Banyule Housing Strategy

Housing Capacity Analysis

Prepared for
City of Banyule

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Executive Summary.

Introduction

- Banyule is currently updating its Housing Strategy to accommodate future population growth and the housing needs of the community.
- At 2021 the City of Banyule's population was 127,370 residents. As Victoria's population returns to growth in the post Covid-19 pandemic era, Banyule's population is projected to grow to 143,735 residents to 2036 which equates to a net addition of +16,365 new residents or 1090 new residents per annum over the 2021 to 2036 period. Prior to the Covid period the City's population was growing at 920 new residents per annum.
- As the City's population grows, the number households living within Banyule will also increase. Banyule's households are projected to grow from 47,666 to 54,695 households which equates to an increase of +7,030 households. In this time, as per prevailing trends in the established parts of Melbourne, the number and proportion of smaller households living in the City of Banyule is expected to continue to grow.
- In the recent past, population growth has been accompanied by the increased development of medium and high-density dwellings which has, in turn, resulted in a significant increase in the propensity of the City's households to live in high and medium density housing.

Housing Capacity at 2023

- Housing capacity is a theoretical assessment of the potential for a location to accommodate future housing demand.
- Charter has applied a housing capacity methodology to identify the City of Banyule's capacity to accommodate future housing demand. The methodology entails a series of steps in which various land and development assumptions are applied to quantify the scale and location of potential housing capacity.
- The study identifies potential housing capacity under the City's current land use planning framework (at February 2023) of 53,250 net additional dwellings. This encompasses capacity for 11,200 net additional dwellings in commercial areas (primarily activity centres and neighbourhood centres) and capacity for 42,000 net additional dwellings in residential areas (land within residential zones).
- Clause 11.02 of the Banyule Planning scheme obligates the City of Banyule to establish adequate land supply for residential development that meets projected population growth for the next 15 years. The assessment indicates that the City has sufficient land supply and capacity to accommodate growth as at April 2023.
- When assessed against the municipality's Residential Areas Framework, the majority of the City's housing capacity is within areas supported for high and medium density housing change. The study identifies 102 hectares of potentially available land for new housing in Diversity Areas (areas supported for high change). This land comprises just over 4% of land available for future housing, however, because this land is supported for high density change, Diversity Areas comprise 24% of the municipality's housing capacity. Similarly, Accessibility Areas (in which medium density development is generally supported) comprise 11% of potentially available land supply for new housing and 15% of net capacity.

- The suburbs of Greensborough, Ivanhoe, Heidelberg and Heidelberg Heights, include a substantial proportion (42%) of the City's housing capacity. These are locations that include significant Diversity and Accessibility Areas including the City's Major Activity Centres and public transport corridors supported for low rise apartment development.
- Greensborough stands out as a major future housing opportunity area. The suburb currently incorporates 17% of the City's housing capacity including significant housing capacity in both Diversity and Accessible change areas.
- Bundoora (8%) and Rosanna (7%) also incorporate a substantial proportion of the City's capacity. This capacity is exclusively in residential areas.

Table 1: Housing Capacity by Residential Areas Framework Change Areas

Change Area	No. of Available Lots	Land Area (H.a.)	Housing Capacity	Existing Houses	Net Yield	% of Capacity
Diversity Area	1541	102	13,606	661	12945	24%
Accessible Area	3912	273	12,107	3912	8195	15%
Incremental Area	17605	1214	41,613	17605	24007	45%
Limited Area	1096	87	1,744	1096	648	1%
Limited Incremental Area	9403	831	16,847	9403	7444	14%
Low Density Residential Area	22	18	46	22	24	0%
Total	***33,579***	***2,525***	***85,963***	***32,699***	***53,263***	-

Source: Charter Keck Cramer

Take Up of Housing Capacity

- The projected take-up of housing capacity has been modelled according to two scenarios. The scenarios assume that future housing supply will comprise medium density and apartment dwellings while concomitantly the propensity for households to live in medium and higher density dwellings is also assumed to increase.
- Take-up Scenario 1 assumes Banyule's long term housing supply will incorporate a higher share of medium density dwellings while Take-up Scenario 2 assumes that long term housing supply will incorporate a greater share of apartment dwellings. Each scenario derives from analysis of the composition of 2017 to 2021 dwelling supply which included significant apartment growth.

Table 2: Housing Take Up

	2021 Dwellings	2036 Dwellings	Dwelling Change
Scenario 1 Medium Density			
Separate Houses	39,274	38,074	-1,200
Medium Density	11,185	14,905	3,720
High Density	2,390	7,488	5,098
Total	**52,849**	**60,467**	**7,618**
Scenario 2 High Density			
Separate Houses	39,274	38,674	-600
Medium Density	11,185	13,995	2,810
High Density	2,390	7,779	5,389
Total	**52,849**	**60,448**	**7,599**

Source: Charter Keck Cramer

- Each Scenario results in a decline in separate dwellings, and an increase in medium and high density dwellings consistent with prevailing trends.

Implications for an Updated Housing Strategy

- Under current planning controls the municipality has sufficient capacity to accommodate the sum total of future housing needs as per publicly available population projections at 2023. As discussed below, there is nonetheless, an ongoing need to maintain housing capacity and facilitate housing supply in high amenity locations and to facilitate affordable and diverse housing that supports the housing needs of the City's increasingly diverse households.
- The capacity assessment entails a number of implications in relation to land supply, protecting capacity in key areas and in aligning capacity with expressed housing preferences.
- Protecting housing capacity in high change areas: Ongoing high density development will see the City's Diversity and Accessibility Areas support a high proportion of the City's future housing development and population growth. The City's housing Diversity Areas make up only a small proportion of land area (4%) while providing nearly a quarter of the City's housing capacity. These areas need to continue to be supported and protected for future housing supply.
- Identifying new Diversity Areas: Given the potential for the City's Diversity Areas to experience high levels of demand and land use change it may be prudent for the forthcoming housing strategy to identify additional Diversity areas particularly if ongoing development diminishes land supply. Areas around new transport infrastructure such as the Heidelberg Suburban Rail Loop might be considered, while land use settings within the City's Neighbourhood Centres might be reviewed.
- Boosting low rise apartment capacity: There is currently an estimated 16.6 hectares of available land in residential areas supported for low rise apartment development of between 3 and 5 storeys.[1] Limited land supply to

[1] This includes land in General Residential Zone 3 (13 metres) and General Residential Zone 4 (15 metres), and Residential Growth Zone 1 (13.5 metres), Residential Growth Zone 2 (13.5 metres), Residential Growth Zone 5 (18 metres) and Residential Growth Zone 7 (18 metres). See appendices C.

support low rise apartment development in residential areas is likely to limit choices for a number of households including households seeking to downsize that are not attracted to living in activity centres, households with children and households attracted to the City's landscape values that cannot afford detached or medium density dwellings in suburban areas.

The future housing strategy might seek to boost the supply of land to support low rise apartment development by:

  - Reviewing the extent to which the City's Accessibility Areas have been translated into zones that support medium density development including walk up apartments.
  - Identifying new areas in which low rise apartments might be encouraged.

- Promoting housing growth in the City's north: The Greensborough Major Activity Centre represents a future opportunity to support housing growth in the City's north while also promoting population growth near established amenity and public transport services. The Strategy should continue to support Greensborough as a housing opportunity area, in turn, highlighting its amenity and land supply to support housing change while seeking to address any barriers limiting housing growth.
- Each of the suburbs of Watsonia and Bundoora include significant housing capacity in residential areas. The housing strategy might consider seeking to direct and shape growth in these locations to both avoid ad hoc medium density development and to direct growth to locations with higher levels of existing infrastructure and public transport amenity.
- Ensuring housing preferences are met: Each of the take up scenarios results in the addition of high numbers of high density apartments. This form of living may not be desirable for various households. If the City seeks to attract households with children and support the downsizing of its aging population the forthcoming Strategy should examine ways in which it might encourage low rise apartment development, three bedroom apartments and innovative medium density dwellings that protect landscape character while enabling greater housing opportunity.
- Review neighbourhood centres: The Neighbourhood centres reviewed in this project (Watsonia, Montmorency, Rosanna, Macleod) include a number of opportunity sites that in the future might support housing growth near public transport infrastructure and services. The forthcoming strategy might investigate options to boost housing capacity in Neighbourhood Centres by focusing on key renewal sites and land use settings of land in direct proximity to high amenity to achieve the aspirations of a walkable neighbourhood.
- Continue to protect sensitive environmental and landscape areas: These areas are generally protected from development and thereby incorporate limited housing capacity.

Introduction

1.1. Introduction

Banyule City Council is comprehensively updating its housing planning.

As part this, the City is assessing its capacity to accommodate future housing needs. Clause 11.02 of the Banyule Planning scheme obligates the City of Banyule to establish adequate land supply for residential development that meets projected population growth for the next 15 years.

This work integrates the City's land use planning policy at February 2023, land data, demographic data and population projections to explore the capacity of Banyule City Council to accommodate future housing demand. In so doing, the work seeks to provide insight into the potential location and scale of future change whilst also identifying elements of existing planning that might be reformed to further support and direct housing capacity.

1.1.1. Project objectives

The primary objective of this project is to identify the municipality's theoretical housing capacity at 2023 to support Council strategic planning. As part of this the project also seeks to:

- Identify the scale and location of available land to accommodate future projected housing demand.
- Identify the scale of housing capacity supported by the City's Residential Areas Framework.
- Determine future housing demand and scenarios that depict potential take-up of housing capacity by demand.
- Generating insights into the future form and location of development to support the forthcoming housing strategy.

Project context

Banyule City Council aims to be a municipality in which:

> *We are a city with diverse, affordable, and sustainable housing solutions that meet the mixed needs of our diverse community.*
>
> *Banyule Community Vision 2041*

To ensure the municipality is supporting the housing needs of its community, Banyule City Council is currently updating the *Banyule Housing Strategy 2009* and the *Neighbourhood Character 2012*.

By the end of 2024, Council aims to have refreshed the municipality's city wide housing and neighbourhood character policies and strategies.

Council recently developed an Interim Social and Affordable Housing policy. This is a new initiative designed to guide and support investment in more affordable housing.

This housing capacity assessment will function as an input into the update of Council's housing planning and in particular the review and update of the 2009 housing strategy and the resulting update to the City's current residential areas framework.

1.1.2. The purpose of a capacity assessment

A housing capacity model is a theoretical study of the maximum number of dwellings that could be delivered within a location to support the community's projected housing needs. Drawing on analysis of residential sites, land use planning and historic development trends, the housing capacity model both creates and applies a series of assumptions to identify housing capacity and the projected take-up of capacity.

By quantifying housing capacity and projecting future consumption the model and its outputs provide a basis to consider a range of development, housing and population implications including:

- the long term capacity of the City's residential areas framework and land use zoning settings to accommodate housing needs, demographic change and growth.
- the impact of land use zoning on the capacity of individual precincts and locations to accommodate housing demand,
- the likely form and location of future housing growth and its relationship to demand.
- potential capacity constraints and opportunities to expand capacity in individual locations.
- the need to review capacity in relation to accessibility and the delivery of new infrastructure.

While the report is primarily focused on the identification of capacity and its future take up, a number of observations in relation to the above are detailed throughout the report.

1.2. About the housing capacity methodology.

The housing capacity methodology is comprised of a series of analytical tasks that compile data to form and then apply project assumptions. This report documents each of the steps that comprise the housing capacity analysis as individual chapters as follows:

Table 3: Housing Capacity Methodology

Source: Charter Keck Cramer

Each chapter incorporates a methodological section that describes the guiding assumptions and rationale that underpin each analytical step.

Throughout the modelling process Charter has applied relatively conservative assumptions to account for future uncertainty and the potential for unknown constraints to impact on future capacity.

In interpreting Charter's housing capacity methodology it is important to note that capacity results do not:

- consider potential infrastructure constraints on development outcomes and development potential.
- consider the feasibility of private development and the decisions of developers in relation to built form – the model is guided by historic choices of the development industry as is evident in building approvals and data on permitted development. The model does not anticipate changes in investment and development typologies.
- identify the likelihood of development of an individual site or the likely outcome of development of an individual site – the model applies broad ranging assumptions to identify potential outcomes across the municipality it does not consider the individual development circumstances of individual sites.
- address individual site specific constraints on development that cannot be modelled at a municipal wide level – these might include matters related to overlooking, overshadowing, vegetation protection and car parking.
- account for the presence of dwelling covenants that might restrict development – a covenant on the title of a property may restrict or even prohibit its future development, the model does not account for the impact of covenants on future development.

1.2.1. Reporting on Housing Capacity Results

Within this report housing capacity results are reported according to *Residential Areas Framework* change areas (see below), land use planning zones and by suburb.

Housing capacity is reported according to land use planning zone as of February 2023. This provides insight into the capacity of land under current zoning to either support or, in some cases, limit housing change.

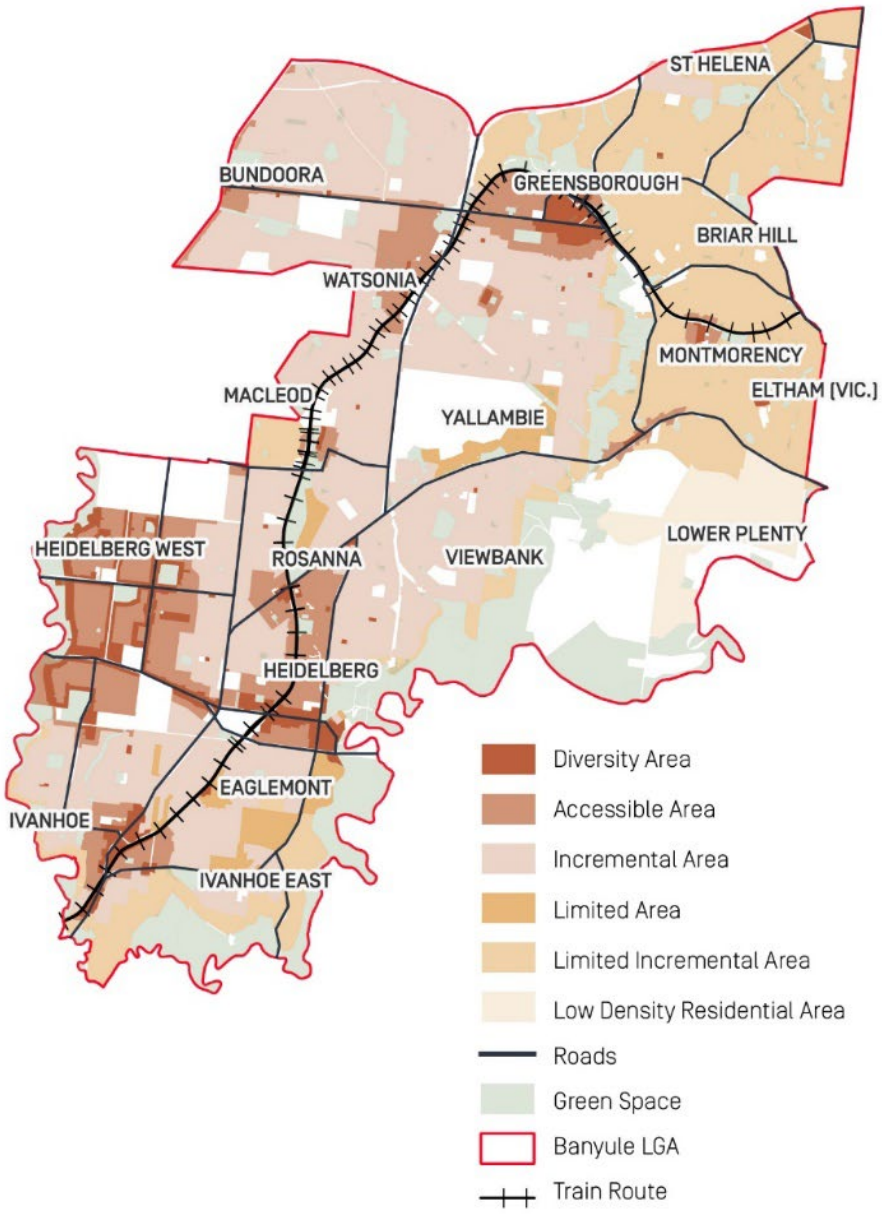
Capacity is also reported according residential change area as defined by the residential change areas that comprise the *Residential Areas Framework*.

The *Residential Areas Framework* is a critical part of Banyule's housing planning. The framework sits at the apex of the municipality's planning scheme at clause 2.03-5 and identifies six residential change areas in which different scales of residential development are either supported or limited based the location's accessibility, amenity, access to services and existing built and environmental character. The City's most accessible locations, which include main roads and activity centres, are supported for high and medium density development, while sensitive landscapes are identified for more limited residential change.

In 2016, the City's Residential Areas Framework guided the implementation of State Government's new residential zones which included a suite of residential zones that provided for high, medium and low density housing development outcomes.

The change areas that comprise the *Residential Areas Framework* are detailed below.

Figure 1: Residential Areas Framework



Source: Charter Keck Cramer, City of Banyule

1.2.2. Terminology

The following details the meaning of technical terms used throughout the assessment.

Available Land	Individual sites that are identified as potentially available to support future multi unit housing development. Availability is determined by the current ownership structure of the site, its zoning and land area. The attributes that define availability are further detailed in the available land methodology in Step 1.
Gross Housing Capacity	The maximum number of dwellings that a site might theoretically support.
Net Housing Capacity	The additional number of dwellings that a site might theoretically support not including the existing dwelling. Net housing capacity does not include the number of dwellings currently located on the site only additional dwellings are accounted for.
Housing Type	Dwellings are grouped into three distinct categories. (1) **separate houses** (detached dwellings) (2) **medium density dwellings** (composed of semi-detached, terrace houses, townhouses) (3) **high density dwellings** (flats and apartments).
Dwelling per hectare	Potential dwelling capacity is estimated as a measure of the number of dwellings per hectare that a site might support. The rational for determining dwellings per hectare attributed to any given site is detailed in the project methodology.
Land Use Zoning	Land use zoning is the way in which governments control the physical use and development of land. This study focuses on land in which residential development is permitted including land within residential zones and a number of commercial and mixed use zones where the development of dwelling might be approved.
Residential Change Areas	In Banyule heritage, landscape and built form attributes of different residential areas have been used to define six character areas: - Diversity Areas - Accessibility Areas - Incremental Areas - Limited Incremental Areas - Low Density Residential Area

Source: Charter Keck Cramer

Step 1: Available Land

The first step in the housing capacity assessment entails identifying potentially available sites that in the future may theoretically be able to support future housing development.

2.1.1. Available Land Method

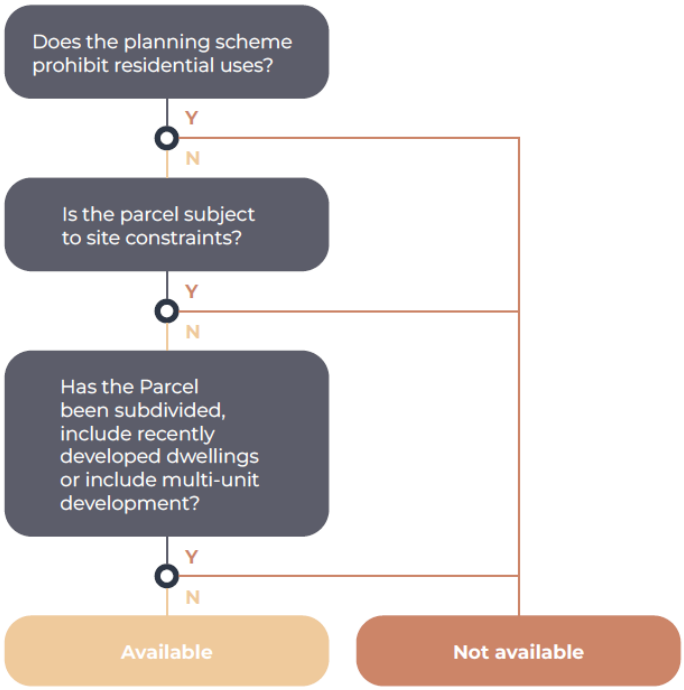
The available land method entails an assessment of the development potential of all residential land within Banyule City Council at a parcel level. By focusing on the development status of individual lots subsequent stages of the assessment are then able to provide detailed data on the development potential of land across the municipality within individual planning zones, by location and by strategic area.

The assessment was performed as a desktop exercise in GIS software utilising current parcel data from Council's Rates data base, Vicmap property data, planning scheme overlay and zoning information and current aerial imagery.

Every land parcel in the municipality has been allocated a status as either available or unavailable for future residential development. To do so the method focuses on resolving the following:

1. whether the development of multi unit dwellings is permitted on the land parcel

2. if multi-unit development is permitted, is there evidence of other constraints including recent development, subdivision and lot characteristics.



Source: Charter Keck Cramer

A range of factors and attributes can constrain a site for future development which are listed in the table below.

In considering development constraints the method distinguishes between absolute and conditional constraints:

- absolute development constraints fundamentally eliminate the potential for multi unit development in the future. Land subject to absolute constraints is identified as having no identifiable future housing capacity due to its unavailability and removed from the analysis.
- conditional constraints are constraints that are likely to limit the scale of future residential development without functioning as an absolute barrier to development. Lots subject to conditional constraints are retained in the analysis.

Absolute and conditional development constraints are detailed in Table 4. Any site subject to an absolute constraint is identified as unavailable for future development.

Table 4: Available Land Analysis

Exclusion	Method	Data Source
Zoning	The land use zoning of land is an absolute determinant of future development. Land within zones in which the development of a residential dwelling is prohibited is deemed unavailable. Only land within zones in which residential development is permitted are included in the capacity assessment. Land within the following zones has been included: • Activity Centre Zone (ACZ) • Commercial 1 Zone (C1Z) • General Residential Zone (GRZ) • Low Density Residential Zone (LDRZ) • Mixed Use Zone (MUZ) • Neighbourhood Residential Zone (NRZ) • Residential Growth Zone (RGZ) • Special Use Zone 3(SUZ)	Banyule Planning Scheme at February 2023.
Site size	The size of a site influences both the potential of lot to be developed and the scale of future development. The method deems small lots as unavailable for future development. Lots in residential areas that are considered too small to accommodate the access, open space, set back and neighbourhood character requirements to support multi dwelling development are deemed unavailable. Charter reviewed the source lot size of recent multi unit development to identify threshold lot sizes. Accordingly, permit data suggests that multi unit development in residential areas generally requires a lot of above 600 sqms. In the LDRZ 8000 sqms is required to achieve minimum subdivision requirements.	VICPROP Data, Approvals and Permit Data

Exclusion	Method	Data Source
	Small lots in the following residential zones have been identified as unavailable for future multi-unit development. As follows: NRZ <500 sqm GRZ <500 sqm RGZ <400 sqm LDRZ <8000 sqm	
Recently developed sites	Lots that include a recently developed dwelling or dwellings are assumed to be unlikely to undergo redevelopment over the next 15 years. This is because the capital improved value of the dwelling is likely to limit the attractiveness of the lot for renewal in the foreseeable future. These sites are identified as unavailable in the analysis.	Housing Development Data 2005-2016, Urban Development Program 2017-2021, Banyule City Rates Data 2023
Strata titling and subdivision	Any site that is currently subdivided or strata titled is identified as constrained for future development and therefore deemed unavailable. Strata titled and/or subdivided lots are typically subject to multiple ownership which is assumed to be a significant absolute barrier to further development. These sites are identified as unavailable for future development.	Vic Property Data , Urban Development Program

Source: Charter Keck Cramer

There are a range of conditional constraints on development that may limit the scale of development but are deemed not to represent an absolute constraint on future development. Conditional constraints include environmental, heritage and neighbourhood character constraints. Their treatment in the method is explained as follows:

- *Heritage*: the Heritage Overlay enables the adaptive re-use and development of sites provided valued heritage is retained. Within the study individual and precinct based heritage sites are identified as potentially available (provided they have not been recently developed or strata titled). Nonetheless, within this study, the future development potential of heritage sites is often highly limited. This is because a high proportion of the City's heritage sites are within the NRZ which limits the scale of future residential development without providing an absolute constraint on development.
- *Environment and landscape protection*: Environmental and landscape protections limit but do not prohibit further development. A significant portion of residential areas subject to environmental and landscape requirements are also within low density residential zones such as the NRZ and LDRZ. The LDRZ is subject to subdivision controls that limit development to lots above 8,000 sqms. The NRZ limits but does not prohibit development. As will be discussed, available sites within the NRZ are subject to more limited future potential development densities reflecting the influence of planning constraints on these sites.
- *Neighbourhood character requirements*: Character requirements may limit but do not explicitly prohibit multi unit new development. A significant portion of land in sensitive character areas such as land in the *Low Density Residential*

character area and the *Limited Incremental* character area is generally subject to either the NRZ and LDRZ which constraint future development densities. Additionally, the City's Neighbourhood Character Policy specifies preferred maximum site coverage requirements for specific precincts.

Overall, land subject to the above constraints is still included as theoretically available noting that the zoning of this land often restricts future development densities without prohibiting development. Table 5 provides a detailed list of exclusions for the capacity model by zone.

Figure 2: Zones in which Residential Development is Permitted

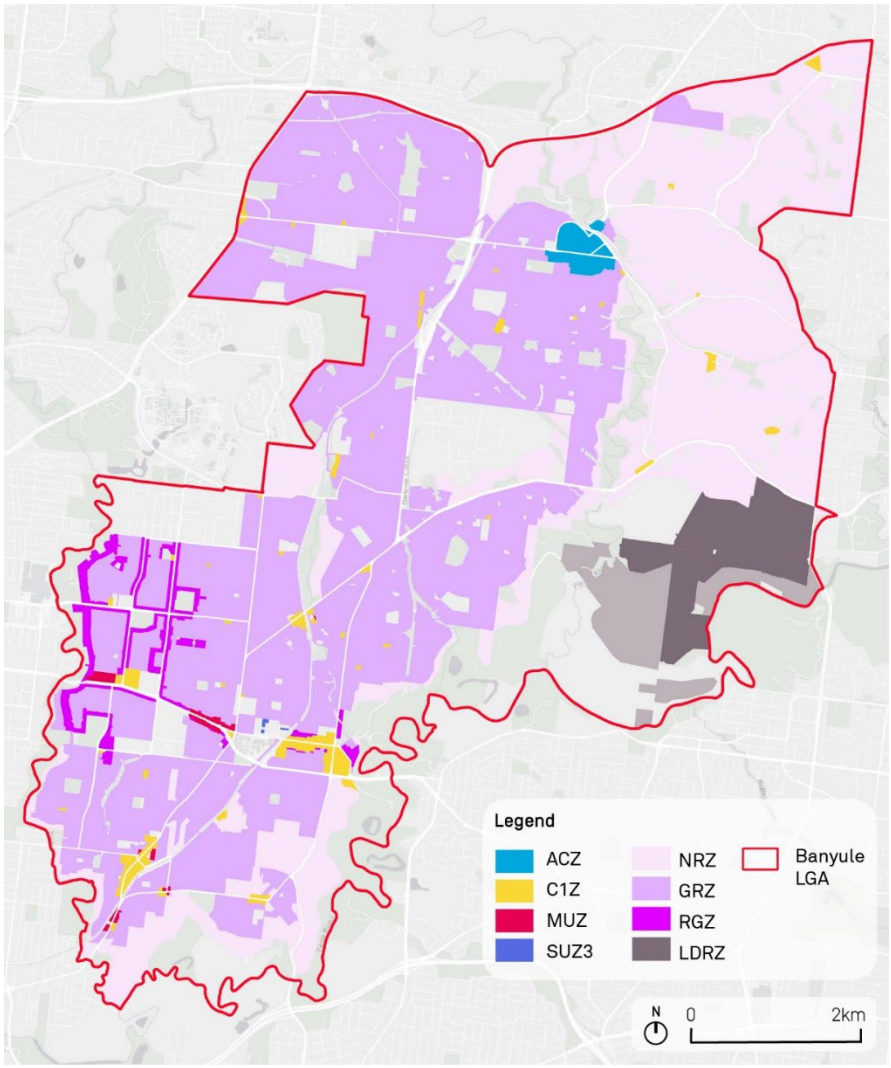


Table 5: Zones Permitted for Residential Development

Zone	Zoned Land (h.a.)	%
ACZ	15	0.4%
C1Z	69	2%
GRZ	2,100	60%
LDRZ	19	1%
MUZ	28	1%
NRZ	1,168	33%
RGZ	95	3%
SUZ3	13	0%
Total	*3,507*	

Source: Charter Keck Cramer

2.2. Results: Available Land

Potentially available land by planning zone and strategic area is detailed below.

Note, the identification of a lot as potentially available is not an indication of the likelihood of development. Additionally, identification of a lot as potentially available does not indicate whether the lot is feasible for development or whether the owner of the lot plans to develop the lot for new housing. Identification of an available lot therefore indicates that the lot has a number of attributes that theoretically provide a basis to support future multi dwelling development. As stated in the introduction, some sites may be limited for future development by covenants or other unknown infrastructure constraints that at this stage are not publicly available.

A further breakdown of available lots by location is detailed in appendix 1.

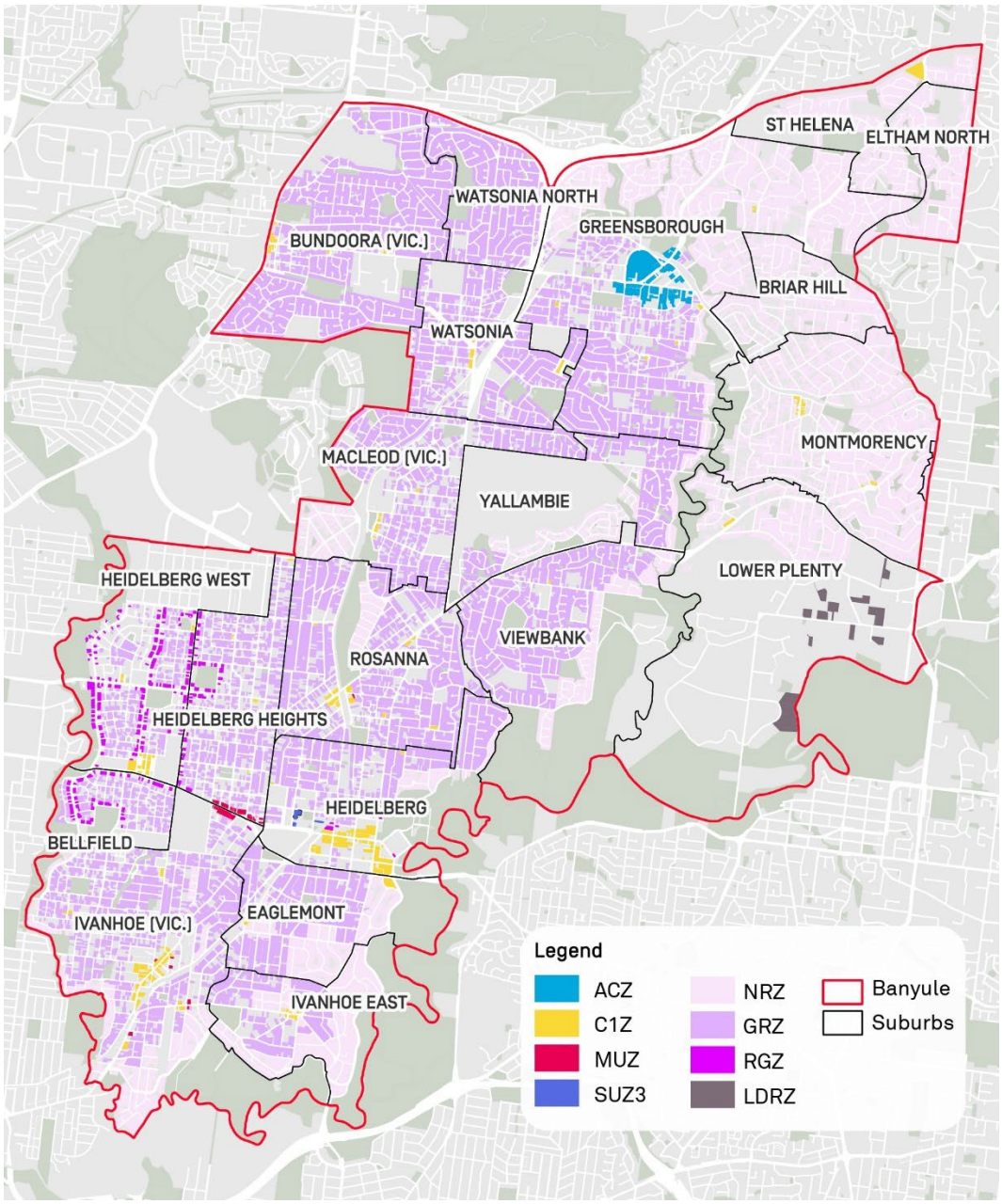
Table 6: Available Land by Zone

Zone	No. of Available Lots	Land Area (Ha)	% of available land
Commercial Areas			
ACZ	154	20.5	0.8%
C1Z	651	32.7	1.3%
MUZ	67	3.9	0.2%
SUZ3	8	0.9	0.0%
Subtotal	*880*	*57.9*	*2%*
Residential Areas			
GRZ	21458	1482.2	59%
NRZ	10608	928.0	37%
RGZ	614	39.1	2%
LDRZ	19	18.0	1%
Subtotal	*32699*	*2467*	98%
Total	*33579*	*2525*	-

Source: Charter Keck Cramer

**The study distinguishes between commercial and residential areas. Commercial areas are locations in which a mixture of residential and business uses are supported by the Banyule the Planning Scheme while residential areas are defined by land within residential zones as defined by the Banyule Planning Scheme. Commercial areas comprise land in the C1Z, ACZ, MUZ and SUZ3 planning zones.*

Figure 3: Available Land By Zone Map



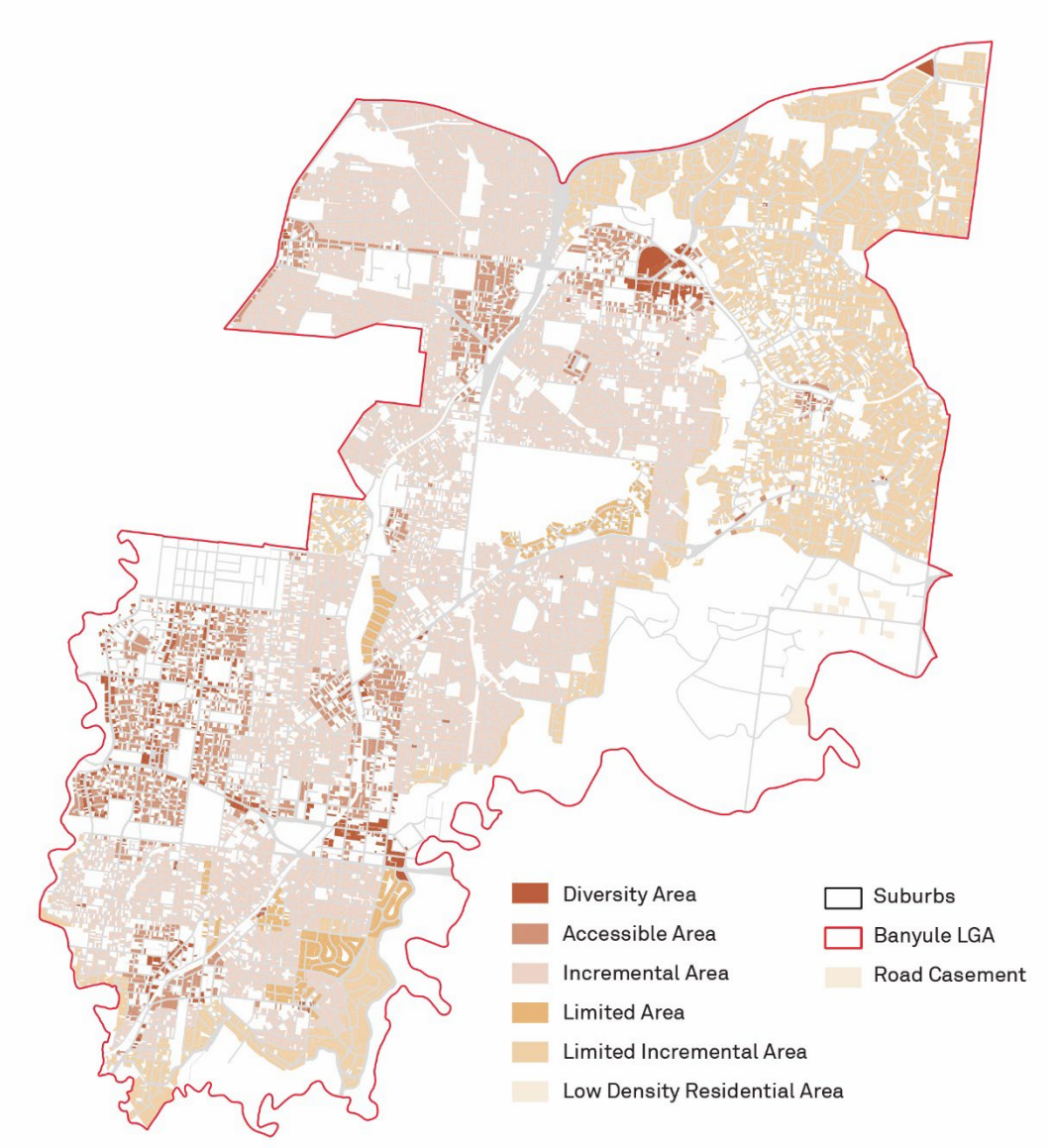
Source: Charter Keck Cramer

Table 7: Potentially Available Land (Residential Areas Framework)

Change Area	No. of Available Lots	Land Area (Ha)	% of available land
Diversity Area	1541	102	4%
Accessible Area	3912	273	11%
Incremental Area	17605	1214	48%
Limited Area	1096	87	3%
Limited Incremental Area	9403	831	33%
Low Density Residential Area	22	18	1%
Total	*33,579*	*2,525*	-

Source: Charter Keck Cramer

Figure 4: Available Land (Residential Change Areas)



Source: Charter Keck Cramer

2.2.1. Available Land Observations

The vast majority (98%) of potentially available land for future development is within residentially zoned land.[2] Within residential locations, land within the GRZ incorporates large numbers of potentially available lots. The GRZ is a zone that supports medium density housing development and, in locations subject to the GRZ3 and GRZ4, low rise higher density development. There is also a substantial amount of land supply in areas subject to the NRZ. Land in the NRZ tends to be subject to a variety of environmental and character objectives that need to be addressed in order to progress multi-unit development.

Land supply in high change areas is more limited. At 2023, there were approximately 1540 potentially available lots in areas supported for high density change including land within the City's activity centres, neighbourhood centres and land subject to the RGZ.[3] Areas in the RGZ incorporate just over 600 potentially available lots the vast majority of which are along the Principle Public Transport Network in Heidelberg Heights.

When assessed against the *Residential Areas Framework* high number of available lots are within the incremental and limited incremental change area (which are areas that generally correspond to the GRZ and NRZ areas respectively).

The City's north includes a significant proportion of the City's available lot supply. Together Greensborough (4729 available lots) and Bundoora (3692 available lots) comprise just under 25% of the City's available land. Greensborough incorporates both significant land supply in commercial areas (21 hectares) and residential areas. The vast majority (98%) of Bundoora's available land is within residential areas.

The City's southern and central areas including Ivanhoe, Heidelberg, Heidelberg Heights and Bellfield include high numbers of medium density dwellings and, most recently, increasing numbers of higher density dwellings. As such, these areas include high numbers of parcels identified as unavailable due to existing multi-unit development. These areas, nonetheless, continue to incorporate land to support new housing both in residential and commercial areas albeit to a lesser extent than the municipality's north.

[2] Land within a zone identified for primarily residential purposes comprising the NRZ, GRZ, RGZ and LDRZ.
[3] Land within a zone including ACZ, C1Z, RGZ and SUZ3

Table 8: Available Land by Suburb

Row Labels	Available Lots	Available Land (Ha)	Proportion
Bellfield	509	34	0%
Briar Hill	756	70	3%
Bundoora	3692	224	9%
Eaglemont	1231	120	5%
Eltham	49	4	0%
Eltham North	714	64	3%
Greensborough	4729	372	15%
Heidelberg	1368	104	4%
Heidelberg Heights	1328	89	4%
Heidelberg West	1023	64	3%
Ivanhoe	2699	210	8%
Ivanhoe East	1183	105	4%
Lower Plenty	622	74	3%
Macleod	1833	129	5%
Montmorency	2267	198	8%
Rosanna	2311	173	7%
St Helena	847	69	3%
Viewbank	2284	157	6%
Watsonia	1580	101	4%
Watsonia North	1393	86	3%
Yallambie	1161	76	3%
Total	*33579*	*2525*	

Source: Charter Keck Cramer

Step 2: Housing Capacity

The second step of the housing capacity method entails determining the residential development capacity of potentially available sites identified in step 1.

3.1.1. Housing Capacity Method

The housing capacity method assigns each site identified as potentially available a potential maximum development outcome.

The capacity estimate is determined by a series of assumptions related to the potential development of sites based on analysis of a site's zoning, permitted height and historic development trends within the subject zone. Analysis undertaken to identify potential maximum development density is detailed in the table below.

A summary of planning controls for each residential zone is detailed in Appendix A. Commercial zones contain different heights and building requirements by location and site. Structure planning for Heidelberg, Ivanhoe and Greensborough provide a clear guideline for development height and type for their respective activity centres. These guidelines have been applied to corresponding activity centres and sites to determine capacity. Each relevant Design and Development Overlay and structure plan was subject to detailed review as part of the analysis and the development of assumptions.

Table 9: Development Assumption Method

Zone	Method	Source
NRZ (Schedule 3)	• review of maximum allowable heights detailed in zone schedules • review of zone objectives and site coverage requirements • analysis of historic development outcomes within each of the NRZ zone schedules	Banyule Planning Permit Data 2019 to 2021 Banyule Planning Scheme
GRZ (Schedule 1, 2 3, 4)	• review of maximum allowable heights detailed in zone schedules • review of zone objectives and site coverage requirements • analysis of historic development outcomes by GRZ schedule (schedules 1 to 4)	Banyule Planning Permit Data 2019 to 2021 Banyule Planning Scheme
RGZ	• maximum allowable height detailed in zone schedule	Banyule Planning Scheme
Commercial 1 Zone, Activity Centre and Mixed Use	• identification of the maximum allowable height of available sites as determined by a Design and Development Overlay or a prevailing structure plan.	Banyule Planning Scheme Charter Keck Cramer Apartment Database[4] Heidelberg Structure Plan Ivanhoe Structure Plan

[4] Charter Keck Cramer maintains a national apartment data base. This has been used to identify the relationship of building height to dwelling yield.

Zone	Method	Source
	• Identification of sites not subject to an approved height control or structure plan. • Analysis of the development heights and yields of recently developed apartment projects	Greensborough Activity Centre – Urban and Landscape Design Guidelines (David Lock Associates)
Special Use Zone (3)	• review of maximum allowable heights detailed in zone schedules	Banyule Planning Scheme

3.1.2. Density Assumptions

To determine housing capacity the project applies a potential development density to each parcel identified as potentially available for multi-unit housing development.

Based an analysis of the density of historic development and the directions of the Banyule planning scheme, potential development densities have been defined for each residential as detailed below.

Table 10: Residential Development Assumptions

Code	Height (m)	Storeys	Site Coverage	Dwelling per hectare assumption
GRZ1	11	3	60%	44
GRZ2	11	3	40%	35
GRZ3	13	4	60%	50
GRZ4	15	5	60%	60
LDRZ	9	2		n/a
NRZ3	9	2	60%	20
RGZ1	13.5	4	60%	50
RGZ2	13.5	4	60%	50
RGZ5	18	5	60%	79
RGZ6	21.5	6	60%	59
RGZ7	18	5	60%	79
RGZ8	14.5	4	60%	55
RGZ9	14.5	4	60%	55

Source: Charter Keck Cramer

In commercial areas the project has reviewed heights controls, historic development and dwelling yields that have resulted from development at different heights. These have been translated into dwelling per hectare assumptions as identified in the table below. Within commercial locations in which a height control is yet to be defined the project has assumed a maximum height of 3 storeys.

Table 11: Commercial Development Assumptions

Number of Storeys	3-4	5-8	9-22
Dwellings Per Hectare	100	300	400

Source: Charter Keck Cramer

3.1.3. Applying Density Assumptions

Housing capacity results from the application of development density assumptions. The application of density assumptions to available land results in a gross housing capacity estimate as depicted below.

In residential areas the existing dwelling on the available lot is deducted from the gross capacity estimate resulting in a net housing capacity estimate as follows:

Source: Charter Keck Cramer

3.2. Results: Housing Capacity

The application of development density assumptions results in a municipal wide housing capacity estimate of over 53,250 additional dwellings. Accordingly, under current planning conditions and development trends the municipality includes land that has the theoretical potential to support an additional 53,250 dwellings and a corresponding number of households. As per the project methodology, this figure does not account for development feasibility and a range of potential site constraints including infrastructure constraints and potentially restrictive covenants that might limit housing development.

Table 12: Housing Capacity by Zone

Zone	No. of available Lots	Capacity	Existing	Net Housing Capacity	%
Commercial Areas					
ACZ	154	4,179	-	+4,179	*8%*
C1Z	651	5,777	-	+5,777	*11%*
SUZ3	67	261	-	+261	*0.5%*
MUZ	8	987	-	+987	*2%*
Subtotal	***880***	***11,204***	***-***	***+11,204***	***21%***
Residential Areas					
GRZ	21458	53741	21458	32282	*61%*
NRZ	10608	18593	10608	7985	*15%*
RGZ	614	2387	614	1773	*3%*
LDRZ	19	38	19	19	*0.04%*
Subtotal	***32699***	***74,759***	***32,699***	***+42,059***	***79%***
Total	**33579**	**85,963**	**32,699**	**+53,263**	**-**

Source: Charter Keck Cramer

In step 1, a high proportion of the City's available land supply was identified in the GRZ. It follows that the vast majority of the City's housing capacity is also within residential areas and, in particular, land zoned within the GRZ.

In step 1 approximately 4% of the City's theoretical land supply was identified in areas generally supported for high density change (Diversity areas). When high density assumptions are applied to this land high change areas support just over 24% of the City's housing capacity.

When housing capacity is considered according to *The Residential Areas Framework* a high proportion of the City's capacity (85%) is within change areas supported for both medium and high density growth (Diversity, Accessible and Incremental change areas).

Limited change areas, conversely, include a far lower proportion of the city's housing capacity. Notably, development densities applied to different change areas correspond to zoning requirements and not change area aspirations. As such, the result suggests a level of concordance between change area aspirations and land use zoning. For example, Diversity Areas include significantly more development capacity then limited change areas. Limited Change Areas, which include a high number of potentially available lots, provide more limited housing capacity due to the influence of zoning constraints.

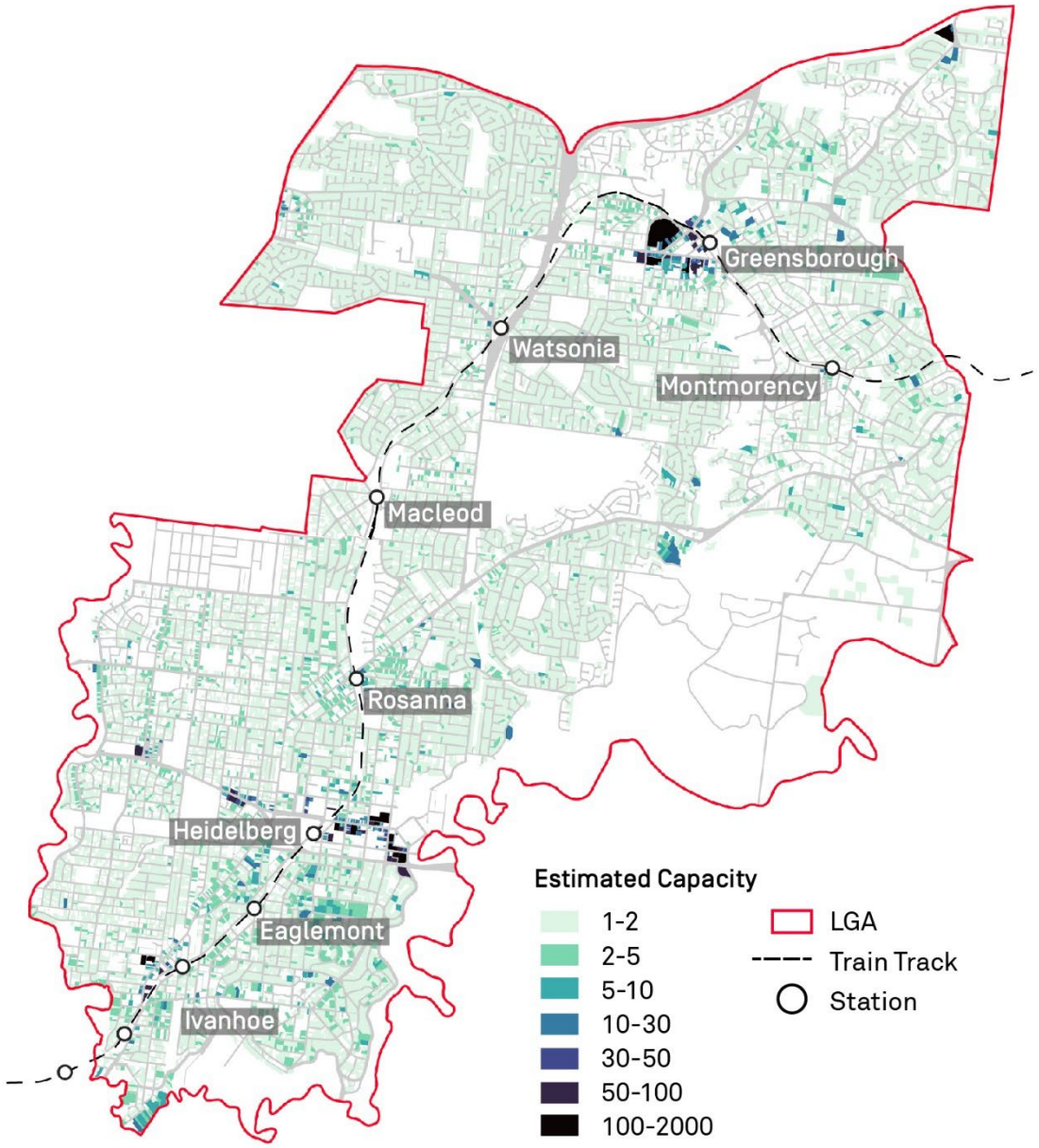
A wide range of land use zones have been applied to land in Accessible Areas including the RGZ, GRZ and NRZ. Housing capacity results in Accessible Areas reflect the collective influence of these zones. There is an opportunity to boost capacity in Accessible Areas by broadening the application of the RGZ and/or the GRZ3 and GRZ4 (see Appendix C for further information on the translation of Accessible Areas into land use zones.)

Table 13: Housing Capacity by Change Area

Zone	No. of Available Lots	Housing Capacity	Existing Houses	Net Housing Capacity	% of Capacity
Diversity Area	1541	13,606	661	+12,945	24%
Accessible Area	3912	12,107	3912	+8,195	15%
Incremental Area	17605	41,163	17605	+24,007	45%
Limited Area	1096	1744	1096	+648	1%
Limited Incremental Area	9403	16,847	9403	+7,444	14%
Low Density Residential Area	22	46	22	+24	0.1%
Grand Total	*33,579*	*85,963*	*32,699*	*53,263*	-

Source: Charter Keck Cramer

Figure 5: Housing Capacity City of Banyule



Source: Charter Keck Cramer

Observations

There is available land and housing capacity to support future housing demand and change throughout the municipality with the exception of the suburb of Eltham which includes limited available land and negligible housing capacity owing to current land use settings.

The suburbs of Greensborough, Ivanhoe, Heidelberg and Heidelberg Heights, which are suburbs that include the City's major activity centres and diversity areas, include a substantial proportion (42%) of the City's housing capacity.

Greensborough stands out as a major future housing opportunity area comprising 17% of the City's housing capacity. Greensborough, however, is yet to attract the same scale

and density of development as Ivanhoe and Heidelberg. Within Greensborough, Ivanhoe and Heidelberg, there is significant housing capacity in both commercial and residential areas.

Bundoora (8%) and Rosanna (%7) also incorporate a substantial proportion of the City's capacity. This capacity is exclusively in residential areas.

Table 14: Housing Capacity by Suburb

	Available Land (Ha)			Net Housing Capacity (Dwellings)			
Suburb	Commercial	Residential	Total	Commercial	Residential	Total	%
Bellfield		34	34		1221	1221	2%
Briar Hill		70	70		756	756	1%
Bundoora	1	223	224	124	4292	4416	8%
Eaglemont	1	119	120	144	2272	2416	5%
Eltham		4	4		29	29	0%
Eltham North		64	64		622	622	1%
Greensborough	21	351	372	4260	4871	9131	17%
Heidelberg	11	93	104	3458	1930	5388	10%
Heidelberg Heights	2	87	89	558	2227	2785	5%
Heidelberg West	3	61	64	278	2247	2525	5%
Ivanhoe	8	202	210	1454	3964	5418	10%
Ivanhoe East	1	104	105	77	1521	1598	3%
Lower Plenty	0	74	74	44	635	679	1%
Macleod	1	128	129	73	2324	2397	5%
Montmorency	1	197	198	114	1712	1826	3%
Rosanna	3	170	173	254	3614	3868	7%
St Helena	2	67	69	201	539	740	1%
Viewbank	0	157	157	12	2503	2515	5%
Watsonia	2	99	101	153	2186	2339	4%
Watsonia North		86	86		1606	1606	3%
Yallambie		76	76		988	988	2%
Grand Total	***58***	***2,467***	*2,525*	***11,204***	***42,059***	*53,263*	*100%*

Source: Charter Keck Cramer

Step 3: Housing Demand

In this step, future demand for new housing in the City is identified. To do so, the study explores the factors that will shape demand for housing over the long term including changing household structures and the changing propensity of households to live in different forms of dwelling.

The methodology for quantifying household demand entails:

1. Identifying future population growth
2. Identifying future household growth by household type
3. Reviewing the changing structure of housing and households living within different forms of housing.

4.1. Population Growth

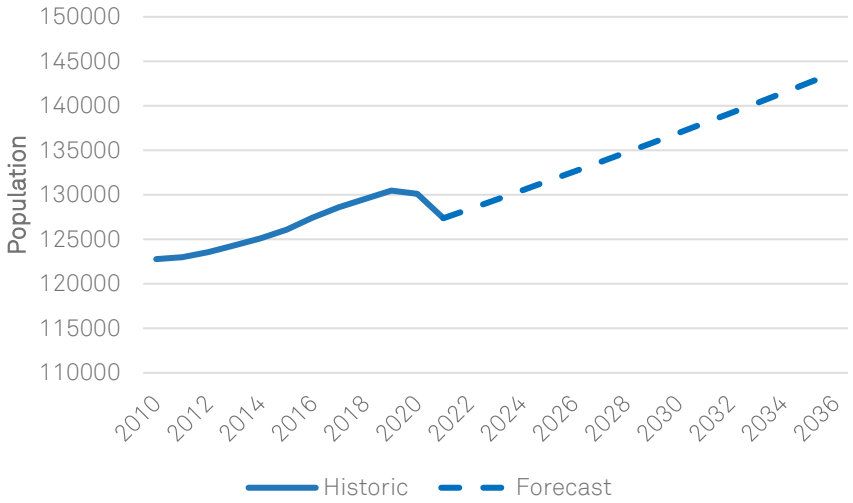
Prior to the COVID-19 pandemic, Banyule's population was adding 920 new residents each year at an annual average growth rate of 0.7%. The City's population declined over the COVID-19 period by over 3000 people. With the opening of Australia's borders and the return of international students and key workers to the municipality, the City's population is expected to continue to grow again. The City's estimated resident population at 2021 was 127,376 (at 2019 it was 130,478).

This assessment seeks to identify the capacity of the City to support housing growth to 2036. To project both population and household growth, Charter has adapted State Government population projections for Banyule published in 2019 (*Victoria in Future 2019*) to account for the impact of the Covid-19 pandemic on the City's population.

The VIF2019 projection anticipated a long term annual population growth rate of .8% to 2036. The revised population projection assumes that the City's population growth will resume to pre-Covid levels post 2021 which is evident in the return of strong migration to Victoria in the recent past including in situ students. As such, the adapted population projection deployed in this analysis assumes a return to a population growth rate of .8% to 2036.

The resulting population forecast estimates that the City's population will grow to 143,735 residents to 2036 which equates to a net addition of +16,359. As part of this, the estimate anticipates the continued aging of the City's population as well as the City expanding its attractiveness to young adults through the expansion of the LaTrobe University, the City's health infrastructure and through the provision of supportive high density housing.

Figure 6: Population Forecast to 2036



Source: Victoria in Future 2019 adapted by Charter Keck Cramer

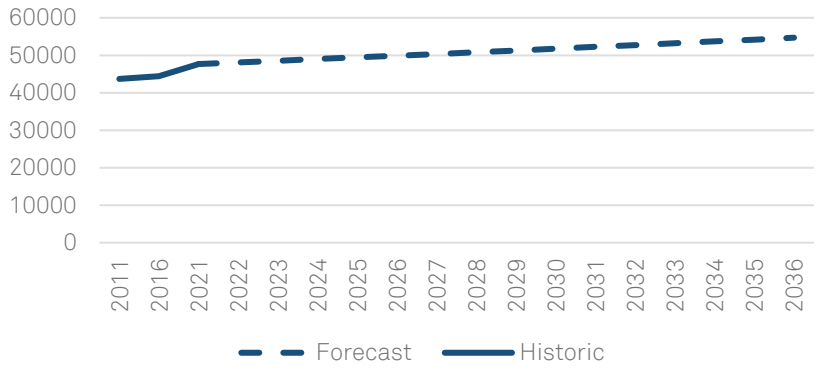
4.2. Household Forecast

As the City's population both grows and ages the composition and number of households will also change.

At 2021 the City was home to 47,666 households which since 2011 had grown by 3,963 households at an annual average growth rate of .87%. In this time, the number and proportion of smaller households (primarily couple without children and lone person households) grew substantially, accounting for near on two thirds of the City's household growth. As a result, the City's average household size declined to 2.5 people per household in 2021 from 2.6 people per household in 2011.

As with the City's projected population growth, Charter has adapted VIF2019 household projections to account for the impact of Covid-19 on household formation and growth. This has resulted in a projected growth of +7029 households to 2036. Accordingly, by 2036 the City of Banyule is projected to be home to approximately 54,695 household which equates to average annual household growth of 468 households per year (compared with average annual growth of 396 households per year over the 2011 to 2021 period).

Figure 7: Household Growth Forecast

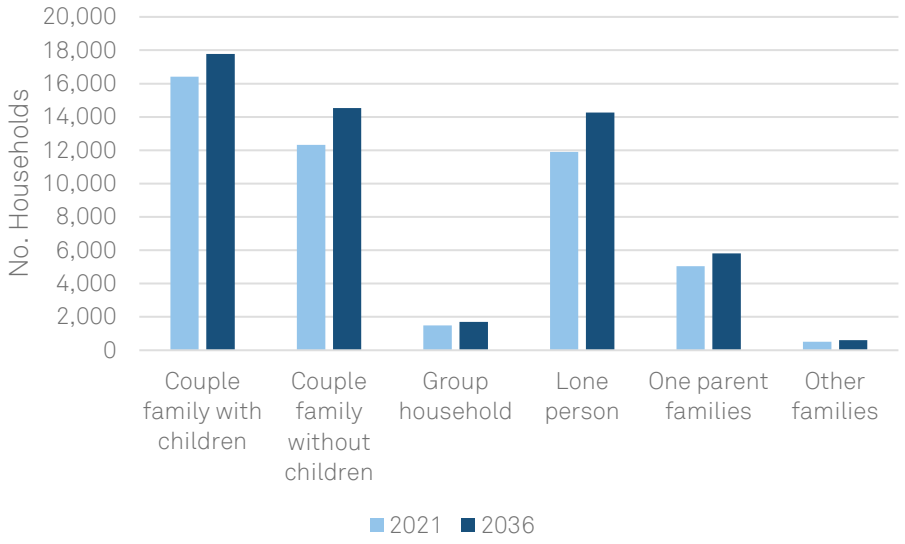


Source Victoria in Future 2019 adapted by Charter Keck Cramer

Projected household growth is detailed below and shows:

- The City's smaller households are projected to continue to grow strongly comprising an increasing share of the City's households.
- Couples without children (+2,219) and lone person households (+2,356) are the fastest growing household types within Banyule City Council representing 66% of all household growth.
- Couples with children are still expected to grow (+1,362) as well as single parent families (+765) but not as strongly as smaller households.

Figure 8: Household Structure Forecast Growth 2021 to 2036



Source: ABS; Charter Keck Cramer

Table 15: Proportional Mix of Households 2011, 2021, 2036

Households by type	2011	2021	2036
Couple family with children	35%	34%	32%
Couple family without children	25%	26%	27%
Group household	4%	3%	3%
Lone person	24%	25%	26%
One parent families	11%	11%	11%
Other families	1%	1%	1%

Source: Charter Keck Cramer; ABS

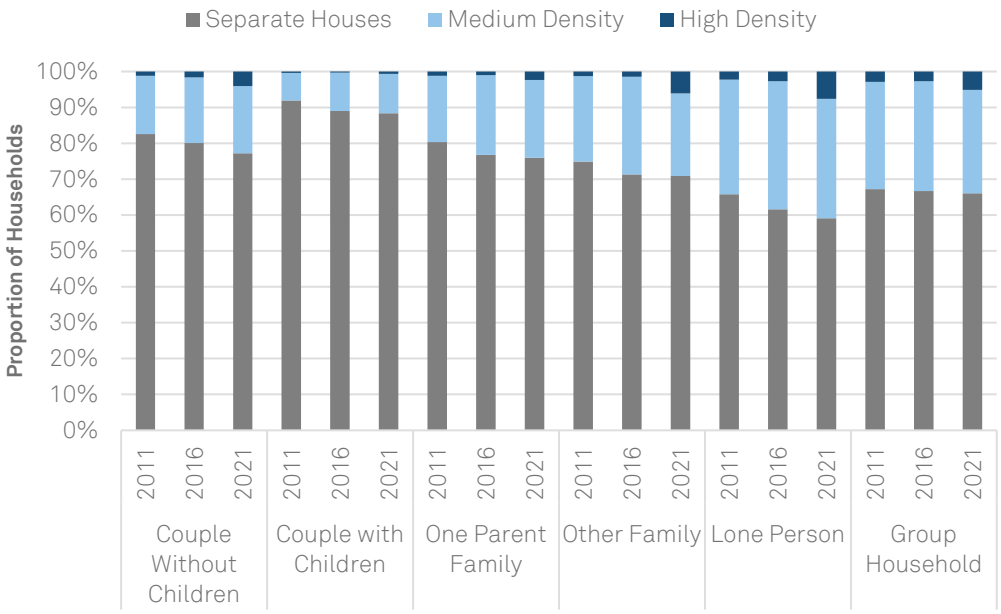
4.2.1. Housing Propensity

The type of housing that households live in is influenced by a range of factors including affordability, preference, lifestyle, and location. As circumstances change housing preferences may also change. A household's need for space, for instance, may change along with the economic circumstances of households.

Overtime, as the number of households living in the City has grown, the type of housing in which the City's households live in has also changed.

The figure below illustrates the way in which the revealed housing choices of Banyule's households have changed over time. As can be seen, as the City has added medium and higher density dwellings the proportion of residents living in medium and higher density typologies has grown across all household types. In particular, the 2016-2021 period saw significant increases in lone person and couple without children households in higher density and medium density housing. As the City continues to add townhouses and apartments this trend is expected to continue and potentially strengthen.

Figure 9: Historic Changes in Housing Preference 2011, 2016 & 2021



Source: Charter Keck Cramer; ABS

4.2.2. Applied Housing Demand

The capacity assessment assumes projected household demand represents the sum total of future housing demand. Accordingly, the project assumes, in line with projected household change, that all household types will grow with smaller households experiencing the greatest growth. Concomitantly, the propensity for increasing numbers of households to live in medium and higher density dwellings is also assumed.

Step 4: Take up of Capacity

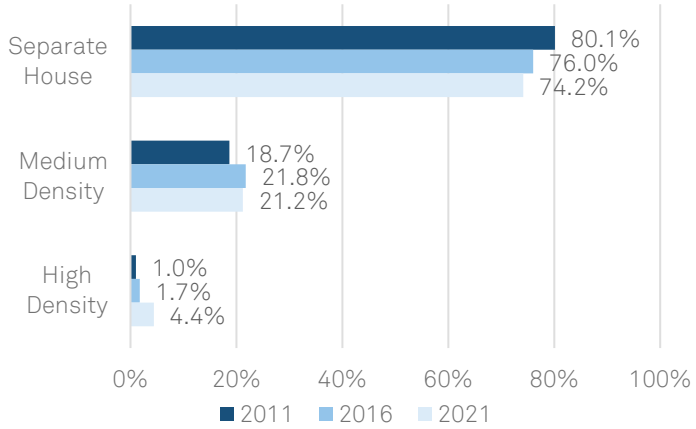
The previous steps identified housing capacity and projected housing demand. This step projects the take-up of identified capacity by housing type.

To do so, the project reviews the changing form of dwelling development and the relationship of dwelling growth by housing type to the propensity of households to live in different forms of dwellings.

5.1.1. Dwelling Development by Housing Type

The 2021 Australian Census identified an ongoing change in the composition of the City's housing. As is evident in the table below, as the proportion of separate houses declines within the City, medium and high density dwellings make up an increasing share of the City's housing.

Figure 10: Change in Dwelling Structure 2011-2021



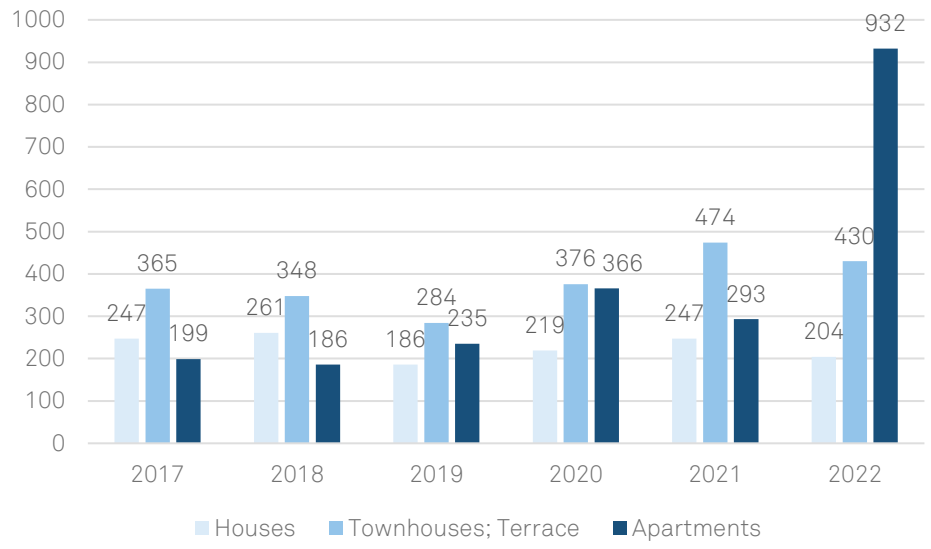
Source: Charter Keck Cramer; ABS

Approved housing development over the 2017 to 2022 period, shows significant housing growth particularly in relation to apartment development. For the 2017 to 2022 period, on average, Banyule experienced 1,333 dwelling approvals per annum. When average annual demolitions are considered (approximately 243 demolitions per annum) there is an implied net addition of 1090 new dwellings per annum over the time period.

The 2017 to 2022 period included a year of what might be considered significantly above average housing growth. In 2022 the City recorded over 2,498 building approvals. When the influence of above average development is reduced, the City's median annual housing growth rate averages approximately 893 net dwelling additions per annum.

In undertaking take-up analysis, the methodology focuses on the median housing growth rate and the median distribution of medium and high density dwellings.

Figure 11: Building Approvals by Housing Type 2017-22



Source: Charter Keck Cramer, ABS Building Approvals

5.2. Take-up Scenarios

The following scenarios project the potential take-up of the City's housing capacity under different assumptions. As per step 3, projected housing demand equates to projected household growth of 7,029 households. The projection of take up, however, assumes that a proportion (approximately 7.5%) of private dwellings will be unoccupied at any given time. Thus, in projecting take-up further housing capacity is consumed by unoccupied dwellings.

Scenario 1 – Medium Density

Take-up in this scenario assumes a greater proportion of medium density housing development. In this scenario medium density development comprises 42% of new housing development over the 2021 to 2023 period. Higher density apartments comprise the remaining 58% of new housing supply. In this scenario, higher numbers of separate dwellings are demolished than in Scenario 2 in support of medium density growth.

In this scenario, Banyule requires approximately the addition of 588 dwellings each year to meet additional housing demand.

Table 16: Scenario 1 - Medium Density Growth

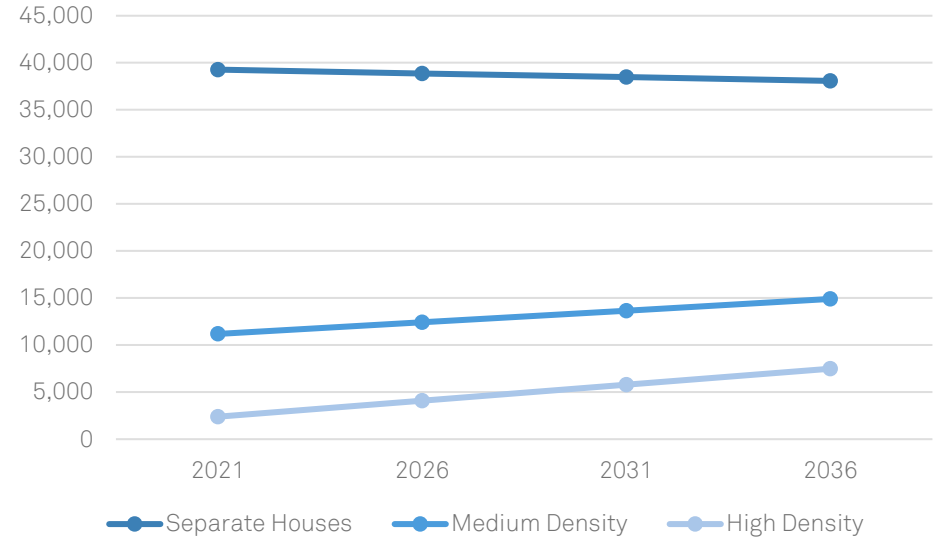
	2021	2026	2031	2036	Change 2021-2036	Annual Dwelling Change
Separate Houses	39,274	38,874	38,474	38,074	-1,200	-80
Medium Density	11,185	12,418	13,652	14,905	3,720	248
High Density	2390	4089	5789	7488	5,098	340
Total	*52,849*	*55,381*	*57,915*	*60,467*	*7,618*	*588*

Source: Charter Keck Cramer

Scenario 1 results in a higher numbers of medium density dwellings in the City's housing stock. The Scenario is based on the median distribution of medium and high density dwellings over the 2017 to 2022 period in which, on a median basis, 42% of net new dwellings comprised medium density townhouses and 58% apartments.

This scenario is likely to more closely align with the expressed preferences of the City's households as indicated by Census analysis which shows the number and proportion of households living in medium density settings consistently growing particularly among smaller households. Likewise, the scenario also anticipates significant high density growth in accordance with current trends.

Figure 12: Scenario 1 Medium Density: Banyule Housing Change



Source: Charter Keck Cramer

Take -Up: Scenario 2 Higher Density

Scenario 2 assumes the ongoing growth of higher density dwellings in the municipality. In the recent past the City has seen higher density dwellings comprise over 66% of net additions to the City's dwelling stock which includes a number of years of unprecedented apartment growth (2022).

This scenario anticipates continued strong apartment growth over the next 15 years in accordance with recent growth. The resultant growth of high density dwellings results in lower medium density growth which in turn results in the reduced redevelopment of separate houses. The scenario also requires less overall housing development per annum to accommodate demand equating to approximately 550 new dwellings per annum.

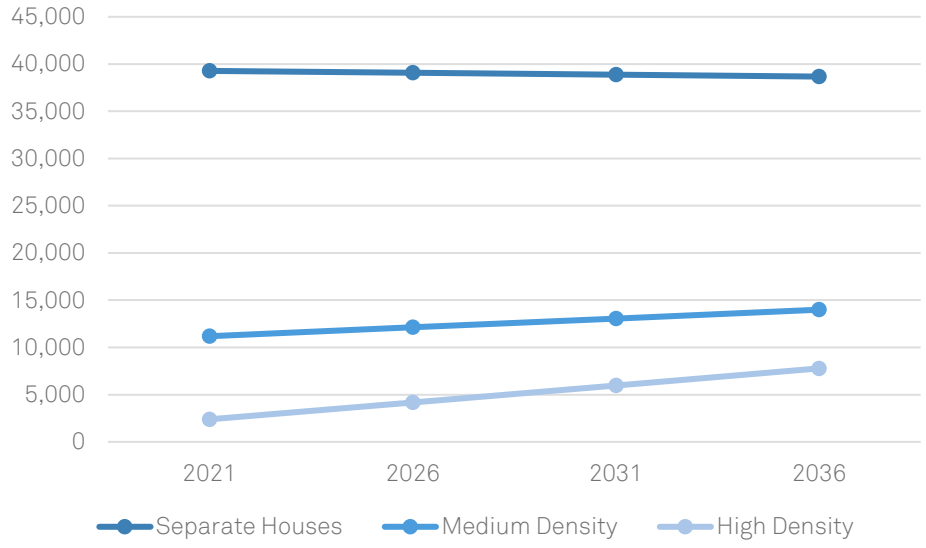
While the scenario entails a number of benefits in terms of reduced dwelling growth and land consumption needed to accommodate demand, the scenario, however, may not accord with the housing preferences and space needs of future and current residents which may prefer a greater number and variety of medium density dwelling options. Notably, the majority of apartment dwellings entail 1 and 2 bedroom units while couple with children and downsizing households may prefer 3 bedroom options. This scenario, however, in contrast to scenario 1, more closely resembles current trends.

Table 17: Scenario 2 - High Density Growth

	2021	2026	2031	2036	Change 2021-2036	Annual Dwelling Change
Separate Houses	39,274	39,074	38,874	38,674	-600	-40
Medium Density	11,185	12,122	13,058	13,995	2,810	187
High Density	2,390	4,186	5,983	7,779	5,389	359
Total	*52,849*	*55,192*	*57,535*	*60,448*	*7599*	*547*

Source: Charter Keck Cramer

Figure 13: Scenario 2: High Density Growth Banyule City Council



Source: Charter Keck Cramer

Case Studies: Neighbourhood Activity Centres

The following reviews housing capacity in a selection of the City's Neighbourhood Activity Centres (NAC). The review identifies theoretical capacity within an 800-metre radius of the Centre. As per the project methodology, the assessment assumes that the City's Neighbourhood Activity Centres are supported for a maximum of three storey development (consistent with recent development outcomes).

Observations: The analysis identifies relatively limited housing capacity within the commercial core of the reviewed NACs with the majority of capacity located in surrounding residential areas. This reflects the size and structure of lots within the commercial core of each NAC and the application of the project methodology which applies broad ranging assumptions across the centres. The commercial areas of the centres, nonetheless, include a number of large parcels and corner sites that might be supported for higher growth above 3 storeys to increase housing capacity and promote diversity.

6.1. Rosanna Neighbourhood Activity Centre

The Rosanna NAC is defined by commercial land surrounding the Rosanna rail station including commercial land along Lower Plenty Road and Beetham Parade.

In the recent past, the Centre has attracted shop top housing development and a significant 3 storey apartment development along Beetham Parade. The Centre's housing capacity within commercial areas is limited by the size of potentially available commercial lots and issues of access. Notwithstanding this, there are a small number of primarily corner lots that have the potential to support housing growth.

As can be seen below, the vast major of theoretical housing capacity is within surrounding residential areas.

Table 18: Rosanna Capacity Profile

Zone	Available Land (H.a)	Total Capacity	Net Capacity	%
C1Z	1.7		168	1.7%
GRZ	93.1	3516	2326	93.1%
MUZ	0.2		16	0.2%
NRZ	5.1	87	8	5.1%
Total	***100.2***	***3603.0***	***2518.0***	**-**

Source: Charter Keck Cramer

Figure 14: Rosanna Dwelling Yield

6.2. Watsonia Neighbourhood Activity Centre

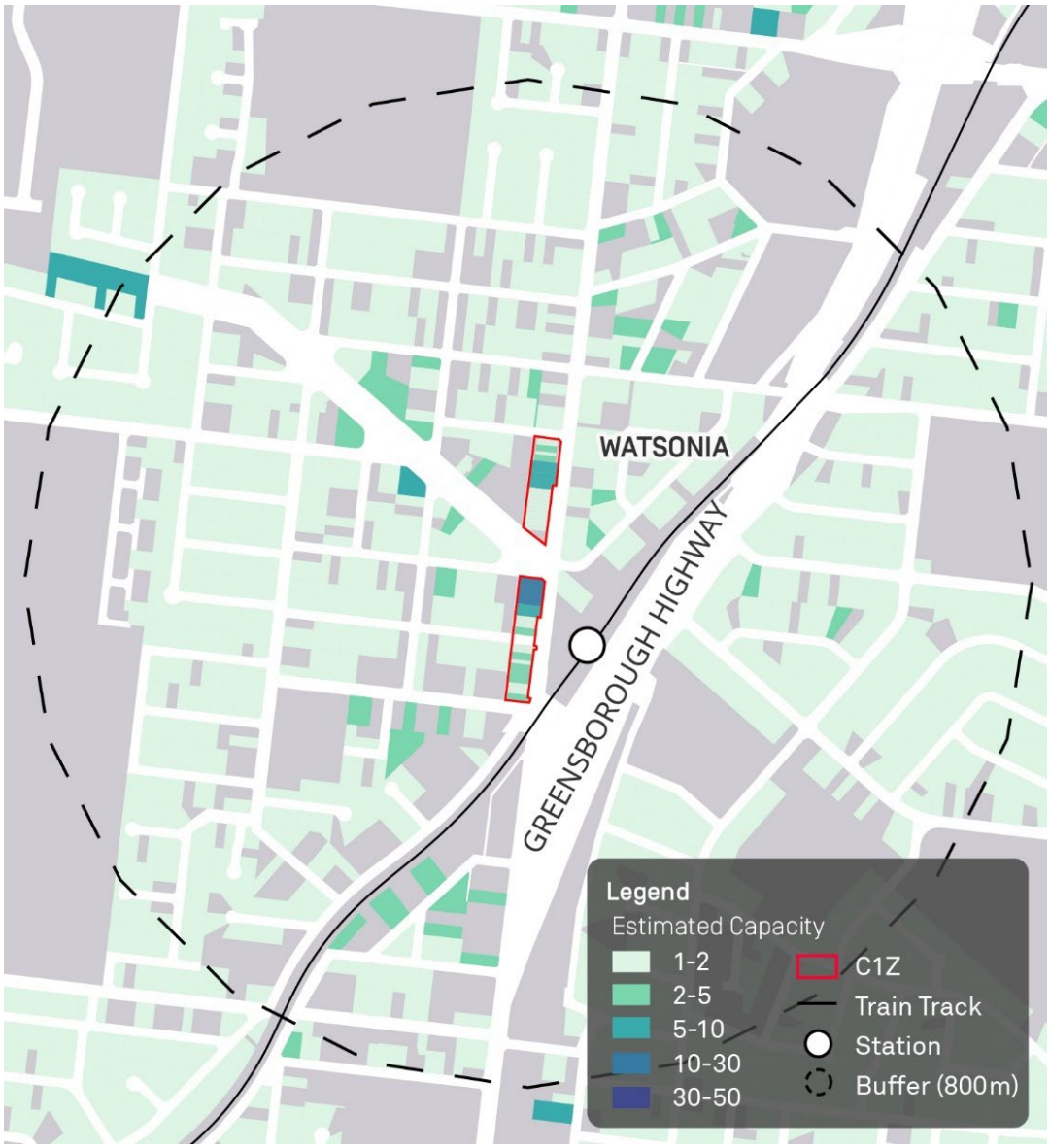
Watsonia's NAC is a linear centre along Watsonia Road in proximity to the Watsonia Rail Station.

To date there is minimal evidence of high density development within the Centre. The Centre incorporates a small number of larger potentially available sites that might be renewed for mixed commercial and higher density housing particularly in the Centre's north.

Table 19: Watsonia Capacity Profile

Zone	Available Land (H.a)	Total Capacity	Net Capacity (dwellings)	%
C1Z	1.3		124	6%
GRZ	83.6	3156	1873	94%
Total	**84.9**	**3156**	**1997**	

Figure 15: Watsonia Dwelling Yield



Source: Charter Keck Cramer

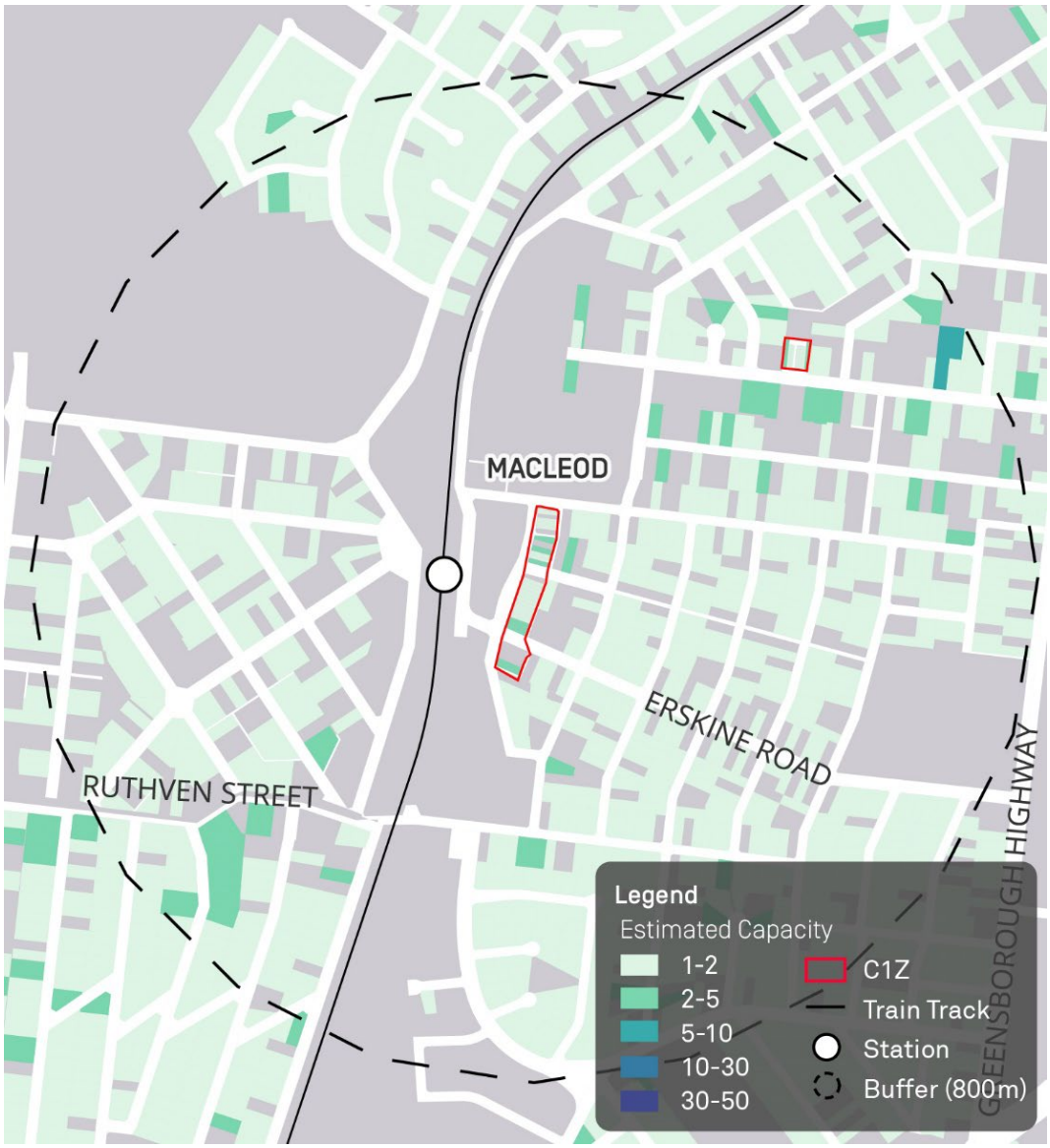
6.3. Macleod Neighbourhood Activity Centre

The Macleod NAC is a local convenience centre primarily along Aberdeen Road. The Centre's housing currently includes shop-top housing and a small number of low rise apartment dwellings built to the rear of commercial premises.

Figure 16: Macleod Capacity Profile

Zone	Available Land (H.a)	Total Capacity	Net Capacity (dwellings)	%
C1Z	0.74		73	5%
GRZ	65.1	2204	1321	86%
NRZ	18.2	346	136	9%
Total	84.1	2550	1530	

Table 20: Macleod Dwelling Yield



Source: Charter Keck Cramer

6.4. Montmorency Neighbourhood Activity Centre

Montmorency includes a NAC along Were Street in direct proximity to the Montmorency Rail Station. Additionally, Montmorency includes a centre at the intersection of Grand Boulevard and Buena Vista Drive.

Were Street includes a number of opportunity sites that have the potential to support mixed commercial and residential development. Given the topography of sites along Were Street and the depth of potential lots. Lots might be considered for development of heights above 3 storeys.

Table 21: Montmorency Capacity Profile

Zone	Available Land (H.a)	Total Capacity	Net Capacity (dwellings)	%
C1Z	1.2		114	7%
GRZ	1.1	2	1	0%
NRZ	180.2	3607	1553	93%
Total	182.5	3609	1668	-

Source: Charter Keck Cramer

Figure 17: Montmorency Dwelling Yield

Source: Charter Keck Cramer

6.5. Eaglemont Neighbourhood Activity Centre

Eaglemont is a small NAC located adjacent the Eaglemont station and along Silverdale Road.

The NAC's commercial core has limited housing capacity to cater for dwelling growth relative to the surrounding residential zoned land. Potential growth in the commercial core is also limited by relatively small lot sizes. Surrounding residential areas incorporate a number of larger lots that may support future housing change.

Table 22: Eaglemont Capacity Profile

Zone	Available Land (H.a)	Total Capacity	Net Capacity (dwellings)	%
C1Z	0.5		54	2%
GRZ	95.3	3,332	2255	90%
NRZ	20.8	421	191	8%
Total	**116.6**	**3753**	**2500**	

Source: Charter Keck Cramer

Figure 18: Eaglemont Capacity Profile

``Source: Charter Keck Cramer

6.6. NAC Available Key Findings

Table 24 provides a count of available lots by lot size range within the case study NACs.

The table demonstrates: (1) there are, in general, limited lots available in the commercial areas of the case study NACs; (2) the majority of available sites are below 400sqm, diminishing the likelihood of development; and (3) the bulk of housing capacity is located in surrounding residential areas.

Table 23: Count of Available Parcels by Range

	Commercial Zones	Residential Zones	Grand Total
Macleod			
0-400	29	-	29
400-800	2	771	773
800-1500	-	318	318
1500+	-	4	4
Total	31	1093	1124
Montmorency			
0-400	35	1	36
400-800	2	1023	1025
800-1500	2	966	968
1500+	-	65	65
Total	39	2055	2094
Rosanna			
0-400	41	-	41
400-800	6	744	750
800-1500	3	511	514
1500+	2	14	16
Total	52	1269	1321
Watsonia			
0-400	33		33
400-800	5	1195	1200
800-1500	1	85	86
1500+	1	3	4
Total	40	1283	1323
Eaglemont			
0-400	19	-	19
400-800	2	658	660
800-1500	-	578	578
1500+	-	71	71
Total	21	1307	1328

Appendix A: Housing Capacity by Suburb

Table 24: Housing Capacity for Suburb by Land Use Type

	Count of Lots		Available Land (H.a.)		Gross Capacity		Net Housing Capacity		%
Row Labels	Commercial	Residential	Commercial	Residential	Commercial	Residential	Commercial	Residential	
Bellfield		509		34		1730		1221	2%
Briar Hill		756		70		1512		756	1%
Bundoora	30	3662	1	223	124	7954	124	4292	8%
Eaglemont	22	1209	1	119	144	3481	144	2272	5%
Eltham		49		4		78		29	0%
Eltham North		714		64		1336		622	1%
Greensborough	182	4547	21	351	4260	9418	4260	4871	17%
Heidelberg	111	1257	11	93	3458	3187	3458	1930	10%
Heidelberg Heights	55	1273	2	87	558	3500	558	2227	5%
Heidelberg West	62	961	3	61	278	3208	278	2247	5%
Ivanhoe	164	2535	8	202	1454	6499	1454	3964	10%
Ivanhoe East	27	1156	1	104	77	2677	77	1521	3%
Lower Plenty	19	603	0	74	44	1238	44	635	1%
Macleod	31	1802	1	128	73	4127	73	2324	5%
Montmorency	39	2228	1	197	114	3940	114	1712	3%
Rosanna	79	2232	3	170	254	5846	254	3614	7%
St Helena	2	845	2	67	201	1384	201	539	1%
Viewbank	5	2279	0	157	12	4782	12	2503	5%
Watsonia	52	1528	2	99	153	3714	153	2186	4%
Watsonia North		1393		86		2999		1606	3%
Yallambie		1161		76		2149		988	2%
Grand Total	880	32699	58	2467	11204	74759	11204	42059	

Source: Charter Keck Cramer

Appendix B: Capacity by Planning Zone

Table 25: Housing Capacity by Land Use Zone

Zone	Available Land (H.a.)	Capacity	Net Capacity
GRZ1	270.8	12137	8247
GRZ2	1210.6	41557	23997
GRZ3	0.4	19	14
GRZ4	0.5	28	24
LDRZ	18	38	19
MUZ	3.9	987	987
NRZ3	928	18593	7985
RGZ1	1.6	81	61
RGZ2	0.1	3	2
RGZ5	2.4	187	150
RGZ6	18.6	1112	815
RGZ7	4.8	385	309
RGZ8	5.9	317	225
RGZ9	5.7	302	211

Appendix C: Accessible Areas Housing Capacity and Land Use Zones

Table 26: Accessible Areas by Land Use Zone

Zone	Available Land (H.a.)	%
GRZ1	240.6	88.1%
GRZ2	12.2	4.5%
NRZ3	8.3	3.0%
RGZ1	0.2	0.1%
RGZ5	0.8	0.3%
RGZ6	6.4	2.4%
RGZ7	0.8	0.3%
RGZ8	1.5	0.5%
RGZ9	2.3	0.8%

Source: Charter Keck Cramer

Appendix D: Housing Capacity Assumptions

	Height	Landscaping	Site Coverage
Neighbourhood Residential Zone (NRZ)			
NRZ – Schedule 3	9m	None Specified	400-500 sqm 25% Above 500-650 sqm 30% Above 650 sqm 35%
General Residential Zone (GRZ)			
GRZ-Schedule 1	11m or 3 storeys	1 Front Tree must be provided	60%
GRZ-Schedule 2	11m or 3 storeys	1 Tree must be provided every 400sqm, including 1 front tree	40%
GRZ – Schedule 3	Must not exceed height of 13m or 4 storeys equivalent.	1 Front Tree	60%
GRZ – Schedule 4	Must not exceed a height of 15m or 5 storeys equivalent.	1 Front Tree	60%
Residential Growth Zone (RGZ)			
RGZ – Schedule 1 – Heidelberg Major Activity Centre Residential Areas	13.5 m	None Specified	None Specified
RGZ – Schedule 2 – Former School Sites in the Olympia Ward	13.5 m	None Specified	None Specified
RGZ – Schedule 3 – Tarakan Estate – Public Housing Renewal,	13.5 m	None Specified	None Specified
RGZ – Schedule 4	Must no exceed 12 storeys/ 40 metres	None Specified	None Specified
RGZ – Schedule 5 **Bell Street**	Must not exceed 18 metres in height or 5 storeys	None Specified	None Specified
RGZ – Schedule 6 **Postcode 3081 along the main roads**	Must not exceed 21.5 metres in height or 6 storeys	None Specified	None Specified
RGZ – Schedule 7 – Creekside West	Must not exceed 18 metres or 5 storeys	None Specified	None Specified
RGZ – Schedule 8 **Main Road Hinterland**	Must not exceed 14.5 metres or 4 storeys	None Specified	None Specified
RGZ = Schedule 8 – Creekside West	Must not exceed 14.5 metres or 4 storeys	None Specified	None Specified
Low Density Residential Zone (LDRZ)			
LDRZ -			Minimum subdivision (0.4 h.a.)

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