

# Knox Housing Monitoring Program

## Annual Report for 2024

Knox City Council acknowledges the traditional custodians of the City of Knox, the Wurundjeri and Bunurong people of the Kulin Nation.

#### **Disclaimer**

This report is provided for information, and it does not purport to be complete. While care has been taken to ensure the content in the report is accurate, we cannot guarantee that the report is without flaw of any kind. There may be errors and omissions, or it may not be wholly appropriate for your particular purposes. In addition, the publication is a snapshot in time based on historic information which is liable to change. Knox City Council accepts no responsibility and disclaims all liability or any error, loss or other consequence which may arise from you relying on any information contained in this report.

# Contents

Executive Summary .....	1
Summary of Key Findings .....	3
This Document .....	7
Policy Context .....	7
A Note on Total versus Net Dwelling Changes.....	9
Overview of Planning Permits Approved in 2024 .....	11
Objective 1 - A diversity of housing is provided in appropriate locations.....	14
Why is this Objective Important? .....	14
How are we Tracking this Objective?.....	14
Analysis .....	18
Objective 2 - Residential development better responds to the community's needs, and allows people to age-in-place.....	20
Why is this Objective Important? .....	20
How are we Tracking this Objective?.....	20
Analysis .....	28
Objective 3 - Energy, water, and waste efficient design are increased in dwellings.....	32
Why is this Objective Important? .....	32
How are we Tracking this Objective?.....	32
Analysis .....	33
Objective 4 - Housing design is improved to better respond to neighbourhood identity and create a stronger sense of place .....	35
Why is this Objective Important? .....	35
How are we Tracking this Objective?.....	35
Analysis .....	36
Objective 5 - Protect and enhance the landscape and environmental value of natural areas of significance .....	38
Why is this Objective Important? .....	38
How are we Tracking this Objective?.....	38
Analysis .....	41
Objective 6 - Development responds to neighbourhoods in an integrated and balanced manner.....	43
Why is this Objective Important? .....	43
How are we Tracking this Objective?.....	43
Analysis .....	46
Action Areas and Advocacy Opportunities for Council.....	48
Action Areas .....	48

Advocacy Opportunities.....	49
Summary of Key Findings.....	51
Next Steps: Future Knox Housing Monitoring Program.....	53
References .....	54
Attachment 1: Definition of Housing Types.....	57
Attachment 2: Net growth in dwellings by Typology, 2015 to 2024 .....	58

### List of Tables

Table 1. Summary of Progress Towards Housing Strategy Objectives in 2024.....	6
Table 2. Number of new Dwellings by Typology in Knox Housing Strategy Area .....	16
Table 3. Housing types as defined in the Knox Housing Strategy .....	57
Table 4. Household Annual Income Ranges for 2024 .....	59

### List of Figures

Figure 1. Approved Planning Permits and possible Net Growth in Dwellings .....	12
Figure 2. Total New Dwellings and Demolitions by Approved Planning Permits.....	15
Figure 3. Preferred Dwellings in Housing Strategy Areas .....	17
Figure 4. Dwelling Units per Hectare in Housing Strategy Areas .....	17
Figure 5. Forecast Dwelling Capacity in Knox.....	21
Figure 6. Annual Average Building Permits Growth versus Projected Dwellings Growth in Knox.....	22
Figure 7. Net Growth in Dwellings by Bedrooms .....	23
Figure 8. Net Growth in Small Dwellings.....	24
Figure 9. Residential Aged Care Places in Knox in 2024.....	25
Figure 10. Gap between Supply and estimated Need for Social and Affordable Housing in Knox.....	26
Figure 11. Affordable Sales and Rentals in Knox in 2024.....	27
Figure 12. Affordable Sales and Rentals Trend in Knox Since 2019.....	28
Figure 13. <i>Applicable new</i> Buildings Assessed as meeting Sustainability Targets .....	33
Figure 14. Proportion of Dwellings Approved in Walkable Areas of Knox.....	36
Figure 15. VCAT Decisions on Residential Planning Applications .....	44
Figure 16. Trend Analysis of VCAT Decisions on Residential Planning Applications from 2014-2024.....	44
Figure 17. Net Growth in Dwellings by Typology .....	58
Figure 18. Square Metres per Dwelling in Housing Strategy Areas .....	59

### List of Maps

Map 1. Residential Areas as defined in the Knox Housing Strategy 2015 and the 14 Strategic Investigation Sites.....	10
Map 2. Planning Permits Approved in 2024.....	13
Map 3. Tree Canopy Cover in Knox .....	40
Map 4. Plans and Strategies that Support Place-based Planning Controls.....	45

# Executive Summary

This report aims to evaluate the progress made towards the six objectives outlined in the *Knox Housing Strategy 2015*. By analysing data on planning approvals, housing construction, and population demographics; the report provides a comprehensive overview of housing growth in Knox. The analysis is structured around a set of indicators designed to measure various aspects of housing, with a particular focus on new dwellings approved through the planning system in 2024.

The following are the key highlights from this report:

- **Since COVID, the number of new dwellings expected to be constructed in Knox has remained below the 11-year average of 684.** In 2024, 136 planning and subdivision permits were approved. Considering demolitions, if all these permits were fully enacted, Knox could see a net increase of 333 new dwellings. This figure is slightly below the numbers for 2021 (334), 2022 (373), and 2023 (384). In fact, the 2024 housing approvals represent the lowest number of net new dwellings in Knox in over a decade, since 2014.
- **New dwellings approved in 2024 were less aligned with the preferred character outlined in the *Housing Strategy 2015* compared to previous years.** In 2024, 68% of new dwellings approved were consistent with their Housing Strategy Area, a significant 20% decline from 88% in 2023. This marks the second lowest alignment since 2016 and falls below the nine-year average of 74%. The highest alignment was 88% in 2023, and the lowest was 64% in 2016. This decline is concerning, as it was expected that a significant share of approved dwellings would align with the preferred typology within a decade of implementing the *Knox Housing Strategy 2015*.
- **Dwelling density significantly increased in the Bush Suburban area in 2024, while it decreased in Neighbourhood and Local Living areas compared to 2023.** Between 2023 and 2024, dwelling units per hectare decreased by 5% in Knox Neighbourhood areas and by 17% in Local Living areas, a departure from the previous year's trend of increases across all Housing Strategy Areas (HSAs). However, dwelling density in Bush Suburban areas increased significantly by 38% during the same period. If this growth continues, the density in Bush Suburban areas could surpass that of Knox Neighbourhood areas within a decade. This would not be the preferred growth pattern, as it could negatively impact Knox's significant biological (flora and fauna) and landscape values.
- **In 2024, approvals for residential aged care facilities rebounded, while apartment approvals declined compared to 2023.** In 2024, a 96-bed residential aged-care facility was approved, unlike in 2022 and 2023. This aligns with the trend in 2021, when 214 beds were approved. Additionally, planning permits approved in 2024 would result in 39 new apartments if enacted, a decrease from the 59 apartments approved in 2023. Despite this decline, the 2024 figure is an improvement over 2022, where no apartments were approved (only 4 apartments were approved in 2021).
- **In 2024, Knox achieved the minimum target of 78 residential aged care places per 1,000 people aged 70 and above.** In 2024, Knox reached the minimum national benchmark of 78 residential aged care places per 1,000 people aged 70 and above, the lowest ratio since 2015. This decline has been ongoing since 2015, and without a significant increase in RACF<sup>1</sup>, Knox will likely fall below this benchmark next year. The population aged 70 and over in Knox is growing by at least 2% every five years, rising from 10.2% in 2016 to 12.4% in 2021 (ABS, 2022). Urgent action is needed to address this decline.

---

<sup>1</sup> Residential Aged Care Facilities (RACF)

- **Building permits issued in 2024 increased by 35% compared to the previous year.** In 2024, 869 building permits were issued, compared to 643 in 2023 and 588 in 2022. This figure is above the 8-year average of 800 approvals. While 2022 had the lowest number of approvals since 2017, 2017 saw the highest with 1,136 permits. Tracking building permits is crucial as they provide more certainty about future construction in Knox than planning permits, offering a clearer indication of whether the housing challenge can be addressed in the short term.
- **Escalating housing costs and a severe shortage of affordable rental options.** Access to affordable housing remained a critical issue in Knox in 2024. Only 0.1% of rentals and 1% of property sales were affordable to 'very low income' households. Rental affordability has consistently deteriorated since 2020. For instance, 42% of rental properties were affordable to 'very low' and 'low income' households in 2020, but this dropped to 29% in 2024. The rate of this decline is troubling. The *Knox Social and Affordable Housing Strategy and Action Plan 2023-2027* identifies actions that should be progressed to mitigate this issue.
- **A significant shortfall in social and affordable housing supply remains a critical policy concern in Knox in 2024.** In 2024, Knox fell short of the minimum estimated supply of social and affordable housing by 298 dwellings, creating a significant gap between available housing and the estimated need. With 1,505 social and affordable housing dwellings currently available and an estimated need of 2,407, there is a substantial shortfall of 902 dwellings. The decline of 31 social housing dwellings in 2024 further exacerbates the issue. Considering this growing challenge, it may be beneficial for Council to consider complementing existing approaches with alternative advocacy and forward-looking strategies. Exploring new and creative pathways could help support meaningful progress in addressing this important issue.
- **Growth in small dwellings (≤2 bedrooms) fell by 11% in 2024.** In 2024, only 21% of approved dwellings in Knox were small (two bedrooms or less), totalling 69 dwelling units, down from 32% (122 units) in 2023. The *Knox Housing Strategy 2015* and *Plan for Victoria* highlight the need for diverse housing, yet large dwellings dominate in Knox. Council could collaborate with landowners/developers in Strategic Investigation Sites to develop apartments, increasing the availability of small dwellings. This would help meet the housing needs of the growing number of lone person and couple-only households, which currently make up 45.7% of households in Knox.
- **VCAT decisions on planning permits slightly increased in 2024 after hitting a low in 2023.** VCAT decided 15 residential planning applications for Knox in 2023, up from 12 in 2023 and 14 in 2022 and 2021. The 2023 figure was the lowest since 2012. In 2024, the number of cases remained below the six-year average of 24. Since 2014, 66% of Knox's planning permit refusals were overturned by VCAT. In most cases where Council's refusals were overturned by VCAT, applicants submitted amended applications that Council officers supported. Continuing to encourage amendments to address concerns could reduce appeals, saving time and benefiting both parties.
- **Knox achieved 100% of its ESD targets for potable water consumption and GHG emissions reduction in 2023-2024.** This implied that all permits for applicable new dwellings in 2022-2023 met both targets. This was equally the case in 2021-2022 financial year. In 2023-24, ESD data showed a 38% average reduction in potable water consumption and a 61% average reduction in GHG emissions for approved planning applications.

# Summary of Key Findings

## **Objective 1: A diversity of housing is provided in appropriate locations**

An analysis of the planning and subdivision permits approved in 2024 revealed that, if fully enacted, there would be a net increase of 333 dwellings in Knox in the medium term. This represents a 13% decline from the 384 approvals in 2023, marking the lowest number of net new dwellings approved in Knox since 2014. For these new dwellings to be built, Knox would see a net loss of 85 detached houses and 14 dual occupancy houses, a slight increase from the net loss of 89 detached and four dual occupancy houses in 2023. As in previous years, no villa units, townhouses, or apartments were demolished for new developments.

In 2024, 68% of the approved new dwellings were the preferred type for their Housing Strategy Area, a significant decline from the 88% recorded in 2023, which was the highest since 2016. This means that 32% of the approved new dwellings in Knox were denser than the preferred type for their respective residential areas. However, the distinctive characteristics of the sites and proposed developments ensured that the required neighbourhood character outcomes could still be met. Additionally, 6% of the proposed developments were in the Strategic Investigation Sites, an 11% decline from 2023. These sites are currently outside the Housing Strategy Areas, and the *Knox Housing Strategy 2015* does not explicitly define the preferred dwelling types for these sites.

The planning permits approved in 2024 also indicated varying dwelling densities per hectare in different Housing Strategy Areas: fewer dwellings per hectare in Bush Suburban (18 dwellings) and Knox Neighbourhood (20 dwellings), and higher densities in Local Living (45 dwellings) and Activity Areas (74 dwellings). This aligns with the *Knox Housing Strategy 2015*, which aims for higher density in Local Living and Activity Areas and lower density in Bush Suburban and Knox Neighbourhood areas, respecting the neighbourhood character. However, the dwelling density per hectare in Bush Suburban areas increased significantly by 38% between 2023 and 2024. If this growth continues, the density in Bush Suburban areas could surpass that of Knox Neighbourhood areas within a decade.

## **Objective 2: Residential development responds to community needs, and allows people to age-in-place**

The 2021 census figures from the Australian Bureau of Statistics (ABS) revealed that 45.7% of households in Knox are lone person and couple-only households. In 2024, the growth in small dwellings (two bedrooms or less) declined by 11%, with only 21% of approved planning permits for small dwellings. This means the proportion of approved small dwellings in 2024 has significantly fallen behind the rising number of small households in Knox. Although there was a 14% increase in small dwellings in 2023 compared to 2022, further improvements are needed. A lower number of smaller dwellings could limit housing choices for ageing residents looking to downsize, first homebuyers, couple-only households, or anyone keen to reduce their cost of living, as housing is the largest expenditure item for most households.

Access to affordable housing remained a critical issue in Knox in 2024. Only 5 rentals (0.1%) and 6 property sales (1%) were affordable to households within the 'very low income' brackets. Low-income households had slightly more rental options, but there were very few properties available for purchase. For instance, in the 12 months prior to June 2024, low-income households could only purchase approximately 86 (15%) of the 591 properties on the market. Access to affordable rentals has been on a persistent decline since a peak in 2020. Social housing options were also extremely limited, with a substantial gap of 902 dwellings between demand and supply, which continued to widen. Knox was 298 dwellings short of the estimated minimum supply of social and affordable housing required in 2024. As of June 30, 2024, the Victorian Housing Register (VHR) documented 3,561 Priority Access and Register of Interest applicants waiting for social housing in Knox, a decline of 111 applicants from September 30, 2023. Despite this decline, the number of applicants on the VHR waiting list in Knox remains unacceptably high.

In 2024, approved planning permits yielded 39 apartments, a 34% decline from the 59 apartments approved in 2023, but an improvement over 2022, when no apartments were approved. Notably, a 96-bed residential aged-care facility was approved in 2024, unlike in 2022 and 2023. This aligns with 2021, when 214 beds in residential aged-care facilities were approved. However, residential aged care places in Knox have fallen to the national minimum benchmark of 78 places per 1,000 people aged 70 and above, highlighting the need for urgent action to address the looming crisis in the delivery of residential aged care facilities in Knox.

### **Objective 3: Energy, water, and waste efficient design are increased in residential dwellings**

The Environmental Sustainability Design (ESD) assessments, required for planning permit applications involving two or more new dwellings, indicated that all buildings assessed in 2023-24 met the best practice targets for reducing potable water consumption (25%) and greenhouse gas emissions (50%), consistent with 2022-23. The ESD data for 2023-24 showed an average reduction of 38% in potable water consumption, a slight decline from 39% in 2022-23 and 41.3% in 2021-22. In the same fiscal year, the average reduction in greenhouse gas (GHG) emissions for approved planning applications was 61%, a significant 10% decline from the 2022-23 reduction of 71%.

Additionally, the 2022-23 ESD data indicated that over 2.1 million litres of rainwater tank capacity and 740 kW of solar panels were approved for installation through the planning scheme in Knox. This compares to over 3 million litres of rainwater tank capacity and 830 kW of solar panels committed in the 2022-23 fiscal year. These declines are likely due to the 13% reduction in net total new dwellings approved in 2024 compared to 2023. Despite these declines, the reduction in GHG emissions from electricity consumption in residential buildings will contribute to Knox's efforts to achieve net zero emissions within the community by 2040.

### **Objective 4: Housing design in Knox better responds to neighbourhood identity and creates a stronger sense of place**

One way to assess the proximity of services to people is by using the Walkscore Index. New residential developments in the high Walkscore areas of Knox are more desirable because residents in these neighbourhoods have access to essential amenities and socio-economic infrastructure and services. In 2024, only 31% of the net total new dwellings approved in planning permits were in "Very walkable" locations in Knox, a significant decline from 47% in previous years. This means that 69% of the dwellings approved in 2024 had Walkscores below 70, indicating they were not in "Very walkable" areas.

It is concerning that the net total new dwellings approved in "Very walkable" areas of Knox in 2024 fell below the nine-year average of 36%. The highest percentages were 48% in both 2016 and 2019, while the lowest was 15% in 2020. Additionally, 51% of the approved net new dwellings in 2024 were in areas considered more walkable than the average score for their suburb. This represents a decline from 56%, 67%, and 59% in the post-COVID years.

### **Objective 5: Protect and enhance the landscape and environmental values of natural areas of significance**

One of the defining features of Knox is its leafy green feel, an aesthetic deeply cherished by residents. As Knox's population continues to grow, it is increasingly important to ensure that residential development does not significantly erode the area's unique and valued environmental and ecological resources. The planning permits approved in 2024 indicated that the number of dwellings per hectare was lower in the Bush Suburban and Knox Neighbourhood areas. This aligns with the *Knox Housing Strategy 2015*, which aims for higher density dwellings in Local Living and Activity Areas, and lower density development in Bush Suburban and Knox Neighbourhood areas.

No new tree canopy data has been captured beyond what was reported in the previous three years' Housing Monitoring reports. Data from the then Department of Environment, Land, Water and Planning (DELWP) in 2018 showed Knox's overall tree canopy coverage at 18%, with urban areas at 16.3%. The data also revealed a 6% decline in native vegetation cover in Knox since the late 1980s. Consequently, the *Knox Biodiversity Resilience Strategy 2024*

– 2034 recommends that Council explore and implement concrete steps to regularly map and track canopy changes over time. Collaboration with the State Government is necessary to capture new tree canopy data, as the *Plan for Victoria* targets a 30% tree canopy cover in the urban areas of Greater Melbourne.

### **Objective 6: Development responds to neighbourhoods in an integrated and balanced manner**

To achieve integrated and balanced development, Council has outlined explicit policies and strategies in the Knox Planning Scheme. Consistency between Council's planning decisions and those of the Victorian Civil and Administrative Tribunal (VCAT) is crucial for gauging alignment with the Knox Planning Scheme.

In 2024, VCAT decided on 15 residential planning application cases for Knox City Council, an increase of three cases from 2023. VCAT upheld two applications refused by Council and overturned seven refusals. Notably, all six applications approved by Council, but challenged at VCAT, were upheld. Since the adoption of the *Knox Housing Strategy 2015*, the lowest number of residential cases lodged at VCAT from Knox was in 2023, with 2021 and 2022 also recording low numbers.

It is positive that the number of VCAT cases from Knox in 2024 remains below the six-year average of approximately 24 cases. If this trend of fewer appeals continues, it may indicate that planning permit applicants and neighbours are increasingly satisfied with Council's decisions or that community members have limited capacity to engage in the planning appeal process. In most cases where Council's refusals were overturned by VCAT, applicants submitted amended applications that Council officers supported. Encouraging amendments to address objections could reduce appeals, saving time and benefiting both parties.

**Table 1. Summary of Progress Towards Housing Strategy Objectives in 2024**

Council Initiative is on Track/Achieved*		Further Improvement Required*	Results do not Indicate a Definite Direction
Objective	Indicative Result of Council's Housing Related Action	Target	Achievement Rating
1	In 2024, 136 approved permits could lead to a net increase of 333 new dwellings in Knox	N/A	
	68% of dwellings approved are consistent with their Housing Strategy Area	50%	
	Dwelling density per hectare: Bush Suburban 18, Knox Neighbourhood 20, Local Living 45, and Activity Areas 74 in 2024	N/A	
2	Dwelling diversity: Small dwellings 21%, 3 bedrooms 17%, 4+ bedrooms 62% in 2024	46% small dwellings	
	39 apartments approved in 2024; 96-bed residential aged care facility approved in 2024	N/A	
	Residential aged care places in Knox declined to the national minimum benchmark	78 RAC <sup>2</sup> places /1000 people 70yrs+	
	In 2024, critical concerns include rising housing costs, a severe shortage of affordable rental options, and a significant shortfall in social and affordable housing.	<b>298 social and affordable housing units</b> are needed to meet the minimum supply, while <b>902 dwellings</b> are required to meet the demand in 2024.	
3	In 2024, all approved developments of two or more dwellings met Environmentally Sustainable Design targets for water reduction and greenhouse gas emissions.	100%	
4	In 2024, 31% of the net new dwellings approved in Knox were located in "very walkable" areas.	50+%	
5	As of 2018, tree canopy cover in Knox stands at 18% overall, with 16.3% in its urbanized areas.	30% by 2050	
6	VCAT decided 15 residential planning applications for Knox in 2024	N/A	

\*Results influenced by property market conditions and other considerations.

It is important to clarify that the red Achievement Ratings in Table 1 above —particularly in relation to Objectives 2 and 4, which indicate that “Further Improvement is Required”—do not reflect a failure on the part of Council or its processes. For Objective 2, the delivery of small dwellings, social and affordable housing, and residential aged care (RAC) facilities is largely influenced by market dynamics. Council’s role is primarily one of advocacy—engaging with Homes Victoria for social housing and encouraging the private and not-for-profit sectors to invest in and deliver these types of housing.

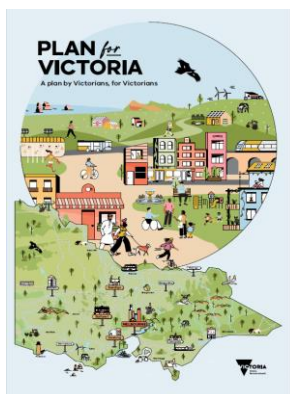
Similarly, for Objective 4, improving walkability in Knox is heavily dependent on investment in public transport and other critical social and economic infrastructure—areas that fall under the responsibility of State and Federal Governments. Council does not have the financial capacity to deliver major infrastructure projects. Instead, its role is to advocate for such investments from higher levels of government.

<sup>2</sup> RAC (Residential Aged Care)

# This Document

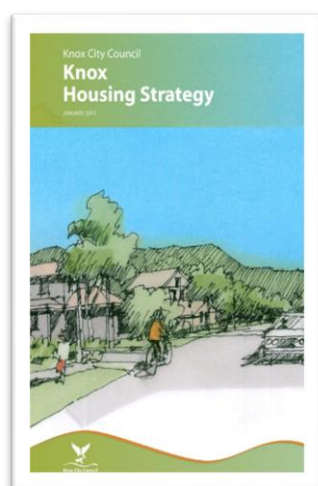
This is the 17<sup>th</sup> annual *Knox Housing Monitoring Program* report. It assesses and reports on the performance or the progress made against the six objectives of the [Knox Housing Strategy 2015](#) for the 2024 calendar year.

## Policy Context



**Plan for Victoria** is the Victorian Government's long-term plan to provide more homes, more jobs and build great communities across Victoria. The plan's five pillars for action will reshape Melbourne and Regional Victoria. It aims to create a socially inclusive, economically prosperous, and environmentally resilient Victoria, connected to global opportunities for all Victorians. Pillar 1 and 3 of the Plan are particularly relevant for housing in Knox – as they are focused on the delivery of more diverse housing choices that are affordable, and located in vibrant, resilient and inclusive suburbs, towns and neighbourhoods. The Plan highlights the need for 2.24 million additional homes in Victoria over the next 30 years and sets out housing targets for each local government area.

The **Knox Housing Strategy 2015** is directly consistent with Pillar 1 and 3 of [Plan for Victoria](#) in terms of the proposal to provide a diversity of housing in the appropriate locations. The overall vision of the *Knox Housing Strategy 2015* is expected to be achieved through six interrelated objectives: an approach to residential development to accommodate population growth and the community's changing housing needs. The adoption of this balanced approach recognises that some parts of Knox will need to accommodate change, and in other areas change should be gradual and limited in order to protect and enhance Knox's green and leafy character and areas of significance.



**Objective 1:** A diversity of housing is provided in appropriate locations.

**Objective 2:** Residential development better responds to the community's current and future needs and allows people to age-in-place.

**Objective 3:** Energy, water, and waste efficient design is increased in dwellings.

**Objective 4:** Housing design better responds to neighbourhood identity and creates a stronger sense of place.

**Objective 5:** Protect and enhance the landscape and environmental values of natural areas of significance.

**Objective 6:** Development responds to neighbourhoods in an integrated and balanced manner.

The *Knox Housing Strategy 2015* splits Knox into four Housing Strategy areas – Bush Suburban, Knox Neighbourhood, Local Living, and Activity Areas (See Map 1) – and provides clear guidance on what types of dwellings are preferred and permissible in each area.

Each area has different levels of anticipated change and different types of preferred dwellings:

- **Bush Suburban** and **Knox Neighbourhood** areas are expected to undergo less change, preserving areas of environmental significance (including native vegetation and wildlife habitat), landscape value and neighbourhood character.
- **Local Living** and **Activity Areas** are expected to see more change, accommodating medium and higher density development to provide additional housing capacity and choice, to serve the municipality's changing housing needs.

Important strategic documents of Knox City Council such as the Community Plan and the Council Plan both underscore the continuing importance of housing as a critical area of focus for Council. A key direction of the [Community Plan 2021-2031](#) and the [Council Plan 2021-2025](#) is "*Neighbourhoods, housing and infrastructure*". This key direction expressly focuses attention on supporting a greater diversity in the housing mix within Knox, and ensuring better access to public transport among others, as important outcomes. The *Council Plan 2021-2025* commits Council to several actions to achieve positive housing outcomes for the community, including commencing a review of the *Knox Housing Strategy 2015* (currently underway), and Council's adoption of the [Knox Social and Affordable Housing Strategy and Action Plan 2023 – 2027](#) to increase the supply of social and affordable housing, as a key and concrete step towards addressing homelessness in Knox.

# A Note on Total versus Net Dwelling Changes

Approved planning permits for subdivisions and additional dwellings (not including planning permits for one new dwelling) are used in this report as an indicator of what dwellings are likely to be built, and where<sup>3</sup>. Two approaches for counting the number of dwellings approved in planning permits are used in this report:

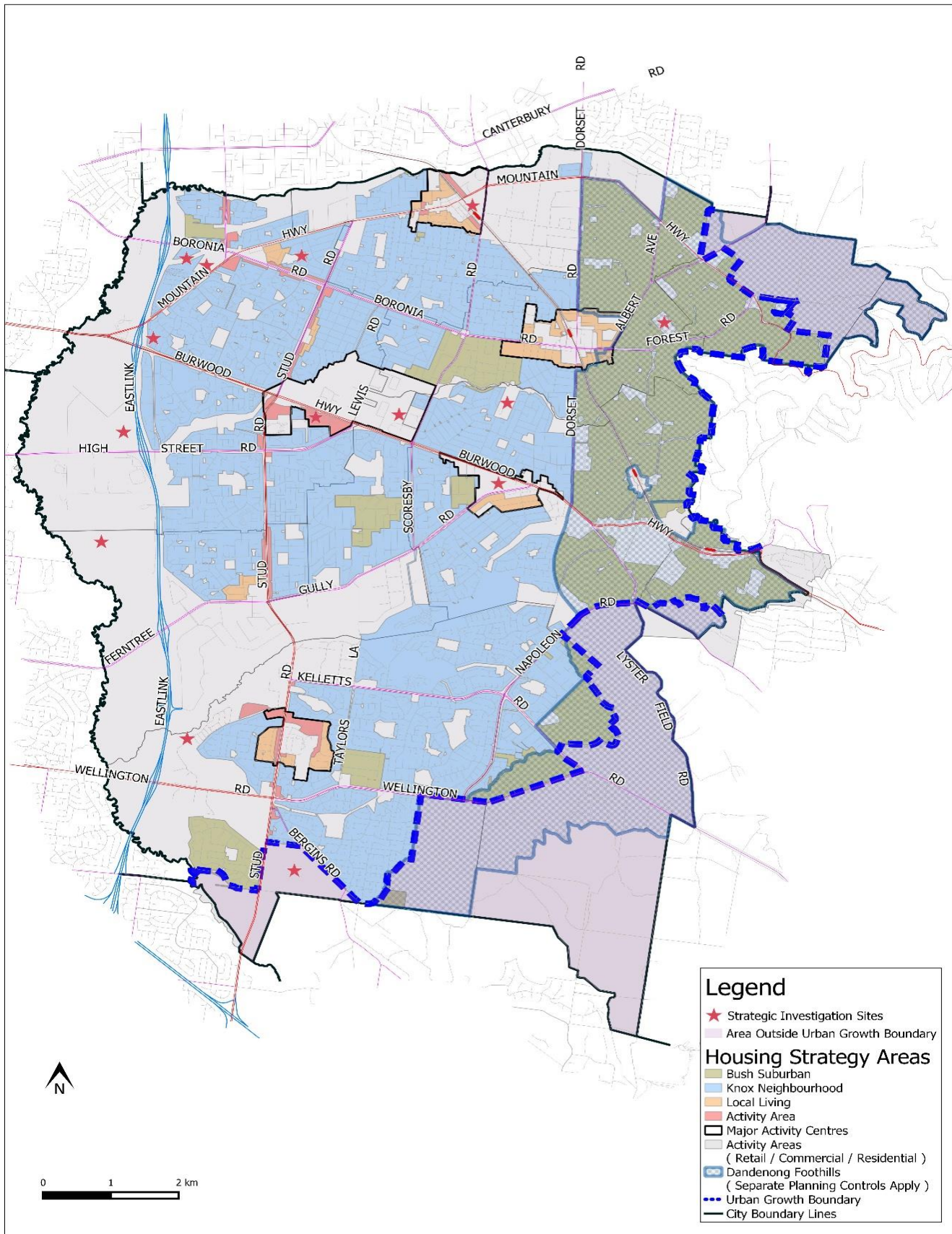
- **Total new dwellings** are all new dwellings possible from approved planning permits. This measure does not account for demolitions and provides the best information about the size and type of dwellings being approved. Total new dwellings are used to demonstrate how permit approvals align with the objectives of the *Knox Housing Strategy 2015*.
- **Net new dwellings** are the increase in dwellings possible from approved planning permits, beyond what exists in Knox already. It subtracts demolitions from total new dwellings. Net new dwellings is a measure of growth in Knox's housing supply.

For example, an approved planning permit to replace a detached house with five new townhouses would be counted as five total new townhouses and an increase of four net new dwellings.

---

<sup>3</sup> Approved planning permits are indicative of what may be built, but not all planning permits are enacted. Planning permits usually expire after two years (if not commenced), although extensions can be granted for an additional two years.

**Map 1. Residential Areas as defined in the Knox Housing Strategy 2015 and the 14 Strategic Investigation Sites**



# Overview of Planning Permits Approved in 2024

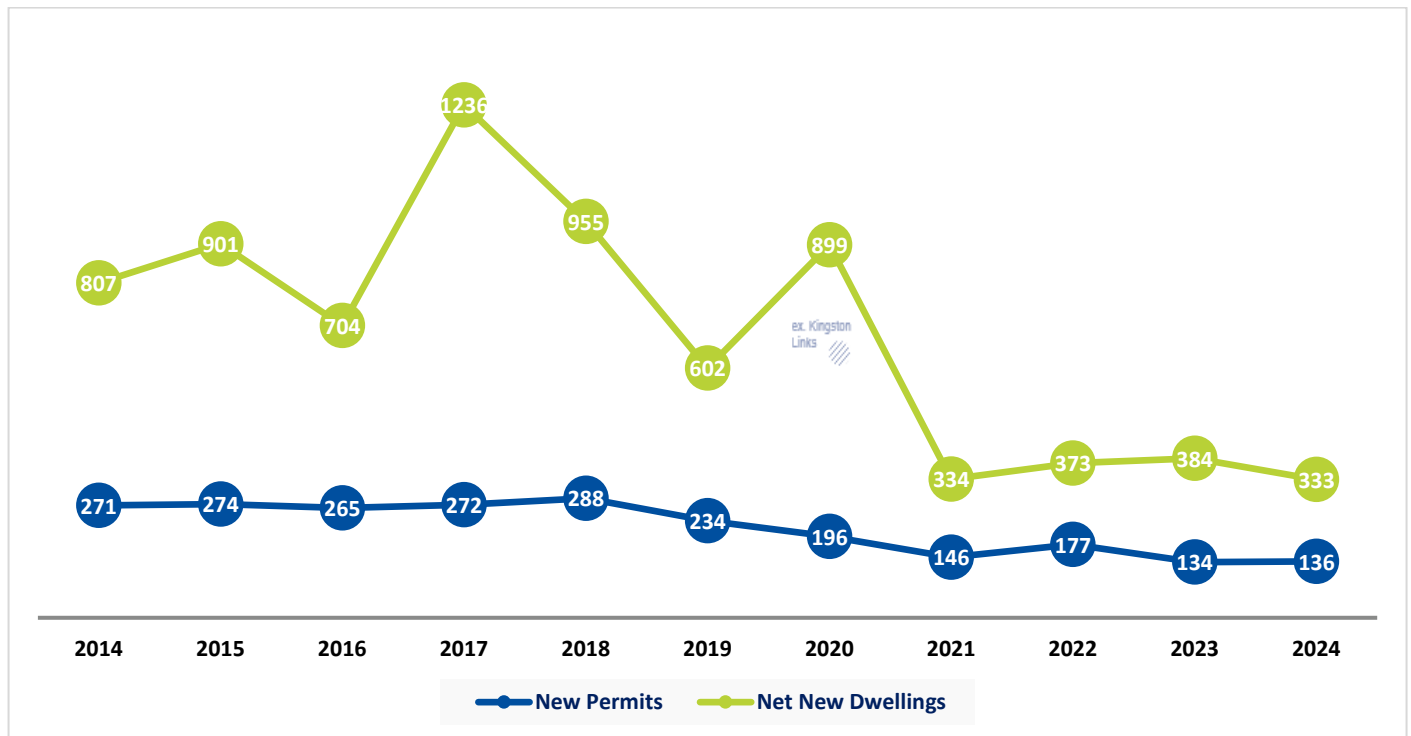
136	planning permits resulting in at least one additional dwelling were approved in 2024. This continues the trend of low approvals since 2021. It was expected that planning approvals will bounce back post-COVID, but this has not happened yet.
333	net new dwellings are possible from the planning permits approved in 2024; this is lower than the 2023 figure by 51 dwellings.
99	proposed demolitions possible from approved permits in 2024.
96	beds in residential aged care facilities approved in planning permits in 2024. In 2022 and 2023, no residential aged care facility was also approved in planning permits.
62%	of net new dwellings possible from approved planning permits were in Boronia, Bayswater and Rowville. No single dwelling approved in Upper Ferntree Gully in 2024.
39	apartments were approved in planning permits in 2024. This is lower than the 59 apartments approved in planning permits in 2023. In 2022, no apartments were approved in planning permits. Only four apartments were approved in 2021.

From Figure 1, the potential net growth in dwellings from planning permits approved<sup>4</sup> in 2024 was the lowest in the past 11 years. Notably, this figure is just one dwelling lower than the net new dwellings in 2021. The number of new dwellings this year, as well as in the past three years, is significantly lower compared to the approvals between 2014 and 2020. After a significant drop in 2021, there was a very gradual recovery in the growth of net new dwellings in Knox, but this trend reversed during 2024.

<sup>4</sup> This includes planning permits approved by Council at the direction of VCAT.

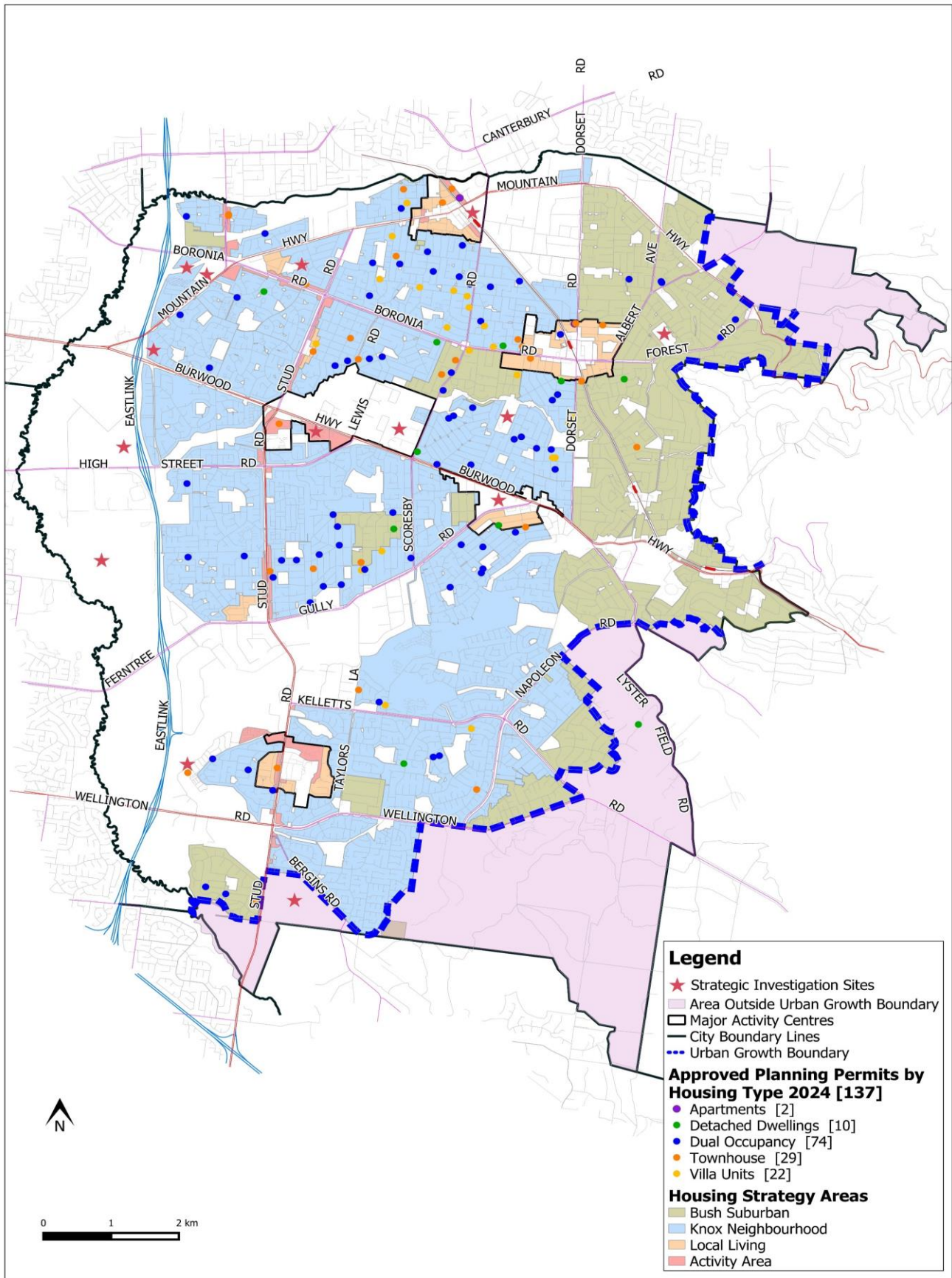
**Figure 1. Approved Planning Permits and possible Net Growth in Dwellings**

The number of approved planning permits yielding at least one new dwelling, and possible net growth in dwellings from these permits were the lowest in over a decade (since 2014).



### Map 2. Planning Permits Approved in 2024

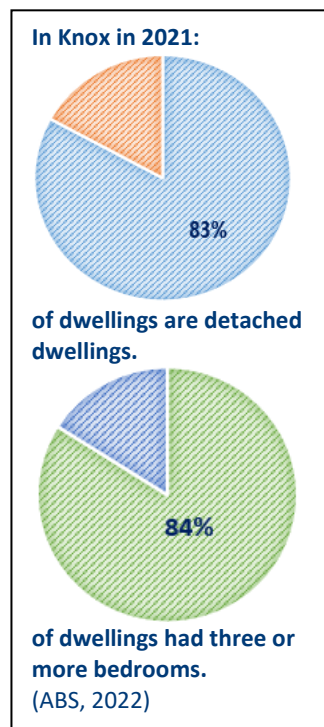
These permits will result in at least one additional dwelling if implemented



# Objective 1 - A diversity of housing is provided in appropriate locations

## Why is this Objective Important?

A greater diversity of accessible housing is needed to change the current household sizes and structure in Knox. Within Knox, 83% of dwellings are detached dwellings with 84% being houses of three bedrooms or more (ABS, 2022). The *Knox Housing Strategy 2015* and the *Council Plan 2021-2025* are addressing this by encouraging the development of diverse types and sizes of dwellings to meet the changing needs of the Knox municipality. Although the demand for larger detached houses in Knox is likely to continue, having a mix of housing options ensures that Council caters to the needs of present and future residents at all stages of life and of diverse socio-economic status. Having diverse housing could also contribute to a multi-faceted and vibrant community. Council also seeks to protect and improve the “green and leafy” character of Knox that the community values. This requires encouraging the development of diverse housing with increased densities in Activity Areas and Local Living areas (close to transport, shops and services) to provide more housing choices, while discouraging intensive development in Bush Suburban and Knox Neighbourhood areas, to preserve these neighbourhoods’ green and leafy character and areas of environmental significance. In other words, the different types of housing development need to align with the character of the different neighbourhoods. Whilst housing diversity is critically important, the provision of diverse dwelling types should not unduly compromise the character of the neighbourhoods and suburbs of Knox.



## How are we Tracking this Objective?

Of the planning permits approved in 2024, Townhouses<sup>5</sup> constituted 38% (a decline from 42% in 2023 and 55% in 2022) of the total new dwellings approved (see Figure 2). Apart from 2020, townhouses have always been the predominant housing typology in Knox since 2015. The classification illustrates that, out of the 27 townhouse developments approved in planning permits, 14 permits were approved for four dwellings or less, and 13 were five dwellings or more.

The Housing Strategy identifies preferred housing types for the existing residential areas in Knox. The proposed location of approved dwelling applications gives an indication as to whether the preferred sites for the different housing typology is being followed. This report gives a detailed account of this. Table 2 displays the number of dwellings in approved planning permits and the preferred dwelling typology for each of the four Housing Strategy Areas, as well as areas outside the Urban Growth Boundary and Commercial Areas. Some villa units were approved in the Bush Suburban and Knox Neighbourhood areas (Lots under 1,000m<sup>2</sup>); townhouses were also approved in Knox Neighbourhood areas (Lots under 1,000m<sup>2</sup> and Lots over 1,000m<sup>2</sup>). Apartments were also approved in Local Living areas. Although these were not the preferred dwelling types in these areas, the distinctive characteristics of these sites

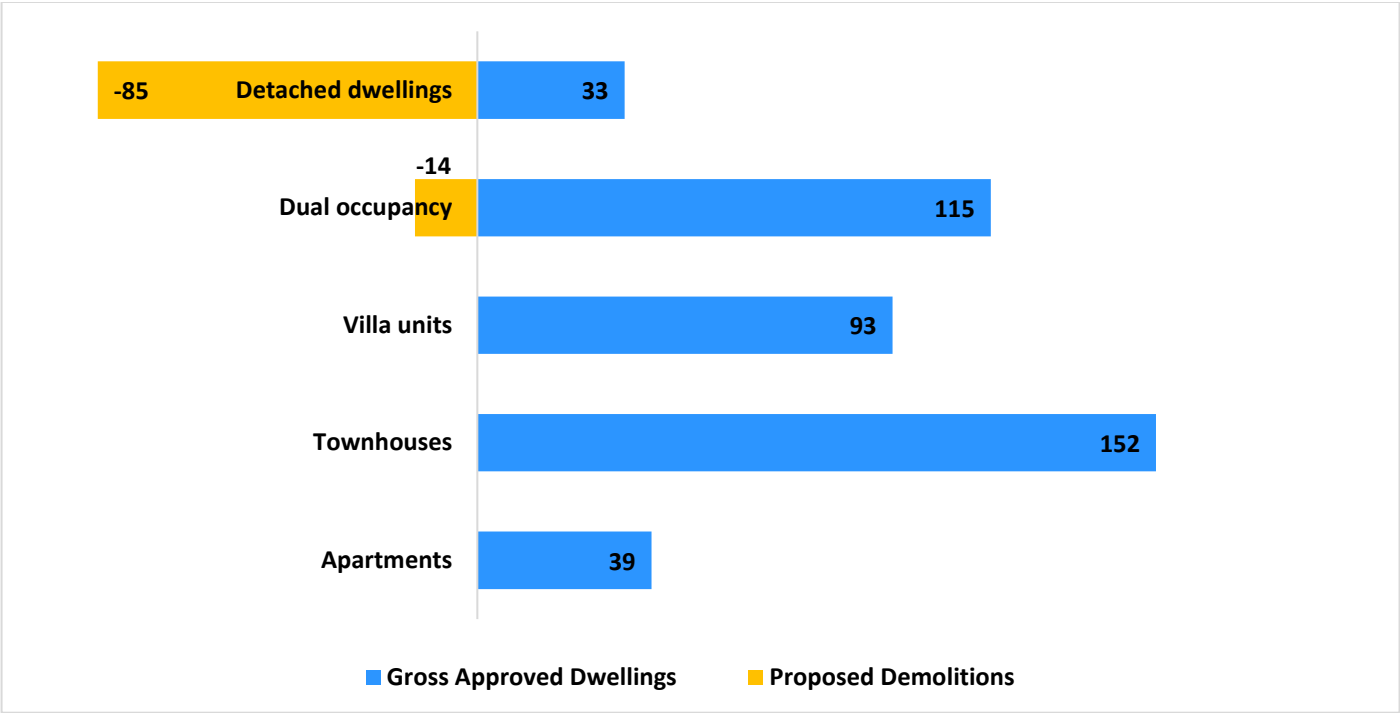
<sup>5</sup> See Attachment 1 for the definition of dwelling type.

and/or the proposed developments, could still produce the preferred neighbourhood and landscape character outcomes.




















The percentage of total new dwellings that were the preferred dwelling type is presented in Figure 3. While Figure 4 displays the total number of new dwellings approved per hectare in each of the four Housing Strategy Areas. See Attachment 2 for the trend analysis of the net growth in dwellings, by type, over the past 10 years.

**Figure 2. Total New Dwellings and Demolitions by Approved Planning Permits**

In 2024, townhouses were again the most common dwelling type, making up over 35% of **total new dwellings in approved planning permits**. Additionally, **all but 14 demolitions in these permits** involved detached dwellings.

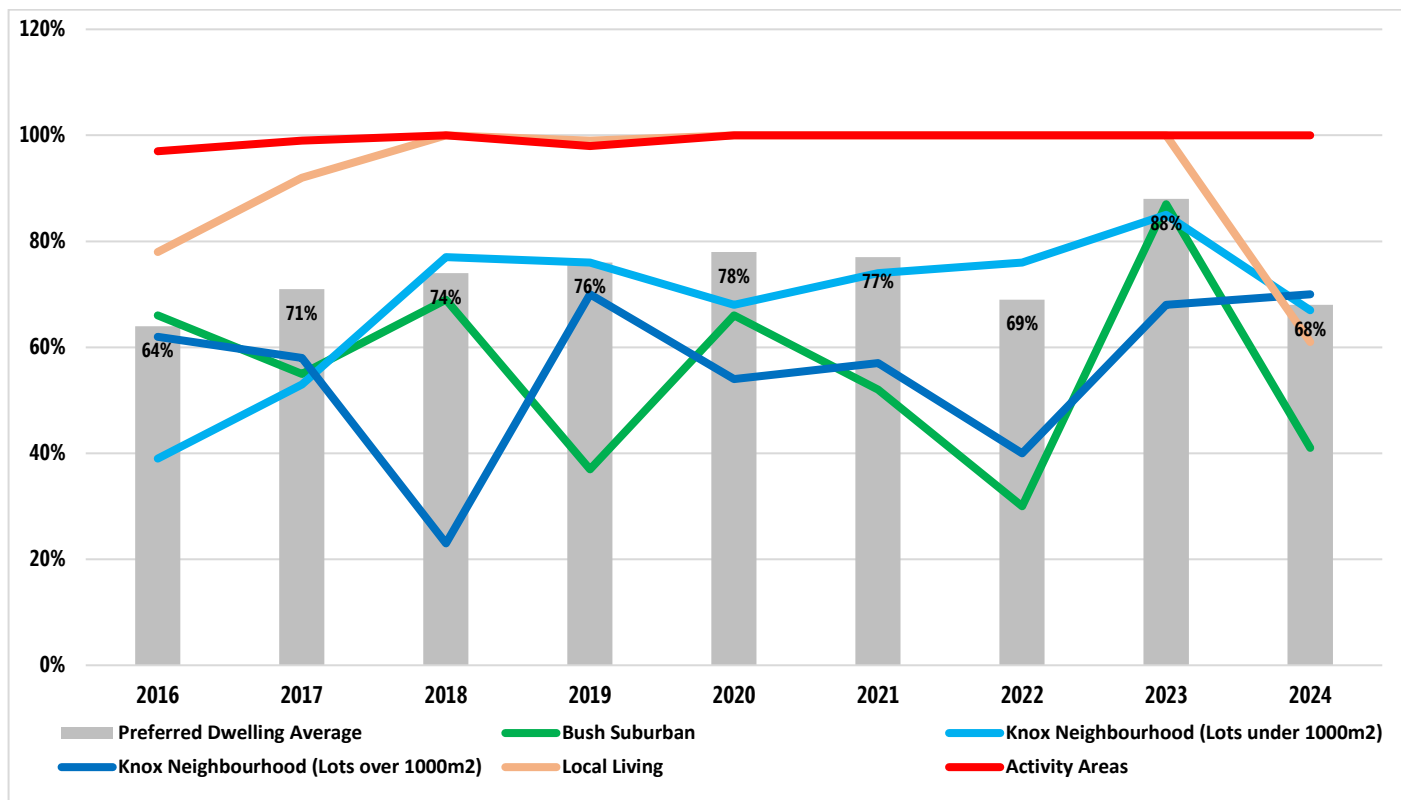


**Table 2. Number of new Dwellings by Typology in Knox Housing Strategy Area**

Area Type		Net New dwellings	Total new dwellings	Detached dwellings	Dual Occupancy	Villa units	Townhouses	Apartments /Mixed used
Outside Housing Strategy Areas	All lots - includes rural and other zones	25	25	1	0	0	24	0
Bush Suburban	All lots - min. subdivision	33	46	 4	 15	14	13	0
Knox Neighbourhood	Lots under 1000m <sup>2</sup>	99	150	 7	 93	30	20	0
	Lots over 1000m <sup>2</sup>	57	72	 17	 5	 45	5	0
Local Living	All lots - additional controls	64	74	 4	 2	 4	 39	25
Activity Areas	All lots - additional controls from local plans may apply	55	65	 0	 0	 0	 51	 14
Commercial Areas	All lots - additional controls from local plans may apply	0	0	0	0	0	0	0
 PREFERRED HOUSING TYPE  PERMISSIBLE BUT NOT PREFERRED  NON-PREFERRED HOUSING TYPE								

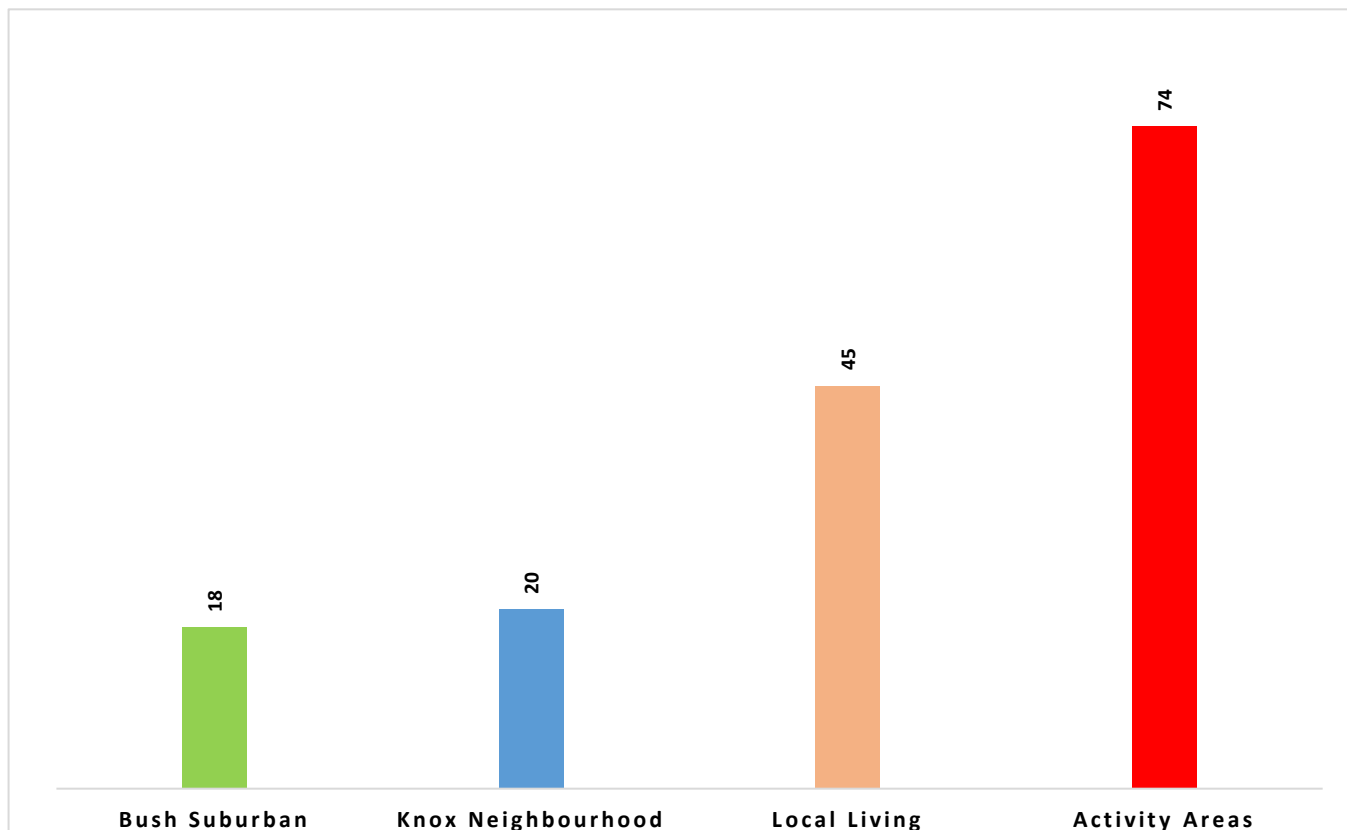
### Figure 3. Preferred Dwellings in Housing Strategy Areas

Almost all new dwellings approved in **Activity Areas** since 2018 have been the preferred type for the Housing Strategy Areas in which they are located.



### Figure 4. Dwelling Units per Hectare in Housing Strategy Areas

In 2024, the number of new dwelling units per hectare approved was significantly higher in **Local Living** and **Activity Areas** compared to the **Bush Suburban** area



The dwelling unit per hectare chart (Figure 4) above depicts a residential development trend that aligns with the approach to housing development described in the *Knox Housing Strategy 2015* – where low scale development is encouraged in Bush Suburban and Knox Neighbourhood areas, and high scale development is preferred in Local Living and Activity Areas.

## Analysis

A net loss of detached dwellings was observed, based on the analysis of the planning permits approved in 2024. However, this trend has continued since 2015<sup>6</sup>, apart from 2020 where there was a net increase in detached dwellings (see Attachment 2 for a time series graph). It is pertinent to note that planning permits approved in 2024 recorded the third lowest net loss in detached dwellings since 2015 (Some demolitions of detached dwellings between 2015 and 2018 may also include dual occupancy dwellings due to differences in accounting methods).

Since 2015, Townhouses have been the most prevalent dwelling typology approved in planning permits. The only discontinuation in this trend was in 2020 where the approved subdivision of the former Kingston Links Golf Club site, resulted in approximately 500 new detached dwellings, which essentially put detached dwellings ahead of townhouses for that year<sup>7</sup>. To be precise, 35% of the total new dwellings approved in planning permits in 2024 were townhouses. This is however a decline from the 2022 and 2023 figures, where townhouses constituted 55% and 42% of total dwellings approved in Knox respectively.

Although 39 apartments were approved in planning permits in 2024, this represents a decline of 20 apartments as compared to the approvals in 2023. However, this decline is still better than 2022 where no single apartment was approved. Interestingly, a 96-bed residential aged care facility was approved in planning permits in 2024. This is a significant departure from 2023 and 2022 where no residential aged care facility was approved in planning permits. This approval of residential aged care facilities marks a return to the trends in recent years<sup>8</sup> (2019, 2020 and 2021).

Over the past nine years, the second lowest average score (68%) for the preferred dwelling typology in the four<sup>9</sup> main Knox Housing Strategy areas was recorded in 2024 planning permit approvals. In contrast, the highest average score was achieved in 2023, with 88% of approved dwellings aligning with the preferred typology. The lowest average score of 64% was recorded in 2016. There was an incremental improvement in the alignment of approved dwellings with the preferred housing strategy areas from 2016 to 2020. However, this trend reversed between 2021 and 2024, except for 2023. Further investigation is needed to fully understand the cause of this declining trend.

In 2024, the preferred dwellings approved in Bush Suburban areas, small lot Knox Neighbourhood areas and Local Living areas have witnessed significant decline, compared to 2023. Large lot Knox Neighbourhood areas however recorded a marginal improvement over its 2023 outcome. Unfortunately, preferred dwellings approved in Local Living areas recorded its lowest performance since the implementation of the *Knox Housing Strategy 2015* in 2016.

In consonance with past trends (except in 2016, 2017 and 2019) all dwellings approved in planning permits in 2024 in Activity Areas were the preferred dwelling typology.

---

<sup>6</sup> However, it is important to note that between 2015 to 2018 all proposed demolitions in planning permits were assumed to be detached dwellings. This is not entirely the case. For instance, between 2022 and 2024, on average 92% of dwellings proposed to be demolished were detached dwellings. This means, on average 8% of proposed demolitions in planning permits were dual occupancy within the same timeframe.

<sup>7</sup> Development at Kingston Link is shown in Figure 1. These dwellings were not counted among the 899 approved dwellings in 2020.

<sup>8</sup> There were 230 rooms, 226 rooms and 214 rooms in residential aged care approved in Knox in planning permits in 2019, 2020 and 2021 respectively.

<sup>9</sup> Although we have four housing strategy areas, Knox Neighbourhood area is sub-divided into Small (Lots under 1,000m<sup>2</sup> and Large (Lots over 1,000m<sup>2</sup>). Different dwellings are therefore preferred in the two.

A positive development was observed with respect to dwellings approved outside the housing strategy area (HSA) in 2014. That is, only 6% of dwellings were approved outside the HSA. This constitutes an 11% reduction from the 2023 figure of 17% of the proposed development approved in planning permits located outside the four main housing strategy areas of Knox, within the Strategic Investigation Sites. As there is no clear guidance as to what dwelling typology is preferred in the Strategic Investigation Sites identified in the *Knox Housing Strategy 2015*, a future Council initiative would be to clearly define the preferred dwelling topology in these sites. The ongoing review of the *Knox Housing Strategy 2015* will address this lacuna.

In conformity to previous developments, the planning permits approved in 2024 will also produce fewer dwellings per hectare in Bush Suburban and Knox Neighbourhood; and more dwellings per hectare in the Local Living and Activity areas (see Figure 4 for more details). This outcome aligns with the direction of the *Knox Housing Strategy 2015*, resulting in higher density dwellings in the Local Living and Activity Areas, and lower density development in Bush Suburban areas and Knox Neighbourhood areas. This means the neighbourhood and landscape character of these areas will be respected.

To put the paragraph above into practical perspective, the average dwelling in a Bush Suburban area is on a larger parcel of land ( $\sim 549\text{m}^2$ ) compared to a dwelling in Activity Areas ( $\sim 135\text{m}^2$ )<sup>10</sup>. For the associated graph see Figure 18 (Attachment 2). This provides the required space for canopy trees to be retained or planted in the Bush Suburban areas, compared to Activity Areas or Local Living areas. Also, areas of biological significance will be protected in the Bush Suburban areas as envisaged by the *Knox Housing Strategy 2015*. In effect, this is a positive outcome.

Between 2023 and 2024, the number of dwelling units per hectare have decreased by 5% and 17% in Knox Neighbourhood areas and Local Living areas respectively. This is a clear departure from the trend between 2022 and 2023 where increases were noticed in all the four HSAs. However, the dwelling density per hectare in the Bush Suburban areas increased significantly by 38% within the same period<sup>11</sup>. If this margin of growth in dwelling density continues in the Bush Suburban areas, the dwelling density per hectare in the area is more likely to surpass the density in the Knox Neighbourhood areas within a decade. If this happens, it will not be the preferred pattern of growth in Bush Suburban areas, since significant biological (flora and fauna) and landscape values of Knox will be affected by residential development.

Coincidentally, the dwelling units per hectare in the Local Living areas also increased by 38% between 2022 and 2023. This was an unusual and unsustainable spike in dwelling density in the area. It is therefore not surprising that this surge has reversed between 2023 and 2024.

---

<sup>10</sup> In 2024, the number of square metres per dwelling unit are as follows: Bush Suburban ( $549\text{m}^2$ ); Knox Neighbourhood ( $499\text{m}^2$ ); Local Living ( $220\text{m}^2$ ) and Activity Areas ( $135\text{m}^2$ ).

<sup>11</sup> Activity Areas witnessed a 6% increase in dwelling units per hectare between 2023 and 2024.

## Objective 2 - Residential development better responds to the community's needs, and allows people to age-in-place

### Why is this Objective Important?

Housing development needs to provide more choices and more opportunities for Knox residents to live in an affordable home that suits them at all stages of life. Knox critically needs more small houses (one to two bedrooms), now and in the future, to accommodate the growing number of smaller households. This is essential because almost 50% of households in Knox are projected to be couple only and lone person households by 2031 ([Forecast.id](#), 2022). This forecast implies that couple only and lone person households will surpass households with children. To tackle this issue, the *Knox Housing Strategy 2015* proposes to align the mix of available dwellings with the current and future housing needs of the community – by directly encouraging the development of more small dwellings that can meet the housing needs of small households and improve affordability. Affordability is particularly important as larger detached dwellings are becoming increasingly out of reach for a greater proportion of new homebuyers. Smaller dwellings tend to be relatively less expensive to purchase and maintain, which provides more flexibility and choices for young people looking to get into the housing market, elderly residents planning to downsize, and anyone else looking to reduce their expenditure on housing or their cost of living more broadly.



**By 2031 almost 50% of households in Knox will be couple only and lone person households**  
(Knox Forecast.id. 2022)

It is particularly important that Knox residents can remain part of their community as they age (aging-in-place), rather than be pushed to relocate or find suitable and affordable accommodation out of the municipality. If a significant number of smaller houses are provided in Knox, the housing needs of many residents will be met. The provision of smaller dwellings and residential aged care homes, directly contribute to making housing available to homebuyers seeking smaller dwellings and the elderly seeking to downsize.

### How are we Tracking this Objective?

#### Knox Housing Capacity

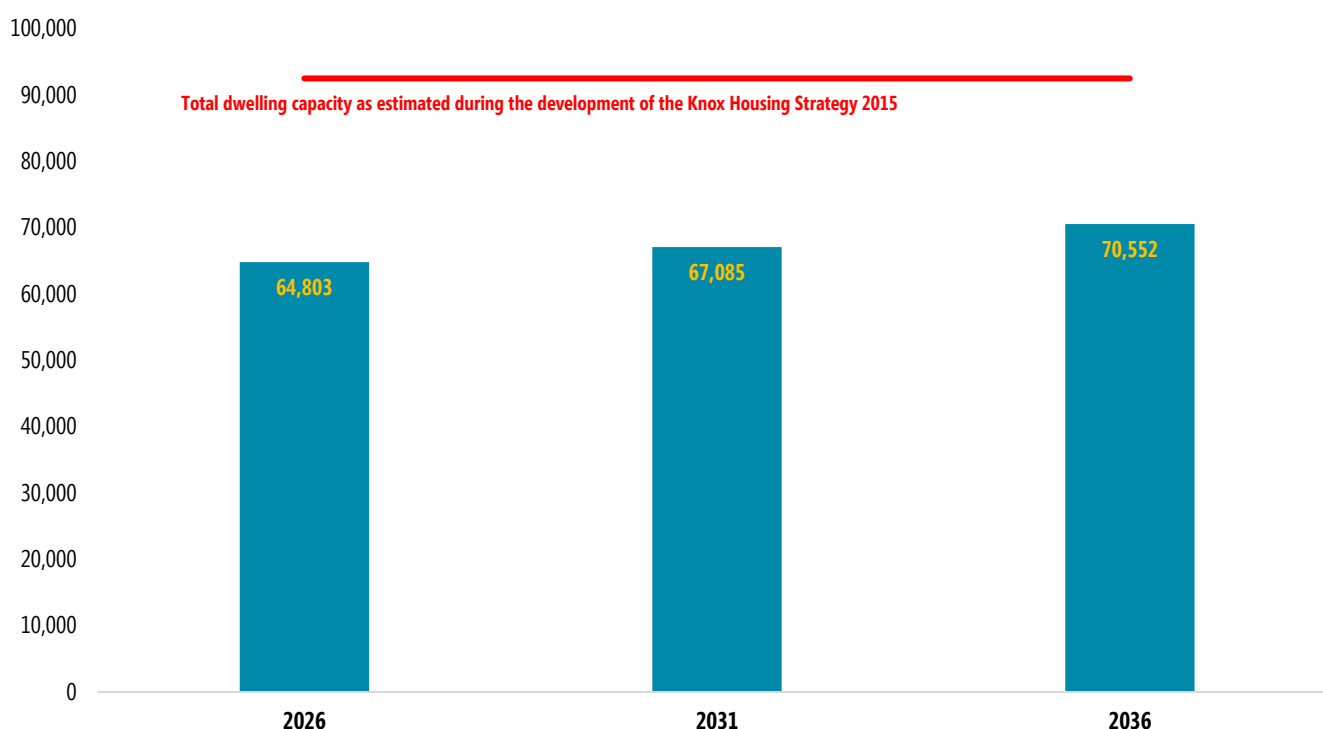
The understanding of Knox's capacity to accommodate more dwellings in the future is of great importance in the residential development in the municipality. In furtherance of this, the *Knox Housing Strategy 2015* estimated that theoretically, Knox had the capacity to accommodate 36,362 additional dwellings (in addition to the existing dwellings in Knox as of 2015), giving a total of 92,500 dwellings (see Figure 5) if each lot was developed to its full capacity within the constraints and parameters of the Knox Planning Scheme as of 2015. Based on the Victorian Government's *Victoria in Future* (VIF) projections<sup>12</sup> ([DTP, 2023](#)), future housing growth can be accommodated within the estimated capacity in the *Knox Housing Strategy 2015* until 2036, and probably beyond (see Figure 5). These capacity estimates are based

<sup>12</sup> VIF dwelling projections are applied here as they are calculated using a top-down approach. In contrast to the forecasting method employed by id Consulting Pty Ltd (abbreviated as .id in some sections of this report) on behalf of Council, in which only local factors are considered, the VIF projections include assumptions about state level growth and allocate this to local government areas.

on broad assumptions made within the policy context of the *Knox Housing Strategy 2015*, the [Knox Residential Design Guidelines 2015](#), the *Knox Planning Scheme* and other relevant Council plans or documents. Therefore, these estimates could change if any of the documents that underpinned or informed the projections were to be significantly revised. As the *Knox Housing Strategy 2015* is currently being reviewed, some future changes may occur. In fact, a new housing capacity assessment<sup>13</sup> conducted on behalf of Council demonstrates that Knox has a net capacity of 34,238 additional dwellings as of 2036 and 28,277 additional dwellings as of 2051. More importantly, the Victorian Government through the [Plan for Victoria](#) has set a target of 43,000 additional dwellings to be built in Knox by 2051 (Department of Transport and Planning, 2025, p. 31).

### Figure 5. Forecast Dwelling Capacity in Knox

The current **VIF forecast for dwelling capacity** in Knox aligns with the **estimated capacity** outlined in the *Knox Housing Strategy 2015* and can be accommodated within applicable planning provisions



Since the above projections are based on ‘*theoretical*’ assumptions, it is important to test these projections against reality. In this regard, projected dwelling growth needs to be analysed against actual housing development data in recent years. To actualise this, one effective method of assessing the actual number of new dwellings built in Knox against the forecast housing figures, is to analyse the data on building permits in Knox. It is worth clarifying that building permits affirm that housing development plans and specifications fully comply with building regulations and pave the way for building work to commence on site. In this purview, building permits are therefore a more suitable and reliable indicator of actual dwelling growth than planning permits. This is because planning permits basically show what could potentially be built, in the next two to 4-year window, if approved plans are enacted fully.

An analysis of building approvals data from the Australian Bureau of Statistics (ABS) demonstrates that building permits were granted for the construction of a total of 6,339 dwellings in Knox between 2017 and 2024 – 8 years (ABS, 2025). A breakdown of the total figure annually, is equivalent to an annual average of 800 dwellings approved per year. However, this average annual building approval figure is misleading as it overestimates the real or net increase in

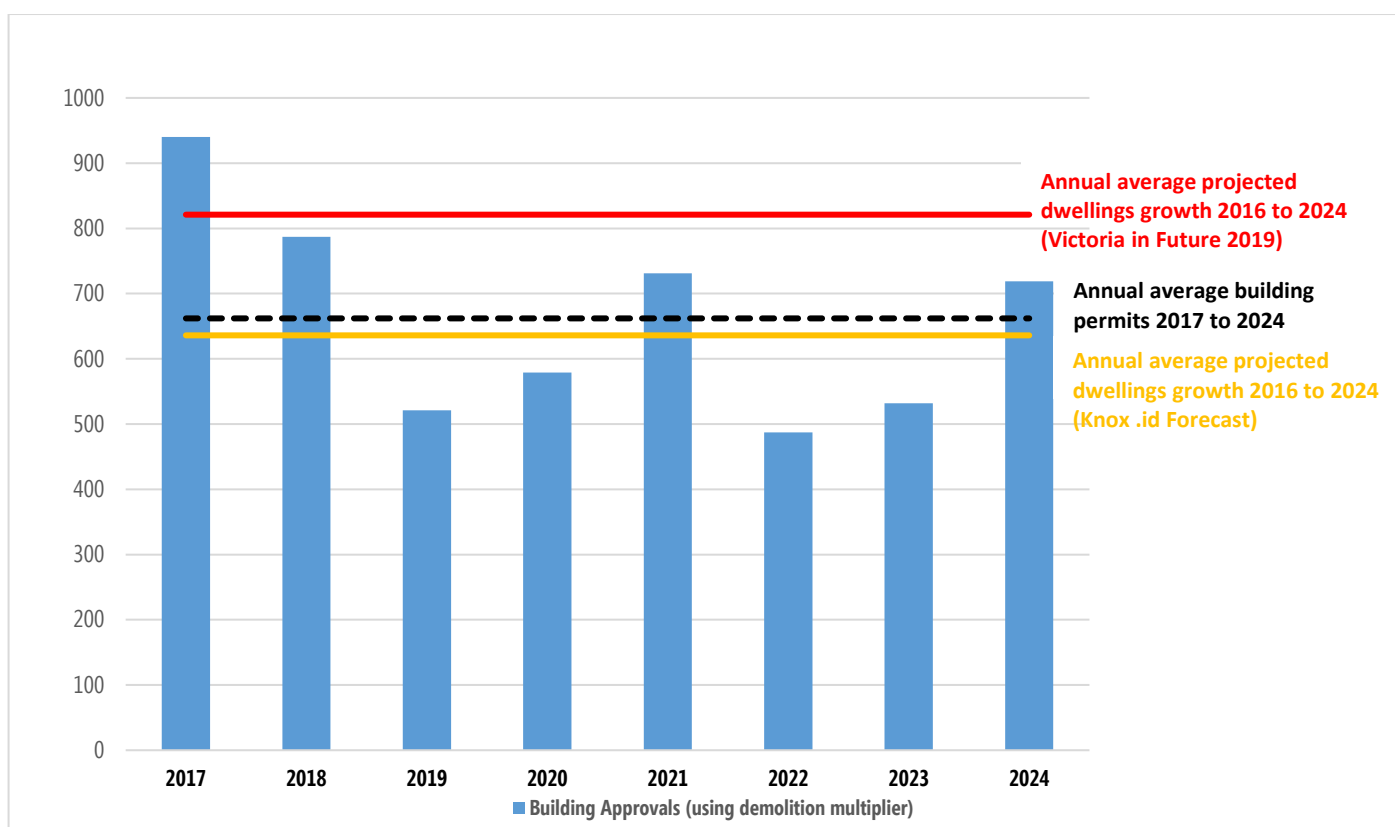
<sup>13</sup> The Housing Capacity Assessment was done to inform the ongoing Review of the *Knox Housing Strategy 2015*. This means the new housing capacity assessed will be officially featured in the Revised Strategy.

dwelling because the ABS building permit data does not usually take into consideration demolitions<sup>14</sup>. Therefore, to correctly determine the actual number of dwellings to be built, it is important to estimate the number of dwellings that were demolished within the same time frame. So, to estimate the number of dwellings that were demolished to make space for the new dwellings in building permits, the correlation between new dwellings and demolitions in approved planning permits has been used as a proxy in this report.

Based on the analysis, there was one dwelling demolished for every 5.8 dwellings (approximately 6 dwellings) approved in planning permits over the last eight years, that is 2017 to 2024. Applying this rate to building permits yields an annual average of 662 new dwellings per year, constructed within Knox between 2017 and 2024. It is worth noting that this figure falls between the forecast of 821 new dwellings annually by the Victorian Government in the *Victoria in Future* projections and the forecast of 636 new dwellings per year calculated by id Consulting Pty Ltd<sup>15</sup> on the Council's behalf (For details, see Figure 6 below)<sup>16</sup>. This implies that the estimate applied in this report is reliable<sup>17</sup> in relative terms.

### Figure 6. Annual Average Building Permits Growth versus Projected Dwellings Growth in Knox

The **number of new dwellings** in Knox, based on building permits (adjusted for demolitions), aligns broadly with the growth projections from the Victorian Government and an independent forecast commissioned by Council.



Housing typology is the next issue of focus. The ABS 2021 Census data (published in 2022) revealed that lone person and couple only households are almost half (45.7%) of all households in Knox. Despite this, over the past seven years

<sup>14</sup> But from the planning permit we know that some existing dwellings are demolished for the construction of new ones.

<sup>15</sup> id Consulting Pty Ltd is abbreviated as .id in some sections of this report.

<sup>16</sup> The significant alignment between building permit data and the dwelling forecasts prepared by the Victorian Government on behalf of Council is anticipated because building approvals are taken into consideration in computing these forecasts.

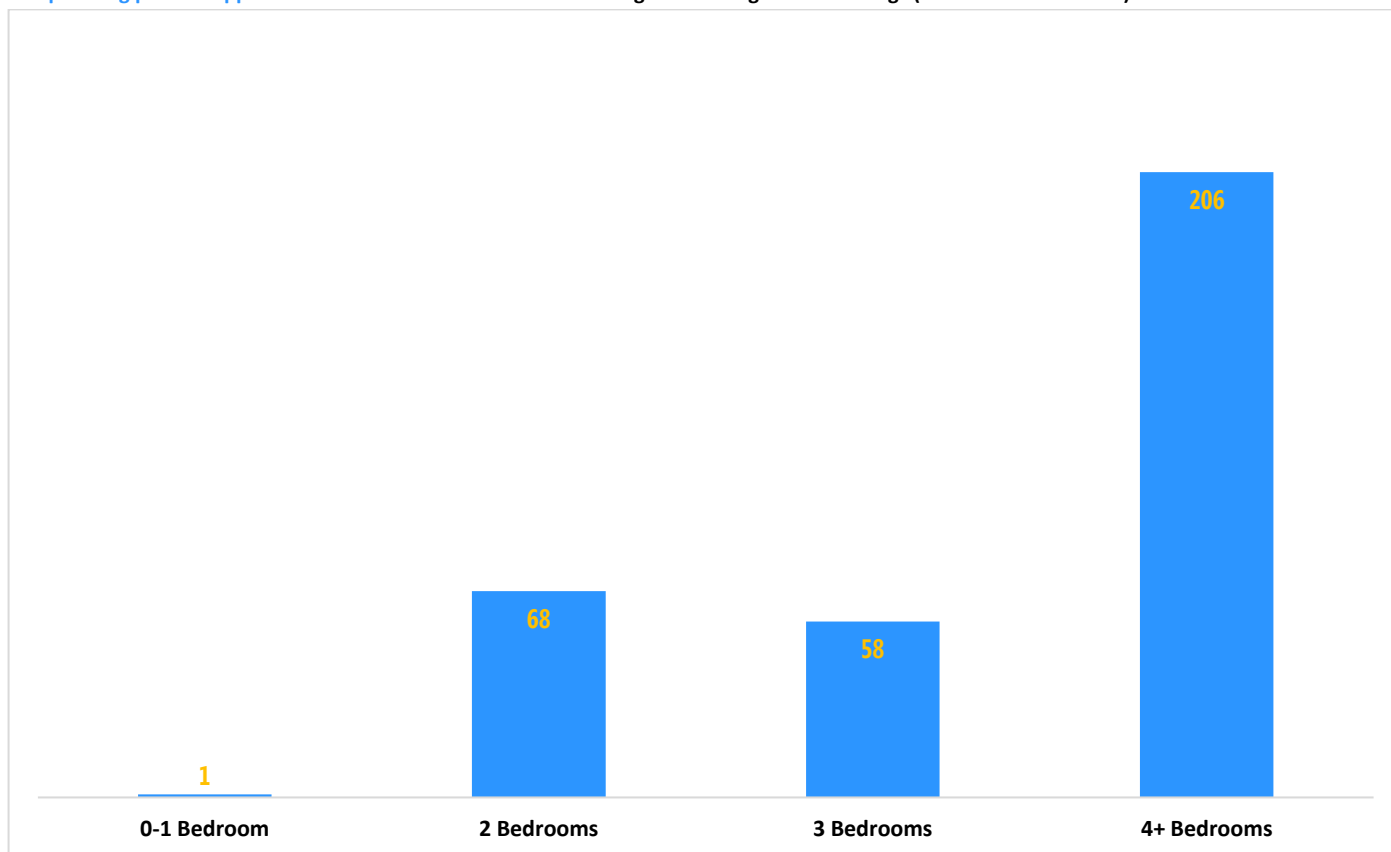
<sup>17</sup> At least using the planning permits to demolition ratio and transferring that to building permits.

2018-2024), large dwellings of three or more bedrooms were more prevalent in approved planning permits than other dwelling sizes. For instance, in 2024, nearly 80% (79%) of approved net new dwellings were large dwellings – three or more bedrooms (See Figure 7). This constitutes an 11% decline from 2023, where 68% were large dwellings. But in 2022, over 80% of net new dwellings were large dwellings. Showing that the drop in large dwellings in 2023 was not the usual trend in recent years.

An insignificant proportion (21%) of approved dwellings were small dwellings (two bedrooms or less) in 2024. In terms of the actual numbers, a net total of 69 new small dwellings were approved in planning permits in Knox in 2024. Compared to 2023, small dwellings were 32% (122 dwellings). The 2024 proportion of small dwelling is the third lowest figure since 2016 (See Figure 8). The lowest share (13%) of small dwellings in approved planning permits was recorded in 2020. Remarkably, the highest proportion of small dwellings was noted in 2017 with 50% of approved dwellings in planning permits being small houses.

### Figure 7. Net Growth in Dwellings by Bedrooms

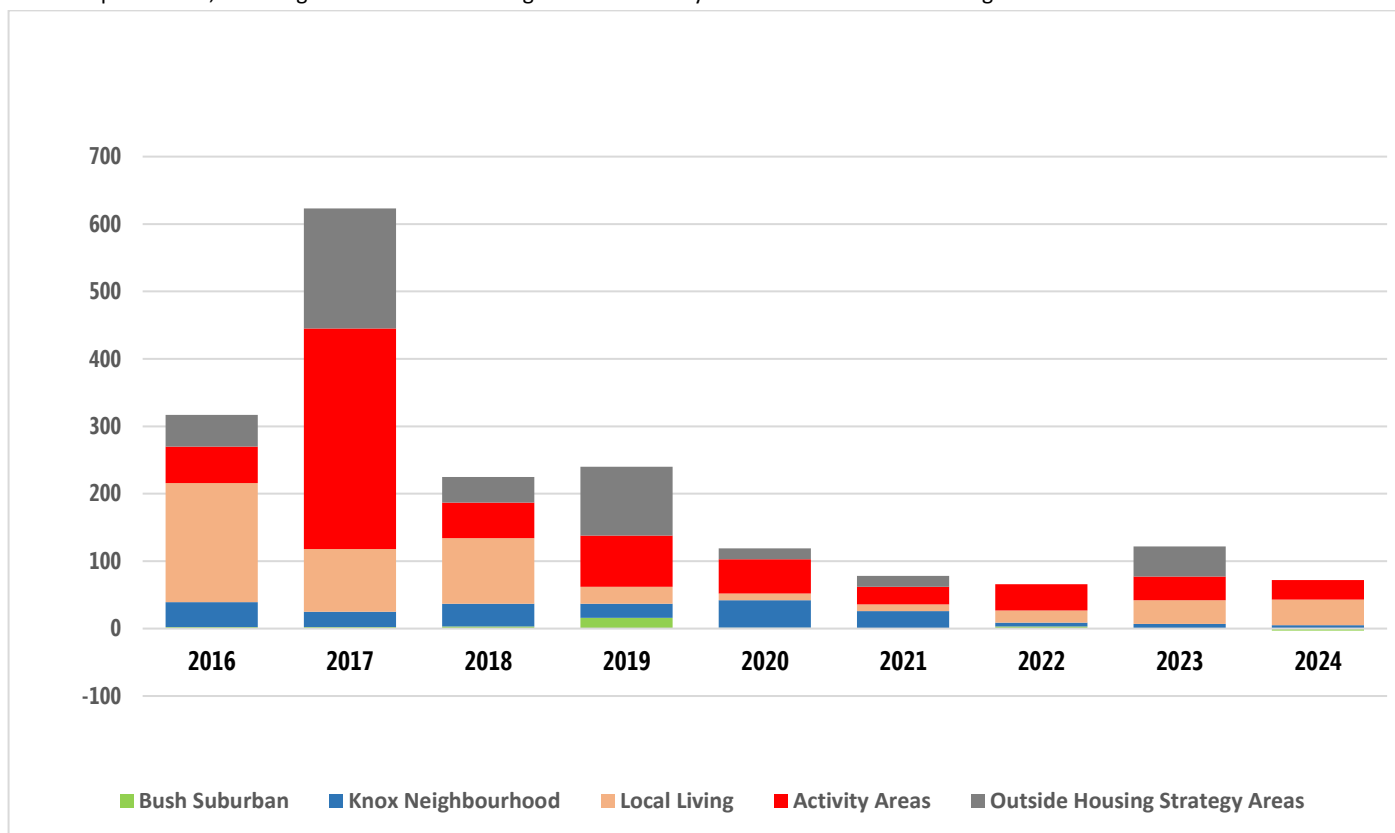
The [planning permits approved in 2024](#) would result in 21% of net growth being small dwellings (two bedrooms or less).



### Figure 8. Net Growth in Small Dwellings

Over the past nine years, the approved planning permits in 2024 resulted in the second lowest number of net new small dwellings (two bedrooms or fewer).

– Except for 2017, the net growth in small dwellings has consistently fallen below the forecasted growth for small households.



### Residential Aged Care Facilities (RACF)

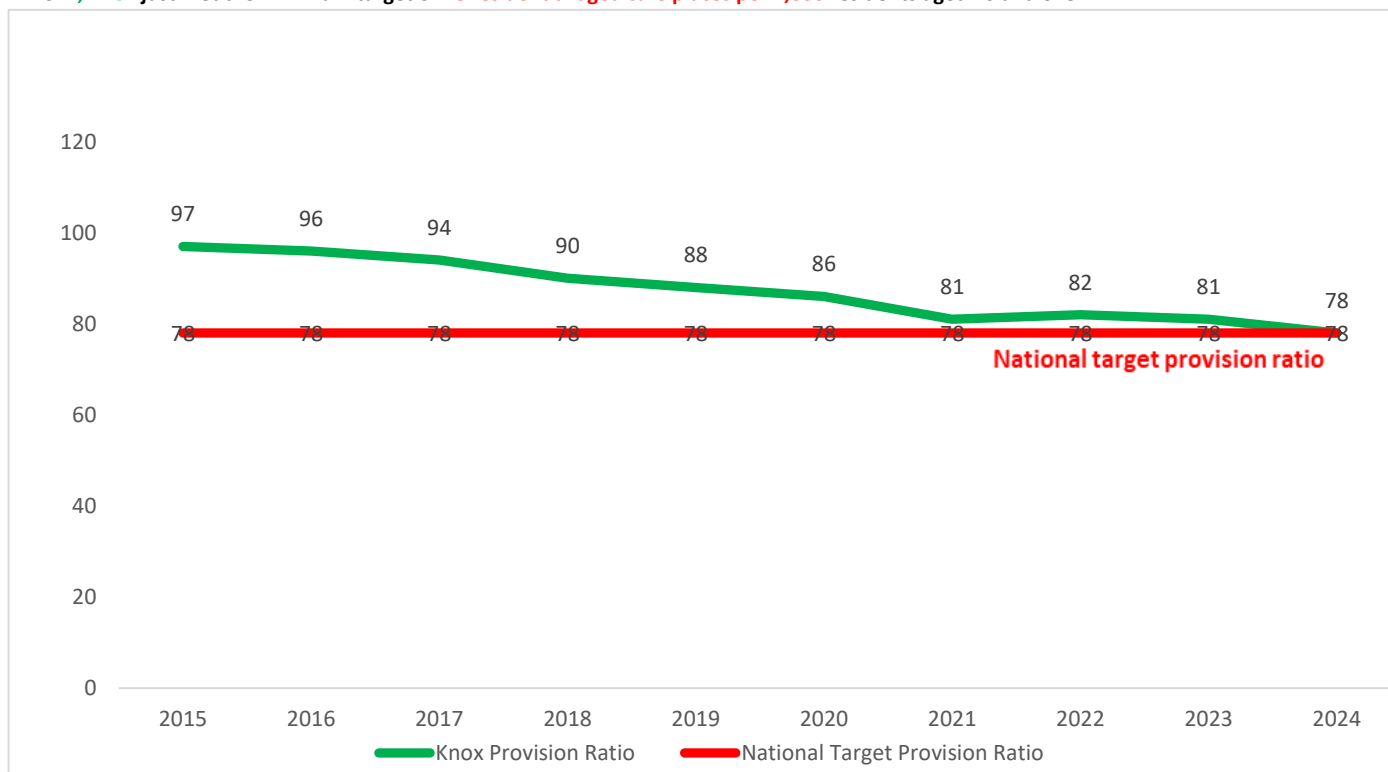
The provision of dignified accommodation for the elderly is of critical importance in modern society ([Home Care Assistance, 2023](#)). Residential aged care facilities play a crucial role in this regard. As Knox's population continues to age, the provision of residential aged care facilities to accommodate the increasing population of senior citizens will be significantly important. The updated data from the Australian Institute of Health and Welfare (AIHW) confirmed that as of June 2024, Knox had 1,621 places, usually a single room with an ensuite (AIHW, 2024). Also, updated population estimates,<sup>18</sup> by the ABS established that as of 30 June 2023, the number of people aged 70 years and over in Knox was 20,760 ([ABS, 2023](#)). This gives a ratio of 78 places in residential aged care facilities per 1,000 residents aged 70 and above in Knox (See Figure 9). The 2024 ratio was the lowest compared to previous years, since 2015. Meanwhile, the Australian Government's target provision ratio for operational residential aged care places is 78 for every 1,000 people aged 70 years and over (ACFA, 2021)<sup>19</sup>. Therefore, Knox is now sitting exactly on the minimum target provision ratio in 2024 (See Figure 9). This is the lowest residential aged care provision ratio recorded in Knox over the last 10 years. This is a departure from previous trends as Knox has always exceeded the target since 2015. If no significant effort is made within the next couple of years, Knox will certainly fall below the minimum target. This is because except for 2022, Knox has consistently been trending downwards towards the minimum provision since 2015.

<sup>18</sup> 2023 population estimate used as 2024 ABS update is pending.

<sup>19</sup> The national target for home care is 45 per 1,000 residents 70 years and over. However, the home care target ratio has already been exceeded, reaching 53.6 mainstream home care packages available for every 1,000 people aged 70 and over as of 30 June 2020 (ACFA, 2021). The residential aged care places per 1,000 people aged 70 years and over was reduced from 86 places per 1,000 residents aged 70 and over to the current 78 places per 1,000 people 70 years and over. This report has cited the most current [ACFA report](#).

**Figure 9. Residential Aged Care Places in Knox in 2024**

In 2024, **Knox** just met the minimum target of **78 residential aged care places per 1,000 residents aged 70 and over**.



## Social and Affordable Housing

The new *Plan for Victoria* seeks to provide affordable homes for all people – without social housing very low-income households in Knox cannot afford a home. Social housing provides affordable housing for low-income households. Knox has 1,491 social housing dwellings as of 30 June 2024<sup>20</sup>(Homes Victoria, 2024). This constitutes a decline of 31 dwellings between 1st July 2023 and 30th June 2024. In fact, this is the first decline in the stock of social housing in Knox since 2019. Between June 2020 to June 2023, the total stock of social housing has on average increased by 13 dwellings per financial year. For instance, Knox rose by 19 social housing dwellings between July 2022 and 30th June 2023; and by four dwellings between July 2021 and 30th June 2022. It is troubling that the current total stock of social housing is below Knox's total stock of 1,493 as of June 2020. Homes Victoria explains that the cause of the decline is due to BAU maintenance and upgrades of existing social dwellings. This takes them out of the market until they are in a condition to be added back on to the market.

Drawing on the Victorian Government Department of Families, Fairness and Housing's (DFFH) accessible data on social housing and affordable housing lettings (Homes Victoria), and comparing it with the minimum supply calculated in the Knox [Minimum Supply of Social Housing Analysis](#) (2022) and the [Knox Social and Affordable Housing Strategy and Action Plan 2023-2027](#), the gap between the actual availability of social and affordable dwellings in Knox in 2024 and the estimated need for social and affordable housing in Knox within the same period, is a significant 902 dwellings<sup>21</sup>. In fact, it was projected that Knox should have a minimum supply of 1,803 social and affordable dwellings by 2024.

<sup>20</sup> The Department of Families, Fairness and Housing (DFFH) notes that more than 6,300 social housing dwellings are being completed or are under way across Victoria. If these homes are completed the social housing stock in Knox will increase. This is because 159 dwellings funded by Homes Victoria is being built in Knox (KCC, 2023). But the updated data at the end of February 2024 on [Homes Victoria website](#) shows that 149 houses were funded in Knox; 29 have been completed and 120 are underway.

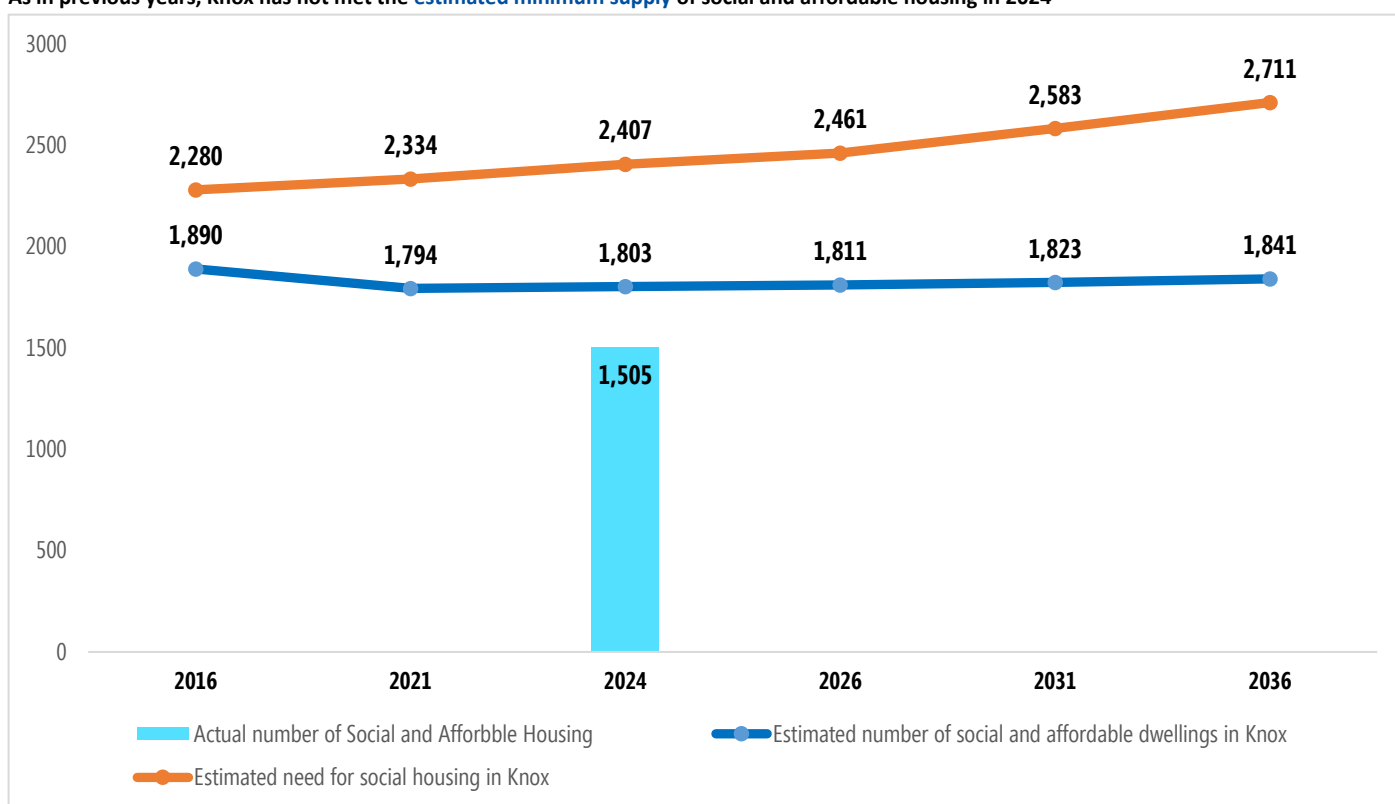
<sup>21</sup> This estimate is calculated based on the social and affordable housing supply/available in Knox as of 2024, and the estimated social and affordable housing need projected in the two Council documents cited in this report.

However, the current availability of social housing and affordable private housing lettings in Knox is 1,505 – that is a shortfall of 298 dwellings from the projected minimum supply. In comparison to 2023, the gap was narrower, at 845 between estimated need and estimated supply of social and affordable housing. The shortfall from the estimated minimum supply and availability of social and affordable dwellings stood at 261<sup>22</sup>.

From Homes Victoria data, the widening gap in 2024 is attributable to the decline of the total stock of social housing dwellings in Knox by 31 dwellings, and the low availability of private rental lettings in Knox, 12 months to June 2024<sup>23</sup>. This growing trend is projected to continue without significant interventions in the provision of social and affordable housing in Knox (See Figure 10). Figure 10 shows that the Knox’s projected minimum supply of social and affordable housing in 2024 should have been 1,803. Hence, Knox has fallen short of the minimum supply by 298 dwellings in 2024 since we currently have 1505 dwellings.

**Figure 10. Gap between Supply and estimated Need for Social and Affordable Housing in Knox**

As in previous years, Knox has not met the **estimated minimum supply** of social and affordable housing in 2024



<sup>22</sup> It is important to caution that these data points (845 dwellings and 261 dwelling) noted in this report (2024) as the gaps in 2023 are not comparable (to the figures in the 2023 Housing monitoring report) because, the 584-gap observed in the 2023 report only reported the gap between the estimated need for social and affordable housing and the estimated minimum supply. That is, if Knox had met the projected minimum supply of 1,800 by 2023 dwellings, that figure would have been reliable. But we now have reliable data from Homes Victoria on the private rental lettings in Knox as well as the percentage (2.7%) that was affordable to low-income households in 2023. Hence, the right figures for 2023 have been calculated retrospectively.

<sup>23</sup> Homes Victoria data shows that 618 private rental lettings were available in Knox 12 months to June 2023 (with 2.7% of these being affordable to low-income households). And 535 private rental lettings were available in Knox 12 months to June 2024 (also with 2.7% of these being affordable to low-income households)

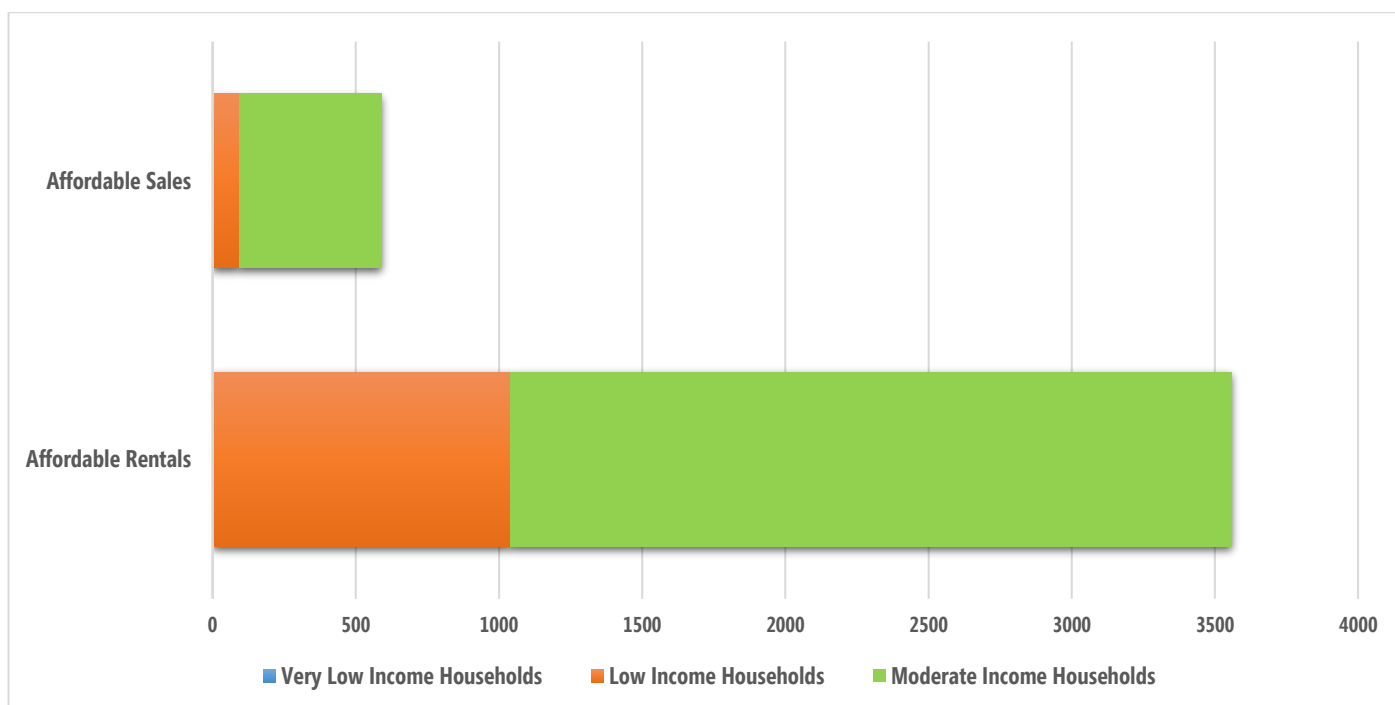
## Affordable Housing Sales and Rentals

The affordability of housing is fundamentally determined by rental and house prices. Within the twelve months prior to June 2024, the median house price was \$985,000 and the median unit price was \$687,500 in Knox ([Knox Housing Monitor](#)). This means that only 92 (16%) of the 591 dwellings<sup>24</sup> sold in Knox were considered affordable to households within the very low and low-income brackets<sup>25</sup>. In parallel, only 1,040 (29%) of the 3,558 rental properties in Knox were affordable to households in the very low and low-income groups (See Figure 11). As compared to 2023 the affordability of properties being sold in Knox has slightly (3%) improved in 2024 while the affordability of rental properties has worsened by 7% between 2023 and 2024. It is critical to highlight that the affordability of rental properties in Knox has been deteriorating fast. For instance, within two years (2022 to now), the affordability of rental properties has deteriorated by nearly 10% (9%)<sup>26</sup>. See Figure 12 for a trend analysis of this since 2019.

**Figure 11. Affordable Sales and Rentals in Knox in 2024**

In the year leading up to June 2024, only 5 sales and 6 rentals were affordable for **very low-income households**.

**Low-income** households had more rental options, but very few affordable dwellings to purchase.



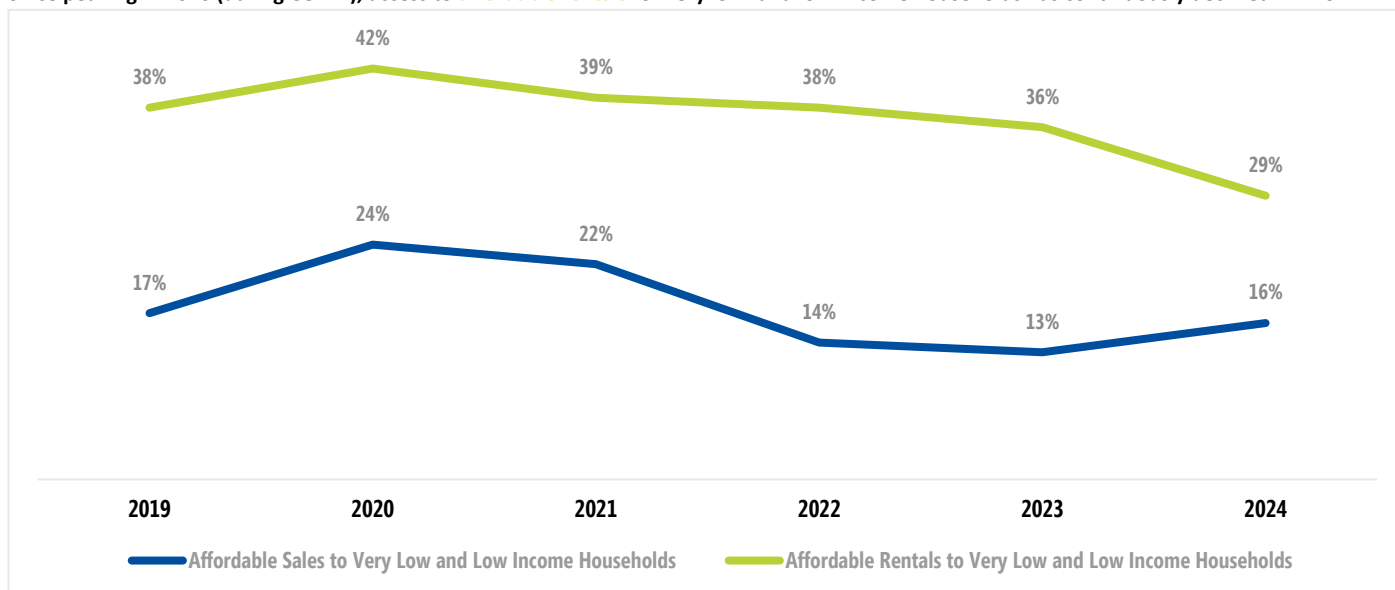
<sup>24</sup> The 488 dwellings were considered affordable to the very low, low and moderate-income brackets. Thus, the moderate-income group could afford 87% of the houses or units sold within Knox within the period under consideration.

<sup>25</sup> This Report follows the Department of Infrastructure and Knox City Council in defining Affordable Housing as a “Well-located housing, appropriate to the needs of a given household, where the cost (whether mortgage repayment or rent) is no more than 30% of that household’s income. Exceeding the mark places one under ‘housing stress,’ particularly in the lower 40% of the income distribution scale” (Department of Infrastructure, 2002, p.182; Knox City Council, 2015, p.6). In the 2024 Housing Monitoring Program Report, very low income is household income of less than \$54,024 per annum. Low income is a household income of between \$54,025 to \$86,439 per annum. Moderate income households range from \$86,440 to \$129,659. These income bands are adapted from .id calculations in the Housing Monitor to suite our purpose. For more details, see Table 4 under Attachment 2.

<sup>26</sup> In 2022, a reasonable 38% of rental properties were affordable and 14% of properties being sold affordable in Knox. This means affordable rentals has worsened by 9% and affordably purchases improved by 2% over the 2-year period.

**Figure 12. Affordable Sales and Rentals Trend in Knox Since 2019**

Since peaking in 2020 (during COVID), access to **affordable rentals** for very low- and low-income households has continuously declined in Knox.



## Analysis

The Victorian Government's population and dwelling projections (*Victoria in Future - VIF, 2023*) revealed that it is possible for Knox to accommodate more population and dwellings. For instance, the Victorian Government's dwelling growth for Knox from 2026 to 2036, as captured in the VIF, can be fully accommodated within the estimated dwelling capacity in Knox as outlined in the *Knox Housing Strategy 2015*. Based on the projected population, by 2036 there will be a difference of 2,131 people<sup>27</sup> in Knox between the population forecast by the Victorian Government and the updated forecast of id Consulting Pty Ltd (in September, [2024](#)). This disparity might be due to difference in the methodology. Excitingly, the higher estimate of 177,300 people documented in the Victorian Government VIF, can be accommodated entirely in Knox by 2036, if Knox is developed to its full capacity (92,500 dwellings) by 2036, and if each dwelling accommodates at least two residents on average. The Victorian Government and id Consulting have projected a total of 69,237 and 70,552 dwellings in Knox by 2036, respectively. This means by 2036, Knox will still have over 22,000 dwellings capacity, using the higher forecast in VIF and the capacity assessment in the *Knox Housing Strategy 2015*.

Residential building approvals in Knox has bounced back, following the lowest building permit approvals in 2022, compared to the previous five years. This is a positive development for Knox as the media ([that used ABS data](#)) reported that Victoria had the lowest building approvals compared to the previous 10 years. In 2024 while other state recorded higher building approvals, Victoria's figure declined by [0.5% compared to 2023](#). This was foreshadowed by the Victorian Building Authority – VBA (2022) as it noted that building approvals increased during the 2021-2022 financial year for other building activity, but residential building approvals reduced as compared to the 2020-2021 financial year across Victoria. However, in Knox, building approvals appear to have rebounded strongly, as there was a 35% rise in dwellings approved in Knox in 2024 as compared to 2023. Despite this it may still take a few years for approved building permits to be translated into dwellings on the ground, to ease the current housing crisis.

<sup>27</sup> It is heartwarming that both the Victorian Government and id Consulting have revised their population forecast figures downwards (VIF) and upwards (id). This has narrowed the gap between the two. This gap between the forecasts was nearly 14,000 in 2023.

Growth in small dwellings have declined by 11% in 2024. Small dwellings (two bedrooms or less) were at 21% for approved planning permits in 2024, which is significantly behind the rising numbers of small households in Knox. The ABS has predicted that lone person and couple only households will constitute almost 50% of the Knox population by 2031 (ABS, 2022). A trend analysis shows that in years where larger subdivisions were approved in planning permits, a larger number of smaller dwellings were approved. When apartments were approved in significant numbers in planning permits in a particular year (i.e. 2019, 2020 and 2023), this increased the number of smaller dwellings. While 39 apartments (and 59 in 2023) were approved in 2024, no apartments were approved in the planning permits in 2022. If the approvals of apartments could be greatly increased and sustained, the rising gap between supply and demand for small dwellings in Knox, will be gradually reduced in the medium to long term. Unfortunately, there have been a reduction in the numbers approved in 2024.

The Bush Suburban area has experienced a net loss in small dwellings in 2024. Small dwellings have consistently been approved in low numbers in the Bush Suburban areas. In fact, no small dwelling was approved in the Bush Suburban area in 2023 and 2021. In contrast, about 85% of small dwellings are in the Activity Areas and Local Living areas on average, in most years<sup>28</sup>. These areas have nearly an equal number of small dwellings and usually have greater proximity to shops and public transport. This makes these locations ideal for the elderly and lone person households. The provision of high-density dwellings (in the form of apartments/small dwellings) in the Activity Areas and Local Living areas is in line with the objective of the *Knox Housing Strategy 2015*.

Knox has reached the minimum national provision benchmark of 78 residential aged care facilities (RACF) per 1,000 people 70 years and above in 2024. This is the lowest RACF provision ratio Knox has recorded since 2015. However, this is unsurprising as Knox has been declining progressively towards the minimum since 2015. Without a massive increase in RACF within the next year, Knox will undoubtedly fall below the minimum target provision ratio of 78 residential aged care places per 1,000 people aged 70 and over. This is because people aged 70 and over in Knox are increasing by a minimum of 2% every five years. For example, people aged 70 and over increased from 10.2% in 2016 to 12.4% in 2021 (ABS, 2022). Urgent actions are therefore needed to respond to the declining spate of RACF in Knox.

It is gratifying to report that a 96-bed RACF has been approved in planning permits (by VCAT) in 2024. In contrast, the past two years (2022 and 2023) has witnessed no approval of a single residential aged care facility in a planning permit. However, a few residential aged care facilities were approved in planning permits within the last five years. These include a 214-bed residential aged care facility approved in 2021, and three other residential aged care facilities approved in 2019 and 2020. If these facilities are developed quickly, Knox could rise again above its current provision (minimum) ratio of residential aged care places. To ensure that Knox does not fall deeply below the Australian Government minimum provision threshold for residential aged care places within the next few years, Council may need to work with private developers of aged care facilities, to address the landscape and environmental concerns that previous proposed residential aged care facilities posed (especially in 2022 planning permits applications). The *Knox Social and Affordable Housing Strategy and Action Plan 2023-2027* has observed that Council will partner with the private sector to deliver affordable housing. This approach is equally potent in the provision of RACF in Knox.

Housing affordability is a major determinant of both the cost of living and the standard of living. This is because a significant share of a household's budget goes toward housing costs. In Knox, very few dwellings and units were affordable to households in the very low-income brackets (below \$54,024 per annum) to rent or purchase. This was the case, because an insignificant 5 rentals (0.1%) and 6 property sale (1%) were affordable to households within the 'very low income' brackets in 2024 ([Knox Housing Monitor](#).; also see Table 4 of Attachment 2 for details). Low-income households (\$54,025 to \$86,439 per annum) have slightly more rental options, but only a limited number of property

<sup>28</sup> In 2023, small dwellings were only 57% in Local Living and Activity Areas. This could be because almost 37% of the small dwellings were approved outside the Housing Strategy Areas (Strategic Investigation Sites).

options to purchase. For instance, in the 12 months prior to June 2024, low-income households could only purchase approximately 86 of the 591 (15%) properties on the market ([Knox Housing Monitor.](#)). As of 30<sup>th</sup> June 2024, the Victorian Housing Register (VHR) documented 3,561 Priority Access and Register of Interest applicants who were on the waiting list for social housing within Knox<sup>29</sup> ([Homes Victoria, 2024](#)). This number had declined by 111 applicants, from 3,450 as at 30<sup>th</sup> September 2023. This is the second decline in a row with respect to the number of applicants in the VHR. Despite this, the numbers of the applicants on the VHR waiting list in Knox alone is still unacceptably high. The high number of applicants for social housing epitomises the housing affordability crisis (Pawson, 2022). The current housing affordability predicament has essentially pushed many potential renters out of the rental market in Knox.

Rental affordability in particular has been consistently deteriorating in Knox since 2020. For example, 42% of rental properties were affordable to households in the 'very low' and 'low income' ranges in 2020, but in 2024, only 29% of rental properties are affordable to people within the same income brackets (See Figure 11). Not only this, but the rate of the decline is troubling. Council earnestly needs to expedite action on its commitment to implementing the actions and proposals documented in the *Knox Social and Affordable Housing Strategy and Action Plan 2023-2027* to ameliorate this looming crisis.

The central focus of the *Knox Social and Affordable Housing Strategy and Action Plan 2023-2027* is to expand the supply of social housing<sup>30</sup>. The provision of more social housing could partly address the housing affordability quandary. However, the gap between social housing demand and supply is continuing to widen in Knox (see Figure 10). The *Knox Housing Strategy 2015* has highlighted that Council could influence the social housing market through a partnership with social housing providers. It also signals that although it is difficult to influence the private housing market, opportunities could be explored by Council to define a minimum supply of social or affordable housing, to be constructed by private developers. In addition, further negotiating with permit applicants whose applications would produce many dwellings, could increase a developer's contribution to the social and/or affordable housing supply. In fact, a 5% voluntary contribution to social housing by private developers has been proposed in the *Knox Social and Affordable Housing Strategy and Action Plan 2023-2027*. If these proposals are fully explored and implemented, the provision of social and affordable housing could improve within Knox.

In 2024, Knox fell short of the minimum estimated supply of social and affordable housing by nearly 300 dwellings (298 to be exact). This shortfall has created a significant gap between the available housing and the estimated need. Currently, Knox has 1,505 social and affordable housing dwellings, but the estimated need is 2,407 dwellings in 2024, leaving a substantial gap of 902 dwellings. This situation is critical. If Council is already 298 dwellings short of the projected minimum supply for 2024, meeting the estimated need of over 900 additional dwellings seems unattainable, especially since the growth of social housing is not keeping pace. The decline of 31 social housing dwellings in 2024 further exacerbates the issue. Considering this growing challenge, it may be beneficial for Council to consider complementing existing approaches with alternative advocacy and forward-looking strategies. Exploring new and creative pathways could help support meaningful progress in addressing this important issue.

The rate at which new social housing dwellings are added in Knox could indicate how quickly the deficit might be reduced. From June 2020 to June 2023, social housing grew by an average of 13 dwellings per year, which is very low given the large deficit in 2024. However, the Department of Families, Fairness and Housing reports over 6,000 social housing projects completed or underway in Victoria. The *Knox Social and Affordable Housing Strategy and Action Plan 2023-2027* identifies 159 homes under development in Knox, funded by Homes Victoria<sup>31</sup>. Completion of these homes

<sup>29</sup> It is important to note that as applicants can select up to five location preferences; a single applicant can therefore be counted anywhere from one to five times in the data set. On average, an applicant selects 2 to 3 location preferences.

<sup>30</sup> The Knox Affordable Housing Action Plan 2015-2020 equally highlighted the need to increase social and affordable housing in Knox: <https://tinyurl.com/mr3haub5>

<sup>31</sup> The 159 (slightly revised down to 149) homes are likely to be Knox's share of the 6,300 social housing projects under development across Victoria.

would significantly improve Knox's social housing stock. Additional opportunities for new social housing in Knox include negotiating voluntary contributions from developers and working with permit applicants to contribute to social and affordable housing. Despite these efforts, Knox still faces significant challenges in meeting its social housing needs.

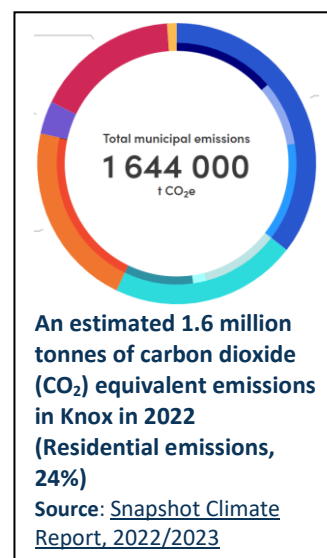
# Objective 3 - Energy, water, and waste efficient design are increased in dwellings

## Why is this Objective Important?

The [Knox Climate Response Plan 2021–2031](#) highlights that **37% of emissions** originate from residential and commercial stationary energy, primarily due to electricity consumption. To address this, Knox needs more sustainable and efficient housing to enhance residents' comfort, reduce emissions and their environmental impact, and lower living costs.

Adopting *Environmentally Sustainable Design (ESD)* standards in new residential buildings can significantly improve energy and water efficiency, as well as ensure waste-efficient designs. This approach will result in higher quality, more accessible, and sustainable housing in Knox. These measures will directly reduce the adverse environmental and ecological impacts and substantially mitigate the effects of residential development on climate change.

The *Knox Climate Response Plan 2021–2031* outlines strategies to make dwellings in Knox more environmentally friendly, climate-responsive, and sustainable.



## How are we Tracking this Objective?

Suitably designed and resource-efficient buildings are essential for creating more sustainable and liveable cities. In the planning and construction of homes, energy efficiency, resource conservation, and community well-being should be prioritised. Council aims to make Knox a sustainable and climate-responsive municipality. Through the *Knox Housing Strategy 2015*, Council encourages all residential developments to incorporate sustainable design features, including water-sensitive urban design.

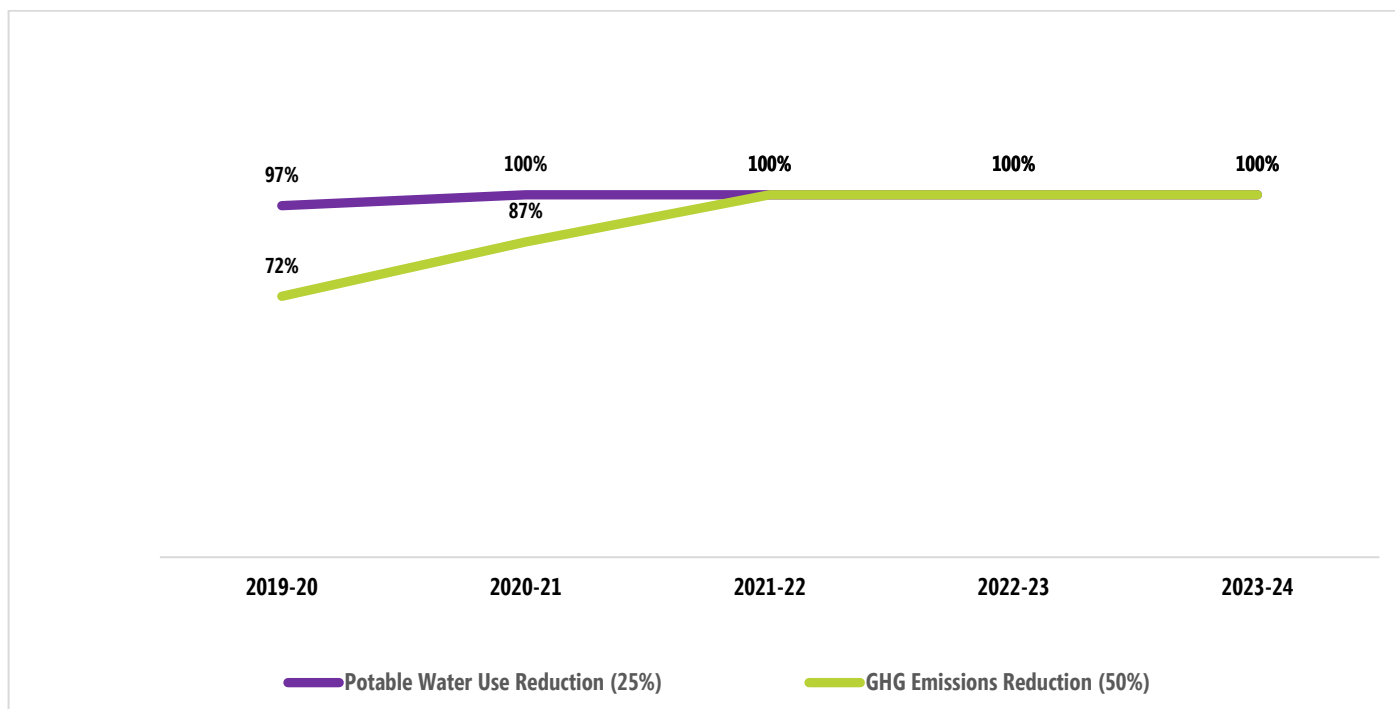
In fact, Council mandates that all developments of two or more dwellings undergo a *Sustainable Design Assessment (SDA)* before a planning permit is issued. This ensures that new residential buildings meet satisfactory environmental performance and efficiency standards, particularly regarding water usage and greenhouse gas (GHG) emissions.

Specifically, the SDA report must address two key sustainability indicators: reducing potable water consumption and GHG emissions. According to the *Built Environment Sustainability Scorecard (BESS)* data for the 2023-2024 financial year, the best practice targets of a 25% reduction in potable water consumption was achieved (100%) in all assessed developments. On the other hand, the best practice target of 50% reduction in GHG emissions was also fully achieved in the applicable proposed development assessed<sup>32</sup>(See Figure 13).

<sup>32</sup> It is worthy to note that application for elevated ESD requirements has been submitted to the Minister for Planning. When the new ESD requirements are approved they will be tracked and reported in future Housing Monitoring Program Annual reports.

**Figure 13. *Applicable new Buildings Assessed as meeting Sustainability Targets***

The proportion of new buildings proposed in planning permits that meet sustainability targets.



## Analysis

It is important to note that Council revised its approach to ESD permit conditions and endorsed sustainability measures on developments in 2019-2020. This revision was to ensure that ESD commitments on approved development plans were delivered upon construction. This means that the ESD data on potable water reduction and GHG emissions reduction for the 2019-2020 (reported in Figure 13 above) are not comparable with the ESD data of the subsequent years (2020-2021 to 2023-2024) presented in Figure 13. Therefore, the ESD data from the 2020-21 to 2023-24 financial years are consistent and comparable. The ESD outcomes for 2023-2024 shows that approved permits of two or more dwellings in Knox had met (100%) or exceeded the best practice target of 25% reduction in potable water consumption. Additionally, in the same financial year, approved development of two or more dwellings in Knox had met 84% or surpassed the best practice target of 50% reduction in greenhouse gas emissions reduction. This implied that all permits for applicable new dwellings<sup>33</sup> from 2020-2021 to 2023-2024 met the best practice targets on the 25% reduction in potable water consumption. For GHG emissions, the target of 50% in greenhouse gas has been met in the past three financial years – 2021-2022 to 2023-2024. A 100% was not achieved on the ESD targets on GHG in the 2019-2020 and 2020-2021 financial years (See Figure 13).

Moreover, the ESD data for 2023-2024 revealed that in practice an average of 38% of potable water consumption was reduced. This is a marginal decline of 1% from the 2022-2023 figure of 39% (the 2021-2022 figure was 41.3%). Correspondingly, in the same 2023-2024 financial year, the average GHG reduction was 51%. This constitutes a significant decline of 10% over the 2022-2023 emission reduction of 61% (the 2021-2022 GHG emissions reduction was 60.4%).

<sup>33</sup> Applicable new dwellings mean additional new dwellings of two or more.

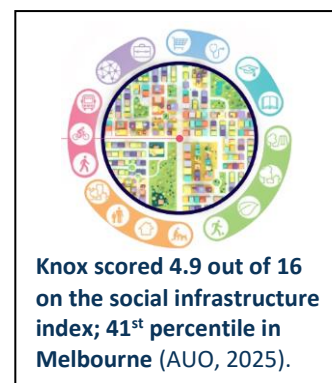
Also, the *Built Environment Sustainability Scorecard (BESS)* data observed that 2.1 million litres of rainwater tank capacity was committed to in the Knox municipality in 2023-2024 fiscal year. This was a decline because in 2022-2023 fiscal year, it was over 3 million litres of rainwater tank capacity. This is probably due to the reduction of the net new dwellings approved in 2024 by 51 (13% reduction) as compared to 2023. It also pertinent to note that 740kW (0.74 MW) of Solar PV was installed in the Knox municipality in 2023-2024. This is again a reduction from the 2023 figure, since 830kW of solar panels were committed to for installation. This is again probably due to the low scale of net new dwellings approved in 2024 (13% reduction from 2023). The installation of solar panels would contribute to a reduction of GHG emissions, emanating from electricity consumption in residential buildings.

Analysis over time would show more explicitly how Knox is progressing on these two ESD benchmarks. The time series analysis will likely show that the “best practice” definition is not fixed, rather it varies as standards shift. For example, on 21st July 2022, Knox was part of 24 Councils in Victoria that lodged an application for a planning scheme amendment with the State Government, requesting to introduce planning policy that elevates sustainability requirements for new buildings and encourages a transition towards net zero carbon development. The application for the elevated ESD requirements is still pending a decision by the Minister for Planning. If this application is approved, altering the “best practice” benchmark, the consistency of tracking the ESD benchmarks and tracking progress over time will be less coherent because of the variations of the standards.

# Objective 4 - Housing design is improved to better respond to neighbourhood identity and create a stronger sense of place

## Why is this Objective Important?

Greener suburbs with more tree canopy, open space, plus walking and bike paths, contribute to healthier, more sustainable communities. Over the decades, Knox has been known for its green and leafy neighbourhoods, quiet streets, and a blend of city and country feel. The low-scale and low-density residential development patterns in Knox have created the quiet streets, green character, and natural ambiance that attract many people to the area. However, this form of residential development has made Knox a car-dependent city, leading to increased air pollution and reduced access to amenities, services, and socio-economic infrastructure for residents. As land values have risen significantly over the years, redevelopment has introduced new housing types into Knox's neighbourhoods, altering the municipality's look and feel.



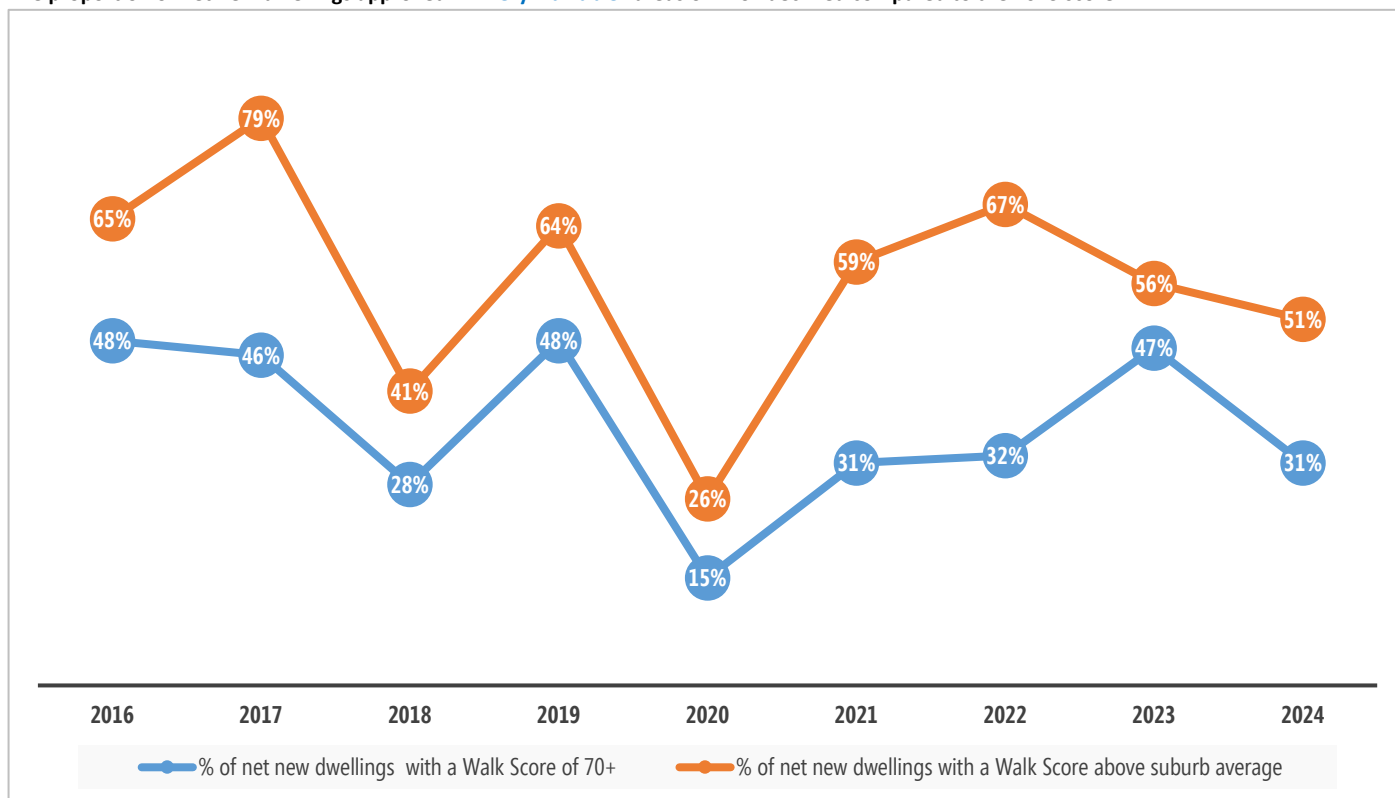
## How are we Tracking this Objective?

Building more houses within the walkable catchments of activity centres, train stations, and priority precincts will increase opportunities for walking, cycling, and scooting. One way of measuring the proximity of services to people is to use the [Walkscore Index](#). Walkscore is an index developed to estimate the 'walkability' of a place. It assesses the proximity of local shops, services, schools, entertainment and jobs, to develop a walkability score on a scale of 1 to 100 (Steiniger et al. 2019). Areas that score below 50 are categorized as "Car Dependent", those with scores of 51-70 are classified as "Somewhat Walkable", scores of 71-90 are considered as "Very Walkable", and places that score over 90 are regarded as a "Walker's Paradise" according to Walkscore.

Interestingly, the walkscore website can be used to determine scores from individual addresses and by suburbs or neighbourhoods (Steiniger et al. 2019). Hence, the Housing Monitoring Program report examines the individual Walkscores for each of the planning permits approved, as well as how they compare against their suburb's average score. New residential developments in high Walkscore areas of Knox are more desirable as residents in those neighbourhoods would have ease of access to essential amenities and socio-economic services and infrastructure.

**Figure 14. Proportion of Dwellings Approved in Walkable Areas of Knox**

The proportion of net new dwellings approved in "Very walkable" areas of Knox declined compared to the 2023 score.



Furthermore, the *Knox Housing Strategy 2015* have another important measure outlined under the neighbourhood identity objective – loss of trees and backyard space in Bush Suburban and Knox Neighbourhood areas. Tree canopy data published by the Department of Environment, Land, Water and Planning in 2022 (DELWP now known as DEECA – Department of Energy, Environment and Climate Action) specified that there were about 250,000 trees on residential zoned land in Bush Suburban and Knox Neighbourhood areas (DELWP 2022). Future releases (if any) of this data may offer an indicative measure of change over the years.

As part of the assessment of the neighbourhood identity objective, it is worth reiterating that the results presented in Figure 4 of this report, which confirmed that low numbers of new dwellings per hectare were approved in Bush Suburban and Knox Neighbourhood areas, supported Council's decision-making process to minimising tree loss, thus maintaining a green leafy natural environment within the municipality.

## Analysis

Net new dwellings approved in "Very Walkable" areas of Knox has declined. Figure 14 above shows that almost a third (31%) of the net new dwellings approved in 2024 in Knox had Walkscores of above 70, that is, in "Very Walkable" locations. This was a marked decline (of 16%) from the 2023 performance of 47%. In fact, this is also marginally below the 2022 figure of 32%. It is worrying to report that the net new dwellings approved in "Very Walkable" areas of Knox in 2024 fell below the average of 36% over the last nine years. The highest was 48% in 2016 and 2019. Unsurprisingly, the net new dwellings that were approved in areas that were considered more walkable than the average score for their suburb also declined by 5% (a score of 51% in 2024) as compared to the 2023 figure of 56%. This is also a steep decrease over the 2022 figure of 67%. This strongly suggests that there was relatively fewer planning permits permitted in areas closer to activity centres in 2024.

It has been hypothesized that the approvals of apartments tend to increase the proportion of net new dwellings with a walk score above their suburb average. Despite this proposition, the percentages of net new dwellings with a walkability score above their suburb average in 2024 and 2023 (39 apartments approved in 2024, 59 apartments approved in 2023) were lower than in 2022, where no single apartment was approved in a planning permit. Apartment buildings normally accommodate many dwellings, compared to other dwelling typologies, and are usually located in or near activity centres where walkability tends to be high. Therefore, each approved apartment development often contributes significantly to increasing the number of very walkable dwellings approved. It was somewhat surprising to observe that approved dwellings in 2022 where no apartments were approved scored the second highest on walkability compared to their suburbs and outperformed 2024 and 2023 where 39 apartments and 59 apartments were approved respectively. This essentially suggested that while apartments usually elevate Walkscores, other dwelling typologies can equally improve walkability if they are located closer to services, such as shops, schools, health facilities, sports, recreational facilities, etc.

An encouraging 41% of the net new dwellings approved in 2024 will be located in “Somewhat Walkable” areas. This was in contrast with 2023 where only a quarter (25%) of the dwellings were in “Somewhat Walkable” areas. It must be pointed out that more than half were in “Somewhat Walkable” areas in 2022. Coincidentally, 28% of the approved net new dwellings were sited in “Car Dependent” areas in both 2024 and 2023. In comparison to 2022, a lower share (24%) of approved net new dwellings were in “Car Dependent” areas. It is relevant to report that no single dwelling was approved in “Walkers’ Paradise” in 2024.

The Basin, Lysterfield, Rowville, and Upper Ferntree Gully<sup>34</sup> have been generally categorised as “Car Dependent” suburbs by Walkscore. However, some approved net new dwellings were still identified in “Somewhat Walkable” and “Very Walkable” areas in these suburbs. For example, 10% (25% in 2023) of the approved net new dwellings in Rowville in 2024 were in “Very Walkable” areas and 22% were in “Somewhat Walkable” locations, although Rowville is generally categorised as a “Car Dependent” suburb. Therefore, the specific location of a dwelling is more important than the suburb in which it is located.

The fact that a little less than one-third of all approved net new dwellings in 2024 were located in “Very Walkable” locations is an unimpressive development. These approvals fail to align with the directives of the *Knox Housing Strategy 2015* and the *Plan for Victoria*, both of which emphasised the importance of accessibility and the need for more dwellings to be located near services, shops, and schools. The reason for the below average responsiveness of approved net new dwellings to locations with close proximity to shops and other services over five years, out of the nine since this trend analysis has done, deserves further investigation and analysis.

---

<sup>34</sup> No dwelling was approved in Upper Ferntree Gully in 2024

# Objective 5 - Protect and enhance the landscape and environmental value of natural areas of significance

## Why is this Objective Important?

Protecting environmental values in residential development is crucial because it preserves biodiversity, enhances human health and well-being, promotes sustainable practices, mitigates climate change, and maintains community value. A key defining feature of Knox is its cherished leafy green aesthetic. Nestled at the foot of the Dandenong Ranges, the municipality boasts a unique natural setting, with creeks and wetlands providing tranquil habitats for native wildlife and a serene ambiance for residents. These elements bring the feel of bushland and natural spaces into Knox's neighbourhoods, a quality highly valued by its residents. However, this green and leafy character is under threat from increasing development. As Knox's population grows, so will residential development. It is therefore crucial to ensure that new developments do not deplete Knox's unique and treasured environmental and ecological assets over time.



**18 dwellings were approved per hectare in Bush Suburban Areas in 2023.**



**Knox has 118 Sites of Biological Significance; native vegetation covers less than 5% of Knox (Lorimer, 2010).**

## How are we Tracking this Objective?

The Knox [Biodiversity Resilience Strategy 2024 – 2034](#) aims to foster a nature-positive future where the community coexists with nature, protecting sites of biological significance and enhancing habitat corridors across the municipality to ensure local wildlife can survive and thrive. The strategy observes that there are 118 sites of biological significance identified across the municipality that serve to protect areas of remnant and indigenous vegetation. While Knox enjoys a spectacular natural setting, native vegetation covers just under 5% of Knox's municipality ([Lorimer, 2010](#)). Disturbingly, over a quarter of the native plant species found in Knox are at serious risk of extinction within one to two decades, if effective preventative measures are not taken. To protect the green and leafy character of Knox and respond to endangered species, Council has a well-established policy<sup>35</sup>, in addition to planning controls on vegetation and residential design, to safeguard and preserve the significant landscape and environmental values of the area. More significantly, in January 2024 Council adopted the [Biodiversity Resilience Strategy 2024 – 2034](#), which explicitly outlines constructive goals and actions for sustaining biodiversity resilience in Knox over the next decade. The strategy seeks to sustain biodiversity resilience through the three-pronged core focus areas: tree canopy and vegetation cover, habitat connectivity, and climate change resilience (BRS<sup>36</sup>, 2024). The strategy outlined six key recommendations to strengthen and preserve biodiversity in Knox.

The Bush Suburban areas boast unique and significant biological and landscape values, featuring flora and fauna that are critically important to both Knox and Greater Melbourne. The *Knox Housing Strategy 2015* prioritises the protection of the natural environment over residential development in the Bush Suburban areas, which resulted in

<sup>35</sup> The *Knox Housing Strategy 2015* notes that the *Knox Residential Design Guidelines 2015 (updated 2019)* aim to enhance the 'green and leafy' image of Knox.

<sup>36</sup> Biodiversity Resilience Strategy (BRS)

only 18 dwellings per hectare in the Bush Suburban areas in 2024 (See Figure 4). This represents the lowest number of dwellings per hectare, compared to the other housing strategy areas in 2024. By comparison, the Activity Areas had 74 dwellings per hectare in 2024.

It is worth stating that the Dandenong Foothills area is part of the Bush Suburban areas, which has long held a valuable place in Knox. The Foothills area has had its own special set of planning controls since 2006. This has successfully preserved the unique nature of the area. The *Knox Housing Strategy 2015* stresses the need to maintain a very low scale of change in the Dandenong Foothills (see Map 1). The dwellings per hectare in the Bush Suburban areas equally applies to the Dandenong Foothills, so it undergoes a lower scale of change compared to all the other housing strategy areas.

In fact, native vegetation provides a habitat for plants and animals and makes land more productive and contributes to human wellbeing. The *Knox Housing Strategy 2015* encourages the planting of native and indigenous vegetation to support biodiversity and habitat protection and enhance liveability. This is important as it is hard to maintain native and indigenous vegetation and tree canopy, during multi dwelling development, which usually leads to the removal of large canopy trees to make space for multi-dwelling developments. The associated reduction in private open space tends to limit tree planting prospects and suppresses good tree health. It is worrying to note that outside of the urban and built-up areas, Knox's native tree cover has declined by an estimated 6% (about 112 hectares) since the late 1980s (DELWP, 2019a). Council recognises the challenges of protecting and enhancing biodiversity and habitat in the urban environment. The *Biodiversity Resilience Strategy 2024-2034* addresses these issues and identifies key themes to tackle them. In the 2023-24 financial year, the Council's Biodiversity Team planted 24,864 indigenous plants, including 1,104 trees.

Tree canopy coverage has generally been declining in Knox. The decline in total tree canopy coverage has been concentrated in the northern suburbs of the municipality, which aligns with long-term land conversion from native trees to urban and built-up areas since the late 1980s (BRS, 2024). Regarding tree canopy in Knox's urban areas, there was an overall loss of 115 hectares between 2014 and 2018, equivalent to a reduction of 6.5%. Within the same period the urban areas of the Eastern Region<sup>37</sup> witnessed a loss of 9.2% of its canopy trees (DELWP, 2020). These figures are likely to change as new data becomes available.

The latest tree canopy data was published in 2021<sup>38</sup> by the Department of Environment, Land, Water and Planning (DELWP, now the Department of Energy, Environment and Climate Action, DEECA). Tree canopy is defined in that dataset as “woody vegetation over approximately two metres in height”<sup>39</sup>. This dataset revealed that about 16% of the Knox housing strategy areas were covered by tree canopy. Map 3 below gives a graphical depiction of the distribution of the tree canopy. It is worth noting that, a trend analysis is not possible, as it was the first publication of the data. Future releases of this data will be monitored, nevertheless we are unaware of any firm commitment to publish a subsequent version at this time.<sup>40</sup> Discussions have also been ongoing within Council to explore alternative tree canopy data sources, but concrete actions and results remain elusive.

---

<sup>37</sup> The Eastern Region includes the municipalities of Knox, Manningham, Maroondah, Monash, Whitehorse and Yarra Ranges.

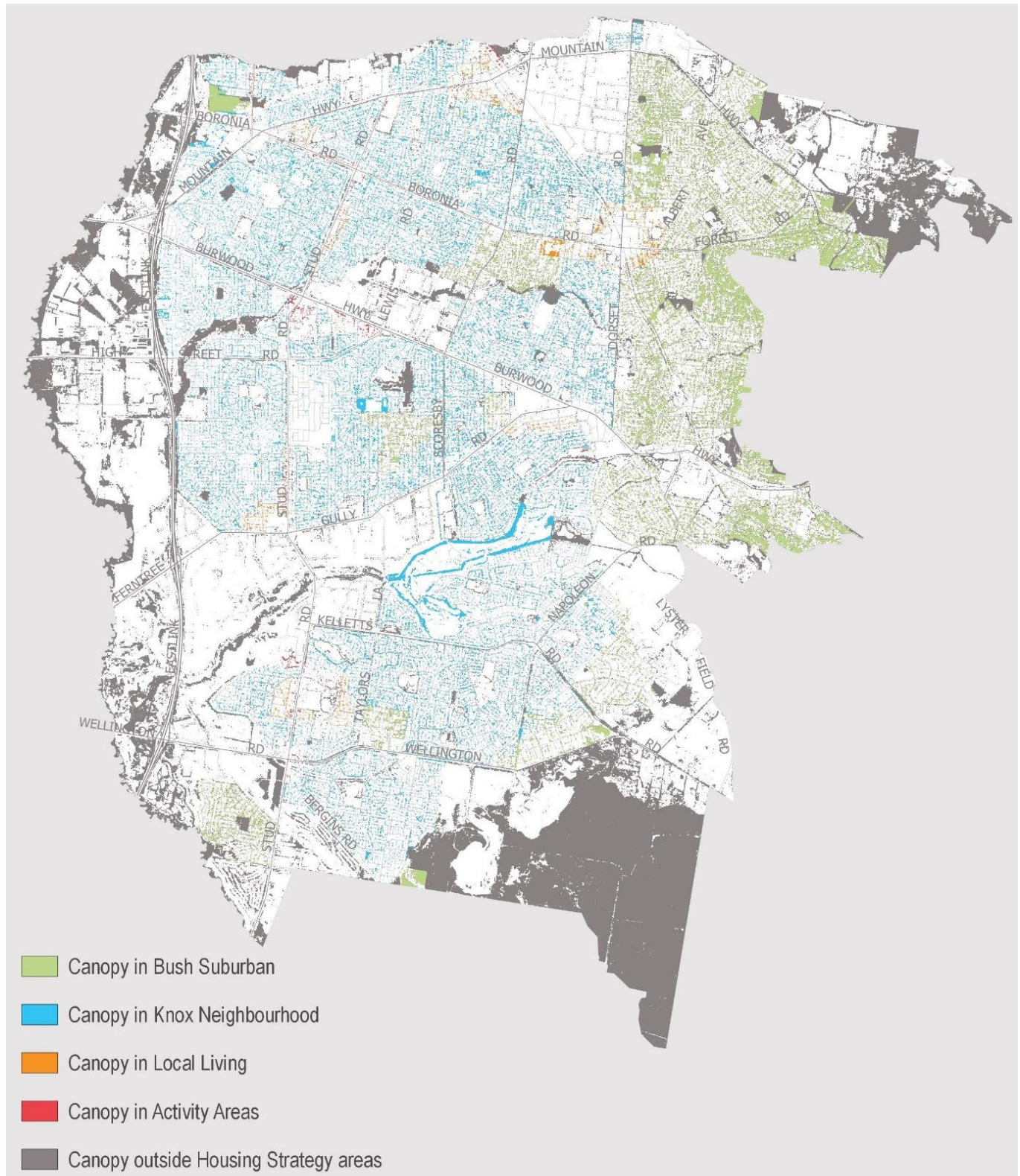
<sup>38</sup> This data was captured mainly in early 2020.

<sup>39</sup> It is important to note that this data is not comparable to the tree canopy data that DELWP published in 2019 (DELWP 2019b), which was reported on in previous Housing Monitoring Reports.

This data (2021) was also reported on in a previous Housing Monitoring report.

<sup>40</sup> DEECA suggests that a regular update of the data is unlikely as the data published in 2021 was ad hoc.

### Map 3. Tree Canopy Cover in Knox



Source: This tree canopy data is part of the Vicmap Vegetation – Tree Extent dataset produced by the Victorian Department of Environment, Land, Water and Planning in 2021 (<https://www.land.vic.gov.au/maps-and-spatial/spatial-data/vicmap-catalogue/vicmap-vegetation>).

## Analysis

Native tree cover in Knox has declined by about 6%. The evidence of this decline is based on the tree canopy data<sup>41</sup> published by the Department of Environment, Land, Water and Planning (DELWP) in 2019. The *Knox Housing Strategy 2015* endorses the planting of native and indigenous vegetation, but this has not reversed the loss of native vegetation. To reverse the declining trend, more effective strategies and guidelines would be needed to ensure that more native and indigenous vegetation was planted. Interestingly, the *Knox Biodiversity Resilience Strategy 2024 – 2034* has made practical recommendations aimed at reversing the continuous loss of native and indigenous plants. Additionally, Council may require robust regulations in the planning permit approval regime to achieve a better outcome in this domain.

As previously underscored, the Bush Suburban areas which encompasses the Dandenong Foothills, has the least number of dwellings per hectare in 2024, and in the previous years (documented in the Housing Monitoring Program Reports). The attainment of this low scale of change emanated from the *Knox Housing Strategy 2015* which is focused on directing development away from Bush Suburban areas, particularly the Dandenong Foothills, with the view to sustaining a leafy green environment – which has been a well-recognised character of this housing strategy area. If this is sustained, the Dandenong Foothills will continue to undergo a low scale of change. Therefore, the distinctive bushland character and aesthetic charm of Knox will be preserved.

Knox's overall tree canopy coverage stands at 18%, and the urban areas at 16.3% (DELWP 2019b). As noted, this tree canopy data was published by DELWP. It is important to note that the data published in 2021 also cited (above) in this report was not directly comparable with the data published in 2019, due to the differences in the height of the canopy trees used, and a range of other factors including different data creation methods and geographical aggregations<sup>42</sup>. Hence, there is a need to explore and establish a means of mapping canopy regularly with a consistent data capture methodology to accurately chronicle canopy changes over time. In fact, the *Knox Biodiversity Resilience Strategy 2024 – 2024* has equally elucidated this critical point.

The protection of the leafy character of Knox is an important goal of Council. In fact, Council has over the years implemented policies and plans to protect the green and leafy character of Knox's neighbourhoods, using various policy tools including the *Knox Housing Strategy 2015*, the Knox Planning Scheme (Residential Zone Schedules – Tree Canopy Controls, Vegetation Protection Overlays, the Dandenong Foothills Policy, and others), and the *Biodiversity Resilience Strategy 2024 – 2034*. It is pertinent to note that Council has merely had an indirect power to control canopy loss on private property. Despite this, Council is still focused on exploring strategies to increase tree canopy cover. The *Knox Community Plan 2021 – 2031* considers an increase of tree canopy cover as one of the indicators of success, on the natural environment and sustainability key direction. This means the Knox community is strongly supportive of Council's measures on tree canopy protection.

The protection of canopy trees on private land is critical to increasing canopy coverage in Knox. However, the *Knox Biodiversity Resilience Strategy 2024 – 2034* maintains that the loss of canopy trees on private land remains a fundamental barrier to increasing tree canopy coverage in Knox. For this reason, it is recommended in the *Biodiversity Resilience Strategy 2024 – 2034* that there should be a review of how vegetation is protected on private land and/or property to reduce the possibility of canopy cover loss. The *Strategy* also calls for the exploration of community

---

<sup>41</sup> This data was captured in 2018.

<sup>42</sup> In the data published in 2019, a tree of 3+ metres was captured as a canopy tree by DELWP, but in 2020 data, a tree of 2 metres was categorized/used as a canopy tree. The heights used by DELWP fell short of the *Knox Housing Strategy 2015* definition of a Canopy Tree as "a perennial woody plant that reaches more than five (5) metres in height." (KCC, 2015, p.4).

campaigns to support vegetation management within the Knox municipality. This is a worthy proposal as this has the potential of carrying the community along in the canopy protection measures.

# Objective 6 - Development responds to neighbourhoods in an integrated and balanced manner

## Why is this Objective Important?

Integrated planning is required to develop liveable, inclusive, and safe cities, that consider the complex urban environment. An integrated approach to planning and delivery of development, infrastructure, services and activities for local areas and neighbourhoods promotes better outcomes. This approach considers not only the physical and economic determinants of neighbourhoods, but also the social, cultural, community, and health and wellbeing attributes that help define a place and contribute to its liveability. To achieve an integrated and balanced development, Council, through the Knox Planning Scheme has outlined explicit policies, goals and strategies for the development of the municipality. The Knox Planning Scheme is the official instrument for all decisions regarding planning made by Council, planning officers, and the Victorian Civil and Administrative Tribunal (VCAT). To guarantee that planning decisions are effective and deliver quality outcomes to the residents of Knox, it is crucial to have consistency between Council policy, the Knox Planning Scheme, and Council's decision-making processes. More importantly, consistency between Council's planning decision-making and VCAT ruling ensures fairness, predictability, and public confidence in planning decisions or approval processes.



**VCAT decided 15 residential planning applications for Knox in 2024 – an increase from 12 in 2023, 14 in 2021 & 2022; but a decline from 26 in 2020; 32 in 2019; and 43 in 2018.**

## How are we Tracking this Objective?

As referenced earlier in this section, coherence between Council's planning application decisions and VCAT decisions is crucial for assessing consistency with the Knox Planning Scheme. Planning applications decided by Council can be appealed at VCAT, which makes a final ruling on permit issuance based on the Knox Planning Scheme. Appellants may include landowners appealing a permit refusal, neighbours objecting to a permit approval, or either party seeking variations to permit conditions. VCAT primarily considers the Knox Planning Scheme provisions as the key reference, along with supporting documents and other relevant matters ([VCAT Website, 2024](#)). The number of cases appealed to VCAT and the percentage of overturned decisions indicate the consistency between Council policy, the Knox Planning Scheme, and Council's decision-making process. This report highlights trends in the consistency between VCAT and Council decisions on planning matters.

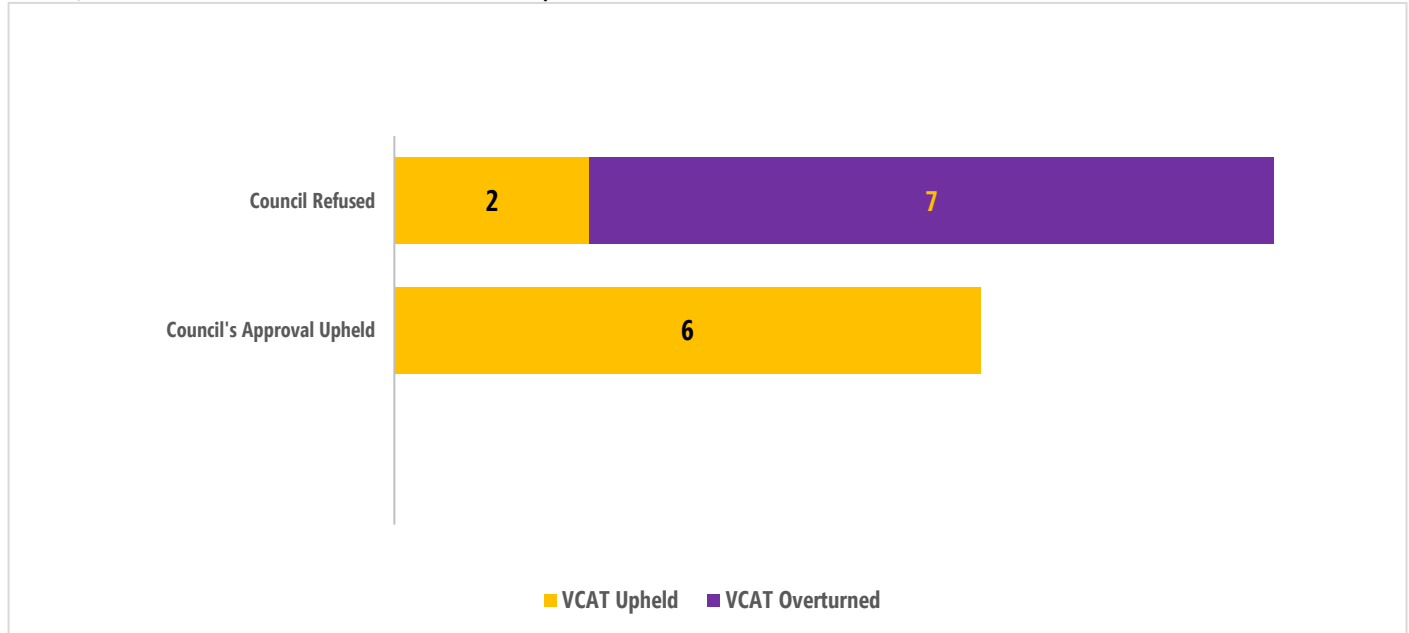
The remainder of this section reviews and analyses the VCAT decisions in Knox in 2024. To provide context, Figures 15 and 16 present VCAT's decisions on residential planning permits that would result in at least one net new dwelling in Knox if approved and implemented by the applicant<sup>43</sup>. Figure 15 shows that VCAT upheld two applications refused by Council and overturned seven applications that were refused by Council. This aligns with the typical trend since 2018 (excluding 2021 and 2023), where VCAT has generally overturned most of the Council's refusals. Interestingly, all six applications approved by Council but challenged at the Tribunal were upheld by VCAT. This is illustrated in Figure 16,

<sup>43</sup>Residential planning permits here include those for residential aged care facilities, which may not produce conventional dwelling types but will still provide much-needed accommodation for the elderly in Knox.

highlighting that VCAT upheld 100% of Council's approvals in 2024 – also, a consistent outcome since 2014, except for 2014, 2018, and 2023. It is noteworthy that in 2023, VCAT overturned one of Council's approvals, as depicted in Figure 16. However, only 22% of Council's refusals were upheld by VCAT in 2024, as shown in Figure 16.

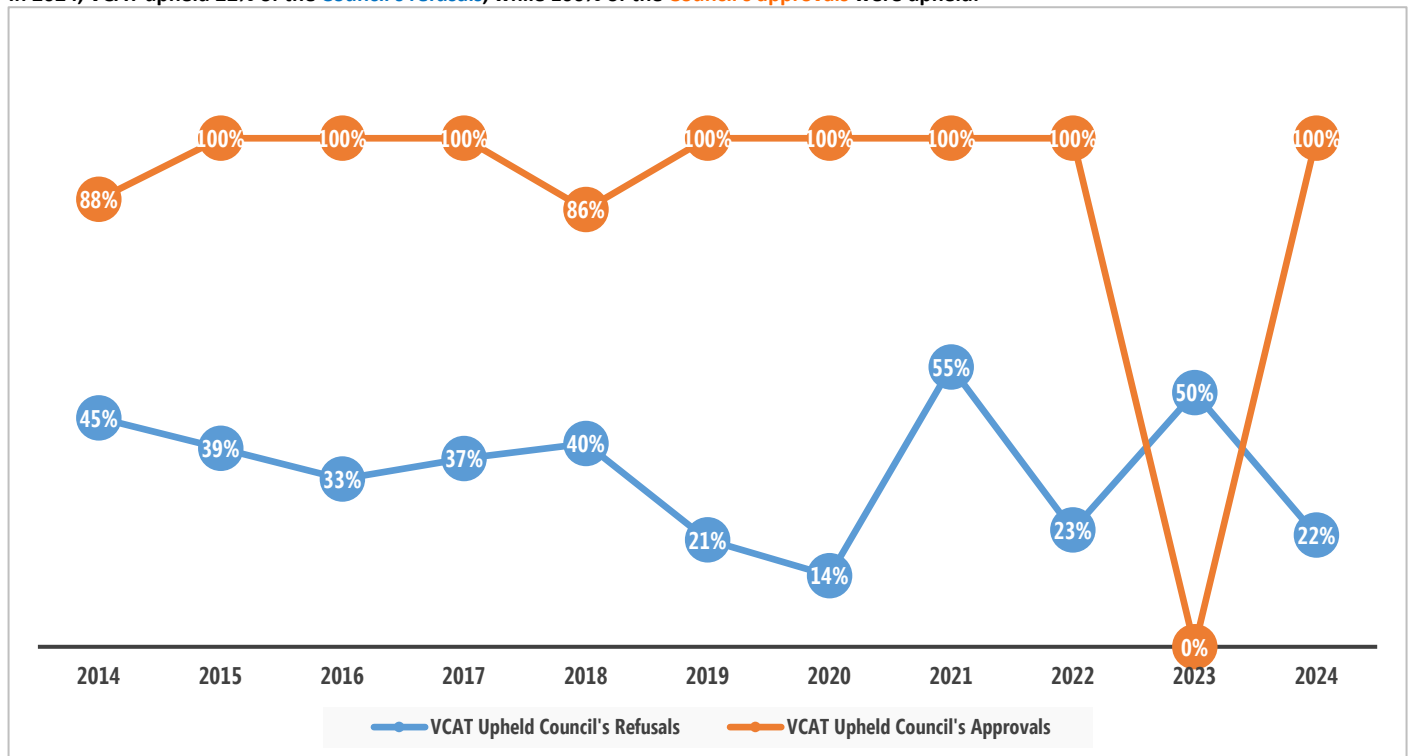
**Figure 15. VCAT Decisions on Residential Planning Applications**

In 2024, VCAT **overturned** more Council refusals than it upheld



**Figure 16. Trend Analysis of VCAT Decisions on Residential Planning Applications from 2014-2024**

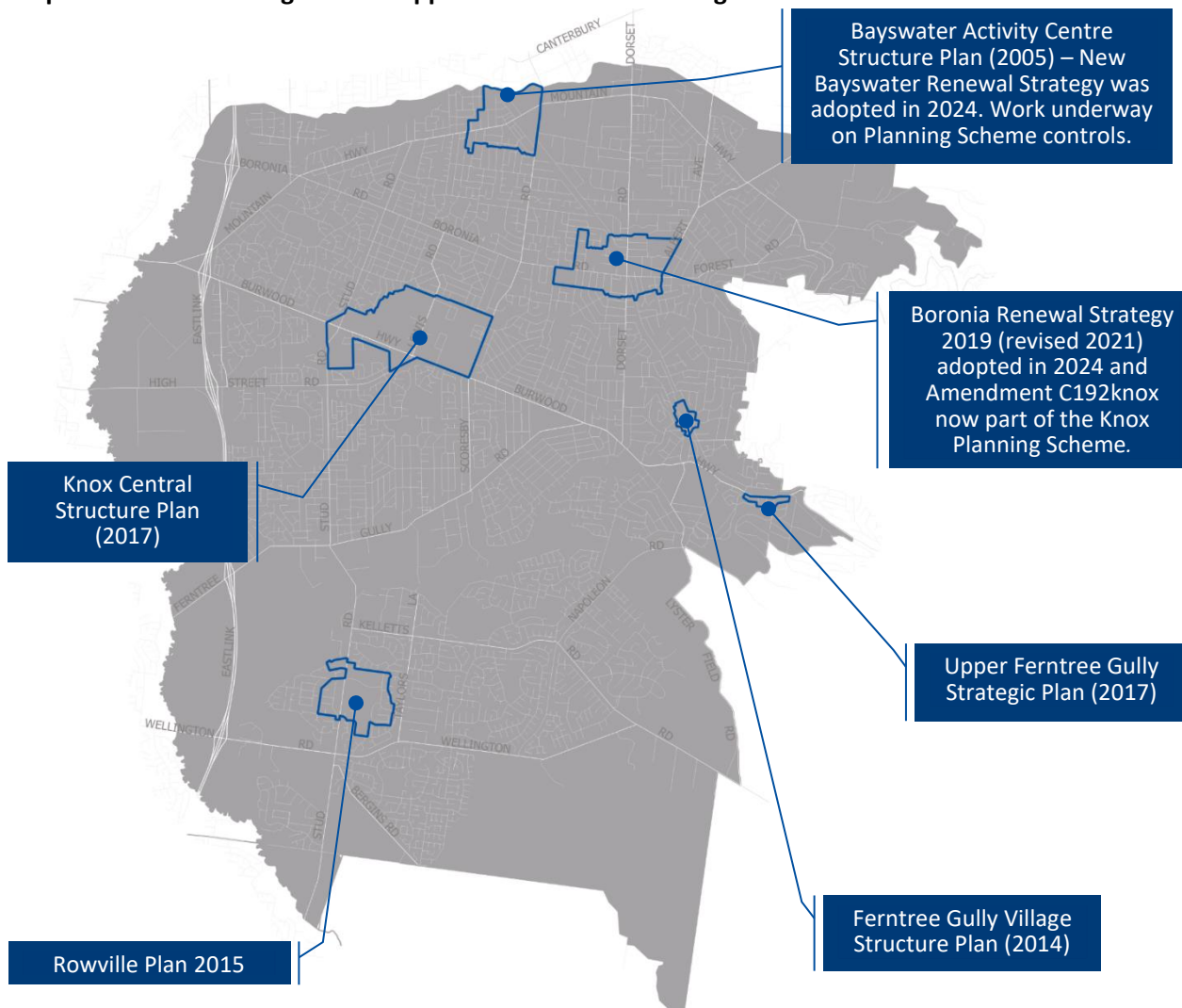
In 2024, VCAT upheld 22% of the Council's refusals, while 100% of the Council's approvals were upheld.



### Place-based Planning

Place-based planning is crucial because it tailors development strategies to the unique needs and strengths of specific communities, fostering more effective and sustainable outcomes (Lata & Reddel, 2022). In the context of municipalities, place-based planning promotes the development of infrastructure and services to specific communities, rather than using a generic or 'one-size-fits-all' approach. This approach is applied to respond to complex, interrelated or challenging issues. Knox City Council undertakes integrated place-based planning initiatives in activity centres and other key places across the municipality. Structure plans and other local strategic plans developed through extensive consultation with the local communities, provide specific directions and guidance for future decisions on planning controls, infrastructure provision and the delivery of community services (See Map 4). The place-based planning approach empowers stakeholders by fostering partnerships between Council and the community, local businesses, and other key stakeholders. This improves the understanding and ownership of place-specific plans within the community, thereby facilitating outcomes that meet community aspirations. Place-based planning delivers infrastructure and has multiple and cascading benefits to the Knox community beyond the primary purpose for which they were provided. As shown in Map 4, Knox currently has six plans and strategies that support place-based planning.

**Map 4. Plans and Strategies that Support Place-based Planning Controls**



Knox City Council's place-based planning initiatives has led to the creation of six activity centres, giving residents of the municipality easy access to a wide range of major retail, community, government, entertainment, cultural and transport services. The activity centres also offer local employment opportunities and support local economic development. These activity centres support the growth of high-density housing and align with the *Plan Melbourne 2017-2050* goal of developing 20-minute neighbourhoods (DELWP, 2017) as well as the new *Plan for Victoria* (2025). In fact, the *Plan for Victoria* (2025, p.74) envisions the development of 800,000 new homes across 60 Activity Centres in Greater Melbourne over the next decade.

## Analysis

VCAT cases lodged from Knox in 2024 have slightly increased compared to the previous two years but remain below the six-year average of approximately 24 cases. A sum of 15 residential cases were decided by VCAT in 2024. This constitutes an increase from 12 cases in 2023 and 14 in 2022. To further break this down, 9 of these VCAT cases were initially refused by Council. The remaining six VCAT cases were initially approved by Council. Some of these cases were approved with conditions. So, applicants disagreed with the conditions and appealed to VCAT. In a few cases, neighbours were unhappy with Council's approvals and therefore lodged cases with VCAT to set aside Council's approval. But in all the six appeals against Council's approvals, VCAT upheld Council decision. In the nine cases that were initially refused by Council, VCAT set aside seven of Council's refusals and ordered that planning permits should be granted. However, in two of the remaining nine Council refusals, VCAT affirmed Council decision – ruling that no permits should be granted in those cases (See Figure 15).

VCAT's overruling of most of Council's refusals (78% in 2024) was consistent with VCAT's past rulings, but VCAT usually affirmed all Council's approvals. As outlined in Figure 16, since 2015 VCAT has always overruled most Council's refusals. The only exception to this trend was in 2021 and 2023 where VCAT upheld 55% and 50% of Council's refusal to approve a planning permit respectively. On the other hand, VCAT consistently upholds all of Council's planning permit approvals. As shown in Figure 16, the only major departure from this trend was in 2023 where VCAT overturned a Council approval. The other years of minor departure from the usual trend were in 2014 and 2018 where VCAT failed to uphold 12% and 14% of Council's approvals respectively. In effect, while VCAT is most certainly likely to agree with Council regarding its approvals of planning permits, the Tribunal is always more likely to overrule Council's disapprovals of residential applications. From this, Council may need to relook at its reasons for refusing residential applications. This is because the high rate at which VCAT overrules Council's refusals of planning applications may signal to applicants that Council is too firm or rigid in enforcing the controls in its planning scheme without carefully considering the unique circumstances of each application.

In more than half of the seven planning applications that were refused by the Council but overturned by VCAT, the applicants submitted amended applications that Council officers under delegation largely supported. This suggests that if Council officers encouraged applicants to amend their proposals to address concerns, the number of appeals against Council refusals at VCAT could significantly decrease. This would save Council and its officers valuable time in litigating these matters at the Tribunal, resulting in a win-win outcome for both parties.

The seven overturned permits produced a total of 40 net new dwellings<sup>44</sup>. If these approved permits are fully enacted, it will contribute to new housing for the residents of Knox. More importantly, Council refused a 108-bed residential aged care facility. The application was refused by Council on the basis that the proposed design did not provide for sufficient separation and landscaping between the proposed building and the waterway, to manage a fire risk and a

---

<sup>44</sup> Five proposed developments refused by Council but approved at VCAT in 2023 yielded 9 net new dwellings. Also, the 10 developments that were initially refused by Council but overturned by VCAT in 2022 produced 37 net new dwellings.

site of biological significance. The applicant lodged an appeal at VCAT against the decision to refuse the application. The Tribunal found that the site was suitable for a residential aged care facility, and that the built form was generally satisfactory. Importantly, the Tribunal found that the proposed setback of the building from the watercourse was an acceptable outcome; by providing a buffer to the waterway and retaining a treed environment, with bushfire protection. In the end, the residential aged care facility was reduced to a 96-bed facility and approved by VCAT. At a time when Knox is just sitting on the minimum national target provision ratio of 78 places per people 70 years and above, Council needs to balance the requirements as part of planning applications, to respect the landscape while addressing the shortage of residential aged care facilities.

It is a positive development that VCAT cases lodged from Knox in 2024 is still below the average cases lodged at the tribunal over the last six years. For instance, 2021, 2022 and 2023 equally recorded some of the lowest VCAT cases lodged from Knox. If this trend of fewer appeals submitted to VCAT continues, it could be presumed that either planning permit applicants and neighbours are increasingly becoming satisfied with Council's decisions on planning permits or community members have limited capacity to actively engage in the planning appeal processes. The time and effectiveness of this third-party appeals process could also be one of the reasons for the low VCAT cases in the post-COVID period.

# Action Areas and Advocacy Opportunities for Council

Council can take practical actions and advocate for changes in the housing sector in response to the key findings of the 2024 annual report of the *Knox Housing Monitoring Program*. With its four interconnected roles as planner, provider, partner, and advocate, Council has the leverage to initiate effective actions and seize opportunities to drive transformative positive changes in Knox's housing sector. This section highlights critical areas for Council action and outlines advocacy opportunities.

## Action Areas

Action areas that the findings in this report might trigger are as follows:

- With the ongoing review of the *Knox Housing Strategy 2015*, the findings and data within this report could provide relevant data and perspectives, which could inform and enrich the review. In fact, one of the actions that emanated from the [Knox Housing Monitoring Program Report 2022](#) is that the City Strategy and Planning team, who are currently managing and leading the review of the *Knox Housing Strategy 2015*, have confirmed that “As part of the project scope, the findings of the most recent *Knox Housing Monitoring Program Report* will be considered.” Indeed, SGS Economics and Planning that has assessed the current housing capacity of Knox has drawn on the data in the *Knox Housing Monitoring Program* reports for 2022 and 2023. This means the 2024 report will equally provide updated data on important residential development matters in Knox, now and into the future.
- Small dwellings are only 21% of approved net new dwellings in Knox in 2024. However, the [Knox Housing Strategy 2015](#) and *Plan for Victoria* have both explicitly elucidated the critical need for diverse housing. Currently, there is extremely limited diversity of dwellings in Knox. Large dwellings are the overwhelming majority. Council could work with landowners/developers within Strategic Investigation Sites, toward the residential development of apartments that usually produce many small dwellings. The 2024 annual report, like previous Housing Monitoring Program reports, has flagged the limited availability of small dwellings in Knox. By working with landowners/developers, the diversification of the housing stock in the municipality may be able to be increased, particularly the availability of one and two-bedroom dwellings. This will also partly address the housing needs of the 45.7% (which is forecast to increase) of lone person or couple only households in Knox.
- A notable finding in the 2024 Housing Monitoring report is the persistent problem of housing unaffordability, particularly the emerging trend of the worsening affordability of rental properties. This report will therefore buttress some of the proposals in the *Knox Social and Affordable Housing Strategy and Action Plan 2023–2027*. This report and previous reports have highlighted that a critically significant policy concern in Knox, are the rising housing costs, coupled with very low availability of affordable rental options, plus a shortfall of social housing. A potential action in response to this, is for Council to re-look at its policies and their effectiveness in the social and affordable housing domain. This is because the *Knox Social and Affordable Housing Strategy and Action Plan 2023–2027* has now been implemented for two years, yet rental affordability is worsening and regrettably, Knox has lost 31 social housing dwellings from the existing 1,522 properties as of June 2023. There is therefore the need for a mid-term evaluation of Council’s key strategy for attacking the housing affordability crisis.
- The data and conclusions in this report may inform the final strategies, goals, and actions on housing in the draft Council and Health and Wellbeing Plan 2025–2029. Additionally, the findings could lead to revisions of some actions in the *Knox Community Plan 2021–2031*. Although the community plan spans a 10-year period, it is

monitored to track progress against key targets and benchmarks. The data and findings from the 2024 Housing Monitoring Program report can be used to assess the progress of objectives under the 'Neighbourhoods, Housing, and Infrastructure' Key Direction of the Knox *Community Plan 2021–2031*. Furthermore, these findings will help Council and its staff to respond to questions during housing-related community engagements and assist in designing survey instruments to evaluate how well the community's needs are being met.

- The 2024 Housing Monitoring Program report may guide Council's response to the new *Plan for Victoria*. It details Knox's status on housing diversity, need, choice, density, capacity, affordability, walkability, tree canopy cover, and environmental sustainability—key themes in the *Plan for Victoria*. This report details Knox's current residential development status and alignment with the *Plan for Victoria*, highlighting necessary changes.

## Advocacy Opportunities

Council's advocacy in the housing sector could lead to practical actions that could ameliorate identified challenges and shortfalls in the housing domain in Knox. In this respect, based on the findings in the 2024 *Knox Housing Monitoring Program Report*, some advocacy opportunities have been highlighted for Council to consider. These include:

- The 2024 Housing Monitoring Program report highlights that Knox has now declined to the minimum Australian national benchmark for the provision of aged care places. The previous two reports predicted this outcome if no substantial action was taken to increase residential aged care places in Knox. Knox is projected to fall below the national benchmark in the next Housing Monitoring report unless the provision of residential aged care places is significantly increased in 2025. This is likely due to the intercensal growth rate of Knox residents aged 70 and above, which is growing at 2.2%, outpacing the growth in residential aged care places. Consequently, Council could use these findings to effectively advocate for and attract residential aged care facility providers from all sectors (public, not-for-profit, private) to the Knox municipality. Successful advocacy could increase residential aged care places and address the emerging housing needs of this vulnerable cohort.
- This year's Housing Monitoring Program report revealed that 31 social housing dwellings were removed from Knox's stock in 2024. Homes Victoria attributes this decline to routine maintenance and upgrades. Given the significant shortfall in social housing, it is crucial for Council to collaborate with Homes Victoria and other providers to find better ways to conduct maintenance and upgrades progressively. This approach would prevent existing dwellings from deteriorating to the point of disrepair. By performing minor routine maintenance and upgrades, occupants could remain in their homes. Alternatively, upgrading and maintaining a few dwellings at a time would eliminate the need to remove 31 dwellings simultaneously for maintenance purposes.
- This report established that couple-only and lone-person households accounted for 45.7% in 2021, with projections indicating this figure will reach nearly 50% by 2031. However, the net growth of small dwellings (two bedrooms or less) in planning permits in 2024 was only 21%, and the average yield of small dwellings in planning permits over the last five years (2020-2024) has been an insignificant 21%. Given this looming crisis of small dwellings, Council could undertake advocacy campaigns to make private developers aware of the high and growing demand for small dwellings in Knox. An effective and sustainable campaign could encourage private housing developers to invest in constructing small dwellings, particularly apartments. This proposed advocacy acknowledges the complexities involved in providing small dwellings in a profit-driven property market.
- This report has recognised the importance of dwelling locations being in close proximity to community facilities and services, as less than a third (31%) of the dwellings approved in planning permits in 2024 in Knox were in "Very Walkable" areas. Since 2016, an average of 36% of approved dwellings in planning permits were in "Very Walkable" areas of Knox. Thus, on average, almost 65% of the net new dwellings approved in Knox over the past nine years were not in "Very Walkable" areas. This indicates that critical socio-economic infrastructure and services are not

in close proximity to many Knox residents. Therefore, Council could use this finding to advocate for State Government support in providing essential social and economic infrastructure and services, such as public transport, local shopping centres, health facilities, and local schools. If successful, Knox could achieve the *Plan Melbourne 2017-2050* goal of creating 20-minute neighbourhoods, where most essential daily needs and services could be accessed within a 20-minute walk, cycle, or local public transport trip. Proximity of dwellings to services is also a central pillar of the *Plan for Victoria*, which aims to build more homes in established areas close to jobs, public transport, facilities, and services. These locations are already well-served by existing infrastructure, reducing the need to build new infrastructure.

- Council has set a tree canopy target of 30% by 2050, but current data to assess progress is unavailable, relying instead on outdated 2018 data showing 18% coverage. Additionally, Council has also been exploring alternative tree canopy data sources, but concrete results have remained elusive. Improving tree canopy coverage is a key direction of *Plan Melbourne 2017-2050* and *Plan for Victoria*, which also targets 30% in urban areas. Achieving this requires regular measurement and monitoring. The *Knox Biodiversity Resilience Strategy 2024-2034* recommends establishing a system for regular canopy mapping. The *2024 Knox Housing Monitoring Program* report highlights the need for current data, suggesting Council collaborate with the Municipal Association of Victoria and other stakeholders to advocate for State Government support and funding to capture tree canopy data regularly. This is an opportune time, as the State Government has explicitly stated in *Plan for Victoria* that a tree canopy cover of 30% will be set for urbanised areas.

# Summary of Key Findings

This report aims to evaluate the progress made towards the six objectives outlined in the *Knox Housing Strategy 2015*. By analysing data on planning approvals, housing construction, and population demographics, the report provides a comprehensive overview of housing developments in Knox. The analysis is structured around a set of indicators designed to measure various aspects of housing, with a particular focus on new dwellings approved through the planning system in 2024.

The following are the key highlights from this report:

- **Since COVID, the number of new dwellings expected to be constructed in Knox has remained below the 11-year average of 684.** In 2024, 136 planning and subdivision permits were approved. Considering demolitions, if all these permits were fully enacted, Knox could see a net increase of 333 new dwellings. This figure is slightly below the numbers for 2021 (334), 2022 (373), and 2023 (384). In fact, the 2024 housing approvals represent the lowest number of net new dwellings in Knox in over a decade, since 2014.
- **New dwellings approved in 2024 were less aligned with the preferred character outlined in the *Housing Strategy 2015* compared to previous years.** In 2024, 68% of new dwellings approved were consistent with their Housing Strategy Area, a significant 20% decline from 88% in 2023. This marks the second lowest alignment since 2016 and falls below the nine-year average of 74%. The highest alignment was 88% in 2023, and the lowest was 64% in 2016. This decline is concerning, as it was expected that a significant share of approved dwellings would align with the preferred typology within a decade of implementing the *Knox Housing Strategy 2015*.
- **Dwelling density significantly increased in the Bush Suburban area in 2024, while it decreased in Neighbourhood and Local Living areas compared to 2023.** Between 2023 and 2024, dwelling units per hectare decreased by 5% in Knox Neighbourhood areas and by 17% in Local Living areas, a departure from the previous year's trend of increases across all Housing Strategy Areas (HSAs). However, dwelling density in Bush Suburban areas increased significantly by 38% during the same period. If this growth continues, the density in Bush Suburban areas could surpass that of Knox Neighbourhood areas within a decade. This would not be the preferred growth pattern, as it could negatively impact Knox's significant biological (flora and fauna) and landscape values.
- **In 2024, approvals for residential aged care facilities rebounded, while apartment approvals declined compared to 2023.** In 2024, a 96-bed residential aged-care facility was approved, unlike in 2022 and 2023. This aligns with the trend in 2021, when 214 beds were approved. Additionally, planning permits approved in 2024 would result in 39 new apartments if enacted, a decrease from the 59 apartments approved in 2023. Despite this decline, the 2024 figure is an improvement over 2022, where no apartments were approved (only 4 apartments were approved in 2021).
- **In 2024, Knox achieved the minimum target of 78 residential aged care places per 1,000 people aged 70 and above.** In 2024, Knox reached the minimum national benchmark of 78 residential aged care places per 1,000 people aged 70 and above, the lowest ratio since 2015. This decline has been ongoing since 2015, and without a significant increase in RACF<sup>45</sup>, Knox will likely fall below this benchmark next year. The population aged 70 and over in Knox is growing by at least 2% every five years, rising from 10.2% in 2016 to 12.4% in 2021 (ABS, 2022). Urgent action is needed to address this decline.

---

<sup>45</sup> Residential Aged Care Facilities (RACF)

- **Building permits issued in 2024 increased by 35% compared to the previous year.** In 2024, 869 building permits were issued, compared to 643 in 2023 and 588 in 2022. This figure is above the 8-year average of 800 approvals. While 2022 had the lowest number of approvals since 2017, 2017 saw the highest with 1,136 permits. Tracking building permits is crucial as they provide more certainty about future construction in Knox than planning permits, offering a clearer indication of whether the housing challenge can be addressed in the short term.
- **Escalating housing costs and a severe shortage of affordable rental options.** Access to affordable housing remained a critical issue in Knox in 2024. Only 0.1% of rentals and 1% of property sales were affordable to 'very low income' households. Rental affordability has consistently deteriorated since 2020. For instance, 42% of rental properties were affordable to 'very low' and 'low income' households in 2020, but this dropped to 29% in 2024. The rate of this decline is troubling. A review of the actions outlined in the *Knox Social and Affordable Housing Strategy and Action Plan 2023-2027* should be undertaken as part of a mid-term review to address this looming crisis.
- **A significant shortfall in social and affordable housing supply remains a critical policy concern in Knox in 2024.** In 2024, Knox fell short of the minimum estimated supply of social and affordable housing by 298 dwellings, creating a significant gap between available housing and the estimated need. With 1,505 social and affordable housing dwellings currently available and an estimated need of 2,407, there is a substantial shortfall of 902 dwellings. The decline of 31 social housing dwellings in 2024 further exacerbates the issue. Considering this growing challenge, it may be beneficial for Council to consider complementing existing approaches with alternative advocacy and forward-looking strategies. Exploring new and creative pathways could help support meaningful progress in addressing this important issue.
- **Growth in small dwellings (≤2 bedrooms) fell by 11% in 2024.** In 2024, only 21% of approved dwellings in Knox were small (two bedrooms or less), totalling 69 dwelling units, down from 32% (122 units) in 2023. The *Knox Housing Strategy 2015* and *Plan for Victoria* highlight the need for diverse housing, yet large dwellings dominate in Knox. Council could collaborate with landowners/developers in Strategic Investigation Sites to develop apartments, increasing the availability of small dwellings. This would help meet the housing needs of the growing number of lone person and couple-only households, which currently make up 45.7% of households in Knox.
- **VCAT decisions on planning permits slightly increased in 2024 after hitting a low in 2023.** VCAT decided 15 residential planning applications for Knox in 2023, up from 12 in 2023 and 14 in 2022 and 2021. The 2023 figure was the lowest since 2012. In 2024, the number of cases remained below the six-year average of 24. Since 2014, 66% of Knox's planning permit refusals were overturned by VCAT. In most cases where Council's refusals were overturned by VCAT, applicants submitted amended applications that Council officers supported. Continuing to encourage amendments to address concerns could reduce appeals, saving time and benefiting both parties.
- **Knox achieved 100% of its ESD targets for potable water consumption and GHG emissions reduction in 2023-2024.** This implied that all permits for applicable new dwellings in 2022-2023 met both targets. This was equally the case in 2021-2022 financial year. In 2023-24, ESD data showed a 38% average reduction in potable water consumption and a 61% average reduction in GHG emissions for approved planning applications.

# Next Steps: Future Knox Housing Monitoring Program

The *Knox Housing Strategy 2015* explicitly specified that its performance would be monitored and reported annually through the *Knox Housing Monitoring Program*. In line with this directive, the *Knox Housing Monitoring Program* Report will continue to be published annually. As new data sources become available, additional indicators will be developed and refined to accurately track and monitor the performance of the *Knox Housing Strategy 2015*.

Mapping tree canopy regularly would help monitor changes in tree canopy coverage. Council is exploring various means of accessing consistent, comparable, and reliable data sources for tree canopy measurements. In the meantime, some tree canopy data from the Department of Energy, Environment and Climate Action (DEECA) has been presented in this report. However, DEECA has not made any firm commitments regarding the release of subsequent tree canopy coverage data in the near future. Therefore, to enable future reports to examine changes in tree canopy cover in Knox over time, Council needs to expedite action and take concrete and timely steps to map and measure these changes. The *Knox Biodiversity Resilience Strategy 2024–2034* recommends that Council set incremental canopy milestones leading up to the 2050 target of 30% canopy cover in Knox. This is crucial because, without incremental targets, it is impossible to assess progress towards the 2050 goal. Even with available tree canopy data, the Housing Monitoring Program Report cannot confirm if Council is on track until 2050.

Future disaggregation of building permit data would provide more certainty about what is likely to be built in the near future. Planning approvals only indicate what might be built, as not all planning permits result in new residential development. Building permit numbers have been reported in the 2024 Housing Monitoring Program Report and previous reports. The challenge with building permit data is that, unlike planning permit data, it does not identify the number of bedrooms in approved residential developments. This makes it impossible to determine the dwelling size from the building permit. It is hoped that future Australian Bureau of Statistics building permit data may be further disaggregated to include the number of bedrooms.

Over the past few years, Council has explored the creation of an interactive Power BI dashboard to enhance data visualization and real-time reporting on key targets and indicators as part of the *Knox Housing Strategy 2015*. A dashboard was created for the 2023 *Knox Housing Monitoring Program* Report, and another has been developed for 2024, with plans to continue in subsequent years. It is important to note that the interactive dashboard will not replace the annual Housing Monitoring Program report but will complement it with housing-related data from Council's Pathway database. Since the dashboard feeds on live data from Pathway, there may be minor variations between the data in the report and the dashboard. In such cases, the data used in the report remains accurate as of the date/time of publication.

# References

Aged Care Financing Authority (ACFA) 2021 Report on the Funding and Financing of the Aged Care Sector.  
<https://tinyurl.com/mrc5vkc5>

Australian Bureau of Statistics (2001). ABS Table Builder.  
<https://tablebuilder.abs.gov.au/webapi/jsf/tableView/openTable.xhtml>

Australian Bureau of Statistics (2024). Building Approvals by Local Government Area: Number and value of approvals, monthly, 2023/24 (LGA 2023). <https://tinyurl.com/44mw6hvn>

Australian Bureau of Statistics (2025). Building Approvals by Local Government Area (LGA 2024): Number and value of approvals, monthly, 2024/25. <https://tinyurl.com/6kxc3e2j>

Australian Bureau of Statistics (2025). Regional Summary: Knox Local Government Area.  
<https://tinyurl.com/4udzz8uu>

Australian Bureau of Statistics (ABS) (2022). *Knox 2021 Census All persons QuickStats*.  
<https://www.abs.gov.au/census/find-census-data/quickstats/2021/LGA23670>

Australian Institute of Health and Welfare (2023). *Aged care service list – 30 June 2023*.  
<https://tinyurl.com/3hdpheyc>

Australian Urban Observatory (2025). Australian Urban Observatory Liveability Scorecard: Knox LGA.

Council Alliance for a Sustainable Built Environment (CASBE) (2024). *Built Environment Sustainability Scorecard (BESS) BESS Data for Knox City Council to 30 June 2023*.

Department of Environment, Land, Water and Planning (2019a). Victoria's Land Cover Time Series: Summary by Location Statistics. <https://tinyurl.com/4bwwfaua>

Department of Environment, Land, Water and Planning (2019b). Melbourne urban vegetation cover 2018: Eastern Region. <https://tinyurl.com/7u6b4x7e>

Department of Environment, Land, Water and Planning (2020). Cooling and Greening Melbourne Interactive Map. <https://tinyurl.com/3mexww8r>

Department of Environment, Land, Water and Planning (2021). Vicmap Vegetation: Identify woody vegetation areas across Victoria. <https://tinyurl.com/598sykfk>

Department of Environment, Land, Water and Planning (2022). Data product specification: Vicmap Vegetation. <https://tinyurl.com/3ywkW82s>

Department of Environment, Land, Water and Planning (DELWP) (2017). *Plan Melbourne 2017– 2050*.  
<https://tinyurl.com/4553hht8>

Department of Families, Fairness and Housing (2022a). Social Housing stock - DFFH 2021-22 Machine readable dataset. <https://tinyurl.com/4k3fren5>

Department of Families, Fairness and Housing (2024). Social housing and homelessness: Additional service delivery data 2023-24. <https://www.dffh.vic.gov.au/publications/annual-report>

Department of Families, Fairness and Housing (DFFH) (2022b). *Applications on the Victorian Housing Register*.  
<https://www.homes.vic.gov.au/applications-victorian-housing-register-vhr>

Department of Infrastructure (2002). *Melbourne 2030: planning for sustainable growth*.  
<https://tinyurl.com/y4bzk2d9>

Department of Transport and Planning (2023). *Victoria in Future: Victoria's future population projections*.  
<https://tinyurl.com/42na8y8n>

Department of Transport and Planning (2025). *Plan for Victoria: A plan by Victorians, for Victorians*.  
<https://tinyurl.com/4bmwa4kf>

Home Care Assistance (2023). *The Importance of Aged Care Services in the Modern World*.  
<https://tinyurl.com/yh4d2d9f>

Homes Victoria (2023). Local government housing data dashboard: City of Knox.

Homes Victoria (2024a). Applications on the Victorian Housing Register (VHR). <https://tinyurl.com/yen44nmu>

Homes Victoria (2024b). Local Government Housing Data Dashboard: City of Knox.

Homes Victoria (2024c). What's Happening in my Area: How we are investing in Knox. <https://tinyurl.com/dwicz7d>

Informed Decisions (2022). *Forecast Household Types – City of Knox*. <https://forecast.id.com.au/knox/household-types>

Informed Decisions (2023a). Affordability Monitor: City of Knox. <https://tinyurl.com/9tzzwvdi>

Informed Decisions (2023b). Population, households and dwellings: City of Knox. <https://tinyurl.com/348fefy6>

Informed Decisions (id) (2023c). *Explore the housing story for the City of Knox*. <https://tinyurl.com/45fby2hb>

Knox City Council (2015). *Knox Housing Strategy 2015*. <https://tinyurl.com/yzrtjr7w>

Knox City Council (2019). Residential Design Guidelines (Adopted 2015. Revised 2019). <https://tinyurl.com/fbb6h5ew>

Knox City Council (2021a). *Climate Response Plan 2021 – 2031*. <https://tinyurl.com/5n6w53km>

Knox City Council (2021b). *Community Plan 2021-2031*. <https://tinyurl.com/3fhr48kj>

Knox City Council (2021c). *Council Plan 2021-2025*. <https://tinyurl.com/3bswhj5v>

Knox City Council (2022). Minimum Supply of Social Housing Analysis. <https://tinyurl.com/2s3spj8w>

Knox City Council (2023a). *Housing Changes Lives: Knox Social and Affordable Housing Strategy and Action Plan 2023-2027*. <https://tinyurl.com/3t6d2pxs>

Knox City Council (2023b). *Knox Housing Monitoring Program: Annual Report for 2022*. KCC.  
<https://tinyurl.com/mrnf7365>

Knox City Council (2024a). *Biodiversity Resilience Strategy: Protecting our Biodiversity Assets 2024 – 2034*.  
<https://tinyurl.com/mtzttd3e>

Knox City Council (2024b). *Knox Housing Monitoring Program: Annual Report for 2023*. KCC.  
<https://tinyurl.com/mraa529v>

Knox City Council (KCC) (2015). *Knox Affordable Housing Action Plan 2015-2020*. <https://tinyurl.com/mrxz6daz>

Lata, L. N., & Reddel, T. (2022). Place-based approaches—a guide for the Victorian Public Service.  
<https://www.vic.gov.au/sites/default/files/2023-03/VPS-place-based-guide.pdf>

Lieu, M. (2024). *Where the most new homes are being approved in Victoria: PropTrack*.  
<https://tinyurl.com/259u6ah8>

Lorimer, G.S. (2010). *Sites of Biological Significance in Knox*. 2nd Edition. Knox City Council, Wantirna South, Victoria, Australia. <https://tinyurl.com/3xetb8m8>

McCubbing, G. (2024). Approvals show Victoria's home-building target is miles off: industry.  
<https://tinyurl.com/445ebfzr>

Pawson, H. (2022). Australia's social housing system is critically stressed. Many eligible applicants simply give up. *The Conversation*. <https://tinyurl.com/3sm9ehe5>

Snapshot Community Climate Tool (2021). *Snapshot Report: Knox 2021 municipal emissions snapshot*. <https://snapshotclimate.com.au/locality/municipality/australia/victoria/knox/>

Steiniger, S., Rojas, C., & Vecchio, G. (2019). Evaluating walkability with WalkMyPlace-Five reasons why the utility of Walkscore. com may be limited in South America. In *Anais da Conferência AGILE* (Vol. 17, pp. 17-20). <https://tinyurl.com/3zwzr3tc>




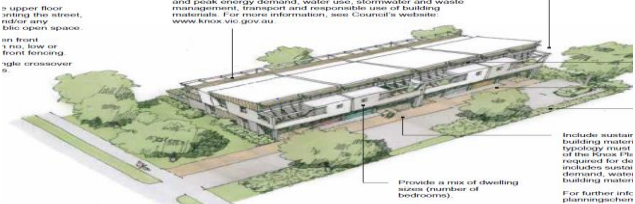
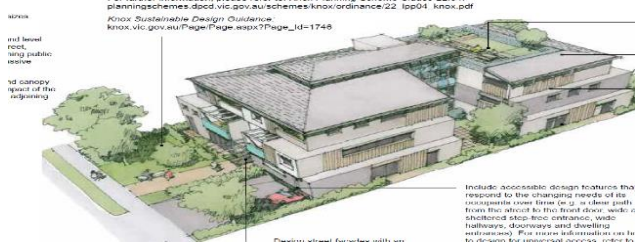
The Nature Conservancy and Resilient Melbourne (2019). *Living Melbourne: Our Metropolitan Urban Forest*. The Nature Conservancy and Resilient Melbourne, Melbourne. <https://tinyurl.com/4px3epxh>

Victorian Building Authority (2022). *Victoria's building industry remains strong*. <https://www.vba.vic.gov.au/news/news/2022/victorias-building-industry-remains-strong>

Victorian Civil and Administrative Tribunal (VCAT) (2024). Decisions in planning disputes. <https://tinyurl.com/yych7f36>

# Attachment 1: Definition of Housing Types

**Table 3. Housing types as defined in the Knox Housing Strategy**

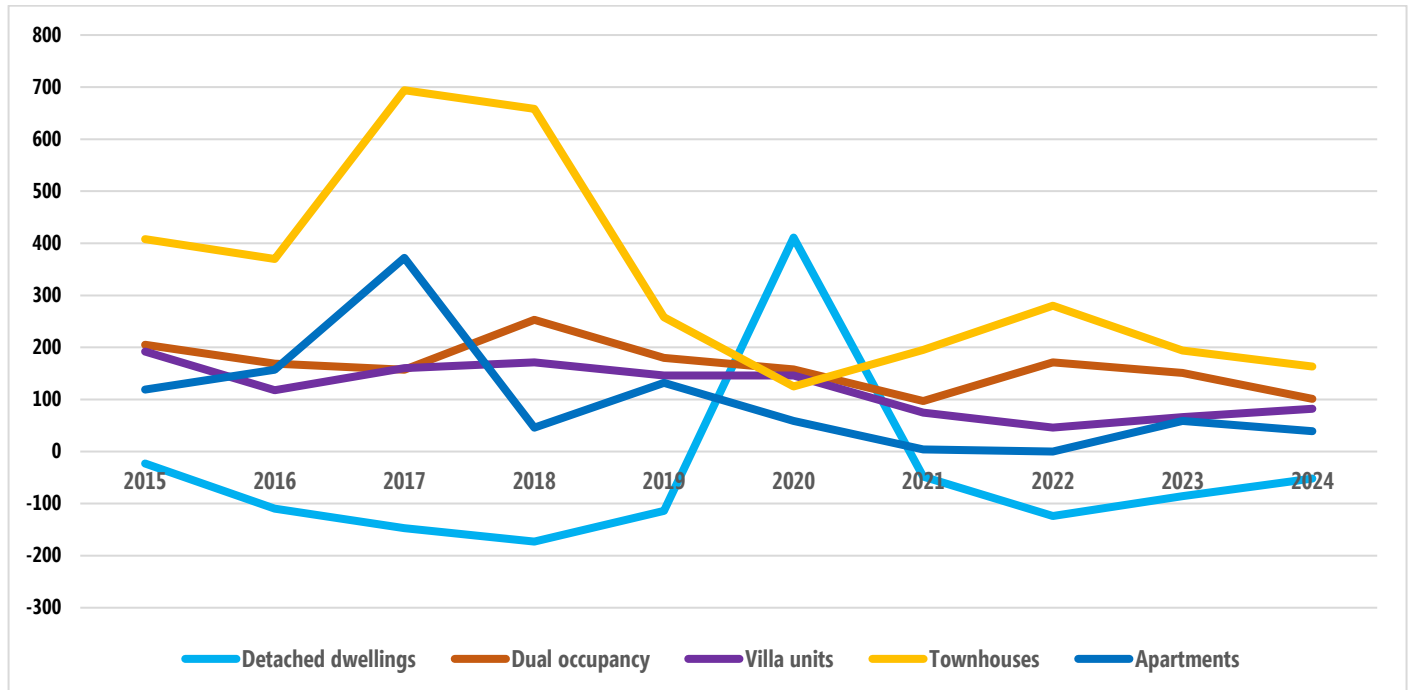
Housing Type Definition	Indicative Lot Layout: Perspective View
<p><b>Detached dwelling:</b> one dwelling on a lot.</p>	 <p>Minimize the dwelling and driveway footprint and other hard surfaces such as driveways, paths and paving.</p> <p>Provide open front gardens with no, low or transparent front fencing.</p> <p>Design buildings to be nestled and tucked into the landscape.</p> <p>Include external material and use double glazed windows and doors.</p> <p>Include accessible design features (e.g. a clear path from the street to the front door, wide and sheltered step-free entrance, wide hallways &amp; doorways). For more information on how to design for universal access, refer to the Federal Government's supported <i>Enabling Housing Design Guidelines, 2019</i> (<a href="http://www.enablinghousingdesign.org.au">www.enablinghousingdesign.org.au</a>) and <i>Knox State Planning</i> is <i>Designing for Accessibility</i> (<a href="http://knox.vic.gov.au/planning/designing-for-accessibility">knox.vic.gov.au/planning/designing-for-accessibility</a>).</p>
<p><b>Dual occupancy:</b> two dwellings on a lot (can include retention of an existing dwelling).</p>	 <p>Minimize the dwelling and driveway footprint and other hard surfaces such as driveways, paths and paving.</p> <p>Provide open front gardens with no, low or transparent front fencing.</p> <p>Provide a single crossover for driveways.</p> <p>For further information, please refer to: <i>Knox Planning Scheme Clause 22.04, planning schemes docx.vic.gov.au/schemes/knox/ordinance22_39624_knox.pdf</i> and <i>Knox Sustainable Design Guidance</i> (<a href="http://knox.vic.gov.au/Page/DesignGuidance?Page_id=1748">knox.vic.gov.au/Page/DesignGuidance?Page_id=1748</a>).</p> <p>Significantly set back the first floor level from the ground floor level.</p> <p>Include accessible design features (e.g. a clear path from the street to the front door, wide and sheltered step-free entrance, wide hallways &amp; doorways). For more information on how to design for universal access, refer to the Federal Government's supported <i>Enabling Housing Design Guidelines, 2019</i> (<a href="http://www.enablinghousingdesign.org.au">www.enablinghousingdesign.org.au</a>) and <i>Knox State Planning</i> is <i>Designing for Accessibility</i> (<a href="http://knox.vic.gov.au/planning/designing-for-accessibility">knox.vic.gov.au/planning/designing-for-accessibility</a>).</p> <p>Include Water Sensitive Urban Design (WSUD) features (e.g. rain gardens) as part of the landscaping.</p>
<p><b>Villa units:</b> three or more dwellings on a lot with no shared walls.</p>	 <p>Minimize the dwelling and driveway footprint and other hard surfaces such as driveways, paths and paving.</p> <p>Provide open front gardens with no, low or transparent front fencing.</p> <p>Provide a single crossover for driveways.</p> <p>For further information, please refer to: <i>Knox Planning Scheme Clause 22.04, planning schemes docx.vic.gov.au/schemes/knox/ordinance22_39624_knox.pdf</i> and <i>Knox Sustainable Design Guidance</i> (<a href="http://knox.vic.gov.au/Page/DesignGuidance?Page_id=1748">knox.vic.gov.au/Page/DesignGuidance?Page_id=1748</a>).</p> <p>Significantly set back first and second levels from the ground floor level.</p> <p>Include external material and use double glazed windows and doors.</p> <p>Include accessible design features (e.g. a clear path from the street to the front door, wide and sheltered step-free entrance, wide hallways &amp; doorways). For more information on how to design for universal access, refer to the Federal Government's supported <i>Enabling Housing Design Guidelines, 2019</i> (<a href="http://www.enablinghousingdesign.org.au">www.enablinghousingdesign.org.au</a>) and <i>Knox State Planning</i> is <i>Designing for Accessibility</i> (<a href="http://knox.vic.gov.au/planning/designing-for-accessibility">knox.vic.gov.au/planning/designing-for-accessibility</a>).</p> <p>Ensure the rear dwelling is single storey.</p>
<p><b>Townhouses:</b> three or more dwellings on a lot sharing a wall or roof.</p>	 <p>Minimize the dwelling and driveway footprint and other hard surfaces such as driveways, paths and paving.</p> <p>Provide open front gardens with no, low or transparent front fencing.</p> <p>Provide a single crossover for driveways.</p> <p>For further information, please refer to: <i>Knox Planning Scheme Clause 22.04, planning schemes docx.vic.gov.au/schemes/knox/ordinance22_39624_knox.pdf</i> and <i>Knox Sustainable Design Guidance</i> (<a href="http://knox.vic.gov.au/Page/DesignGuidance?Page_id=1748">knox.vic.gov.au/Page/DesignGuidance?Page_id=1748</a>).</p> <p>Include external material and use double glazed windows and doors.</p> <p>Include accessible design features (e.g. a clear path from the street to the front door, wide and sheltered step-free entrance, wide hallways &amp; doorways). For more information on how to design for universal access, refer to the Federal Government's supported <i>Enabling Housing Design Guidelines, 2019</i> (<a href="http://www.enablinghousingdesign.org.au">www.enablinghousingdesign.org.au</a>) and <i>Knox State Planning</i> is <i>Designing for Accessibility</i> (<a href="http://knox.vic.gov.au/planning/designing-for-accessibility">knox.vic.gov.au/planning/designing-for-accessibility</a>).</p> <p>Provide a mix of dwelling sizes (number of bedrooms).</p>
<p><b>Apartments:</b> development of three or more stories in a single mass or multi-unit dwelling, usually with a common entrance.</p>	 <p>Minimize the dwelling and driveway footprint and other hard surfaces such as driveways, paths and paving.</p> <p>Provide open front gardens with no, low or transparent front fencing.</p> <p>Provide a single crossover for driveways.</p> <p>For further information, please refer to: <i>Knox Planning Scheme Clause 22.04, planning schemes docx.vic.gov.au/schemes/knox/ordinance22_39624_knox.pdf</i> and <i>Knox Sustainable Design Guidance</i> (<a href="http://knox.vic.gov.au/Page/DesignGuidance?Page_id=1748">knox.vic.gov.au/Page/DesignGuidance?Page_id=1748</a>).</p> <p>Include external material and use double glazed windows and doors.</p> <p>Include accessible design features (e.g. a clear path from the street to the front door, wide and sheltered step-free entrance, wide hallways &amp; doorways). For more information on how to design for universal access, refer to the Federal Government's supported <i>Enabling Housing Design Guidelines, 2019</i> (<a href="http://www.enablinghousingdesign.org.au">www.enablinghousingdesign.org.au</a>) and <i>Knox State Planning</i> is <i>Designing for Accessibility</i> (<a href="http://knox.vic.gov.au/planning/designing-for-accessibility">knox.vic.gov.au/planning/designing-for-accessibility</a>).</p> <p>Provide street frontage with use.</p>

For further details, see the [Knox Residential Design Guidelines 2015 – revised 2019](#) (p.24-28).

# Attachment 2: Net growth in dwellings by Typology, 2015 to 2024

**Figure 17. Net Growth in Dwellings by Typology**

**Townhouses** remain the predominant dwelling type in terms of net growth since 2016<sup>46</sup>



The only exception to this trend was in 2020, where detached dwellings was the dominant typology.

<sup>46</sup> From 2015 to 2018, calculations of net growth by type are based on an assumption that all demolished dwellings were detached dwellings. Analysis of demolitions data from 2019 to 2022 suggests that this was accurate of 96.5% of demolitions.

Figure 18. Square Metres per Dwelling in Housing Strategy Areas

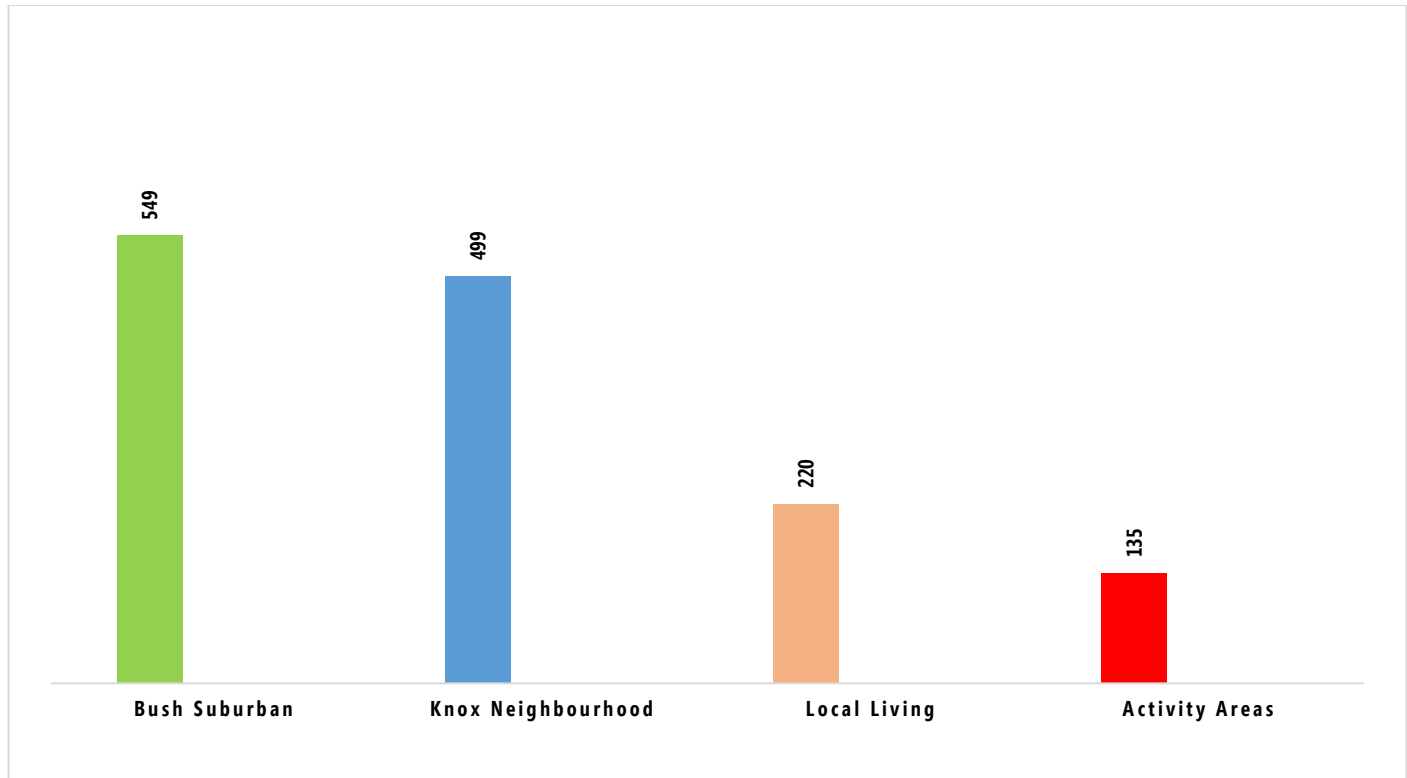


Table 4. Household Annual Income Ranges for 2024

Informed Decisions (.id), Housing Monitor: Income Ranges for Greater Melbourne 2024			
	Very Low	Low	Moderate
Lone person	Up to \$26,085	Up to \$41,737	Up to \$62,606
One parent family	Up to \$42,824	Up to \$68,519	Up to \$102,779
Couple	Up to \$61,701	Up to \$98,721	Up to \$148,083
Couple family with children	Up to \$85,487	Up to \$136,779	Up to \$205,169
Group household	Up to \$62,250	Up to \$99,600	Up to \$149,400
Total	Up to \$56,392	Up to \$90,226	Up to \$135,340
Planning and Environment Act 1987: Specification of Income Ranges for Greater Melbourne (1 July 2024 – 30 June 2025)			
	Very Low Income Range (Annual)	Low Income Range (Annual)	Moderate Income Range (Annual)
Single adult	Up to \$30,640	\$30,641 to \$49,020	\$49,021 to \$ 73,530
Couple, no dependant	Up to \$45,950	\$45,951 to \$73,530	\$73,531 to \$110,300
Family (with one or two parents) and dependent children	Up to \$64,330	\$64,331 to \$102,950	\$102,951 to \$154,410