most recent forecast.id projections at the time of publication are based on 2006 data.

⁸ Population numbers in forecast.id for the 2006 base year are derived on Estimated Resident Population from the Australian Bureau of Statistics. These differ from (and are usually higher than) Census counts as they factor in population missed by the Census, and population overseas on Census night. They are generally considered a more accurate measure of population size than Census counts.

2.3.2 Households

There are 10,822 households in Rowville⁹, with approximately 20% of these located within the Rowville Plan Study Area. The average household size in Rowville is around 3.2 people per household, much larger than the Greater Melbourne average of 2.6 people per household. This is mainly due to high numbers of families with children (53% in Rowville versus 34% in Greater Melbourne) low proportion of lone person households (11.5% in Rowville versus 22.3% across Greater Melbourne).

Recent Trends

However recent trends suggest a changing Rowville. While most of the growth in Rowville's population since 1991 has come from families with children, that trend has reversed in recent years. Since 2006, as Rowville's total population growth has slowed, the number of couples with children has decreased slightly, while lone households, one parent families, and couples without children have all increased in population.

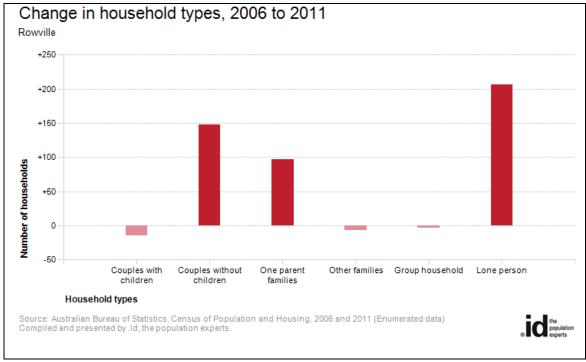


Figure 5: Recent Change in Rowville Household Types, 2006 to 2011

Projections to 2031

These trends together suggest that average household size in Rowville will be smaller in the future than it is today. Current projections ¹⁰ estimate that average household size will decrease over the next 20 years, from around 3.15 to 2.85 people in 2031, while the

⁹ According to the Enumerated Population estimate from the ABS 2011 Census

¹⁰ The most recent forecast.id projections at the time of publication are based on 2006 data.

number of households is expected to rise from 11,127 today to 12,171 in 2031¹¹. This means that while the total population is expected to grow little if at all, the demand for dwellings in Rowville will continue to rise.

Table 3: Rowville Household and Dwelling Projections from .id

Rowville Projections	2011	2016	2021	2026	2031
Households	11,127	11,325	11,654	11,911	12,171
Average Household Size (persons)	3.15	3.05	2.97	2.91	2.85
Dwellings	11,441	11,644	11,958	12,208	12,475
Dwelling occupancy rate	97.26	97.26	97.46	97.57	97.56

Source: .2006-11 forecasts updated with 2011 Census based population estimates. Residential development assumptions last reviewed 7 September 2010. Compiled and presented by .id , the population experts.

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¹¹ Population numbers in forecast.id for the 2006 base year are derived on Estimated Resident Population from the Australian Bureau of Statistics. These differ from (and are usually higher than) Census counts as they factor in population missed by the Census, and population overseas on Census night. They are generally considered a more accurate measure of population size than Census counts.

2.3.3 Age Structure

The population of Rowville has a very different age structure than Greater Melbourne, with a higher proportion of parents and children and a lower proportion of young workers, seniors, and retirees. This generally reflects the family character of Rowville with which many residents identify. One of the largest differences between Rowville and Greater Melbourne is the proportion of "Young Workforce" (25-34 year olds), which accounts for only 10% of Rowville's population compared to 15% across Greater Melbourne.

Recent Trends

An examination of recent trends reveals that as the growth rate of population has slowed, Rowville's population is ageing in place. Many children in Rowville are reaching the end of their school years and fewer younger children are taking their place. Many people in the "Parents and Homebuilders" age group are on the cusp of becoming "Empty nesters and retirees", and are not being replaced by young couples and new parents. In fact, the only groups that increased in population over the last 5 years were 18-24 year-olds and people over 50 years old.

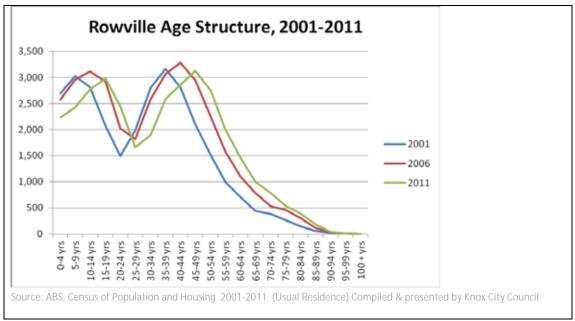


Figure 6: Recent Trends in Rowville Five-Year Age Structure, 2001-2011

Projections to 2031

Current projections ¹² estimate that the ageing trend that is happening across Greater Melbourne will continue to cause dramatic changes in Rowville's population. The number of people over 65 years old is projected to increase by over 80% between 2006 and 2021 while the number of people aged 5-24 is expected to decline over that same time period. These trends have the potential to completely change the mix of activities and services that the people of Rowville will require by 2031, which would have major implications across the areas of healthy ageing, youth activities, and early years services.

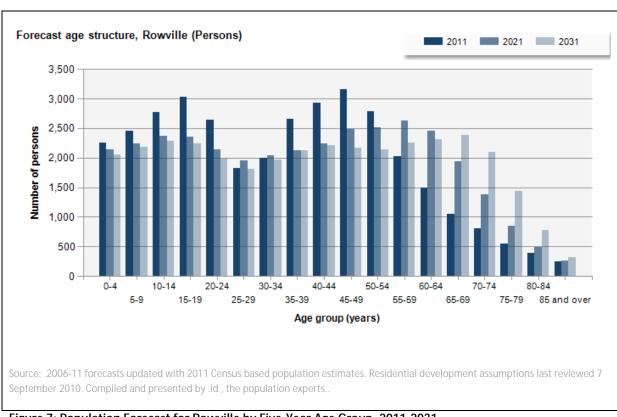


Figure 7: Population Forecast for Rowville by Five-Year Age Group, 2011-2031

 $^{^{12}}$ The most recent forecast.id projections at the time of publication are based on 2006 data.

2.3.4 Employment

The unemployment rate Rowville residents was 4.1% in the 2011 ABS Census, lower than the Greater Melbourne rate of 5.5%. Unemployment in Rowville fell from over 7% in 1991 to less than 4% in 2006 before rising slightly in the last five years¹³. The total labour force has nearly doubled in the last 20 years, although the overall growth in the number of Rowville residents in the labour force has slowed in the last 5-years, similar to the trend of slowing growth in overall population.

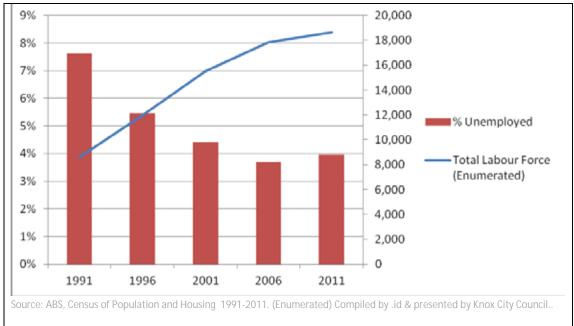


Figure 8: Twenty-Year Rowville Labour Force and Unemployment, 1991-2011

¹³ According to Enumerated Population estimates

2.3.5 Income

Rowville residents in general earn higher incomes than people across the whole of Greater Melbourne, with a higher proportion of people earning \$1,250-4,999 per week and a lower proportion of people earning less than \$1,250 per week.

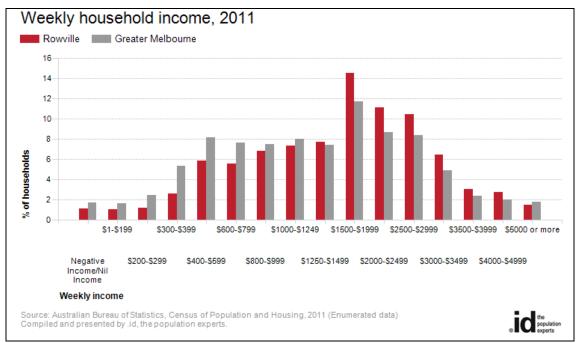


Figure 9: Current Weekly Household Income, Rowville and Greater Melbourne

An examination of recent trends¹⁴ reveals that the proportion of higher-income households (Figure 14) and individuals (Figure 15) has fallen over the last twenty years, while the proportion of lower-income households has risen. This shift has brought Rowville closer to the pattern for Greater Melbourne. This trend has accelerated in Rowville since 2006, particularly for household income.

 $^{^{14}}$ See Appendix A for a detailed discussion on how income quartiles are calculated by ABS

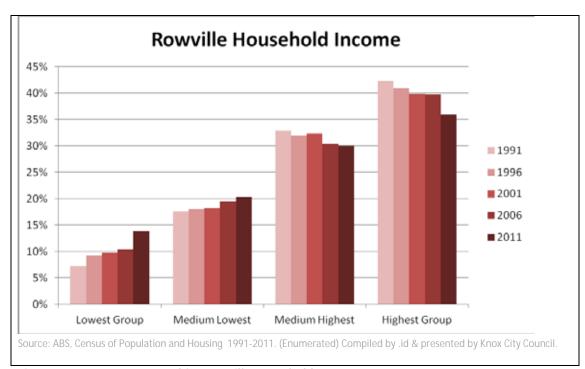


Figure 10: Twenty-Year Trend for Rowville Household Income, 1991-2011

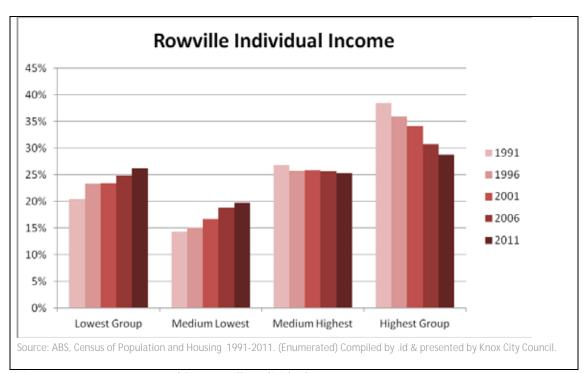


Figure 11: Twenty-Year Trend for Rowville Individual Income, 1991-2011

2.3.6 Health

Physical Health Indicators

Recent research has revealed that Rowville performs below other areas of Knox in a few key indicators of physical health. The relative risk of obesity among adults in Rowville is higher than in many other parts of Knox, as show in Figure 16. Some neighbourhoods in the Study Area are among those with the highest risk in Knox, at over 50%. Desity is an important indicator of overall health because it is correlated with many chronic health conditions such as heart disease and diabetes.

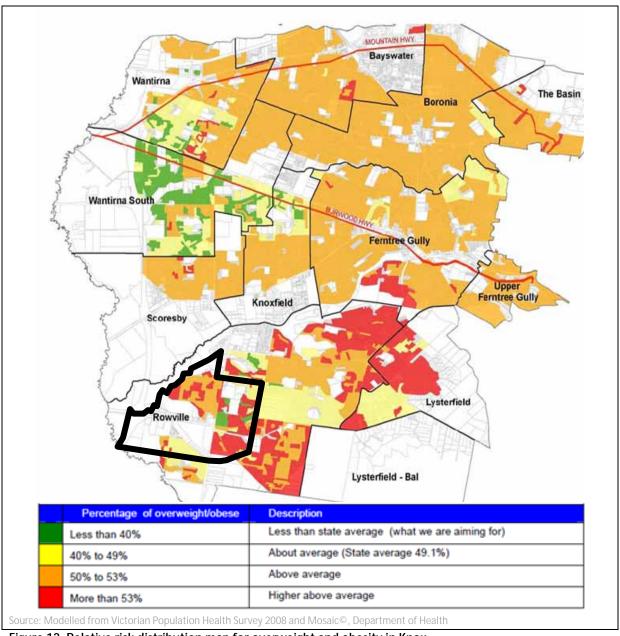


Figure 12: Relative risk distribution map for overweight and obesity in Knox

¹⁵ Obesogenic Environments: Investigating the Role of Urban Form and Planning in Influencing Physical Activity: B. Clarke, T, Jenvey & N, Vickridge, 2013

There are many factors that contribute to higher obesity rates, as well as many potential strategies for reducing obesity within the community. Increasing evidence suggests an important role of the built environment in supporting physical activity and reducing obesity. Numerous studies have shown that people who live communities offering relatively greater proximity to numerous destinations and high levels of connectivity between those destinations tend to be more physically active and home to less overweight than people in less walkable communities. ¹⁶ The layout of streets, amount of shade and amenity from canopy trees, access to open space, and perceptions of safety are all factors that can contribute to higher levels of walking and more active community lifestyles.

Access to Healthy Food

Access to healthy food is another key indicator that can contribute to better overall community health outcomes. Rowville has a relatively high density of takeaway food outlets relative to grocers and supermarkets. This means that there are more Rowville residents living near relatively unhealthy food choices than there are living near places to buy fresh produce and other healthier food options. The maps in Figure 17 and Figure 18 show the parts of Knox that are within 400 m of healthy and unhealthy food options, respectively. This may be one factor that negatively influences dietary behaviours and contributes to higher-than-average obesity rates in Rowville.

¹⁶ Obesogenic Environments: Investigating the Role of Urban Form and Planning in Influencing Physical Activity: B. Clarke, T, Jenvey & N, Vickridge, 2013

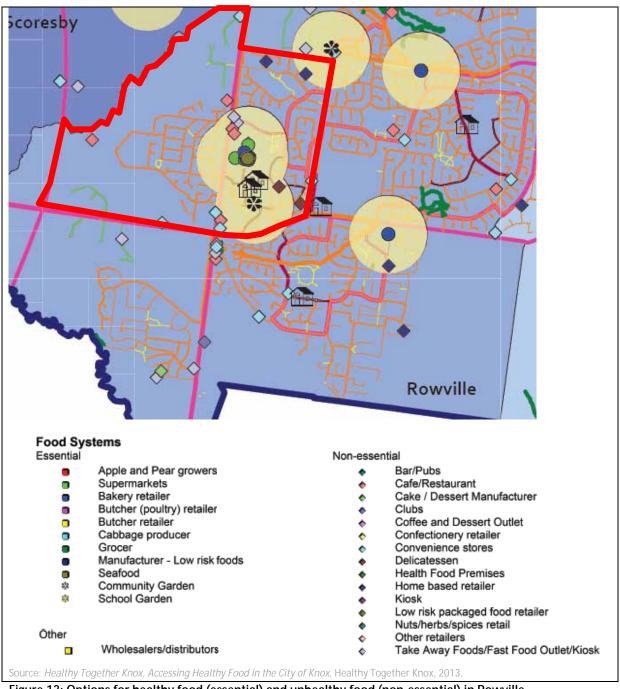


Figure 13: Options for healthy food (essential) and unhealthy food (non-essential) in Rowville

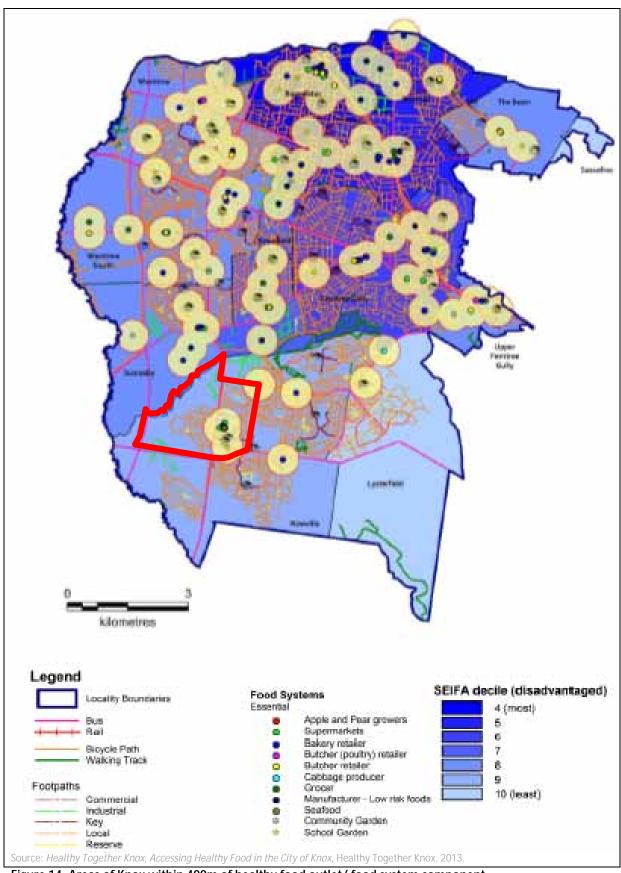


Figure 14: Areas of Knox within 400m of healthy food outlet/ food system component

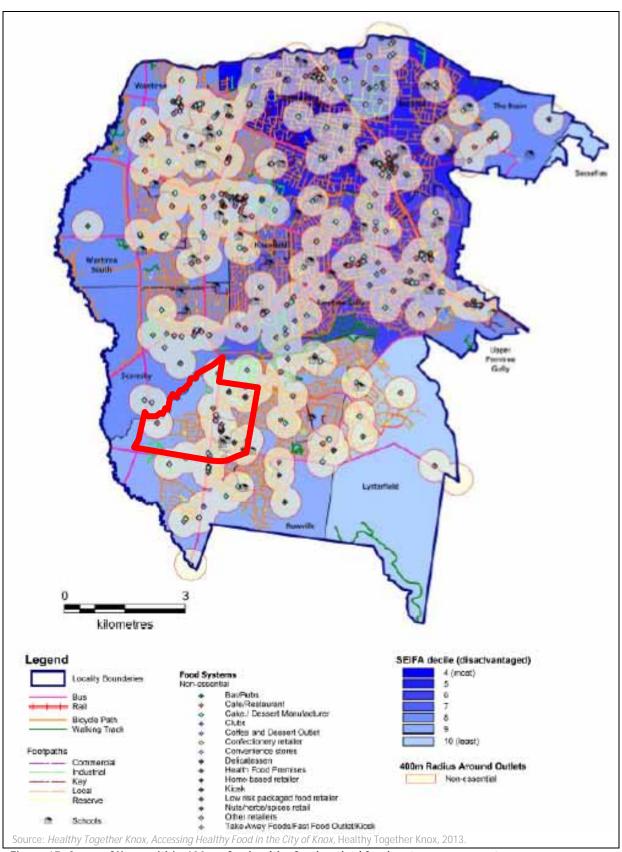


Figure 15: Areas of Knox within 400m of unhealthy food outlet/ food system component

Mental and Social Health Indicators

Rowville faces many similar challenges to health and social welfare that are characteristic of its outer-suburban setting. Statistics related to crime, family, and wellbeing generally suggest a healthy, well-functioning suburb. Issues of social and mental health rated as a low priority during the engagement for the Rowville Plan. However, there is anecdotal evidence that suggest some important issues in the lives of Rowville residents.

Knox City Council commissioned a Social Environment Assessment in 2008 as an input into the original Stud Park (Stage 2) Structure Plan 2010. This study combined statistics with extensive consultation with residents, traders, and other Rowville stakeholders drawn from schools, churches, Council, and Community Service Organisations. There were several issues raised by residents related to mental and social health:

- Lack of activities for young and old While the supply of physical infrastructure for youth sport is considered excellent in Rowville the social health issue of most concern to Rowville residents is that apart from sport, Year 8-11 students without access to transport and mobility have few options for recreation. Residents also cited a lack of places and occasions for Rowville residents to gather together.
- Low levels of civic engagement The report suggested there are number of factors
 contributing to this, including "the way the suburb was developed, their histories,
 the spirit of independence and self-reliance found in some residents and long hours
 at work." However time poverty was listed as the highest contributor.
- Extreme time poverty Lack of time for family and leisure activities has a crowdingout effect particularly parents of children and teenagers who struggle with work/life balance as a result of long travel times to work, various commitments of their children, and
- Increasing incidence of stress There are many factors cited to support the
 anecdotal evidence of increasing pressures felt by Rowville residents, including
 increase incidence of family breakdown, increasing levels of housing stress, high
 levels of traffic congestion, and rising prices of food and fuel.

The Social Environment Assessment included seven key recommendations for consideration in future planning for Rowville:

- 1. The provision of efficient public transport and most particularly a railway line that facilitates connections with the CBD, sporting venues, tertiary education and employment;
- 2. The provision of a cinema and food court-leisure opportunities other than sport for the cohort aged 12-18, but also with appeal to other cohorts;

- 3. The provision of a staffed Community Link that would facilitate access to information about local services, programs and recreation opportunities, best co-located with the Knox Customer Service Centre, the Library/Cafe complex that is panned or with a relocated Rowville and District Neighbourhood House;
- 4. Relocating the Neighbourhood House to enhance its ability to function as a site of community connection;
- 5. The provision of affordable rental accommodation for those facing family breakdown and/or mortgage stress, and for the health and wellbeing of their families, wanting to remaining in the area;
- 6. The provision of affordable 2-3 bedroom townhouses or units;
- 7. The provision of affordable personal and financial counselling services that address the need for crisis prevention.

2.4 Land Use

2.4.1 Housing

The statistics and figures in the following sections relate to the many different aspects of housing in Rowville. The term "Housing" is used by Knox Council to refer to many different types of dwellings – not just single detached houses. This may include a wide range of residential buildings, from houses and apartments to hostels and nursing homes. It may refer to homes that are rented, mortgaged, or owned outright. The Knox Housing Strategy defines several different types of housing as follows:

Table 4: Housing Type Definitions from the Knox Housing Strategy 2013

Housing Type	Definition from Knox Housing Strategy 2013			
Detached dwelling:	One dwelling on a lot, what may be commonly called a 'house'.			
Dual occupancy:	Two dwellings on a lot (can include retention of an existing dwelling).			
Units:	Three or more dwellings on a lot with no shared walls.			
Townhouses:	Three or more dwellings on a lot sharing a wall or roof.			
Apartments:	Development of three or more stories in a single mass or multi-unit dwelling, usually with a common entrance.			

Dwelling Mix

Separate houses accounted for 94% of all dwellings in Rowville. This is a much higher percentage than across Greater Melbourne (71.1%), reflecting Rowville's outer-suburban context. The percentage of separate houses in the Study Area is slightly lower than Rowville overall, at 89.0%, reflecting reflects a small concentration of medium-density dwellings – dual-occupancies, villa units, and townhouses – around Stud Park.

Houses in Rowville are generally large. Dwellings with three or four bedrooms are the most common, accounting for 87% of all dwellings in Rowville. There are far fewer two-bedroom dwellings: only 4.3% of in Rowville compared to 11.3% in Knox and 19.3% across Greater Melbourne. The number of 0-1 bedroom dwellings in Rowville is negligible, accounting for less than 1% of the total.

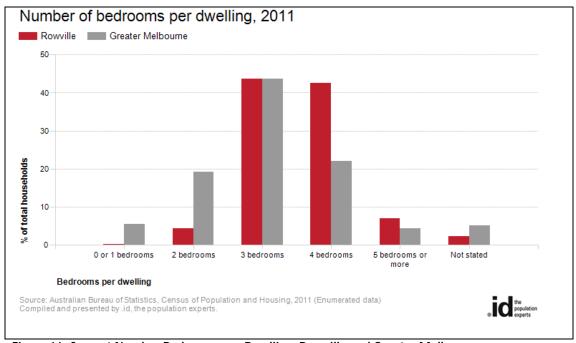


Figure 16: Current Number Bedrooms per Dwelling, Rowville and Greater Melbourne

Age of Housing Stock

Many of the houses in Rowville were built in the 1960s and 1970s. The oldest houses in the Study Area are in the neighbourhood west of Stud Road between Lakeview Avenue, Drummond Crescent, and Avalon Road which (along with the Stamford Hotel) are the only settled areas to appear in the 1st Edition Melways from 1966.



Figure 17: Rowville Study Area from Melways 1st Edition, 1966

Home Ownership

Of the 10,828 households in Rowville, the majority either have a mortgage (52.9%) or are fully owned (30.2%). This represents a higher percentage of mortgages and a slightly lower percentage of fully owned homes than across Greater Melbourne (35.2% and 31.5%, respectively). Renters of all types made up only 12.6% of Rowville houses in 2011, while over a quarter of households across Greater Melbourne (26.2%) are rented.

While the number of mortgages in Rowville has grown over the last 20 years, the number has begun to decline since 2006. The growth in renting has accelerated slightly in recent years, with the five-year increase in renters (312 households) accounting for over a third of the growth of the last 20 years (888 households).

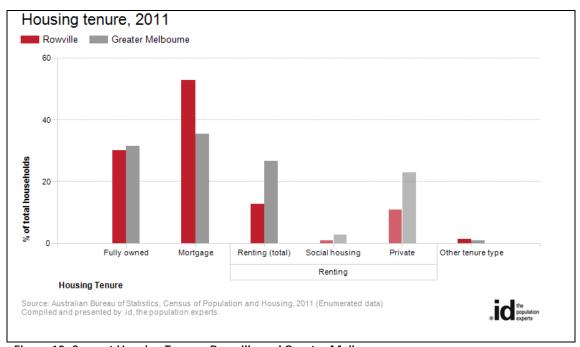


Figure 18: Current Housing Tenure, Rowville and Greater Melbourne

Housing Affordability

In the years prior to 2001, the median house price in Rowville increased roughly in line with the median household income. As a result, the affordability of housing in Rowville remained about the same over this time. However, since around 2000 the median price of housing in Rowville has risen much faster than median income levels, leading to decreased affordability of housing in Rowville.

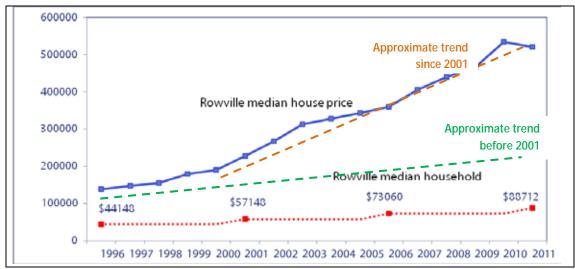


Figure 19: Rowville Median House Prices versus Median Household Income

Households that spend more than 30% of their income on housing, either rent or mortgage payments, are said to be experiencing 'housing stress'. ¹⁷ In Rowville today, 13.6% of people with mortgages are in this category. The red line in Figure 23 below represents the price of an 'affordable' home in Rowville from 1996 to 2011, based on a level of spending equal to 30% of the median income. The median home price in Rowville is now *higher* that the level required to avoid housing stress.



Figure 20: Rowville Median Dwelling Prices versus Affordable Dwelling Price

¹⁷ This is the broadest definition of 'housing stress,' although there are a few different definitions for the term. These are described in greater detail in the section on Social Housing below.

Housing Demand

A steady population and falling household sizes means that the number of households in Rowville will continue to grow. As a result, there will continue to be demand for new housing in Rowville. Current projections estimate that the number of dwellings in Rowville will increase from around 11,500 today to nearly 12,500 in 2031.

Table 5: Rowville Dwelling Projections from .id

Rowville Projections	2011	2016	2021	2026	2031
Dwellings	11,441	11,644	11,958	12,208	12,475
Dwelling occupancy rate	97.26	97.26	97.46	97.57	97.56

Source: .2006-11 forecasts updated with 2011 Census based population estimates. Residential development assumptions last reviewed 7 September 2010. Compiled and presented by .id , the population experts.

However, the demographic changes occurring throughout the Eastern Suburbs are leading to a change in the type of housing demanded. Across the City of Knox, and especially in Rowville, the proportion of single-person households and couples without children has been increasing, while the proportion of families with young children has been decreasing. As the proportion of 1-2 person households grows, so will the demand for smaller dwellings.

In 2011, there were around 3,600 small households (1-2 person) in Rowville, an increase of 800 households since 2001. However, in 2011 there were only around 500 small dwellings (1-2 bedroom dwellings) in Rowville, meaning many of these small households were living in larger dwellings. This is not unexpected, given that there are many reasons a household of 1-2 people may choose to live or stay in a larger house. However, the gap between the number of small households and small dwellings is increasing, suggesting that the supply of dwellings in Rowville is not keeping up with changes in demand.

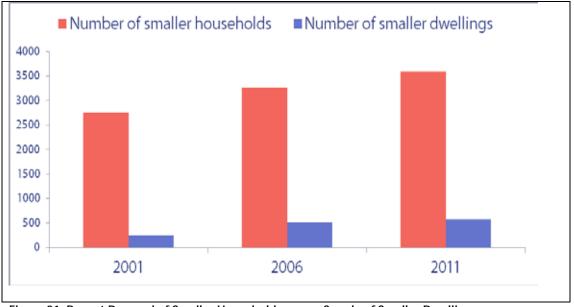


Figure 21: Recent Demand of Smaller Households versus Supply of Smaller Dwellings

In parts of Knox, the types of dwellings being built are changing to accommodate changes in demand, particularly for smaller dwellings. In Rowville, the gap is widening at a faster rate than in many other parts of Knox. The graph below shows the change in small households (red) and small dwellings (blue) between 2001 and 2011. While over 300 small dwellings were built in Rowville in the preceding 10 years, the number of small households has increased by over 800 units. This suggests that the mismatch in housing is increasing.

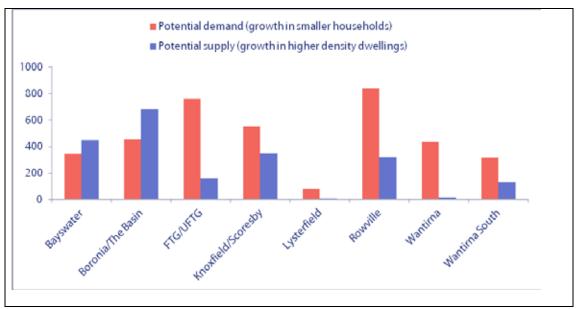


Figure 22: Demand versus Supply of Small Dwellings across Knox

Social Housing

The issue of social housing is a complex and divisive issue in many communities. According to the Social Environment Assessment here is a common view across Victoria that "social housing is for social undesirables." ¹⁸ Throughout community engagement, a negative view of high-rise commission housing in the inner city further contributed to a view of social housing as inappropriate in Rowville.

Social housing serves as a valuable resource for other members of the community who find themselves suddenly or temporarily vulnerable to housing pressures or unable to afford safe or suitable housing. This includes victims of family breakdown, work injury, chronic illness, migration, or downsizing in the workplace.¹⁹

The definition of social housing used by Knox Council comes from the Victoria state government:

Non-profit housing owned and managed for the primary purpose of meeting social objectives such as affordable rents, responsible management, security of tenure and good location in relation to employment and services. The term encompasses public housing and includes housing owned or managed by the community.²⁰

The number of social housing dwellings across Knox has grown slowly over the last 10 years, from 1,011 dwellings in 2001 to 1,117 dwellings in 2011. While the percent of the total number of dwellings that account for social housing has remained steady at 2.1%, it is still well below average the average for Greater Melbourne. Additionally, continued waiting lists for social housing across Victoria suggest that the current state-wide provision is inadequate to meet existing demand for these services.

Table 6: Social Housing Numbers in Knox and Greater Melbourne

	2001	2006	2011
Number of Social Housing Dwellings, Knox	1,011	1,044	1,117
Percent of Dwellings, Knox	2.1%	2.0%	2.1%
Percent of Dwellings, Greater Melbourne	3.2%	3.0%	2.9%

Source: ABS, Census 2011. Compiled & presented by Knox City Council.

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¹⁸ Stud Park Structure Plan Social Environment Assessment, Springboard Social Planning, August 2008.

¹⁹ Ibid

²⁰ Melbourne 2030: Planning for Sustainable Growth.

Knox Council produced a paper in 2011 that examined the demand for affordable and social housing in Knox, as well as the existing shortfall in supply.²¹ The concept of housing stress was examined in detail to help prepare these estimates. There are three definitions of the term that were cited in that report:

- 1. **30-only rule** A household is defined to be in housing stress if it spends more than 30% of its disposable or gross income on housing costs.
- 2. **30/40 rule** A household is said to be in housing stress if it spends more than 30% of its disposable or gross income on housing costs <u>and</u> the household also belongs to the bottom 40% of the equivalised disposable income distribution.
- 3. **30/10-40 rule** A household is defined as being in housing stress if it spends more than 30% of its disposable or gross income on housing <u>and</u> falls in the bottom 10-40% of the equivalised disposable income distribution.

The study concluded that for the purposes of estimating the need for social housing in Knox, the '30-40 rule' is the most appropriate definition of housing stress. According to this estimate, the report states that there is an existing shortfall in Knox that will grow to a need for 700 additional social housing dwellings by the year 2030. Within Knox, the shortage of social housing is greatest in Rowville, with an estimated need of around 120 additional dwellings by 2030. While Rowville is also one of the least disadvantaged suburbs of Knox in terms of income and housing, this shortfall highlights a potential vulnerability of Rowville to accommodate future changes in demand for social housing.

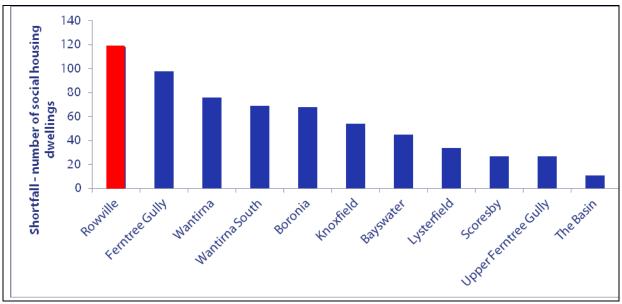


Figure 23: Estimated Social Housing Shortfall across Knox in 2030, Without Intervention

²¹ Defining affordable housing and a minimum supply of social housing for Knox. D. Swan, C. Anderson, C. Leskovec; September 2011.

²² Ibid

2.4.2 Commercial Core

The land zoned Commercial 1 Zone (C1Z) near the intersection of Stud Road and Fulham Road is referred to in the Rowville Plan as the "Commercial Core." This area includes:

- Stud Park Shopping Centre (1101 Stud Road)
- Fulham Road Shops (1-7 Fulham Road)
- Fast Food Restaurants (1085-1089 Stud Road)
- Commercial Building (1091 Stud Road)

The Stud Park Shopping Centre contains 26,500 m² of net leasable floorspace (of which 20,500 m² is 'shop' floorspace) on a site of approximately 93,000 m². The site includes a main shopping centre with two anchor tenants and over 60 specialty stores, a freestanding grocery store, a separate freestanding retail building along the northern edge of the site, and a total of 1589 car parking spaces.²³

The Stud Park Shopping Centre also includes the Rowville Customer Service Centre owned by Knox City Council, the Rowville Library (see Section 2.6.2) and a bus interchange area (see Section 2.5.1).

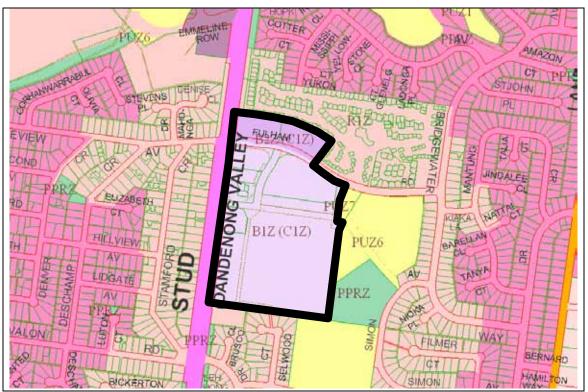


Figure 24: Rowville Plan "Commercial Core"

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²³ Stud Park Shopping Centre Development Plan, Prepared for: ING Real Estate, August 2009

2.4.3 Community Precinct

The land zoned Public Park and Recreation Zone (PPRZ) and Public Use Zone (PUZ2, PUZ6, PUZ7) east of the Stud Park Shopping Centre is referred to in the Rowville Plan as the "Community Precinct." This area includes:

- Rowville Police Station (30 Fulham Road)
- Rowville Community Centre (40 Fulham Road) See Section 2.6.1
- Stud Park Reserve See Section 2.6.1
- Rowville Adventure Playground See Section 2.6.1
- Rowville Primary School (11 Paretta Drive) See Section 2.6.2
- Rowville Secondary Western Campus (17 Paretta Drive) See Section 2.6.2

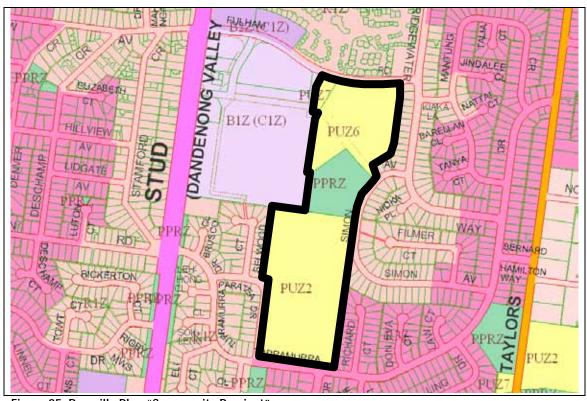


Figure 25: Rowville Plan "Community Precinct"

2.4.4 Industrial Uses

There are two areas of Commercial 2 Zone (C2Z) in the Study Area which support light industrial uses:

- Stamford Business Park Approximately 12 properties along Enterprise Drive west of Stud Road and north of the Stamford House Historic Homestead. Much of this land is currently vacant awaiting development.
- Kingsley Circle Approximately 23 properties along Kingsley Circle west of the intersection of Stud Road and Kelletts Road.
- Wellington Road Corridor Approximately 43 properties along Wellington Road,
 Corporate Avenue, South Corporate Avenue, and Andrews Court.

2.4.5 Other Uses

- Kingston Links Golf Course (14 Corporate Avenue) This 18-hole public golf course includes dining and corporate/event function rooms. The site has been for sale in recent years with various proposals for redevelopment, primarily for residential use. The site is largely within the 100-year floodplain of the Corhanwarrabul Creek and includes a Land Subject to Inundation Overlay (LSIO).
- Stamford Hotel (1200 Stud Road) This landmark establishment located on the corner of Stud Road and Wellington Road includes dining, nightclub, sports bar/TAB, entertainment, and corporate/event function rooms.
- Petrol Stations (1180 Stud Road & 951 Wellinton Road)
- Takeaway Restaurants (1165, 1171, & 1175 Stud Road)

2.4.6 Stamford Park Masterplan

Stamford Park is a 45 hectare site in Rowville located on the western side of Stud Road and bounded by Corhanwarrabul Creek to the north; Enterprise Business Park to the east; Kingston Links Golf Course to the west and an existing residential estate to the south. Access to the site is provided along Emmeline Row from a signalised intersection on Stud Road. It contains the historic Stamford Park Homestead which was built in 1882.

In February 2010 Council adopted the Stamford Park Master plan which proposes three distinct precincts within the 45 hectare site:

- An historic precinct, comprising the Stamford Park Homestead and gardens;
- A residential precinct (approximately 7 hectares) which includes a range of housing types and sizes; and
- A large park precinct, including restoration of wetlands.

The development of Stamford Park will support the Rowville Plan in terms of the provision of housing (the Master plan envisages a minimum of 151 dwellings); community space (in and around the homestead) and open space adjoining the broader study area.

Additional detail about the proposed community features of the Stamford Park Masterplan can be found in Section 2.6.1.

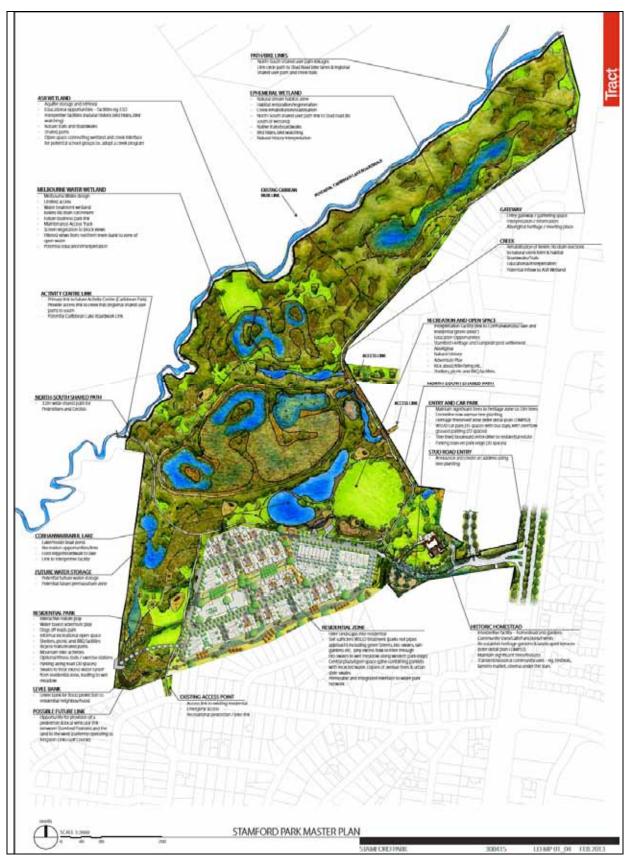


Figure 26: Stamford Park Masterplan

2.4.7 Scoresby-Rowville Employment Precinct

The Scoresby-Rowville Employment Precinct (SREP) is an important business asset in Knox. Located north-west of Rowville on land bounded by Stud, Wellington and Ferntree Gully Roads and the EastLink reservation, the 240 hectare precinct is focused on research and development, industry and technology, warehousing and distribution, and office uses. High amenity production economy activities are encouraged to locate and develop in the SREP. The SREP features:

- Planning controls conducive to development;
- Major global companies on-site;
- An emerging high-technology business cluster;
- Easy access to EastLink and the Dandenong Valley Parklands; and
- Proximity to the Australian Synchrotron in Clayton.

To aid this relocation and development, Knox City Council amended the Knox Planning Scheme to introduce the Scoresby-Rowville Employment Precinct Local Policy. The Policy provides a regulatory framework conducive for development, making it easier to provide the high amenity activities envisioned by Knox City Council.

The majority of SREP is located immediately outside of the study area to the north. However there is a significant opportunity for linkages between the SREP and land in the study area such as through the provision of employment.

2.5 Natural Environment

2.5.1 Landscape and Views

Rowville has a leafy suburban landscape, settled between the Corhanwarrabul Creek and Dandenong Valley Wetlands to the west and the foothills of the Dandenong ranges to the East. Its neighbourhoods are largely characterised by detached houses with large front setbacks and open gardens. Many neighbourhood streets are lined with canopy trees that provide shade and character. Vegetation in the public domain and in private gardens is a mix of native/indigenous species and exotics, providing different estates in the suburb with a unique look and feel.

Rowville's proximity to the foothills of the Dandenong Ranges provides the area with a mix of suburban and country character. Key views from within the Study Area include:

- Views to the Dandenong Ranges from Stud Park Shopping Centre and local neighbourhood streets
- Views to Churchill National Park from Row Reserve and Delta Court Reserve
- Views to Waverley Park & Police Academy from Stud Park Shopping Centre and Stud Road
- Views of Corhanwarrabul Creek Wetlands from Stamford House and Stud Road

2.5.2 Ecology

Corhanwarrabul Creek Corridor

The Corhanwarrabul Creek, which forms the western boundary of the Study Area, is a major tributary of the Dandenong Creek. Much of the land surrounding the creek is a floodplain, including most of the Kingston Links Golf Course along the western edge of the Study Area. The Dandenong Valley Wetlands form an important ecological habitat for native species as well as a key ecological corridor linking with the Dandenong Ranges to the east.

Sites of Biological Significance

Owing to its history of paddocks and suburban homes, ecological habitats are sparse and fragmented in much of the Study Area. *Sites of Biological Significance in Knox (2nd Edition 2010)* is a detailed assessment of Knox's indigenous flora and fauna species, plant communities and habitat sites, and the threats they face. The key elements of this study include:

- The provision of an overview of Knox's native vegetation and wildlife;
- The identification, assessment and documentation of Knox's most important biologically significant sites; and
- Recommendations for ways of looking after, enhancing and monitoring Knox's natural vegetation and other habitat. This includes changes to the Knox Planning Scheme.

The study identified a number of sites of biological significance in and around to the Rowville Plan Study Area. All the sites of biological significance in the study area are public land.

Table 7: Rowville Plan Sites of Biological Significance

ID#	Location	Description	Significance
65	Stamford Park, Rowville and Caribbean Lake*	A section of Corhanwarrabul Creek and its floodplain (downstream of Stud Road)	State
69	Cogley, Sutton and Hill Lakes, Rowville	Three adjacent lakes in a parkland setting.	Regional
70	Rowville Primary & Secondary Schools	Areas of native vegetation in the grounds of two adjacent schools.	State
71	Delta Court Reserve	A small Council reserve with regrowth of native vegetation.	State
96	Wellington Rd roadside, Rowville & Lysterfield	A total of 8-4 hectares of road reserve in seventeen segments along Wellington Road.	State in parts (other parts regional & local)

^{*}located partly outside but adjacent to the Rowville Plan Study Area

2.6 Infrastructure

Knox is experiencing shifts in demographic, economic, and social conditions that are changing the need for development and infrastructure across the City. With few greenfield sites remaining in Knox, these trends are leading to redevelopment of previously built –out areas. This has included transition from low-density housing to medium- and higher-density housing in some areas, including Rowville. This redevelopment, along with areas of development outside of Knox, is placing increasing demands on existing infrastructure systems.

To assist with the development of the Rowville Plan, Council commissioned the Rowville Transport Study and a Rowville Stormwater Management Study to specifically inform and test possible scenarios and inform the Plan. The two studies used similar methodologies estimate the extent to which the transport and stormwater networks in and around the study area could support an increase in residential development and commercial activity in the Rowville Activity Centre. Both analyses identified existing areas of concern in their respective infrastructure systems, used simulation modelling to estimate the impacts on the transport network of future development scenarios, and provided recommendations for potential future mitigation.

2.6.1 Transport

Traffic congestion and associated delay are considered to be a major problem among residents of Rowville. A lack of public transport options in Rowville has contributed to high levels of car dependency, evidenced by an auto mode share of nearly 90 percent of work trips according to 2006 census data. The potential for growth in retail and community services in and around the Stud Park Shopping Centre may contribute to further increases in the demands on the local transport network. A detailed description of the existing transport network and existing areas of concern can be found in the Rowville Transport Study commissioned by Council to support the development of the Rowville Plan.

Walking

Rowville is a suburb of busy main roads and quiet local streets that requires a dependence on the car to get around. As a result, there are several factors that limit the attractiveness and convenience of walking as a mode of travel for short trips.

The street network characterised by curving neighbourhood streets and cul-de-sacs increases walking distances and contributes to poor legibility. Furthermore, relatively large houses and few vacant blocks mean there are few opportunities to retroactively implement footpaths between neighbourhood streets to increase connectivity.²⁴

²⁴ Mountain Gate & Stud Park (Stage 2) Structure Plans: Movement Analysis, SCAPE and David Lock Associates, November 2008.

Large main roads with wide and infrequent crossing points segregate land uses and create barriers for pedestrians. Stud Road and Wellington Road in particular act as dividers between neighbourhoods. Crossing times are lengthened at some intersections where crossings are not permitted on all approaches.²⁵

Walking access to activities and services at the Stud Park Shopping Centre is limited in part by topography and in part by poor connectivity for pedestrians.

- To the South The shopping centre sits atop a hill, providing benefits to visibility and views but limiting walking access. The neighbourhood to the south is disconnected from the shopping centre by a retaining wall.
- To the North The pedestrian crossing of Fulham Road near the entrance to Stud Park is cited by residents as a challenging connection to the shopping centre. Aged residents in particular have reported difficulty crossing within the allotted time of the signal. Peppertree Hill Retirement Village is located directly north of Stud Park across Fulham Road. Although the village has a good internal footpath network, the estate is closed to non-residents and thus represents a significant barrier between Stud Park and neighbourhoods to the north. 26
- To the East There is some connectivity between Stud Park and community facilities immediately to the east, including the Rowville Community Centre and Stud Park Reserve. However, these connections are indirect and the topography and vegetation in the area serve to limit visibility and complicate wayfinding. In addition, there is a long fence on the eastern edge of Stud Park Reserve that limits connectivity to the adjacent neighbourhoods.
- To the West Stud Road represents a significant barrier to pedestrian access from the west, as does a significant slope in the topography from east to west.

Cycling

The cycling network in the Rowville Plan Study Area consists primarily of the existing Principal Bicycle Network (PBN), including a north-south off-road shared path along parts of Stud Road and an east-west off road shared path along parts of Wellington Road. There are on-road bicycle lanes along Kelletts Road which connect to the Stud Road shared path. The Eastlink Trail is a multi-use shared path that follows the Eastlink corridor to the north and south of the Study Area and the Corhanwarrabul Creek corridor near the Study Area. The Eastlink Trail connects cyclist with many other trails and open space, including the Dandenong Creek Trail to the south.

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²⁵ Ibid

²⁶ Mountain Gate & Stud Park (Stage 2) Structure Plans: Movement Analysis, SCAPE and David Lock Associates, November 2008.

In general, the cycling network is fragmented and discontinuous in Rowville. There are many opportunities to create better connections both within the existing neighbourhoods and to infrastructure link the Eastlink Trail. Knox Council is currently investigating new connections west of Stud Road as part of the Stamford Park Masterplan, which may include a new crossing of the Corhanwarrabul Creek to connect to points west.

Public Transport

There are several bus routes that serve the neighbourhoods, businesses and facilities in Rowville Plan Study Area, the SmartBus system and Telebus service. This includes four local bus routes (681, 682, 691, 754) which use a small bus interchange area in the Stud Park Shopping Centre and two SmartBus routes (900, 901) that operate along Stud Road and Wellington Road. Telebus service provides both local service (at normal fares) and ondemand service that can pick up or drop off passengers at their home (for an additional fee). ²⁷

There are no train stations or tram routes in Rowville. A future heavy rail service between Rowville and Huntingdale Station on the Dandenong line that would provide service to Monash University and the Melbourne CBD is currently under study by the state government. See the section on "Future Rowville Rail" below for more details.

Main Roads

The Eastlink toll highway connects Rowville to the Eastern Freeway to the north and the Monash Freeway to the south. The tollway provides direct access to many destinations including the Melbourne CBD.

Stud Road is a major north-south arterial in Knox and the only north-south through route between Eastlink and the Dandenong Ranges. Traffic on Stud Road declined after Eastlink opened in 2008, but recently has been rising. Stud Road currently carries around 43,000 vehicles per day.²⁸

As a measure to promote public transport, exclusive bus lanes were added along Stud Road in March 2010, reducing the number of through lanes for general traffic from three to two. The bus lanes were quickly a source of tension among residents. In 2010 the stretch of Stud Road between Ferntree Gully Road and Wellington Road was named in an annual survey conducted RACV as one of the top ten "Redspot" areas in all of metropolitan Melbourne, those areas that drivers vote as the most frustrating parts of the road network.

In March 2011 the state government committed to removing the bus lanes between Ferntree Gully Road and Kelletts Road. The result has been a fragmented system of bus lanes that causes weaving behaviour among drivers and concern among the public. The

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²⁷ Rowville Transport Study, Final Report, SKM, 26 August 2013.

²⁸ Ibid

perception of a relatively low number of buses using the lanes in peak times and low number of passengers on those buses has added to driver frustration and calls for the removal of the bus lanes. In 2012, this section of Stud Road continues to hold the top spot as "the worst road in Knox" according to the RACV survey.

Wellington Road is a major east-west arterial in Knox and the only east-west through route between Ferntree Gully Road and the Monash Freeway. Traffic on Wellington Road has increased significantly since Eastlink opened in 2008. Wellington Road currently carries around 42,000 vehicles per day.²⁹

The intersection of Stud Road and Wellington Road currently experiences high levels of congestion, especially in the morning and evening peak periods. The intersection serves as a bottleneck, and without modifications would have limited ability to accommodate additional traffic without significant increases in vehicle delays.

The opening of Eastlink and increased development outside the Study Area, particularly areas to the east, have contributed to increased traffic and congestion in recent years, and traffic volumes on main roads are forecast to increase regardless of the level of development within the Study Area. The large distances between main roads limits route choice for drivers and reduces the resiliency of the road network to respond to changing future demands.

Local Roads

The neighbourhoods of Rowville developed as a series of estates over the last forty years. As a result, the pattern of local roads in Rowville is characterised by curving streets and culde-sacs, with large distances between main roads and other through routes. The result is a combination of quiet, narrow neighbourhood streets with low traffic volumes and congested main roads with few alternative routes.

Many neighbourhood streets in the Study Area experience localised congestion, particularly at the intersections with main roads. Under the current operation of signals, preference in the amount of green time is given to vehicles travelling straight through along main roads. As a result, drivers often experience delays entering and exiting neighbourhoods and estates from main roads. With only three access points, the neighbourhoods west of Stud Road are particularly vulnerable to increased congestion and delay along Lakeview Avenue, Avalon Road, and Waradgery Drive.

Car Ownership

On average, Rowville residents own more cars than the Greater Melbourne average.	Nearly
64% of Rowville households have two cars or more, compared to 51% across Greater	
Melbourne.	

²⁹ Ihid

The number of cars per household has been increasing in Rowville over the last twenty years. Since 1991, the number percentage of households owning three or more cars has risen from around 15% to over 25%.

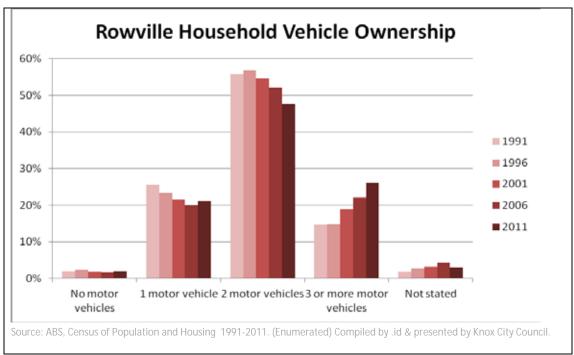


Figure 27: Twenty-Year Trend for Rowville Household Vehicle Ownership, 1991-2011

Journey to Work

Rowville is almost completely dependent on the automobile for all travel. The ABS conducts a survey of the mode people take to and from work, as the transport network is generally most heavily utilised during the morning and evening peak periods when people are travelling to and from work.

The car is the most common mode of travel to work by a large margin. Approximately 73% of Rowville residents drive to work and another 5% travelled as passengers, compared to 60.6% and 4.3% respectively across Greater Melbourne. Approximately 12.4% either worked from home or did not work, similar to the average for Greater Melbourne.

Few people in Rowville travel to work by train (5.1% in Rowville versus 10.0% in Greater Melbourne) or bus (0.8% in Rowville versus 1.5% in Greater Melbourne). Almost no one in Rowville walks or cycles to work. These two modes combined for less than 1% of all work trips compared with 2.9% and 1.3% respectively across Greater Melbourne.

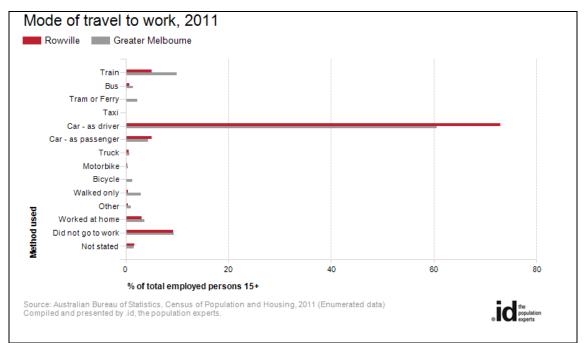


Figure 28: Current Mode of travel to work, Rowville and Greater Melbourne

Parking

There are currently no parking restrictions on residential streets in the study area other than normal clearway provisions on the arterial road network. There are a number of larger parking areas for retail and business purposes within the Study Area with only limited restrictions. Increasing rates of vehicle ownership in Rowville is placing pressure on local residential streets, which is expected to continue into the future in the absence of mitigation.³⁰

On narrow residential streets with insufficient width to accommodate traffic in both directions with cars parked on both sides of the street, the increased incidence of on-street parking is adding delay and inconvenience for local residents. In addition, vehicle movements and parked vehicles associated with construction activities are adding to this issue along Stamford Crescent and other streets west of Stud Road.

Future Rowville Rail

The construction of a rail line to Rowville has been the subject of Delivery of this new public transport infrastructure continues to enjoy high levels of support from the Rowville community and from Council. The project has been listed as the top priority public transport project for advocacy by Knox Council.

The state government of Victoria has recently commissioned a feasibility study to investigate the potential viability of a rail link to Rowville. The Stage 1 Report was completed by consultants SKM in December 2012.

³⁰ Rowville Transport Study, Final Report, SKM, 26 August 2013.

The Stage 1 Feasibilty Report indicated two key positives that favour delivery of the Rowville Rail

- 1. The potential future ridership of a rail line to Rowville is strong, and the service is expected to be well-patronised.
- 2. An alignment along Wellington is technically feasible. However the Stage 1 Draft Report did not include an examination of potential costs of such an alignment, which are expected in the Stage 2 Draft Report.

However there were also two key findings that could work against the delivery of a rail line in the near future. First is that although the ridership projections are positive, the estimates suggest that the actual mode shift may be small. This would mean that many of the patrons of the Rowville Rail would be those who currently take other public transport options rather than those who drive, which could limit the potential benefits to congestion, emissions, and time savings associated with reduced auto travel.

The study recommends that other capacity improvements in the rail system occur before the construction of the Rowville Rail. These include capacity improvements to the Dandenong Line, which the Rowville Rail line would link into at Huntingdale Station, and perhaps also the Melbourne Metro 1, the rail tunnel which could improve capacity for the entire rail system by increasing capacity in Melbourne's CBD. While the Stage 1 Feasibility Report recommends further consideration of the Rowville Rail line, the constraints related to capacity likely push delivery of an extension, if it occurs at all, to twenty years in the future or longer.

An important goal of the Rowville Plan is to continue to support the potential for a rail line to Rowville by ensuring that the proposed land use patterns integrate the principles of integrated transport planning and do not compromise the right-of-way for the preferred alignment of otherwise preclude or impede construction of the Rowville Rail.

2.6.2 Stormwater Management

Existing Stormwater Network

The Study Area is within the catchment of the Corhanwarrabul Creek, which makes up the north-western boundary of the study area and merges downstream with the Dandenong Creek to the west. The lands in and around the Corhanwarrabul Creek – including Caribbean Lake, several natural and constructed wetlands, and much of the Kingston Links Golf Course – are within the 100-year floodplain and covered by the Land Subject to Inundation Overlay (LSIO), a control within the Knox Planning Scheme. In addition, some areas in and around the Rowville Lakes are covered by a Special Building Overlay (SBO) that restricts development due to potential impacts from flooding. (See Section 3.3.5 for more detail on these overlays.)

The existing underground stormwater network is made up of components maintained by Knox Council and Melbourne Water. Some pipes and other pieces of stormwater infrastructure in the area are reaching the end of their useful design life, and offer an opportunity for upgrade as a part of regularly scheduled maintenance.

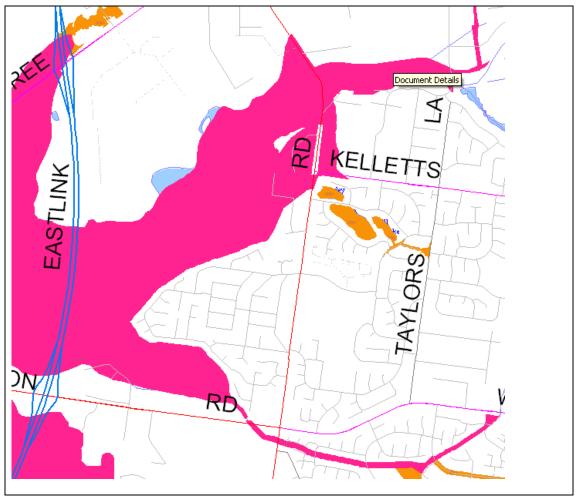


Figure 29: Existing Land Subject to Inundation Overlay (pink) and Special Building Overlay (orange)

Recent Local Flooding

On 4-5 February 2011, the Melbourne area including Knox and the adjacent Dandenong Ranges experienced heavy rains. In all, 147 mm of rain fell in Rowville over a two-day period, qualifying as in excess of a one in 100 year event. The Corhanwarrabul creek floodplain experienced extensive flash flooding with waters covering much of the golf course and affecting properties in the Stamford residential estate along the eastern boundary of the golf course. After years of below-average rainfall and drought conditions in Victoria, the rain event caused considerable concern among residents of the risks associated with flooding. The awareness of the event was further elevated by the posting of several dozen home-made videos of the flooding onto YouTube and other social media sites in the hours and days after the floods.

The concerns about flooding in the area remain, and it has become evident through public consultation that there are concerns that increased development and associated hard surfaces in the area could increase the risks of flooding. The Rowville Stormwater Management Study examines the existing network and potential for future impacts to flooding from development and climate change which has informed the selection of a preferred land use option for the Rowville Plan.

Potential Impacts from Changes to Development

Increases to residential densities within the Study Area have the potential to contribute to increases in the demands on the stormwater management system and local waterways. Higher residential densities such as townhouses and apartments that contain more than one unit on a block typically have higher percentages of hard surfaces – both roofs and paved areas – that reduce the infiltration of stormwater into the ground and increase the rate and volume of water reaching the underground stormwater network during storm events.

The Rowville Stormwater Management Study examined a number of potential development scenarios using simulation modelling to estimate the potential effects on the stormwater network. The scenarios were developed in collaboration with the community engagement process, which is described in the Background Report Part 2: Community Engagement. The result of the modelling showed that the existing stormwater network was relatively resilient to changes from development, with manageable impacts for levels of development higher than those recommended by the Rowville Plan.

Potential Impacts from Changes to Future Rainfall

Current estimates of changes to future rainfall adopted by Melbourne Water informed the study of potential impacts in the Rowville Stormwater Management Study. These best practice estimates adopt a 32% increase in rainfall intensity by 2100 for sensitivity modelling of catchments outletting to waterways above tidal influence zones. "This increase in rainfall intensity is based on CSIRO preliminary estimate of a 5% increase in total storm rainfall per

degree of climate warming and the Intergovernmental Panel on Climate Change (IPCC) global warming projections of 6.4 C by the year 2100." ³¹ The Rowville Stormwater Management Study demonstrates that the potential increase in flooding as a result of climate change is a significant issue that will require attention in the future.

Water Sensitive Urban Design

Water Sensitive Urban Design (WSUD) is as its name implies: designing the urban environment in a way that is sensitive to the impacts of the built environment on water flows and water quality. WSUD principles and best practices can offer a wide variety of beneficial impacts on the stormwater network:

- Quantity WSUD can be used to reduce the amount of water reaching the stormwater network during storm events by increasing opportunities for infiltration, slowing the flow of stormwater to network inlets, capturing stormwater before it enters the system, or a combination of all of these. Reuse of captured stormwater for non-potable uses such as landscaping and toilet flushing can help reduce demands on the potable water network as well.
- Quality WSUD can also be employ natural filtration to remove pollutants and other impurities from stormwater before it reaches creeks and other sensitive catchments.

Knox Council has developed Water Sensitive Urban Design Guidelines (WSUD) that help guide the implementation of the principles and practices in Knox. Council is continuing to further develop its capacity to identify opportunities for and implement Water Sensitive Urban Design in its capital works, renewal and upgrade projects. Since most of Rowville is already developed, the best opportunities for adoption of WSUD principles and best practices are likely to be part of redevelopment and "retro-fitting" existing urban areas.

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³¹ Rowville Stormwater Management Study, URS 2013.

2.7 Community Services

2.7.1 Recreation and Open Space

Rowville is generally well-provisioned in terms of access to active and passive open space and leisure/sporting infrastructure, although residents must leave Rowville to access many higher order facilities. ³² However, the number of organised sporting clubs in Rowville is large relative to the number of active recreational facilities. This has led to shortages of opportunities and disagreements between clubs.

Many other parts of Knox have better access to a variety of recreational opportunities. There is a desire in the community for more diversity of activities and uses as these parks, including activities for young people beyond those related to organised sport.

Parks and Reserves

There are several local parks in the Study Area

- Stud Park Reserve This park is located east of Stud Park Shopping Centre, includes an oval and pavilion, with a large adventure playground to the north. There is access to the reserve from Simon Avenue to the east (through a gated fence), the Rowville Community Centre to the north, and the Stud Park Shopping Centre to the west, and Rowville Primary School to the south. It is used primarily for active uses by organisations that include the St. Simons Junior Footy Club, Auskick, and the adjacent schools.
- Row Reserve This neighbourhood park serving the area west of Stud Road can be accessed from Waradgery Drive and Fifth Avenue/Drummond Crescent in the. It includes passive open space and a small playground.
- Arcadia Reserve This park is located at near corner of Wellington Road and Taylors Lane, across the street from St. Simons Elementary School. It can be accessed from Taylors Lane to the east and Turramurra Drive to the west. It includes a Schout Hall as well as passive space and a small playground.

There are a few other parks and open spaces of various sizes in the neighbourhoods around Stud Park Shopping Centre, used primarily for passive recreational purposes. These include the Rowville Lakes area near Kelletts Road, Drummond Crescent Reserve west of Stud Road, and Delta Court Reserve South of Rowville Secondary College on Turramurra Drive. The Stamford Park Masterplan includes provisions for vast new areas of public open spaces west of Stud Road near the Corhanwarrabul Creek, including wetlands, reserves, and interactive multi-use trails. See the section below for more details.

³² Desktop Assessment of Rowville's Future Social Service and Facility Needs, Public Place Pty Ltd, August 2013.

Playgrounds

There are few playgrounds within the Study Area of the Rowville Plan. Playgrounds represent an important resource for families and children, and easy access to this type of community resource can encourage healthy, active lifestyles. The map in Figure 34 shows the location of all playgrounds in Knox, with a 400m buffer approximating a 5-minute walk. Compared to the rest of Knox, particularly areas like Wantirna where small neighbourhood pocket parks are common, access to this community resource in Rowville is relatively poor.

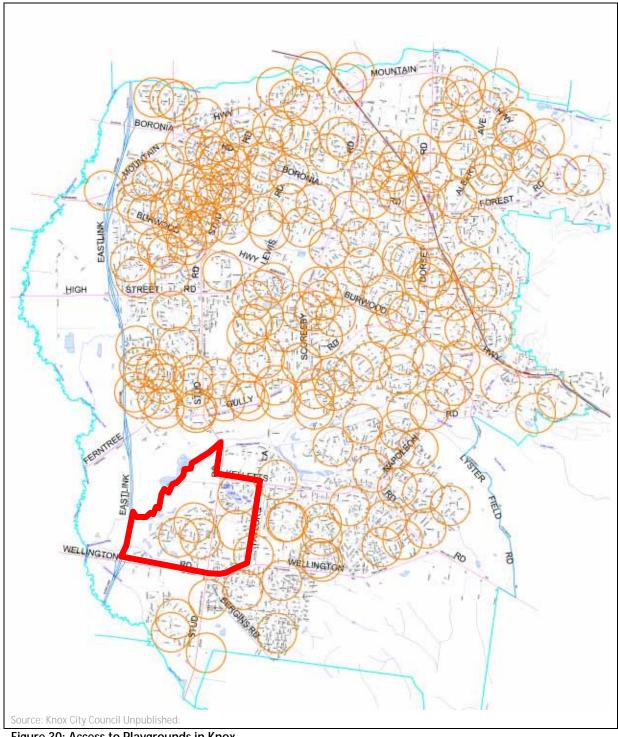


Figure 30: Access to Playgrounds in Knox

Rowville Community Centre

The Rowville Community Centre (RCC) is a multi-use recreation and community facility that forms the anchor of the Community Precinct on Fulham Road west of the Stud Park Shopping Centre. The RCC contains two large multipurpose halls that offer basketball courts and a capacity to seat 200-450 people. Outdoor facilities include tennis and netball courts, which experience a demand higher than they are able to accommodate at times.

The RCC also contains several multipurpose meeting and classroom spaces with access to kitchens. These rooms host a variety of activities including kinder, yoga, exercise classes, and sports and social activities for senior citizens and can be hired out on a regular, functional, or casual basis. The RCC currently hosts the Rowville Neighbourhood Learning Centre (see below).

Rowville Neighbourhood Learning Centre

The Rowville Neighbourhood Learning Centre, operating out of the Rowville Community Centre, offers a range educational programs aimed at providing accessible and affordable opportunities of learning and strengthening social connections. These include nationally recognised accredited training courses as well as information sessions and classes related to arts, crafts, food and cooking, mind and body, personal development, hobbies and special interests.

Stamford Park Master Plan

The Stamford Park Masterplan (see Section 2.4.6) includes proposals for several new public open spaces and community assets as part of the future development. The Masterplan includes the following descriptions of potential facilities and uses in the future development: ³³

- Heritage Homestead The existing historic homestead building at Stamford Park
 encapsulates significant historic, cultural and social heritage of the area, and as such is
 to become the central 'hub' for the new Stamford Park. It is currently undergoing
 restoration that will allow it to host community functions and events such as weddings,
 community meeting spaces, social events and generally as a 'hub' for park users.
- Homestead Gardens In addition, the homestead precinct will act as a focus for events and recreation within the surrounding gardens and park areas such as the community market gardens, events held on the adjacent terraced lawns.
- Surrounding Park and Wetlands Community members will have the opportunity to
 interact with the different features of the park such as habitat regeneration and
 wetlands. The plans for this area include: shared pedestrian and bicycle path,
 boardwalks, education and interpretation features, and a recreational lake.

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³³ Stamford Park Masterplan, Tract, 2009.

2.7.2 Education

Rowville Library

The Rowville Library, currently operated by Eastern Regional Libraries, was established at the Stud Park Shopping Centre in 1989. The current library is a 650 m2 facility that offers a range of services and activities for people of all ages, including several regular programs for young children and families.

Rowville has changed considerably since the library was built, and Knox Council is currently investigating opportunities to provide a larger library facility with a more flexible internal layout that could accommodate a wider and more diverse range of services and activities. There is currently no capacity for expansion of the existing facility, and Council is coordinating with the owners of the shopping centre to include provision for a new library facility in the current proposal for expansion of the shopping centre.

Schools

There are currently 3,465 children of primary school age and 3,284 children of secondary school age living in the suburb of Rowville. There are currently four government primary schools, one Catholic primary school, and one secondary school in Rowville. Existing supply is considered to be adequate for current needs.³⁴

The number of students in both age groups is expected to decline by 2030, to 3,115 primary school children and 2,707 secondary school children, a reduction of nearly 10% and 18% respectively. This represents the general ageing in place of the population of Rowville, where overall population growth is slowing and fewer new families are moving into the area than in past years.

There are two primary schools and one secondary school located within or immediately adjacent to the Study Area:

- Rowville Primary School This government primary school is located inside the Rowville Plan Study Area, next to Stud Park Reserve south of the Stud Park Shopping Centre.
- St. Simons Primary This Catholic primary school is located just outside the Rowville Plan Study Area on the corner of Wellington Road and Taylors Lane.
- Rowville Secondary Western Campus This government secondary school has an enrolment of 1,827 students across two campuses, one of which is located just south of Rowville Primary School in the Rowville Plan Study Area. This campus, which

³⁴ Desktop Assessment of Rowville's Future Social Service and Facility Needs, Public Place Pty Ltd, August 2013.

³⁵ Ibid

opened in 1990 and accommodates students in years 7 to 12 in the college's "General Excellence" program and Maths and Science Academy (MSA). The school is also home to Paul Sadler Swimland Rowville, offering swim courses and activities.

Although provision of schools is generally considered adequate for the areas educational needs, according to a recent desktop study of community infrastructure in Rowville conducted for Knox Council, one of the main issues to consider is "whether existing schools sites and infrastructure can be leveraged to support the needs of a range of people in the community." The Rowville Plan should investigate opportunities to expand the use of school facilities outside of hours to accommodate community members and organisations.

2.7.3 Health and Family Services

Preschools

There are currently 447 children of preschool age living in the suburb of Rowville. There are seven preschools in Rowville, all operated by the City of Knox, and five long day care facilities that offer a preschool program. All of these facilities are over 20 years old and some may be approaching the end of their operational life. There are two facilities offering preschool programs in the Rowville Plan Study Area: Rowville Preschool on Wellington Road and the Rowville Neighbourhood Learning Centre near Stud Park. Approximately 80% of Rowville residents live within 800m of at least one preschool (or long care centre offering preschool). Current enrolment numbers suggest that some children attending preschool in Rowville travel from outside the suburb to access these services.

While the current provision of preschools is considered adequate for current demand, the sector is experiencing changes including an increased role for long day care centres in delivering preschool programs. In addition, the changing demographics of Rowville have the potential to reduce or otherwise alter the demand for preschool services in the future.³⁷

Long Day Care

There are currently 10 long day care facilities operating in the suburb of Rowville, one of which is operated by the City of Knox. There are four long day care facilities in or immediately adjacent to the Rowville Plan Study Area. Existing supply of long day care is considered to be adequate for Rowville, with a degree of choice and convenience for consumers. However the changing nature of the sector and changing demographics of Rowville have the potential to reduce or otherwise alter the demand for preschool services in the future. ³⁸

³⁶ Desktop Assessment of Rowville's Future Social Service and Facility Needs, Public Place Pty Ltd, August 2013.

³⁷ Ibid

³⁸ Ibid

Maternal and Child Health

There are currently three maternal and child health care (M&CH) facilities in Rowville, each of which has the capacity to accommodate two M&CH nurses. All three are located outside the Rowville Plan Study Area. These facilities also serve residents of the adjacent suburb of Lysterfield, which currently has no M&CH facilities. Existing supply of long day care is considered to be adequate for Rowville, with facilities in good condition and collocated with other early years services. However the changing nature of the sector and changing demographics of Rowville have the potential to reduce or otherwise alter the demand for preschool services in the future. ³⁹

2.7.4 Other Community Organisations and Spaces

There are many other organisations, venues, and facilities that serve as valuable community assets in Rowville. They include:

- Rowville Australia for Christ Fellowship (ACF) Church, 1070 Stud Road The ACF church provides religious services in three languages as well as community service programs for people of all ages, including adults, young adults, youth and, children. The Church is currently investigating expansion plans that could include new a worship hall, cafe, and potential residential development, and has held collaborative discussions with Council related to future plans.
- Rowville Uniting Church, 64 Bridgewater Way near Fulham Road This organisation provides a range of activities which assist with community connection including playgroups and low cost family, personal relationship and youth-oriented counselling through the Uniting Care – Bridgewater Centre. 40
- 1st Rowville Scout Hall, in Arcadia Reserve near Taylors Lane and Wellington Road –
 The 1st Rowville Scout Group had its beginnings in 1970 and has been meeting in
 Rowville since 1973. The hall in Arcadia Reserve is available for hire by the
 community for parties and other events.⁴¹

³⁹ Desktop Assessment of Rowville's Future Social Service and Facility Needs, Public Place Pty Ltd, August 2013.

⁴⁰ Social Environment Assessment (Springboard Social Planning, 2008)

⁴¹ http://www.vicscouts.com.au/rowville-1st/, accessed 23 October 2013.

3 Policy Context

3.1 Knox Vision and City Plan

Knox's Vision provides a picture of the future City that will deliver the lifestyle, jobs and industry, health and wellbeing desired by members of the Knox community. The aspirational future is outlined under five themes, each containing a description of our ideal future, and identifying the features that will be in place when that future is achieved. The barriers, enablers and key strategies for putting these features in place form the basis of Knox's City Plan for the next four years.

The five themes provide the structure for the vision, objectives and strategies that make up the City Plan. They are:

- Healthy, Connected Communities
- Prosperous, Advancing Economy
- Vibrant and Sustainable Built and Natural Environments
- Culturally Rich and Active Communities
- Democratic, Engaged Communities

The vision, objectives and strategies in the Rowville Plan are organised around these same five themes.

3.2 Council Plans and Policies

3.2.1 Strategic Implementation Plans

Municipal Strategic Statement

The Knox Municipal Strategic Statement (MSS) is a statement of the key land use and development objectives for Knox and the strategies and actions for achieving the objectives. The MSS provides the strategic basis for the application of the zones, overlays and particular provisions in the planning scheme and decision-making by the responsible authority. Council reviews the MSS regularly and it evolves as Council develops and refine the strategic directions in response to the changing needs of the community.

The sections of the MSS that are relevant to the Rowville Plan are discussed in detail in Section 3.3 "Current Planning Context."

Economic Development Strategy

The Knox Economic Development Strategy 2008-2018 is a ten-year economic planning document that includes strategies to help the City of Knox develop as an economy, a skilled employment centre and key business centre. The primary objective is to identify practical strategies to enhance economic development in the City of Knox, its employment base and community wellbeing.

The Economic Development Strategy recognises the importance of activity centres as employment and community hubs and supports the preparation of Structure Plans for Knox's Centres, including the Rowville Plan. In addition, Objective 3 of the Strategy seeks to support the Scoresby/Rowville Employment Precinct, an important component of Rowville's economic future. See Section 2.3.7 for more detail.

Sustainable Environment Strategy

The Knox 2008/2018 Sustainable Environment Strategy was developed by Knox City Council to guide the Council's ambition of achieving a sustainable city. It is a living document that informs decision-making within Council and provides a framework for Council and community to move toward sustainability over the next ten years. It provides broad goals across seven themes: biodiversity (protection of habitat, flora and fauna); water (conservation and quality); community engagement and leading by example; waste minimisation; sustainable planning and development; integrated transport; climate change mitigation and adaptation (greenhouse action).

Rowville is home to Australia's longest running sustainability festival, the 'Knox Stringybark Urban Sustainability Festival. Businesses, residents and schools within the Rowville Structure Plan area are active participants in Council's Greenleaf sustainability engagement program.

Key sustainability approaches that will help guide the Rowville Plan include, to:

- Create a greener city with more trees and indigenous vegetation in public spaces, and thriving iconic species
- Utilise alternative sources of water
- Gain widespread community involvement in water conservation and rainwater harvesting
- Establish sustainability demonstration projects
- Advocate to higher levels of Government and relevant agencies for higher standards in order to move towards a sustainable city
- Provide effective recycling systems
- Reduce and manage litter
- Consider sustainability in all developments
- Create a city where people can live, work and recreate locally
- Consider the implications of climate change on the built form

- Improve walkability and cyclability
- Improve connectivity of transport modes and services
- Increase the range of public transport choices available
- Plan for adaptation to climate change

Community Well Being

Knox City Council recently developed a draft of the Knox Community Health and Wellbeing Strategy 2013-2017, which outlines Council's Municipal Public Health Plan in accordance with the *Victorian Health Act* 1958. Final approval of the draft Strategy is expected in late 2013.

The draft Community Health and Wellbeing Strategy is a key platform for achieving the broader Knox Vision and implementing the Knox City Plan. It has a municipal-wide focus and will be utilised and implemented by a broad range of stakeholders across Knox. The Strategy, proposes 26 key strategies across eight community health and wellbeing priorities, which are linked to the five City Plan themes. These priorities and strategies were based on rigorous analysis of quantitative and qualitative data, relevant policies and stakeholder views. The eight community priorities that the Rowville Plan can help support locally are:

- Personal health and wellbeing;
- Community connectedness;
- Leisure, recreation, arts and cultural activities;
- Housing affordability and choice;
- Family violence;
- Lifelong learning;
- Mental health; and
- Lifestyle risks.

3.2.2 Knox Housing Strategy

Knox City Council is currently engaged in a review of the Knox Housing Strategy. One of the main functions of the new strategy is to implement the new residential zones released by the state government in 2012. See Section 3.3 for more details on the new zones.

The revised Knox Housing Strategy a scaled approach to housing that includes four broad categories of residential change across the municipality:

- **Bush Suburban** are focused on the areas that have distinctive and significant biological and landscape values.
- Knox Neighbourhood have the characteristics that many people value about living in Knox – a sense of open space, fresh air, trees. In this sense, they are 'typical Knox' and represent the majority of our residential areas. Some of these areas have access to bus services, but in many locations the car is the main way of getting around.

- Local Living are focused around larger local 'villages' and activity centres (including Stud Park). These areas are within walking distance of local shops and have access to several transport options to get to other location within and beyond Knox. Most of these areas are located close to the SmartBus route.
- Activity Area are either on the SmartBus route or close to regional infrastructure such as train stations, bus interchanges, universities, large shopping centres, leisure facilities and employment opportunities. In these areas, public transport is well serviced, being a train line or regular bus service.

The translation to these new zones will be implemented by an amendment to the Knox Planning Scheme. This amendment is supported by the Rowville Plan, which provides guidance for how the zones are applied within the Study Area, and the Knox Housing Strategy, which will guides the transition to the new residential zones across the rest of Knox.

3.2.3 Previous Local Area Plans

Stud Park Shopping Centre Structure Plan 2007 (Stage 1)

The Stud Park Shopping Centre Structure Plan was prepared by ING, the former owners of the Stud Park Shopping Centre. Council endorsed the final Stage 1 Structure Plan in December 2007. The key elements of this plan include:

- A lively, pedestrian-oriented 'Main Street' forming an open air spine through the site with a mix of retail and commercial development
- A 'Town Square' with outdoor cafes, restaurants, shops and library which would form the main entrance to the indoor Shopping Centre
- An expanded and re-located bus interchange, centrally located with pedestrian access to the Shopping Centre and allowing for future access to the Rowville Rail
- A new north-south street from Fulham Road linking to the Town Square
- An expansion of the shopping centre referred to as the 'Mall Link', connecting the southern part of the shopping centre with the existing stand-alone grocery store, with new retail space over the existing car parks and new underground car parks
- Serviced apartments above the main indoor shopping centre

Following a change in ownership, and Council's decision to review the Stud Park Structure Plans Council participated in a series of workshops with Lend Lease. During those workshops, Lend Lease and Council officers reached general agreement on the following key principles:

- Ensure the delivery of a 'Main Street' concept is a major component of the structure plan. The location can be negotiated.
- Ensure there is pedestrian connectivity through the Stud Park Shopping Centre with its northern, southern, eastern and western interfaces.
- Ensure an appropriate public transport interchange is delivered in early stages of redevelopment; including easy and safe pedestrian access to/from the shopping centre and community uses.
- Support Rowville Rail, providing opportunities for a station and associated facilities that can easily be linked to the public transport interchange.
- Significantly reduce the amount of ground-level car parking within the centre.
- Improve interface treatments in the centre and avoid new blank interfaces where possible.
- Deliver public spaces including a town square. The location of these spaces can be negotiated.
- Ensure the library is relocated to a highly accessible location.
- The interfaces between the Stud Park Shopping Centre and adjoining land must be considered. In particular:
 - o the topography (level change) on the southern boundary;
 - improved access from existing pedestrian paths along the boundary to residential areas;
 - o improving access to the community facilities and the sports oval to the east of the shopping centre.

These principles have underpinned engagement with key stakeholders the development of the Rowville Plan.

Stud Park (Stage 2) Structure Plan 2010

The Stud Park (Stage 2) Structure Plan was developed by Knox City Council in consultation with the Rowville community in 2010. In 2011, prior to implementation of the Structure Plan through an amendment to the Knox Planning Scheme, Council decided to review the built-form outcomes of the plan in response to concern from the community.

The elements of the Stud Park (Stage 2) Structure Plan formed the starting point of the engagement with the community in the development of the Rowville Plan. Those elements which were reviewed and tested include:

- An Activity Centre boundary. This incorporates all opportunity sites, key features of the Centre such (as the community precinct and schools) and residential areas designated for 'moderate' and 'substantial' change.
- Consolidation of the majority of retail development in the Stud Park Shopping Centre with some additional retail supported on selected opportunity sites (if part of a mixed use development).
- Preferred locations and form for a variety of housing, including townhouses and villa units in 'moderate' change areas (with the possibility of smaller scale apartments on consolidated lots only), and apartments, townhouses and villa units in 'substantial' change areas.
- Ten opportunity sites where a mix of uses will be encouraged, including offices, housing and potentially some smaller scale retail, in the form of integrated high density development.
- Possible improvements to existing pedestrian routes and the creation of new routes in key streets that provide access to the heart of the Centre and other key destinations.
- Creation of bush boulevards and landscape links along several key streets with extensive native planting and water sensitive urban design.
- An enhanced 'community hub' in the heart of the Activity Centre (the area including the Rowville Community Centre, Stud Park Reserve and 2 schools). The hub will build on the range of activities and services already offered in this precinct.
- Continued advocacy to the State Government for a full feasibility study to be undertaken for the Rowville Rail.
- Creation of a safe and attractive environment for pedestrians, cyclists, public transport users and motorists along, adjoining and across Stud Road.

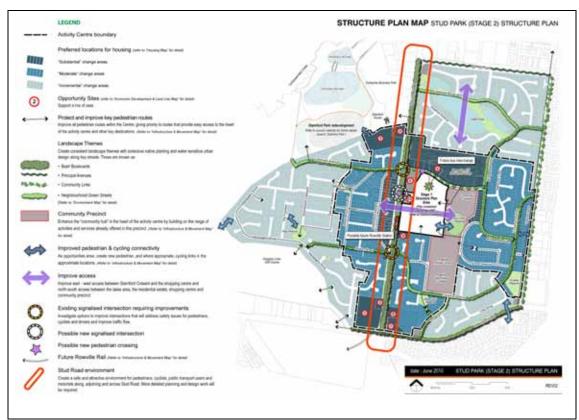


Figure 31: Stud Park (Stage 2) Structure Plan Map

Rowville-Lysterfield Integrated Study

This Rowville-Lysterfield Integrated Local Plan (ILP) was prepared in 2003 in consultation with local residents to develop a vision for the area and strategies to guide public and private sector decision-making and attract investment over a 10-year period. The study area for the ILP was full extent of the suburbs of Rowville and Lysterfield.

The ILP presented a vision for the area and strategies and actions around six key themes:

- A safe place
- East to get around
- An attractive and environmentally sustainable place
- Services and facilities that meet community needs
- Convenient, economically and socially vibrant hubs
- Innovative business and industrial precincts

The ILP also included catalyst projects for delivering positive changes in the short term. Some of these key projects have been completed: the construction of the Rowville Police Station on Fulham Road and the development of Council's Graffiti Management Plan which began in 2003 and was updated in 2007. Other plans and long-term aspirations included in the plan continue to serve as references for the future of the area.

The ILP and the Row/Field Taskforce, which was established in 2001 to guide development of the ILP, were an important reference in the development of the Stud Park Structure Plan and the general principles are reflected in the Rowville Plan.

3.3 Current Planning Context

3.3.1 State Planning Policy

State Planning Policy Framework

The State Planning Policy Framework (SPPF) sets out the broad State policy directions to be addressed in the Structure Plan. Structured around the themes of settlement, environmental and landscape values, environmental risk, natural resource management, built environment and heritage, housing, economic development, transport and infrastructure, the SPPF seeks to ensure a sufficient supply of land for a range of future uses, achieving high quality built form, supporting economic growth, increasing community benefit and adopting ecologically sustainably practices.

Melbourne 2030: Planning for Sustainable Growth

Melbourne 2030 is a 30 year plan to manage urban growth and development across metropolitan Melbourne published by the State Government of Victoria in October 2002. Melbourne 2030 forms part of the State Planning Policy Framework (SPPF) and is referenced within all planning schemes in Victoria. Melbourne 2030 sets out nine key directions for the future of Melbourne based around urban consolidation and better management of growth. The Strategy argues that creating a network of centres, linked by high quality public transport and local transport opportunities, will improve the prosperity, environmental performance, equity and governance of the metropolitan region.

Melbourne@5 Million: A Planning Update to Melbourne 2030

This update was released by the State Government of Victoria in December 2008 in response to revised population projections contained in Victoria in the Future 2008. The document had a strong focus on building jobs and services in key Central Activities Districts and employment corridors to promote "a more compact city" by linking transport, employment and land use planning, promoting activity centre activation, housing diversity and affordability and jobs closer to home. Specific mention is made of the Foothills of the Dandenong Ranges as a key limit to settlement based on scenic and environmental value, as well as bushfire risk.

Plan Melbourne, a New Metropolitan Strategy

The Victorian Government is preparing a new Metropolitan Planning Strategy to manage Melbourne's growth and change as it moves beyond a city of four million people. It will serve as a strategic plan for the future of Melbourne to guide and help manage the change that the city is facing. In accordance with this, the new Strategy is proposed to outline how growth and development of metropolitan Melbourne will be guided and managed over the next 40 years.

The State Government has established a five-stage process for developing and implementing the Strategy. This process commenced in 2011 and is scheduled to finish in early 2014 with the release of the final Strategy.

- Stage 1 involved the project's establishment and research.
- Stage 2 covered the development of strategic principles to guide development of the Strategy. The strategic principles cover the topics of:
- Stage 3 was a Discussion Paper titled "Melbourne Let's Talk about the Future," released by the State Government of Victoria in October 2012. Six-hundred formal submissions were lodged in response to the Discussion Paper, including one from Knox City Council.
- Stage 4 is release of the draft Plan Melbourne strategy document. Feedback on the
 draft strategy is ongoing at the time of this report, with an anticipated end date for
 submissions of 6 December 2013.
- Stage 5 will be the release of a final Plan Melbourne strategy document and background report is scheduled for early 2014. This will include changes to the State Planning Policy Framework, which forms part of all planning schemes in Victoria. The new Strategy will replace Melbourne 2030 Planning for Sustainable Growth (2002) as the relevant state planning strategy and will also serve as the transport plan for Melbourne.

The current draft of the Plan Melbourne strategy document includes a vision for Melbourne:

Melbourne will be a global city of opportunity and choice. This will be achieved by:

- Protecting the suburbs;
- Developing in defined areas near services and infrastructure;
- Creating clearer and simpler planning system with improved decision making;
- Rebalancing growth between Melbourne and Regional Victoria; and
- Identifying an investment and infrastructure pipeline.

The draft strategy highlights a need for established suburbs including Rowville to play a greater role in the economic and housing future of the Greater Melbourne region. This includes delivering jobs and service to outer residents, providing diverse and affordable housing, building strong and resilient communities, and moving to a place-based focus when for planning for activity centres such as Stud Park (Rowville). It also supports a commitment within state government to handing more control back to local government.

3.3.2 Municipal Strategic Statement

The Municipal Strategic Statement (MSS) responds to the SPPF by setting key strategic planning, land use and development objectives for the City of Knox. The MSS identifies five key themes covering land use and development considerations for the municipality, aimed at delivering the Knox Vision 2025 and Knox 2009–2013 Council Plan.

Of relevance to the Structure Planning process is the identification of Rowville (Stud Park) as a Major Activity Centre and the significant change anticipated in the Knox community over the next 25 years.

Key themes are as follows:

- Urban Design (Clause 21.04) This clause relates to the Knox Urban Design Framework 2020 (2003) with eight objectives covering urban form, ecologically sustainable design and public realm. The clause notes that there is "potential for Knox's activity centres to accommodate more mixed uses, in a way that contributes to the economic and cultural vitality of the centres".
- Housing (Clause 21.05) ⁴² This clause seeks to ensure that planning for residential development contributes to sustainable urban growth and change whilst managing the conflict between the need for more housing and maintaining the valued qualities of identified areas of environmental and character significance. Importantly, it seeks to reduce infill housing development in dispersed locations as a major form of housing development by promoting activity centres and key redevelopment strategic sites as the preferred location for residential development. Apartment and multi-storey mixed use residential development is encouraged within principal and major activity centres and on sites with direct access to the principal public transport network where it provides frequent and reliable public transport.
- Environment (Clause 21.06) This clause relates to natural environment and cultural heritage and highlights the environmental and landscape significance of creek corridors and waterways such as Corhanwarrabul Creek. One of the key objectives is "To protect and enhance creeks and waterways as key public, landscape and environmental assets."
- Economic Development (Clause 21.07) ⁴³ This clause identifies Rowville (Stud Park) as a Major Activity Centre and seeks to promote economic activity and employment growth across the municipality. The clause seeks to ensure a hierarchy of viable, accessible activity centres with a greater range of complementary activities for domestic, business, leisure and social life with improved public transport services and

⁴² This policy will be replaced in 2014 to support the revised Knox Housing Policy

⁴³ This policy will be replaced in 2014 to support the revised Knox Housing Policy

ensure activity centres are attractive and safe settings for pedestrians and make shops and services more accessible for local residents and workers.

Part of the study area is located within the Scoresby Rowville Employment Precinct. The Scoresby-Rowville Employment Precinct covers land bound by Stud, Wellington and Ferntree Gully Roads and the EastLink reservation. The clause identifies this area where high amenity 'production economy' related activities are encouraged to locate and develop.

Infrastructure (Clause 21.08) – this clause relates to the provision of physical and social services, including integrated transport, open space and recreation, and community health and wellbeing (particularly via active transport). One of the key objectives is to "Encourage increased housing densities along the principal public transport network and in activity centres".

3.3.3 Local Planning Policy Framework

Local Planning Policy (LPP) of relevance to the Structure Plan includes:

- Industrial and Restricted Retail Sales Area Design (Clause 22.02) This policy applies to all land in a Commercial 2 Zone. The policy seeks to facilitate growth in employment by ensuring that the design of industrial and restricted retail sales development maintains and enhances the appearance of industrial areas. The policy provides direction for the design of buildings and subdivisions in relation to lot size, siting and setbacks, landscaping, architectural quality and signage. In Rowville, this policy applies to the Commercial 2 Zone land in the Stamford Business Park west of Stud Road and the corridor along Wellington Road between Stud Road and Eastlink, as well as the Scoresby-Rowville Employment Precinct adjacent to the Study Area.
- Neighbourhood Character (Clause 22.07) ⁴⁴ This policy applies to all residential land in Knox. The policy seeks to ensure that development is responsive to the desired future character of the area while recognising the need for change around activity centres. The policy identifies residential land within the study area as being either within a Villa Court Precinct or Garden Suburban Precinct and specific design objectives and responses apply to development in these areas.
- Scoresby-Rowville Employment Precinct (Clause 22.08) This policy applies to Commercial 2 Zones, Public Use Zones and Public Park and Recreation Zones bounded by Ferntree Gully Road, Stud Road, Wellington Road and EastLink. The policy encourages the use and development of production economy related businesses with a primary focus on research and development, industry/technology, warehousing/distribution and office business park. Restricted retail uses are discouraged in this area. The policy provides direction for the design of buildings in relation to siting and setbacks, landscaping, building bulk and mass, facade and roof treatments, access and connectivity, lighting, fencing, signage, energy efficiency, heritage (for the adjoining Homestead at Stamford Park) and public spaces.
- Housing (Clause 22.10) ⁴⁵ This policy applies to all new residential use and development within the urban growth boundary in the City of Knox. The Knox Housing Statement (2005) and the Eastern Regional Housing Statement (2006) provide the basis for this policy. It is policy that well designed medium density housing be favourably considered within 400 metres walking distance from the edge of business zones in Major Activity Centres (including Stud Park). The policy also encourages medium density housing along the principal public transport network where properties have direct frontage, particularly along the Stud Road Orbital SmartBus Route and directs apartment and multi-storey

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⁴⁴ This policy will be replaced in 2014 to support the revised Knox Housing Policy

⁴⁵ This policy will be replaced in 2014 to support the revised Knox Housing Policy

mixed use style housing development be within the Business Zones of major activity centres and key strategic redevelopment sites.

3.3.4 Current Zones

The Rowville Plan study area contains a mixture of different zones covering commercial, residential and public uses. The following is an overview of each zone:

Commercial 1 Zone (C1Z)

The Commercial 1 Zone broadens the range of activities that land can be used for without the need for a planning permit and removes floor area restrictions. The zone seeks to promote vibrant mixed use commercial centres for retail, office, business, entertainment and community uses, as well as residential uses at densities complementary to the role and scale of the commercial centres.

This zone replaced the former Business 1, Business 2 and Business 5 Zones.

Commercial 2 Zone (C2Z)

The Commercial 2 Zone provides more opportunities for office, commercial businesses, restricted retail premises, trade supplies and some limited retail activity. Floor area restrictions for office and some retail uses have been removed. The zone seeks to develop commercial areas for offices and appropriate manufacturing and industrial and limited retail uses that do not affect the safety and amenity of adjacent, more sensitive uses. The commercial 2 Zone covers the areas shown on the map as B3Z.

This zone replaced the former Business 3 and Business 4 Zones.

Residential 1 Zone (R1Z)

The R1Z aims to provide for residential development at a range of densities with a variety of dwellings to meet the housing needs of all households. It seeks to encourage residential development that respects the neighbourhood character, and allow, in appropriate locations, educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs. A permit is usually required for the construction or extension of a dwelling and to subdivide land. Retail premises, other than small scale convenience premises, are not permissible. R1Z is located within residential areas within walking distance to the commercial core of the structure plan area.

This zone will be replaced by new residential zones as part of the planning scheme amendment to implement the revised Knox Housing Strategy and Rowville Plan.

Residential 3 Zone (R3Z)

The R3Z aims to provide for residential development at a range of densities with a variety of dwellings to meet the housing needs of all households. It seeks to encourage residential development that respects the neighbourhood character, limit the maximum height of a

dwelling or residential building, and allow, in appropriate locations, educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs. Dwellings must not exceed 9 metres in height (unless on a slope which allows for 10m) and a permit is usually required for the construction or extension on a dwelling and to subdivide land. Retail premises, other than small scale convenience premises, are not permissible. R3Z is located within residential areas on the fringe of the structure plan area.

This zone will be replaced by new residential zones as part of the planning scheme amendment to implement the revised Knox Housing Strategy and Rowville Plan.

Public Use Zone (PUZ with a number).

The Public Use Zone aims to recognise public land use for public utility and community services and facilities and provide for associated uses that are consistent with the intent of the public land reservation or purpose. There are three types of Public Use Zone within the study area:

- PUZ2 contains land used for education (Rowville Primary and Rowville Secondary College);
- PUZ6 contains land used for Local Government purposes (Rowville Community Centre) and;
- PUZ7 contains land used for "other" public uses, in this case the Rowville Police Station on Fulham Road.

Planning applications on this land must be referred to the Minister or public land manager having responsibility for the care or management of the land or adjacent land.

Road Zone 1 (RDZ1)

The RDZ1 seeks to identify significant existing roads and to identify land which has been acquired for a significant proposed road. RDZ1 covers Stud and Wellington Roads. Applications relating to this land must be considered by VicRoads.

Public Park And Recreation Zone (PPRZ)

There are pockets of PPRZ scattered throughout the study area, encompassing tree reserves along Stud and Wellington Roads, Stud Park Reserve, Arcadia Reserve, Delta Court Reserve, Luton Reserve, Low Reserve, Deschamp Crescent Reserve and Stamford Park wetlands. The zone aims to recognise areas for public recreation and open space, protect and conserve areas of significance where appropriate, and to provide for commercial uses where appropriate.

Special Use Zone 1 (SUZ1)

The SUZ1 seeks to recognise the use of private facilities including community, sporting leisure, recreation, education and religious facilities and to ensure that flood risk is taken into consideration for use or development of facilities on or near land subject to flooding. The SUZ1 applies to land occupied by the Kingston Links Golf Course.

Urban Floodway Zone (UFZ)

The UFZ aims to identify waterways, major floodpaths, drainage depressions and high hazard areas within urban areas which have the greatest risk and frequency of being affected by flooding. The zone seeks to ensure that any development maintains the free passage and temporary storage of floodwater, minimises flood damage and is compatible with flood hazard, local drainage conditions and the minimisation of soil erosion, sedimentation and silting. It also seeks to protect water quality and waterways as natural resources in accordance with the provisions of relevant State Environment Protection Policies, and particularly in accordance with Clauses 33 and 35 of the State Environment Protection Policy (Waters of Victoria).

Within the study area, land zoned UFZ is located along the Corhanwarrabul Creek corridor. Use of the land within the UFZ is very restrictive, with most land uses, including residential being prohibited.

3.3.5 Current Overlays

Environmental Significance Overlay 2 (ESO2)

The ESO2 covers a range of sites of biological significance identified in 'Sites of Biological Significance in Knox – 2nd Edition,' 2010. The overlay seeks to protect and enhance the quality of indigenous vegetation in Knox. A permit is required for some buildings and works and indigenous vegetation pruning and removal.

Vegetation Protection Overlay 1 (VPO1)

The VPO1 seeks to retain and protect native vegetation. A permit is required remove, destroy or lop native vegetation.

Development Plan Overlay 1 (DPO1)

The DPO1 applies to the Stud Park Shopping Centre and retail outlets fronting Stud Road. The overlay requires a Development Plan to be prepared by the landowner and approved by Council prior to any permits being issued. The overlay requires certain things to be shown on the Development Plan, including the layout of buildings and works, provision of car parking and the provision of an integrated transport interchange.

Development Plan Overlay 6 (DPO6)

The DPO6 applies to the Scoresby-Rowville Employment Precinct. The overlay requires a Development Plan to be prepared by the landowner and approved by Council. The overlay contains certain requirements around staging, lot size and layout, land use, amenity, landscaping and open space, buildings and works, heritage transport and environmental management.

This overlay will be replaced as part of the implementation of the Rowville Plan.

Development Plan Overlay 9 (DPO9)

The DPO9 applies to Stamford Park. The purpose of the overlay is to ensure the development of the residential precinct within Stamford Park occurs in the manner envisaged in the Stamford Park Masterplan (February 2010); and require the resolution of detailed design and planning issues prior to commencement of development. The overlay requires a Development Plan to be prepared by the landowner and approved by Council prior to any permits being issued. The overlay contains certain requirements around subdivision, sustainable neighbourhood and water management, movement, community spaces, building envelopes, housing style and amenity, landscaping and public open space.

Heritage Overlay 24 (HO24)

The HO24 applies to the Stamford Homestead. The overlay seeks to conserve and enhance heritage places of natural or cultural significance and those elements which contribute to the significance of heritage places. It seeks to ensure that development does not adversely

affect the significance of heritage places and to conserve specifically identified heritage places by allowing a use that would otherwise be prohibited if this will demonstrably assist with the conservation of the significance of the heritage place.

Land Subject To Inundation Overlay (LSIO)

The LSIO seeks to identify land in urban areas liable to inundation by overland flows from the urban drainage system and to ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, is compatible with the flood hazard and local drainage conditions and will not cause any significant rise in flood level or flow velocity. The overlay seeks to protect water quality in accordance with the provisions of relevant State Environment Protection Policies. A number of buildings and works trigger the need for a planning permit. An application for a permit must be referred to Melbourne Water as the floodplain management authority.

Special Building Overlay (SBO)

Similar to the LSIO above, the SBO seeks to identify land in urban areas liable to inundation by overland flows from the urban drainage system and to ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, is compatible with the flood hazard and local drainage conditions and will not cause any significant rise in flood level or flow velocity. The SBO contains different permit triggers to the LSIO. The overlay seeks to protect water quality in accordance with the provisions of relevant State Environment Protection Policies.

4 What it means for the Rowville Plan

4.1 Drivers of Change

The Knox@50 project was a comprehensive approach to Community Engagement around the subject of liveability that emerged as a result of major community and Council concern over rate of change particularly around housing development in Activity Centres including Rowville. One of the key concepts that helped give shape to the conversation with the community about the future was 'Drivers of Change.' The Knox@50 report provides the following description:

The things which influence change are known as 'drivers of change', but could also be characterised as our 'key challenges' and 'key opportunities'. Some 'drivers' cause small or incremental change but some are responsible for significant change and opportunity. They can have an impact on all aspects of our community: the economy, the environment, our health, and our community connectedness. We need to manage and respond to these 'drivers of change' so that they work for the communities of Knox.

These were used as the basis for conversations and engagement with the community throughout that project, and they are used here to frame the discussion of the trends and conditions that are affecting Rowville today and over the next 20 years. The five 'Drivers of Change' are:

- Identity How we identify with places, people and experiences has major influence on the richness of our lives. Where we belong, the connections we have in our communities, with our neighbours, the places, spaces, images and form of our Cities all contribute to one's 'sense of belonging'
- Population Our population is getting older, is more mobile, reflects different ideas
 of 'family', and household structures are changing. According to the United Nations,
 the world's population is projected to pass 9 billion people before 2050 and then
 reach 10 billion by the end of the century.
- Technology Allows us to be connected, become more efficient and improve our quality of life. Many of us use many different forms of technology everyday often without realising its impact until it fails us. Two of the most important areas of technological advancement affecting cities are in the areas of communications and health.
- Resources Our community and businesses rely on energy, water, food and people to prosper. Resources are typically the things we use to make other things or to keep other things going. How we manage resources will be both our biggest challenge,

such as reducing our dependency on fossil fuels, and opportunity, such as building new industries centred on renewable energy sources.

Governance – Fundamental to a well functioning society, good governance is critical
to helping manage daily services, the health of our environment and economy to
ensure that we have a sound basis upon which to plan for the future. Good
governance relies on two things: Representation and Decision Making.

The following is a summary of some of the key conditions and trends that emerged from the research related to the Rowville Plan, and a discussion of how these factors are combining to drive change in Rowville over the next 20 years. The discussion of 'Drivers of Change' includes links to the Knox@50 categories to help frame the way these affect the decisions they will require in the future.

4.2 Key Conditions and Trends

Slowing Growth in Population

After growing steadily for decades, Rowville's population increase has slowed in recent years, remaining nearly steady between 2006 and 2011. While Rowville's growth in the past was driven by large numbers of new homes being built, the suburb today is mostly built out.

Declining Average Household Size

Large households of families and children still make up a greater proportion of Rowville's population than other parts of Knox. However, average household size has been falling in Rowville in recent years, as it has across the Melbourne region. Between 2006 and 2011, the number of small households (1-2 people) has increased while the number of large households (4-5 people) has decreased. The number of lone-person households, couples without children and one-parent families in Rowville are increasing while the number of two-parent families is starting to decline. This means that while the total population in Rowville is expected to grow very slowly over the next 20 years, the number of households is expected to continue to increase.

The result is likely a continued demand for housing, although this may be driven by demand for different housing types than those that have been built in Rowville over the last 40 years.

Ageing Population

Much of the change in household makeup is being driven by an ageing population and changing family structures. In the past, as children grew up and moved away they were replaced by new young families moving to the area. Recently, as the areas for new housing have been used up, these groups are no longer being replaced by new families. The only age groups that have increased in population since 2006 are 18-25 year-olds and people

over 50 years old. As a result, in the future there are likely to be fewer young children and more older adults living in Rowville than there were in the past.

Declining Housing Affordability

In recent years housing prices in Rowville have risen faster than average incomes. Today, average housing costs in Rowville related to mortgage and rent are greater than 30% of average income levels – the threshold that defines 'housing stress.'

Ageing Housing Stock

As houses reach a certain age, they become candidates for either renovation or redevelopment. With few vacant or greenfield sites for new housing available in Rowville today, redevelopment of older housing stock is an emerging trend. Many of the areas of oldest existing housing are the same ones seeing development pressures today.

Shortage of Social Housing

The provision of social housing across Knox is below the Greater Melbourne average, which in itself is inadequate to meet existing demand. Rowville has the largest shortfall of social housing dwellings of all of Knox's suburbs. While Rowville is one of Knox's least disadvantaged suburbs, social housing also serves as a vital resource to those who find themselves suddenly in need of assistance due to family breakdown, injury, or loss of job. This shortfall suggests a vulnerability for Rowville residents who may find themselves in a such a situation in the future.

Automobile Dependency

A suburban framework of cul-de-sac streets between main roads, disconnected bicycle and pedestrian trails, and sporadic public transport options has made driving the dominant mode of transportation throughout Rowville's history. The share of work trips made by car is nearly 90 percent according to 2006 census data. There are no train stations or tram routes in Rowville, and buses carried only 1 percent of work trips in 2006. In the last ten years the number of cars in Rowville has increased, as the percentage of households with three or more vehicles has risen from 19 percent in 2001 to 27 percent in 2011.

Increasing Traffic Congestion

In recent years, as urban growth spreads beyond Rowville to the east, traffic congestion has continued to grow. The completion of Eastlink in 2008 provided a temporary relief to traffic on local arterials, particularly Stud Road. But the improved automobile access to the city and nearby suburbs that Eastlink provides has also served to bring more cars to the area. Much of the traffic in Rowville is now made up of vehicles that are neither going to nor coming from Rowville, but merely passing through to other destinations.

Changing Climate

On 4-5 February 2011, 147 mm of rain fell in Rowville over a two-day period, qualifying as in excess of a 1-in-100 year event. The 100-year floodplain around the Corhanwarrabul Creek experienced extensive flash flooding with waters covering much of the golf course and affecting properties in the Stamford residential estate along the eastern boundary of the golf course.

Current Melbourne Water best practice guidance – based on consideration research into possible climate scenarios by CSIRO – estimates that rainfall intensity will increase by 32% or more by the year 2100. The results of that level of change would certainly include more frequent rain events like the one in February 2011.

Increase in Hard Surfaces from Development

Another factor that is affecting the future of the stormwater and flood protection network in Rowville is increases in development that has led to more hard surfaces and less open space. Areas such as roads, roofs, footpaths, and concrete courtyards increase the speed at which rainwater reaches the stormwater network, increasing the immediate demands on the system. In general, as development changes the stormwater system must change to fit. Planning for the appropriate amount and type of development can help.

Emerging Health Risk Factors

The relative risk of obesity is higher in Rowville than in most other parts of Knox, with many neighbourhoods in the study area at over 50% of adults. Access to fast food in many areas is much higher in parts of the Study Area than access to fresh food and healthier eating options. The geography of Rowville that includes a low-permeability street network and relatively few playgrounds may contribute to poorer health outcomes than in other parts of Knox.

Stress and Social Issues

Anecdotal evidence gathered from the community suggests there are many factors that contribute to pressure and stress among Rowville residents. These include increased incidence of family breakdown, increasing levels of housing stress, high levels of traffic congestion, rising prices of food and fuel, and extreme time poverty. The results have led to low levels of civic engagement, reduced sense of community connectedness, crowding-out of family time for parents and children.

4.3 Issues Requiring Response

4.3.1 Identity: Housing Mismatch

A number of factors including an ageing population and changes to family structures have lead to a decline in average household sizes that has created a mismatch in the type of housing demanded and the current supply of large family houses.

Discussion

The suburb of Rowville was largely developed over a relatively short period of time in the late 1960s and early 1970s. At that time the most common household type moving into the area was families with young children. Thus most of the housing built was single-family detached homes, which comprising 94% of all dwellings in Rowville today. The current housing stock of 3-5 bedroom detached houses has served the Rowville community well over the last thirty years.

However, the demand is changing for different types of dwellings. The growing mismatch between smaller households and the lack of availability for smaller housing options is leading to development pressures for townhouses, apartment units, and other 1 to 2 bedroom options. The current Knox Planning Scheme directs this type of development to areas within Activity Centres and along the Principal Public Transport Network. In recent years, some houses in older neighbourhoods have began to been replaced with multiple townhouses and villa units on a single lot.

Potential Responses

- Encourage development of a wide choice of housing options in Rowville that can accommodate people with different incomes and needs including people at all stages of life
- Encourage the development of 1-2 bedroom dwellings in appropriate locations, close to shopping, community services and public transport
- Encourage flexible housing that can be adapted by its occupants to meet the needs
 of a changing population, to allow for greater accessibility for aged and disabled
 residents and more opportunities for intergenerational households
- Encourage an increase in the provision of social housing by private providers in Rowville distributed throughout existing neighbourhoods

4.3.2 Identity: Development Pressures

Rowville is experiencing an emerging increase in planning applications and construction of higher density residential development, which is disrupting existing neighbourhoods and has the potential to place additional strain on infrastructure and services in the future.

Discussion

The growing mismatch between household structure and available housing options is leading to development pressures for townhouses, apartment units, and other 1 to 2 bedroom options. Rowville saw a sharp increase in the number of planning permits for this type of development after the adoption of the Stud Park (Stage 2) Structure Plan in 2010.

The Knox Planning Scheme currently directs this type of development to areas within Activity Centres (such as Stud Park, Bayswater, Boronia, and Knox Central) and along the Principal Public Transport Network, which includes Stud Road in Rowville. While the centres of Bayswater and Boronia have structure plans supported by detailed planning controls, Rowville has been without a robust set of controls to guide development in the area.

The result has been confusion amongst developers and residents about the type of residential development that is needed in Rowville and where denser forms of development are appropriate.

Potential Responses

- Provide clear guidance on which areas of Rowville are appropriately placed to accommodate more dense development such as townhouses and apartments
- Identify key sites that provide opportunities for more dense residential and mixeduse development, including larger lots with good access to transport and proximity to shopping and services
- Restrict residential development in neighbourhoods that are not well suited to higher levels of change

4.3.3 Identity: Changing Community Service Needs

A slowing in overall population growth and a general ageing in place is leading to changes in the types of community services needed in Rowville, which has the potential to create future gaps in services for aged residents and potential oversupply of services for young people.

Discussion

There are several national trends that are combining to create a general ageing of the population in Australia. Advances in health care and medical technology in particular have contributed to longer life expectancies. In addition, the large generation of 'Baby Boomers' born in the years after World War II are all entering their fifties and sixties now and will be in their seventies and eighties in 2031. Over the next 20 years, the number of Rowville residents over the age of 50 projected to increase dramatically.

At the same time, the number of children living in Rowville has been declining and is expected to continue to decline over the next 20 years. As children grow up and their parents remain in the family homes, fewer families with young children are moving in to take their place in schools and child care centres. These demographic trends together are likely to lead to changing needs of the Rowville community, with more of an emphasis on healthy ageing services likely and a reduced demand for youth and family services a possibility.

Potential Responses

- Increase the provision of activities and services that cater to aged residents to meet increased demands in the future
- Facilitate multiple uses of existing community facilities and co-location of activities and services to encourage interaction between a wide range of different age groups, social networks, and organisations
- Encourage organisations and activities that provide young people with a wide range of activities across a broad spectrum of interests
- Encourage a diversity of housing options that can accommodate people of all stages of life in order to provide steady demand for activities and services

4.3.4 Population: Risks to Physical Health

Risk factors to health such as overweight and obesity are higher in Rowville than in other parts of Knox, which could lead to a greater demand on health services and a more financially vulnerable population in the future.

Discussion

Rowville has a higher relative risk of obesity than most other parts of Knox, with over half of adults qualifying as overweight or obese. Obesity is an important indicator of overall health because it is correlated with many chronic health conditions such as heart disease and diabetes. There are many factors which can contribute to low levels of activity and poor health outcomes in a community. The physical features and urban geography of a place can help encourage active transport such as walking and cycling. Street layouts characterised by curving streets and cul-de-sacs lead to longer walking distances and less permeability which discourage walking, while networks with high permeability such as grids can help promote walkability. Convenient access to open space that allows for a wide variety of activities from organised sport to passive recreation can encourage healthier, more active lifestyles. Programs that encourage exercise and healthy eating can also help promote overall health and well being among people of all ages.

Potential Responses

- Improve the connectivity and safety of footpaths and shared path networks to increase the attractiveness of walking and cycling as an attractive transport choice
- Broaden the active and passive uses of existing parks to accommodate a wide range of interests, activities, and users of all ages
- Increase participation in formal organised sport and informal opportunities for exercise
- Support organisations and programs that promote education of healthy nutrition and active lifestyles

4.3.5 Population: Vulnerability to Social and Economic Pressures

Many stresses and strains of suburban life are present in Rowville, including time pressures and social isolation caused by the combination of busy lives, long travel distances, lack of transport choices, and economic uncertainty. As a result, Rowville residents are especially vulnerable to changes in personal conditions, family circumstances, and the economic environment in a few important ways.

Discussion

Many residents of Rowville are faced with economic stresses and increased demands on work/life balance common to the outer suburbs of Melbourne. Many factors combine to place high demands related to time and money. Long travel distances combined with high levels of traffic congestion and few alternatives to driving lead to extensive commute times, which crowd out time for family and leisure. Ageing residents are particularly vulnerable to social isolation due to lack of mobility options. Many young people face a lack of activities to fill their time productively.

Although the incidence of depression in Rowville not considered more intense than other suburbs, it is still a significant issue that represents important challenges for many residents. Ironically, the relatively low numbers of Rowville residents on government support pensions may actually contribute to a significant numbers of people needing counselling to fall through the cracks. People needing to relocate homes as a result of family breakdown or loss of a job have limited options in Rowville due to a lack of smaller dwellings, rental opportunities, and social housing.

Potential Responses

 Increase options for affordable rental accommodation and/or social housing options to provide opportunities for those facing family breakdown and/or housing stress who wanting to stay in Rowville to maintain existing family and social connections

- Promote the viability of walking, cycling, and public transport to reduce dependency on the automobile and reduce long travel times from traffic congestion for families and workers
- Increase awareness of existing services related to personal and financial development and community connection
- Provide additional personal and financial counselling services to address the need for crisis prevention
- Increase the number and accessibility of public places where people can meet, share interests, and provide support to each other within the local community
- Co-location community service facilities to increase awareness of and participation in programs related to personal, financial, and family health and well being
- Improve links to local jobs, education, and skills training for the future economy, including opportunities in the Scoresby-Rowville Employment precinct

4.3.6 Population: Transport Network Nearing Capacity

Traffic congestion and the long travel times and delay it causes have been a consistent problem in Rowville over many years. There are many contributing factors, both inside and outside Rowville itself, and many of these are increasing.

Discussion

As roads in Rowville become increasingly congested, due in large part to traffic from other areas passing through, residents have few other options but to sit in traffic. Even if there were opportunities to build new roads and duplicate existing ones, as Eastlink has shown increases in roadway capacity offer only temporary relief. In order to mitigate try and slow increases in traffic congestion, Rowville must seek to create viable attractive alternatives to driving. Promoting compact areas with high amenity can promote walking and cycling for local trips and increase the feasibility of new public transport options to cater to longer trips to Melbourne CBD and around the region.

Potential Responses

- Advocate to state government for new public transport services and improvements to existing public transport services to reduce the dependence on the automobile
- Encourage more dense forms of residential and commercial development in appropriate locations to provide more future potential riders and improve the viability of existing and future public transport services

- Encourage a wider variety of shopping, dining, and entertainment options at Stud Park to reduce the need for people to drive outside of Rowville to access these services
- Encourage co-location and shared use of community service facilities to increase accessibility and convenience and reduce the frequency and length of local trips

4.3.7 Resources: Increased Demands on Stormwater Infrastructure

After years of below-average rainfall and drought conditions in Victoria, recent events have seen more frequent rain events and more intense flooding. While this may represent only temporary changes to long-term conditions, there is evidence that these changes may be part of long-term changes to the local climate.

Discussion

Projections for increasing rainfall alone have major implications in future planning for the stormwater and flood protection network in Rowville. With or without an increase in development, mitigation strategies will need to be considered and implemented over time to maintain current levels of performance. This may include expansion of the system or measures such as Water Sensitive Urban Design.

Potential Responses

- Identify areas of potential vulnerability in the existing stormwater management network in order to prioritise funding for studies and capital work improvements
- Encourage the provision of WSUD practices on public and private land to reduce demands on the local stormwater network
- Direct development to areas that are least vulnerable to future flooding and that have the potential to minimise impact on the performance of the existing stormwater network
- Protect and enhance local waterways and wetlands to maintain and improve their role in the stormwater management network
- Provide education and training to people about the function of the stormwater management network and how they can take steps to reduce the vulnerability of their home and property from future flooding

4.3.8 Governance: Shift to a Greater Local Voice in Planning

Increasingly, communities across Victoria are requesting a greater voice in planning for their own future. Recent changes in the state planning system are reflecting this by placing a greater emphasis on local control of issues related to growth and development.

This in turn is placing greater responsibility on local Councils and community stakeholders to work together in developing and implementing a shared vision for their future.

Discussion

Several recent changes to the Victorian state planning system are creating a different context for planning for local areas. One of the main shifts in the development of a new Metro Strategy is an increased emphasis on the uniqueness of different local areas which has led to less of a one-size-fits-all approach to planning for activity centres. In addition, the new residential zones provide additional tools for local authorities to adapt them to local conditions. The switch to new, more customisable residential zones has signalled a shift away from state government guidance and requirements and toward more local control of decision-making.

Potential Responses

- Implement the new state residential zones in Rowville using the directions and planning tools outlined in the Knox Housing Strategy
- Develop specific planning controls to guide the future development of the Commercial Core, including the Stud Park Shopping Centre, to improve access from surrounding areas and protect the amenity of surrounding neighbourhoods
- Develop an ongoing forum for Council and the community to discuss future planning issues and implementation of the strategies provided in the Rowville Plan
- Increase participation and partnerships between a wide range of stakeholders including residents, employers, not-for-profit organisations, community groups, sporting clubs, places of worship, and others to facilitate future long-term planning activities for Rowville