

## WHITTLESEA 2040: BACKGROUND PAPER

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City of Whittlesea

Independent  
insight.



Jeanette Pope

Freelance Strategy, Policy, Research

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SGS Economics and Planning Pty Ltd

ACN 007 437 729

[www.sgsep.com.au](http://www.sgsep.com.au)

Offices in Canberra, Hobart, Melbourne, Sydney

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# INTRODUCTION

## Background and context

*Whittlesea 2040* is an opportunity for Council and community to collaborate to create a vision for a municipality in which they want to live, work and play to 2040. *Whittlesea 2040* will be developed over a 10 month period. This will ensure that the Councillors and community have an opportunity to understand and deliberate on future trends and forecasts of life at 2040 and to identify aspirations for this generation and the next. It is anticipated that *Whittlesea 2040* will then form an overarching framework that guides Council's strategic work, including Council Plans.

## Report purpose and structure

This Background Report provides a fresh, high level overview of the key changes, challenges and opportunities that will impact Whittlesea in future, to inform *Whittlesea 2040*. It seeks to touch on the full spectrum of issues to provide an overarching narrative, rather than a deep dive into any one topic.

This report is focussed on the trends affecting Whittlesea, and what this might mean in 20 or so years. Due to data limitations, sometimes data is presented for different future years. In particular, many forecasts are prepared in 5 year intervals to align with the Census. The report is presented in three parts.

- **Part 1** provides context and summarises the scale and nature of change that Whittlesea is projected to experience over the next 20 or so years.
- **Part 2** describes key challenges and opportunities across five themes:
  - services and infrastructure
  - employment
  - climate change
  - transport infrastructure, and
  - the community.
- **Part 3** discusses the potential roles Local Government can have to support change, manage key challenges and leverage opportunities.

## Whittlesea and surrounds

Figure 1 presents the analysis study area.

FIGURE 1 WHITTLESEA AND SURROUNDS



Northern Melbourne comprises LGAs of Banyule, Darebin, Hume, Moreland, Nillumbik and Whittlesea

# 1. POPULATION AND DEMOGRAPHIC CHANGE

This section summarises the scale and nature of change that Whittlesea is projected to experience over the next 20 or so years.

## Whittlesea is the fastest growing area in the north of Melbourne

The City of Whittlesea is one of Melbourne’s largest municipalities, located about 20 kilometres north of the city. It has established urban areas in the south, ringed by urban growth areas (new communities), and rural areas in the north. It has been designated one of six “growth areas” along the fringes of Melbourne. Between 2016 and 2041 it will grow by 175 000 people in 62 400 additional households.

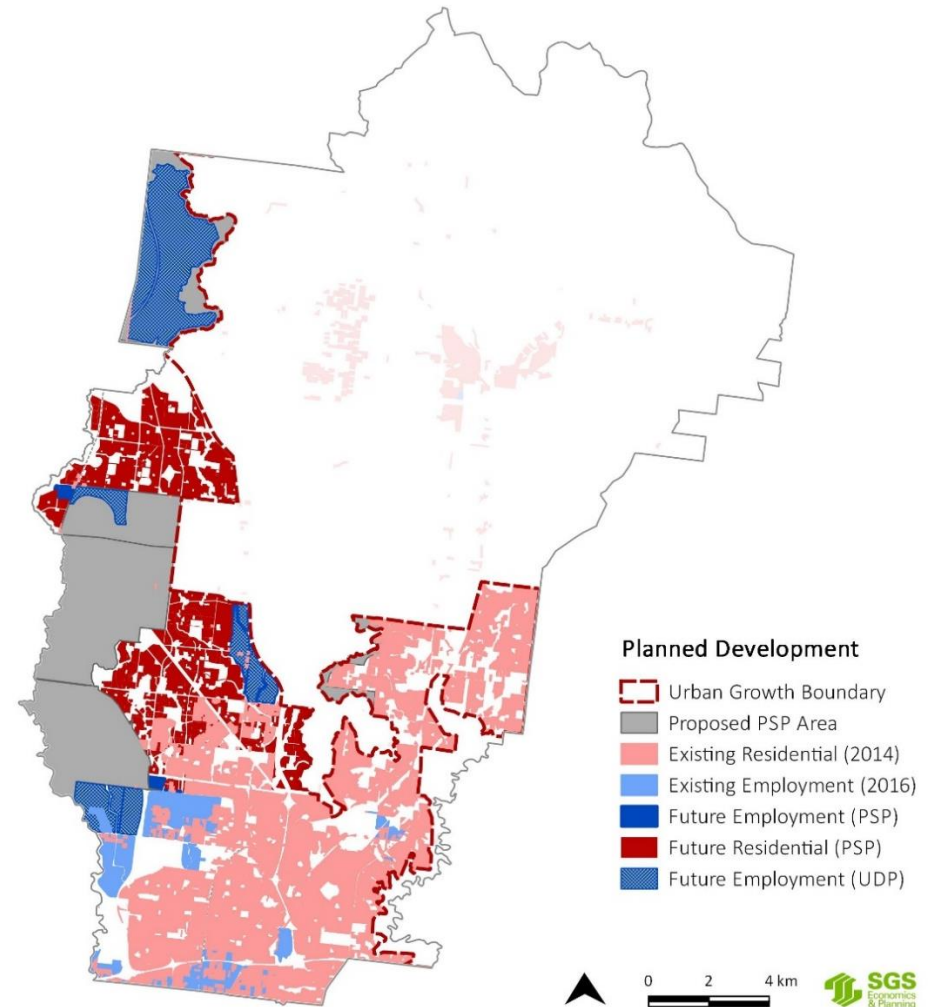
While the population is ageing, it will continue to mainly attract a diverse group of younger families moving to outer areas to establish a home. Some residents are less advantaged than those in other parts of Melbourne and in the new suburbs, migration from a wide range of areas across Melbourne means some residents will have fewer community connections.

Growth will provide significant benefits, providing the critical mass that will make businesses, services, clubs and infrastructure viable. Diversity will also provide an interesting culture and the type of vibrancy in which tourism, education, and other activities thrive.

However, growth and diversity also make Whittlesea vulnerable to some of the negative effects of emerging challenges – such as increasing demand for infrastructure, changing work patterns, increasing transport issues, climate change, and social disconnection.

This section describes how the population is growing. The challenges this may generate will be discussed in the next section, *Towards 2040*.

FIGURE 2: PLANNED DEVELOPMENT PATTERN FOR WHITTLESEA

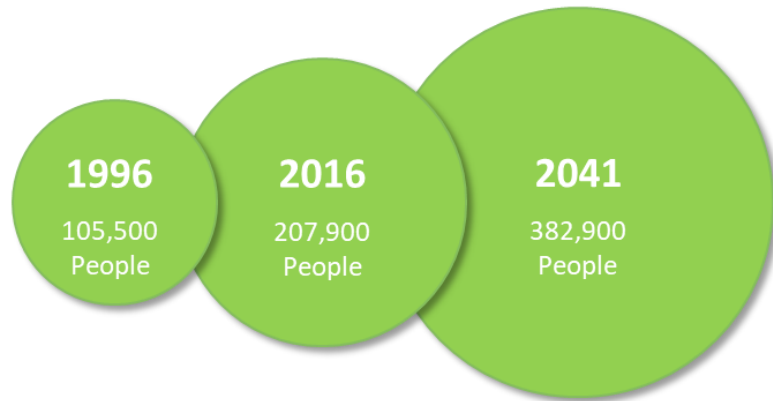


Source: Housing Development Data, Precinct Structure Plans (PSP), Urban Development Program (UDP)

## By 2040 the population will grow by 175 000 people

The population of Whittlesea doubled over the past decade and will nearly double again by 2040 (Figure 2). The 175 000 increase represents an 84 per cent growth from the 207 900 people in 2016 (TABLE 1).

FIGURE 2. POPULATION OF WHITTLESEA



Source: idcommunity 2017.

TABLE 1. POPULATION BY REGION 2016 AND 2041<sup>1</sup>

	2016	2041	Change
City of Whittlesea <sup>1</sup>	207,900	382,900	84%
Northern Melbourne <sup>2,3</sup>	932,900	1,505,100	61%
Metropolitan Melbourne <sup>2</sup>	4,582,400	6,938,500	51%
Victoria <sup>2</sup>	6,048,800	8,876,000	47%

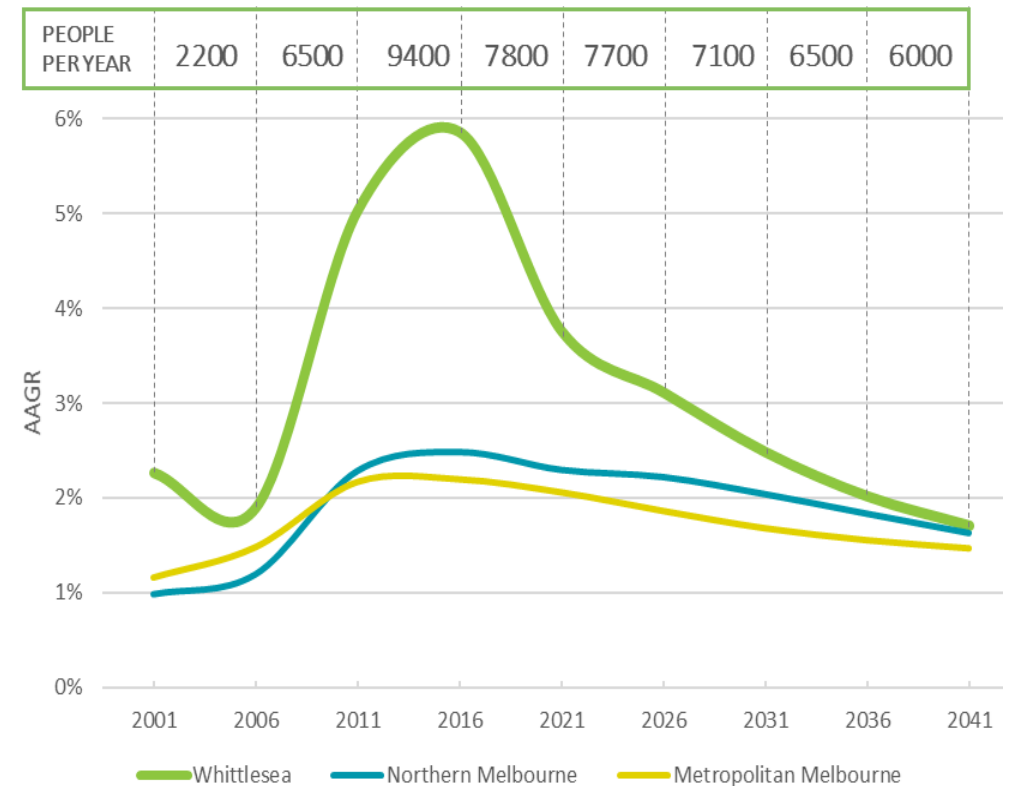
Source: 1: idcommunity2017, 2: SGS Economics and Planning 2017 projections. 3: Northern Melbourne is comprised of the Northern Region in Plan Melbourne encompassing the Whittlesea, Hume, Nillumbik, Moreland, Darebin and Banyule LGAs

<sup>1</sup> The population projections are from different sources, which use slightly different projection methods. This does not affect the overall conclusions regarding relative change projected in different areas.

Whittlesea is one of the fastest growing municipalities in Melbourne. It is growing at a faster rate than the Northern Melbourne region and Metropolitan Melbourne as a whole and this is likely to continue in the future (Table 1).

The most rapid period of growth in the next two and a half decades is happening now (Figure 3). The number of people arriving each year after that is anticipated to remain relatively constant to 2041. While this means the overall rate of growth<sup>2</sup> will fall over time, there will be a consistent number of new people (Figure 3).

FIGURE 3: AVERAGE ANNUAL POPULATION GROWTH RATE (%)



Source: SGS Economics and Planning 2018 Data: SGS Economics and Planning 2017 and idcommunity2017

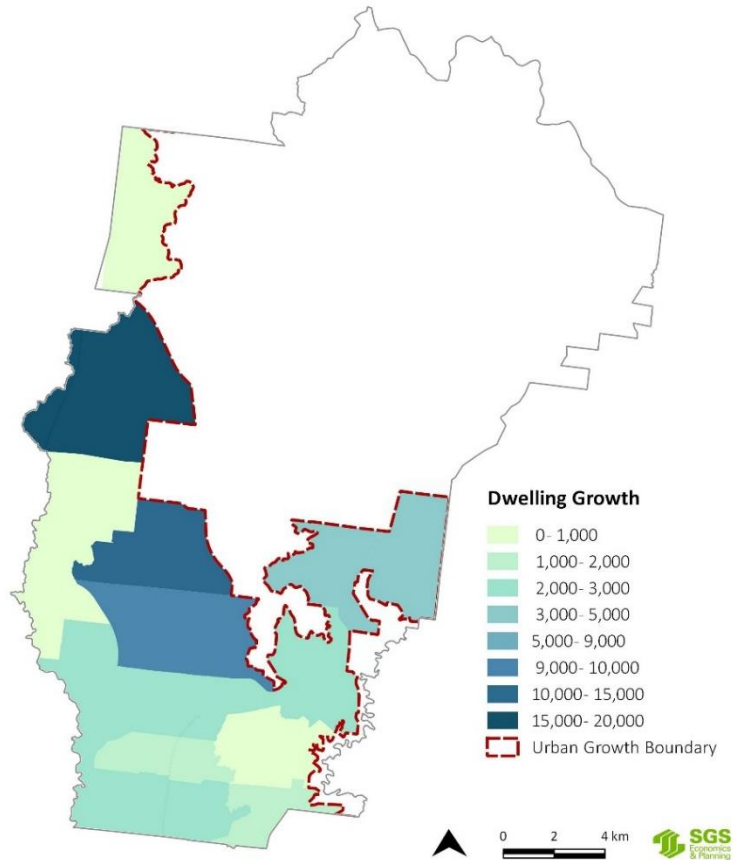
<sup>2</sup> AAGR – average annual growth rate

## There will be 62 400 more dwellings

By 2041 substantial suburban housing growth is predicted to continue in:

- an area of new development to the north, and
- established areas to the south (Figure 4, Figure 5).

FIGURE 4: PROJECTED DWELLING GROWTH WITHIN THE UGB 2016 - 2041



Source: SGS Economics and Planning 2018 using data from idcommunity 2017

<sup>3</sup> Growth areas include the following precincts: Donnybrook, Doreen, Epping North, Mernda, South Morang and Wollert. Established areas encompass precincts in the remainder of the LGA

FIGURE 5. PROJECTED POPULATION GROWTH IN ESTABLISHED AND GROWTH AREAS<sup>3</sup> OF WHITTLESEA 2016-2041



Source: id community 2017

The number of dwellings is projected to increase by 62 400 to 2041, representing an 87 per cent increase from the 71 800 in Whittlesea in 2016. As with population, this indicates Whittlesea will be growing faster than the northern region, metropolitan Melbourne and Victoria.

TABLE 2. DWELLINGS BY REGION 2016 AND 2041

	2016	2041	Change
City of Whittlesea <sup>1</sup>	71,800	134,200	87%
Northern Melbourne <sup>2</sup>	360,300	603,400	67%
Metropolitan Melbourne <sup>2</sup>	1,864,300	2,932,900	57%
Victoria <sup>2</sup>	2,574,700	3,924,600	52%

Source: 1: idcommunity2017 (includes non-private dwellings), 2: ABS census 2016/ SGS Economics and Planning 2017 projections (private dwellings only)



Dwellings in Whittlesea are currently mostly detached houses; a higher proportion than northern Melbourne, metropolitan Melbourne and Victoria (Table 3). The Grattan Institute have identified a mismatch between the housing Australians say they want and the housing we have. Contrary to myth and assumption, Australians want a mixture of housing choices – not just detached houses (Frances-Kelly 2011). Many want to live in a semi-detached home or a larger apartment, in locations that are close to family or friends, or to shops. Encouraging a diversity of housing is an opportunity for exploration in Whittlesea as the population changes.

TABLE 3. DWELLING TYPE BY REGION 2016

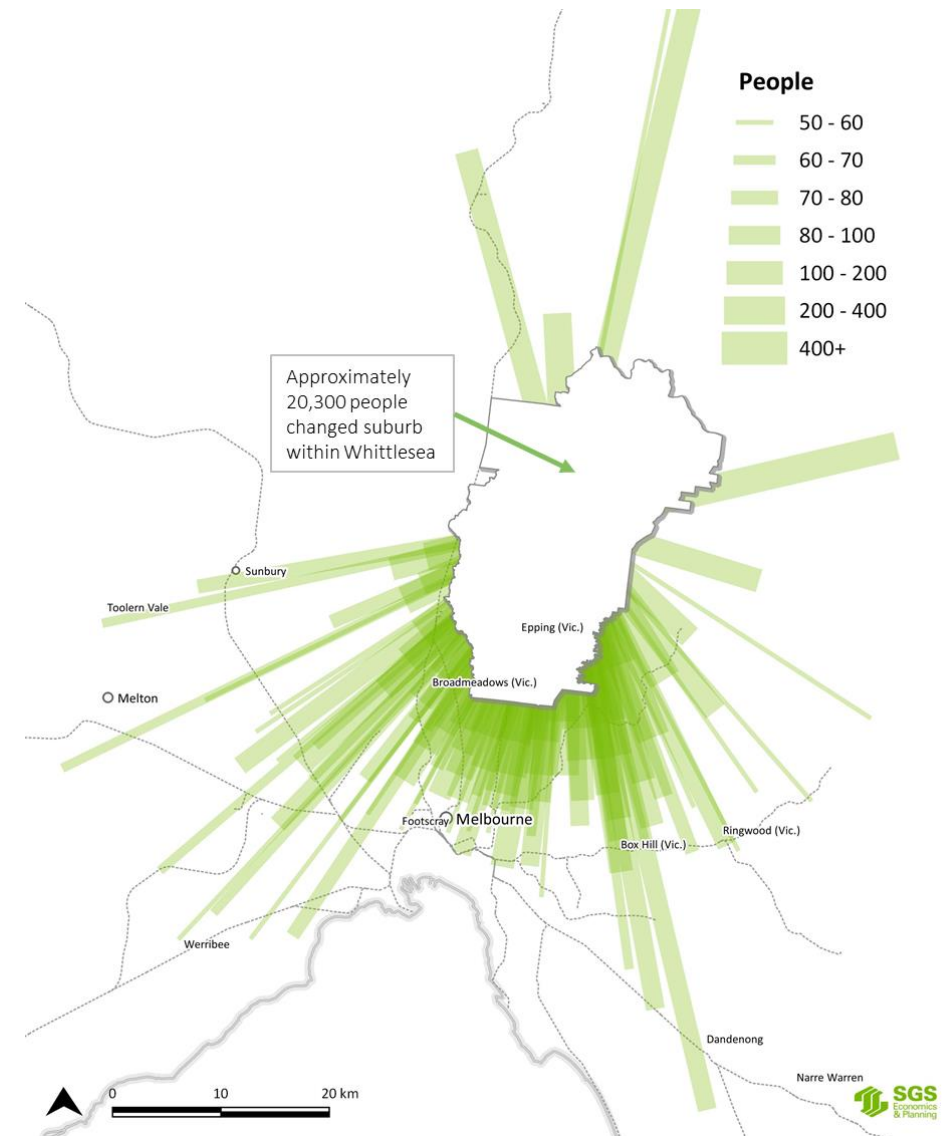
	Detached Houses		Townhouse & apartments		Total
	number	%	number	%	
City of Whittlesea <sup>1</sup>	58,900	83%	12,000	17%	<b>70,900</b>
Northern Melbourne <sup>2</sup>	264,600	74%	94,500	26%	<b>359,100</b>
Metropolitan Melbourne <sup>2</sup>	1,139,400	67%	562,300	33%	<b>1,701,700</b>
Victoria <sup>2</sup>	1,816,900	73%	683,000	27%	<b>2,499,900</b>

Source: 1: idcommunity2017, 2: ABS census 2016 3: Total does not include temporary or mobile dwellings such as caravans

### New residents move in from all parts of Melbourne

Approximately half of the people who lived in Whittlesea in 2016 also lived in Whittlesea in 2011. Just under 10 percent relocated within Whittlesea over that period. Residents moving in to Whittlesea come from all parts of Melbourne metropolitan and regional areas (Figure 6). A small percentage (7 per cent) also arrived from overseas. Within Melbourne, people historically move along various growth corridors, but this appears to be changing. It is likely there will continue to be demand for relocation to Whittlesea from across Melbourne, particularly as the South Eastern Growth Corridor is built out.

FIGURE 6: LOCAL MIGRATION 2016 -PLACE OF RESIDENCE 5 YEARS AGO



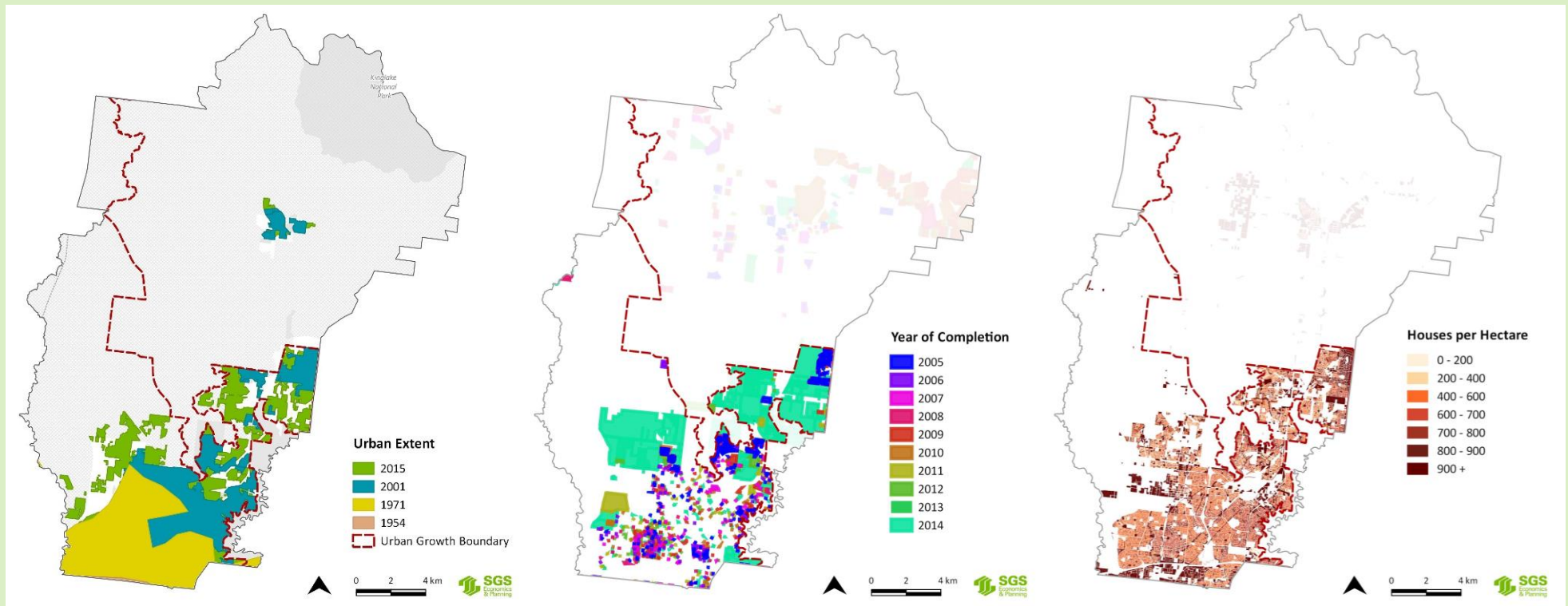
Source: ABS Census of Population and Housing 2016

## Housing development in Whittlesea began after World War 2, progressing north over time

FIGURE 7. EXTENT OF URBAN DEVELOPMENT 1954 - 2015

FIGURE 8. LOCATION OF DWELLING DEVELOPMENT 2005-14

FIGURE 9. DWELLING DENSITY 2014



Source: SGS Economics and Planning 2018

Data: Victoria State Government 2017, Plan Melbourne

Suburban development in Whittlesea began after World War 2 and has progressed north since (FIGURE 7). In 2002, an Urban Growth Boundary for Melbourne was put in place that divides Whittlesea’s urban and rural areas. There was a lull in new housing development in the late 2000s, but in the last few years, several large subdivisions in “greenfield” areas (developments), and infill development in the older suburbs, have rapidly increased the number of households. Figure 8 shows where dwelling development occurred, by year, between 2005 and 2014. It indicates that there was significant infill development over this period.

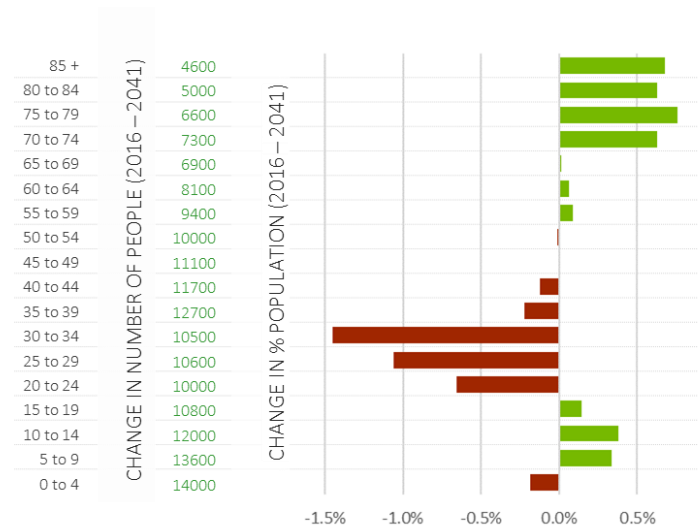
Housing stock originally built in Whittlesea consisted predominantly of family homes with large backyards, but since the 1990s new houses have had small private gardens, increasing the need for public outdoor recreation space and tree planting. Figure 9 illustrates the variation in dwelling density across the municipality, in particular, the density of suburban development in Laurimar, the north-east of the Council area.

In the growing areas in the north, there are mechanisms in place to ensure some infrastructure is delivered (e.g. through developer contributions). In the southern part of Whittlesea, there are a number of challenges as a result of the nature of development historically, including lack of green space (and street trees), larger blocks in grid pattern and distance to local shops.

## Despite ageing, the population will continue to be dominated by family households

Whittlesea currently has a markedly younger population than the rest of Melbourne. By 2041, all population groups will grow, but the population will age, with an increased proportion of older people (aged over 55). There will also be an increase in the proportion of the population aged 5 to 19, while those aged 20-54 will decrease. The median age is projected to increase only slightly, from 34 in 2016 to 35 in 2041.

FIGURE 10. WHITTLESEA POPULATION CHANGE BY AGE GROUP

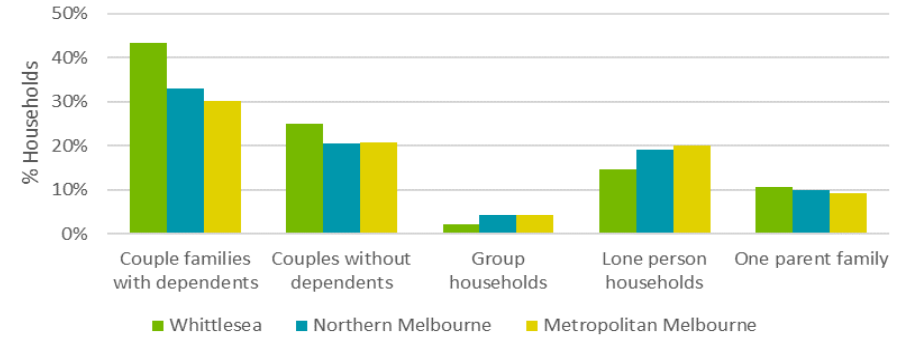


Source: SGS Economics and Planning 2018 using data from idcommunity 2017

Whittlesea has a high proportion of family households compared to Northern Melbourne and Metropolitan Melbourne (Figure 11). In 2041 the population will remain primarily family households, with a slight growth in the proportion of households of couples without children, reflecting the

ageing population. There are more single person and lone parent households in the established areas to the south.

FIGURE 11. HOUSEHOLD COMPOSITION BY REGION 2016



Source: SGS Economics and Planning, 2018 Data: idcommunity2017 and ABS census 2016.

## The population will remain diverse

Whittlesea has a significant and growing population of 1 633 Aboriginal and Torres Straight Islanders (0.83 per cent of Whittlesea’s population). Aboriginal and Torres Straight Islanders constitute a larger proportion of the population than in the Northern Melbourne (0.68 per cent) and Metropolitan Melbourne (0.53 per cent) areas. The Aboriginal and Torres Strait Islander population in Whittlesea grew by 46 per cent between 2011 and 2016, faster than the 33 per cent for Melbourne as a whole.

In 2016, 70,144 (36%) of the total population were born overseas, particularly from non-English speaking backgrounds (32 per cent). The proportion of people born in non-English speaking countries is larger than for Greater Melbourne (27 per cent). It also has a larger proportion with reported poor proficiency in English (

Table 4).

This non-English speaking population includes asylum seekers, refugees, newly arrived migrants and ageing migrant populations.

The cultural demographic is, however, changing: the main overseas countries of birth are were (in order) India, Italy, Former Yugoslav Republic of Macedonia, Greece and China (Figure 13) but the largest countries of birth for arrivals *between 2011 and 2016* were India, China, Sri Lanka and Iraq. The largest increase in spoken languages of the population in the City of Whittlesea arriving between 2011 and 2016 were for those speaking Punjabi, Arabic, Mandarin and Hindi. There is a striking spatial distribution of these cultural groups across Whittlesea (Figure 14)

It is likely diversity in Whittlesea will continue given the current pattern of in-migration.

FIGURE 12. WHITTLESEA RESIDENTS BORN OVERSEAS 2016



Source: ABS Census of Population and Housing.

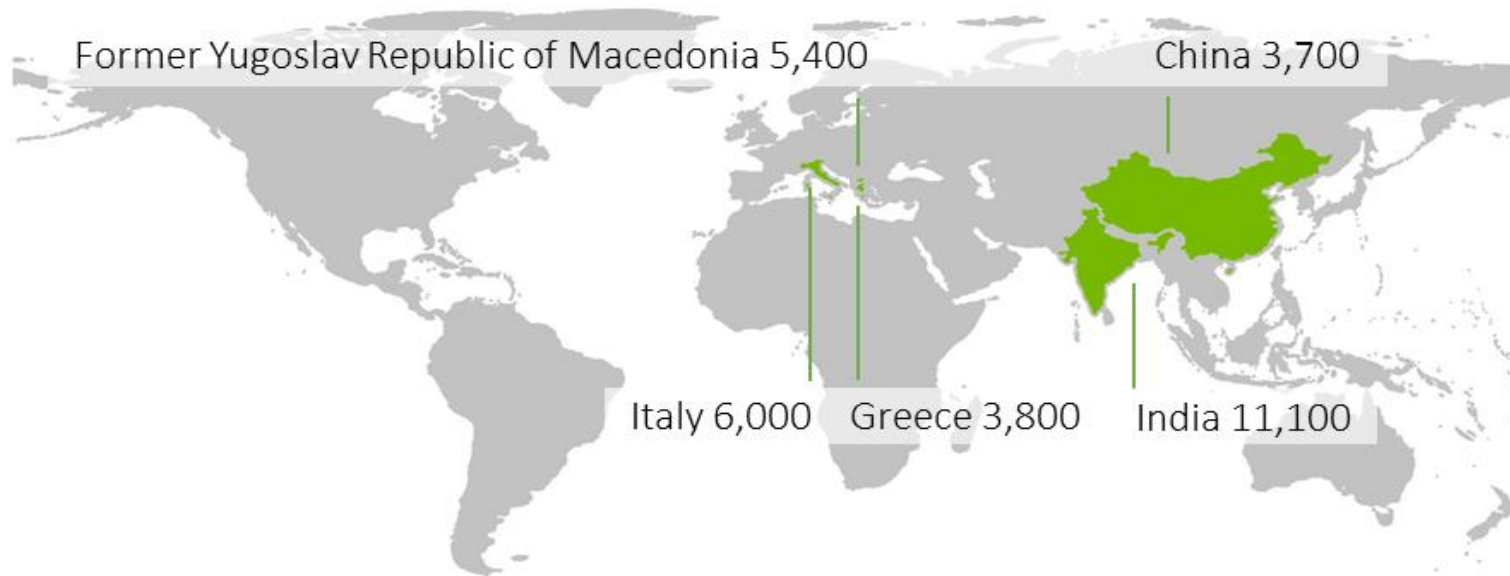
TABLE 4. 2016 INDICATORS OF ETHNICITY IN WHITTLESEA

	Whittlesea	Metropolitan Melbourne	Balance of Victoria
Population born in predominantly non-English speaking countries	32%	22%	6%
People born overseas with reported poor proficiency in English	6.2%	4.7%	0.8%

Source: PHIDU Social Health Atlas of Australia: Victoria, 2017 derived from ABS census data 2016

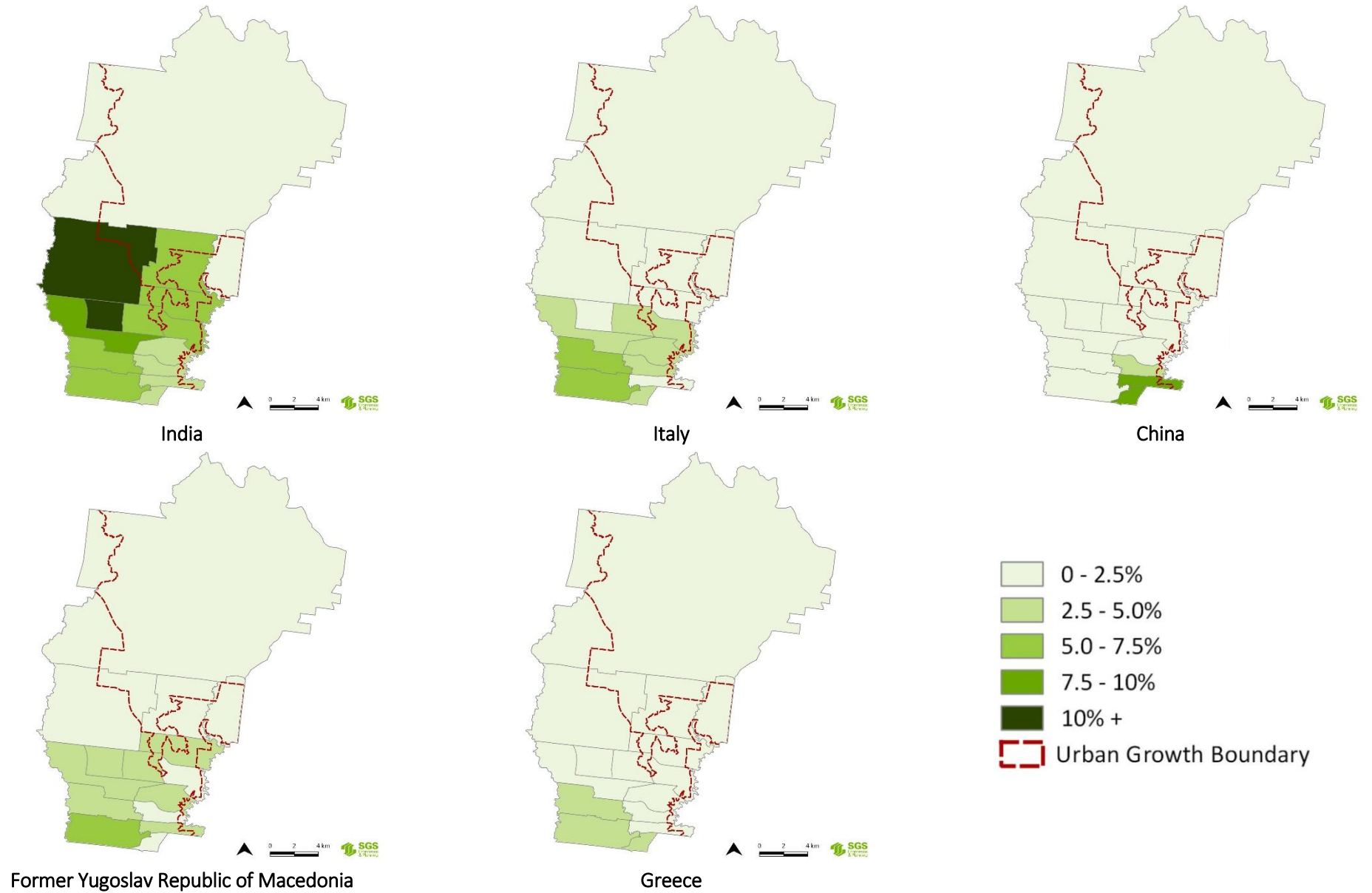


FIGURE 13. WHITTLESEA TOP 5 OVERSEAS COUNTRIES OF BIRTH 2016



Source: ABS census, 2016.

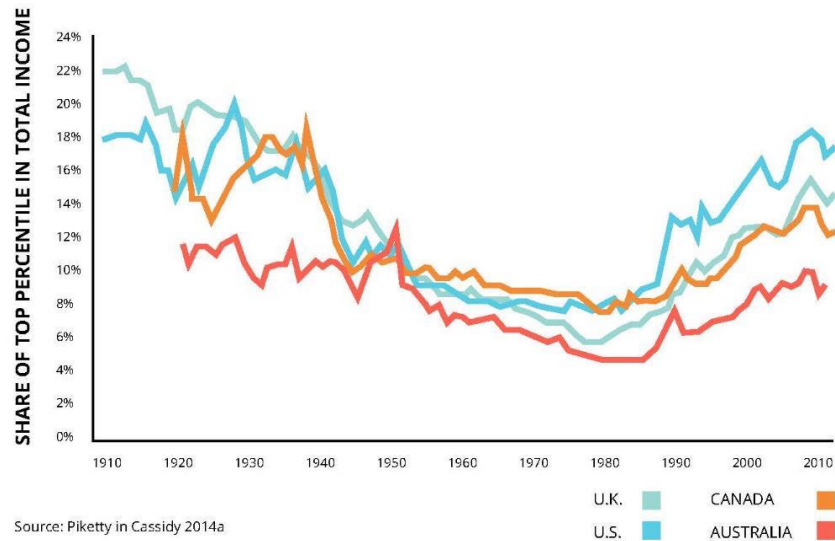
FIGURE 14.: SPATIAL DISTRIBUTION OF TOP 5 OVERSEAS COUNTRIES OF BIRTH 2016



## Rising inequality may increase the number of residents vulnerable to change

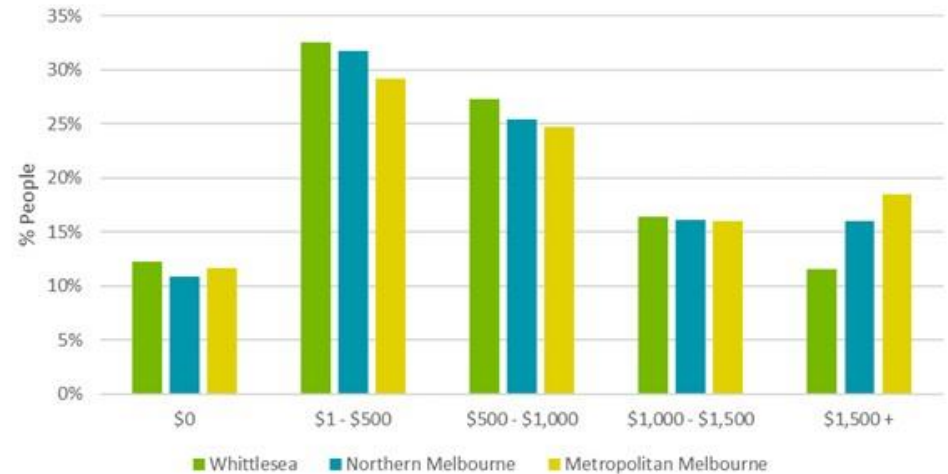
Inequality is increasing around the globe, including in Australia, as the gap between rich and poor widens (Figure 15). It has been predicted that without policy intervention, levels of inequality will be back at levels of 1900 by 2040 (Piketty in Cassidy 2014a).

FIGURE 15. GLOBAL INEQUALITY



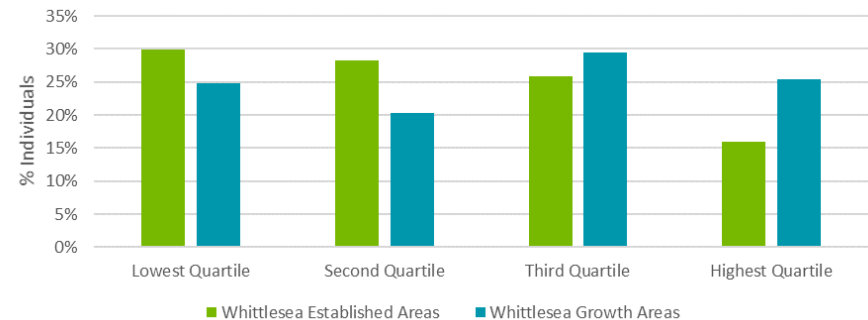
This means sections of the population will be under increasing pressure and will be more vulnerable to the challenges of future change outlined in the next section. This is especially true for those on lower incomes, of whom there is a larger proportion in Whittlesea than metropolitan Melbourne (Figure 16 and Figure 17: ). Low income is associated with a set of indicators of vulnerability such as housing stress, poor labour market participation, low internet access, and being a member of a certain population groups (such as those living with a disability) (Table 5). These are spatially distributed (Figures 20, 21 and 22).

FIGURE 16. WEEKLY PERSONAL INCOME LEVEL DISTRIBUTION BY REGION 2016



Source: SGS Economics and Planning 2018 Data: ABS census 2016

FIGURE 17: INCOME DISTRIBUTION BY VICTORIAN QUARTILE: WHITTLESEA ESTABLISHED AND GROWTH AREAS



Source: id Community 2017. 'Growth areas include the following precincts: Donnybrook, Doreen, Epping North, Mernda, South Morang and Wollert. Established areas encompass precincts in the remainder of the LGA

TABLE 5. SELECTED INDICATORS OF VULNERABILITY

	Whittlesea	Melbourne
Unemployed <sup>2</sup>	3.5%	3.4%
Renters (proportion of all households) <sup>5</sup>	23.4%	28.8%
Those paying a mortgage <sup>5</sup>	41.9%	34.3%
Households reporting rent or mortgage payments place moderate or heavy financial stress on household finances <sup>3</sup>	54%	NA
People living with a disability <sup>4</sup>	5.7%	4.9%
People with low English proficiency <sup>5</sup>	6.2%	4.7%

	Whittlesea	Melbourne
People who did not finish Year 12 or equivalent <sup>5</sup>	39%	27%
Households without internet <sup>5</sup>	14 %	10%
Young people neither earning or learning at ages 15 to 24. <sup>4</sup>	14.3%	12.7

Source: 2: id 2017, 3: Council Annual Household Survey 2016, 4: Public Health Information Development 2017 derived from ABS census data, 5: ABS Census 2016

FIGURE 18. % HOUSEHOLDS UNDER HOUSING STRESS 2016

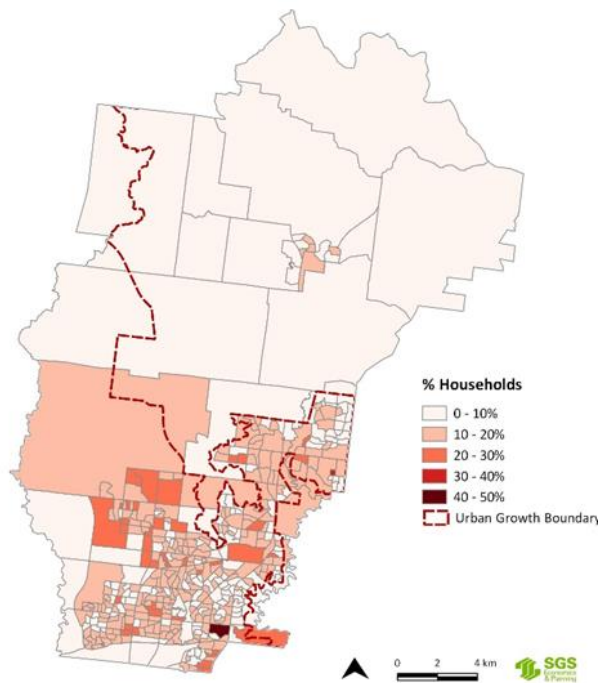


FIGURE 19. % HOUSEHOLDS WITHOUT INTERNET 2016

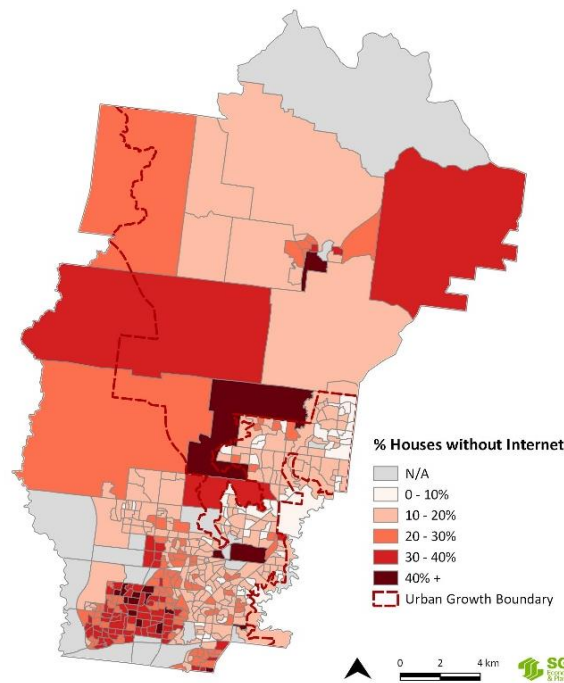
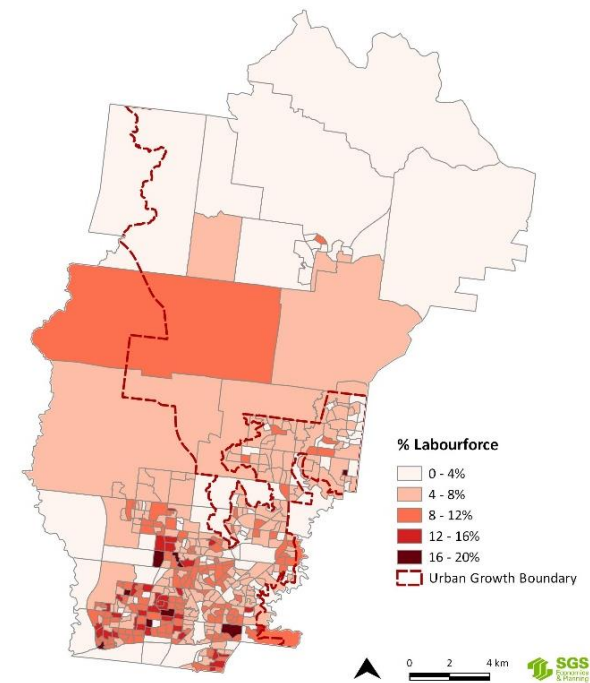


FIGURE 20. % RESIDENTS UNEMPLOYED 2016



Source: SGS Economics and Planning 2018 Data: idcommunity 2017



## How can Council ensure opportunities are maximised with growth?

By 2040...

### Changes ...

- Whittlesea is likely to double its population, with new growth occurring in in-fill development in the south, and new housing developments in the north.
- Although the population will age, it will remain predominantly younger families (a higher proportion than in Melbourne).
- It will likely remain one of Victoria's most diverse local government areas, in terms of its:
  - population of Aboriginal and Torres Strait Islanders
  - large proportion of people with different ethnic backgrounds and
  - economic mix.

### Challenges ...

- Increasing growth means pressure on services and infrastructure. If solutions are not found, a lack of services could exacerbate inequalities as some sections of the population find it difficult to get the resources and assistance they need (see Section 2 *Infrastructure and services*).

- Increasingly, new housing growth is happening a long way from where jobs are located. This will continue to create challenges for residents in finding work locally and therefore many will need to travel long distances to find the best work (see Section 2 *Work and jobs*, and *Transport*).
- Climate change is happening now and Whittlesea, like everywhere else, will be faced with increased costs to health, property, infrastructure and livelihoods from the impacts of increasing temperatures. More growth in car dependent places will make it difficult to meet emissions targets (see Section 2 *Climate change*).

### Opportunities ...

Both growth and diversity also bring significant opportunities to Whittlesea.

- Growth creates critical mass of population that can attract more business and make business, services, community organisations, clubs, etc viable.
- Diversity creates livelier neighbourhoods, more innovative businesses, and interesting urban cultures that make the area attractive for industries such overseas education and tourism
- Housing diversity could attract a wider range of households that could better support the ageing population

Five issues that will be impacted by growth are discussed in the following section.



## 2. TOWARDS 2040

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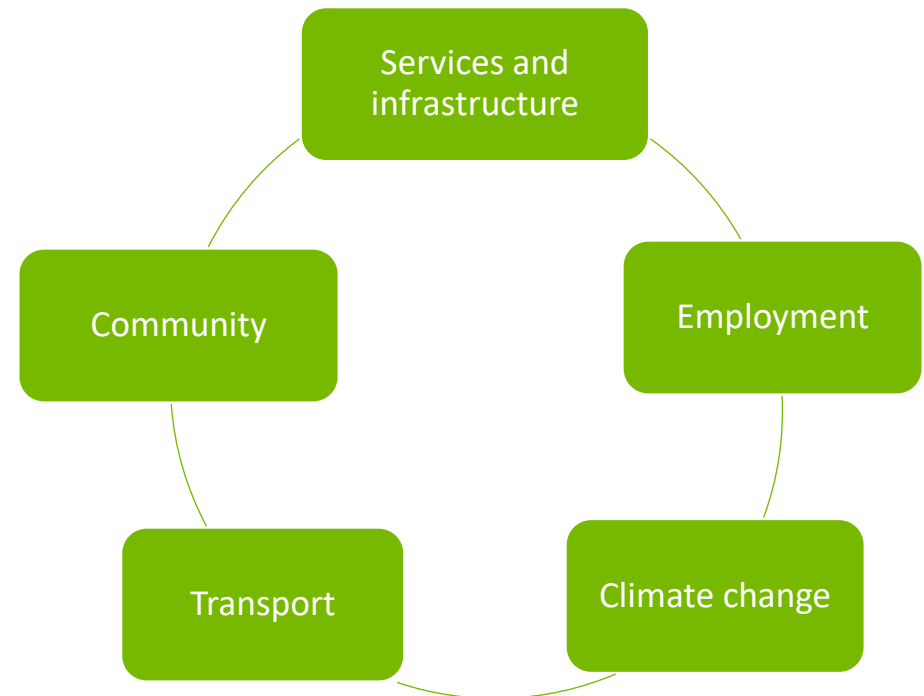
The following section describes key challenges and opportunities across five broad issues creating change, both now and in the future. Each issue examines change, challenges, opportunities and provides direction on what council can do.

Growth creates challenges and opportunities in the face of other global and national trends that are impacting, and will continue to impact, on local areas.

These key challenges and opportunities include:

- Changes in taxation and revenues of governments are creating shortfalls in the funding needed to meet the demand for local **services and infrastructure**. Innovation is required to more efficiently deliver what the community needs.
- The largest disruption to the **economy** for a generation is occurring as technology and globalisation transform industries. Routine jobs are being automated, replaced by new ones in new industries that require constantly changing skills. Support will be needed to ensure people are ready for the new forms of work and the workplace.
- **Climate change** is increasing the demands on governments to address both the damage caused by increasingly extreme weather events and the costs of transitioning to renewable economies to prevent further warming. Urgent action will be needed on both.

The impacts on wellbeing of communities, local economies, and environments are increasing challenges for local governments. However, new solutions are emerging, particularly as communities move to solve many challenges themselves.





# SERVICES AND INFRASTRUCTURE

Demand for services and infrastructure will grow to 2040. This section looks at this challenge and the approaches Council could consider to manage change.

## Change

### Growth is outstripping government funded infrastructure and service delivery

Rapid housing and population growth is outstripping State and Federal government funded infrastructure and service delivery. The tightening of funding from all sources makes it unlikely that the backlog will be filled soon. There will be a need for new education, community, recreation and aged care services and facilities, as well as public transport and open space.

This creates two distinct issues for the City of Whittlesea:

1. Delivering services to new growth areas populations, in line with the timing of development
2. Responding to the complex demand for services in established parts of the municipalities as the communities there evolve

Analysis by the Municipal Association of Victoria (2012) suggests that Victorian councils are responsible for approximately \$60 billion worth of ageing community infrastructure. Whilst councils have significantly increased capital works budgets, there is estimated to be a \$50 billion dollar backlog

in residential care, hospitals, passenger rail and roads, with a further \$23 billion needed to 2031<sup>4</sup> across growth areas in Melbourne.

A Parliamentary Inquiry and the Victorian Auditor General's Office have found growth areas are significantly under resourced in terms of services and social and physical infrastructure. It has been estimated that investment of approximately \$9.8 billion (in constant 2011 dollars) would be needed over the coming 15 years to provide a range of new and upgraded infrastructure and services in the outer council areas (Interface Councils undated). Over the next 30 years, it is estimated that \$36 billion will be required (Interface Councils undated).

According to VicRoads and Public Transport Victoria almost \$10 billion is required to complete proposed rail and road works intended for growth areas (VAGO 2013).

## Implications

### How can Council ensure the community gets the services it needs?

### Council needs to detail the scale and location of the future demand for services

Access to services is fundamental to community health, well-being and economic prosperity. The first step in delivering appropriate social and community services is to understand the scale and location of need. This should be understood at both a broad aggregate and detailed level.

A broad understanding of requirements across four key service categories: education, health, arts and culture, and sport and recreation helps understand the scale of need and informs the development of more holistic economically efficient solutions. Detailed sector/location specific studies can

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<sup>4</sup> SGS Economics and Planning 2015



then further unpack key issues (i.e. open space strategy). This would consider demand for services based on demographic and other socio economic factors and would also consider the spatial profile of this demand, as well as capacity of existing services and facilities to expand.

This can then inform the development of options to meet anticipated demand that could include:

- Increasing capacity at existing facilities
- delivering services in a different way, and
- building new infrastructure.

Based on an analysis of the endorsed precinct structure plans and similar land use planning documents, Table 6 highlights the scale of additional facilities that Whittlesea may require over the next 20 years. It should be noted that some of these facilities are proposed to be co-located with complimentary services and that further planning is required to confirm need for and the subsequent scope of these facilities.

TABLE 6. INDICATIVE COMMUNITY FACILITY REQUIREMENTS

Community Facilities		Education		Health & Wellbeing		Sport & Recreation	
Community Activity Centre	19	Kindergarten	14	Maternal & Child Health Centres	15	Aquatic & Leisure Centres	2
Community Meeting Rooms / Halls	24	Primary School	16	Wellbeing Hubs	2	Highball Stadiums	2
Program Rooms	17	Secondary School	7	Visiting Service Consulting Rooms	6	Regional Sporting Reserves	3
Community Arts Facilities	4	Libraries	4	PAG Rooms	6	Sporting Fields	46
						Sports Courts (tennis/netball/bowls)	64
						Sports Pavilions	20

Source: City of Whittlesea, 2018.

### New and innovative delivery approaches will be required

Given the significant scale of demand for additional services, new approaches to planning for and delivering infrastructure and services will be required in Whittlesea. While much of this will be required in new growth area suburbs, the evolution and maturing of the community in the established parts of the municipality will also generate demand for additional services in these areas. The cultural diversity in Whittlesea should inform the planning for services and infrastructure.

Community services increasingly extend well beyond the physical facility and evolve over the life cycle of the community. The planning for established areas requires an appreciation of the existing services and facilities, including capacity, condition and potential to increase or change the services which are offered there.

Flexible spaces, which can be used for a range of different activities and coupled with various outreach services will help Council make the most of limited resources.

There are a number of new approaches which are emerging as best practice in community infrastructure and service provision. The scale of additional demand means Whittlesea has an opportunity to consider a range of innovative ways to deliver services differently, including:

- Developing **hubs and co-locating** aligned services. This provides a range of efficiencies including: shared use of assets, shared administrative and maintenance cost, great flexibility and improved service offering to the community. It is important to identify 'lead' and 'support' infrastructure (for example, a school (lead) with childcare and community sport facilities (support)). A strong governance structure based around the hubs collective outcomes is also critical. This is something Council can take an active role in supporting.
- **Upgrading existing infrastructure** to better service the community. Technology should be seen as an integral part of upgrading existing infrastructure. Upgrades can range from soft solutions (for example online tools, increased promotion, realignment of services offerings with community needs) through to more physical upgrades (for example, lights on sports fields or actual building works). A tiered approach which first looks at soft delivery solutions and ensures capital works supports flexible multipurpose facilities is critical.
- **Drawing from multiple funding sources** including Council Rates, State/Federal funding, Private sector partnerships, Development Contribution Plans, Levies (i.e. Open Space Levy), Value Capture. Increasingly solutions need to include multiple government agencies and the private sector.

## Smart Cities

Smart cities is a term broadly used to describe the proliferation of computers and networked sensors being integrated into the built environment. This technology generates huge amounts of data allowing real-time insights into the city which have never been possible before. This has large implications for the way local government decisions are made and services are delivered:

- Services can be delivered more efficiently; e.g. services such as rubbish collection and asset maintenance can occur when a sensor indicates it is really needed, rather than on a timetabled basis, or with labour required to check whether collection is required.
- Greater flexibility in the provision of services to residents. Readily available information on the location and status of facilities allows for residents to engage in the sharing economy and the closer matching of demand and supply. For example, the capacity in a child care centre may be on any given day, or real time scheduling of the use of sports fields, could improve utilisation of infrastructure and make it available to a larger pool of users.
- Supporting residents to self-organise to provide services. There are examples trialled around the globe, for example, the adoption of street trees and even fire hydrants<sup>1</sup>.

Alongside the potential for better service provision comes increased expectations for residents to interact with their local Council in real time. The expectation for instantaneous information regarding the availability of community facilities, the status of infrastructure upgrades and responses to complaints requires new systems to be implemented, such as the 'pothole tacker' provided by the City of Chicago<sup>2</sup>.

<sup>1</sup> <https://www.accuweather.com/en/weather-news/adopt-a-hydrant-snowstorms/19897879>

<sup>2</sup> <https://www.cityofchicago.org/city/en/depts/cdot/dataset/potholetracker.html>

## Early provision is cost effective

The early provision of infrastructure that meets the needs of the residents living in new developments, such as essential services like schools, childcare and retail, will alleviate pressures on residents (Williams et al 2009).

Modelling shows that early provision of infrastructure and services is cost-effective because it improves health and wellbeing outcomes and enhances the liveability of areas by:

- reducing the need for secondary and tertiary service intervention
- reducing traffic congestion, long commutes and travel by motor vehicle
- making these localities more attractive investment propositions and thereby increasing local and diverse employment options, and improving environmental outcomes (Outer Suburban/Interface Services & Development Committee 2012).

## Outcomes should be monitored through indicators of liveability and evaluation

Communities often have reasonable concerns about what continued growth means, how the traffic and transport networks will cope, how street level amenity will be affected, whether there will be sufficient open space and whether schools and other social infrastructure provision will be sufficient.

Planning for future development should be coupled with commitments to integrated infrastructure provision, and enhancements to general neighbourhood amenity, liability and equality.

Community infrastructure provision should be based around the development of outcomes and indicators for 'liveability' by suburb. Baseline measurements for each of the indicators should be taken and compared to regional ratios and best practice.

Council should then make a commitment to the community that through more effective integrated planning and intra-agency cooperation outcomes will be measured against these indicators post development and be maintained or enhanced.

<sup>5</sup> For examples, see The Open Data Institute at <https://theodi.org/>

Indicators should consider a range of quantifiable outcomes such as:

- area/quality/accessibility of active open space
- ratio of community/cultural facilities per person
- access/length of bike/pedestrian paths
- ratio/access to education (school and tertiary)
- housing diversity ratios (built form and price)
- access to employment opportunities
- reduced car dependence
- improved environmental performance.

With advances in big data and technology, many monitoring tasks that traditionally involved labour-intensive surveys can now be undertaken automatically, providing insights with a high level of detail and in real time (Daniel, 2017). This closes the feedback loop allowing for better decisions to be made. The relative ease by which these insights can be generated has also led to increased community expectations around for greater transparency in decision making and provision of open data<sup>5</sup>. Networked technology also allows residents to crowdsource information about the condition of the built environment and undertake their own initiatives<sup>6</sup>.

Table 7 presents a selection of health and wellbeing indicators for Whittlesea and how they compare to Urban Victoria. This highlights a gap and demonstrates the high level of vulnerability in the community already.

TABLE 7. SELECTED INDICATORS OF SERVICE NEED

	Whittlesea	Victoria
Overweight or obese <sup>1</sup>	56%	50%
Type 2 diabetes <sup>1</sup>	7%	5%
Current smoker <sup>1</sup>	15%	13%
Increased risk of alcohol related harm <sup>1</sup>	48%	59%
Depression/Anxiety <sup>1</sup>	22%	24%
Children developmentally at risk <sup>2</sup>	16.2%	11.2%

<sup>6</sup> For example, <http://aircasting.org/> and <https://flood.network/>

Rate of family incidents<sup>3</sup>                      14.5 per 1000 population    12.4 per 1000 for  
Victoria

Poker machine losses per head of population <sup>4</sup>	\$550	\$430
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<sup>1</sup>Victorian Population Health Survey (2014)

<sup>2</sup>Australian Early Development Census (2015)

<sup>3</sup>Victoria Police Family Violence Dashboard (2016-2017)

<sup>4</sup>Victorian Commission for Gambling and Liquor Regulation (2016-2017)

## Summary

By 2040...

### Changes ...

- A growing population will mean Whittlesea will need more education, health, education and arts and culture services and infrastructure.
- It will be important to understand changing demand for services and infrastructure in detail.
- The successful delivery of infrastructure should be monitored using community indicators of 'liveability' which Council monitors every two years.

### Challenges ...

- The Whittlesea community will increasingly require social and community infrastructure.
- There will be less traditional funding to pay for this infrastructure.

### Opportunities ...

- Partnerships and innovative approaches to delivery can help address delivery of services and infrastructure challenges.
- Co-design, sharing of facilities and technology can make more use of what currently exists.
- Using ongoing monitoring programs to help understand where services are having an impact, and where they may be required in future.

### Implications of not acting

- If innovative solutions are not pursued, there will be a lack of services and infrastructure.
- Undersupply of services and infrastructure will mean the broader community will have lower quality of life and economic opportunities.
- This will be most felt by those who are less advantaged, creating increasing inequality across Whittlesea. Once this pattern is established it can be difficult to resolve.





# EMPLOYMENT

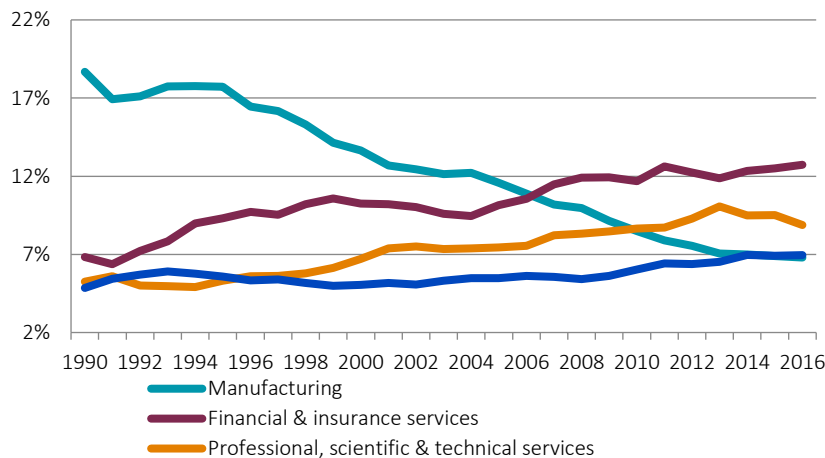
Work is changing. This section outlines the changing nature of jobs and work, and the opportunities and challenges that will be created for Whittlesea communities.

## Change

### Work is changing and there will be different jobs and ways of working in the future

The Victorian economy is changing, influenced by global trends. Over the past few decades technology has transformed it from one based on manufacturing and agriculture to one based on high skill, knowledge intense industries and services (see Figure 21).

FIGURE 21: SHARE OF MELBOURNE'S GDP

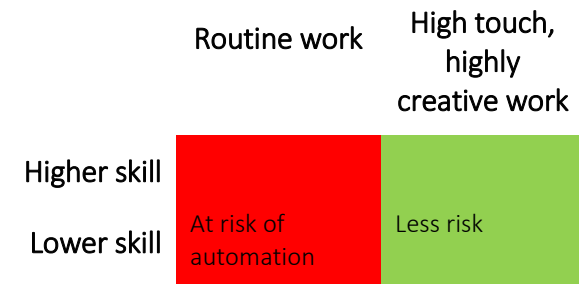


Source: SGS Economics and Planning

Technology will continue to affect jobs. It is estimated 40 per cent of current jobs (70 per cent of current entry level jobs) will be automated over the next decades, replaced by jobs in new emerging higher skilled industries (FYA, 2015). For example, driverless vehicles, airborne and terrestrial drones and other technologies are likely to decrease jobs in the retail and logistics sector, while increasing high skilled jobs in technology.

Jobs which will be difficult to become automated include those that require human thinking, creativity and problem solving on the higher skill side, and those that require human touch on the vocational skills side. The next wave of jobs likely to be automated are not lower skilled manufacturing, but higher skilled routine white-collar jobs such as call centre workers, legal clerks, accountants and retail workers.

FIGURE 22. DETERMINING JOBS AT RISK OF AUTOMATION

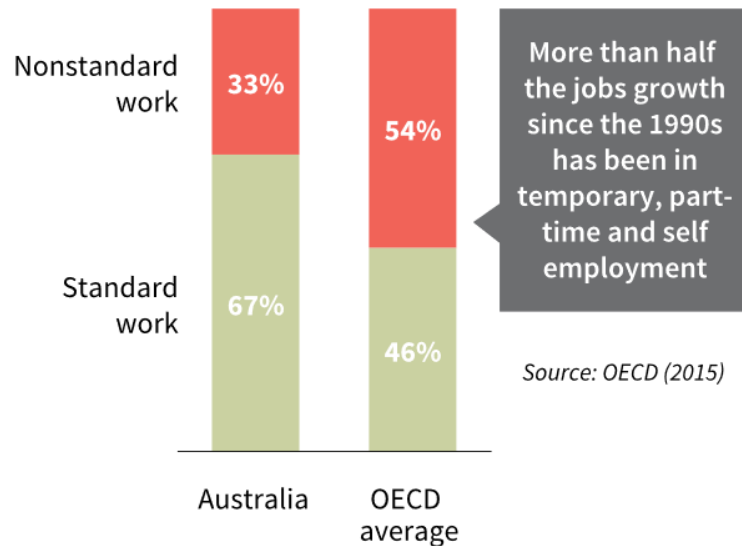


In addition to automation of work impacting on the types of jobs available, technology is also changing the way we work. Over the past decades there has been an increase in non-standard or alternative working arrangements such as self-employment, temporary agency work, seasonal work, independent contracting, fixed term contracts and on call work (Independent Inquiry into Insecure Work, 2012). Increasingly people are also piecing their incomes together from a “portfolio” of activities, this includes using platforms like Air Tasker, Freelancer, Uber, Park Hound, Deliveroo and Airbnb.

These changes are already occurring in Whittlesea and will continue into the future.



FIGURE 23: PERCENTAGE OF JOBS GROWTH IN NON-STANDARD AND STANDARD WORK, 1990-2015



Source: FYA, 2015.

## Implications

### How can Council support a strong local economy and employment?

### Opportunities to improve the skills of workers will be important

In the future the population will need to be skilled in the types of jobs on offer. Currently, a lower proportion of Whittlesea residents than the Melbourne average left school before Year 10 (31% compared to 24%), but a

similar proportion of school leavers participate in higher education (43% compared to 44% across Melbourne).

TABLE 8. HIGHEST QUALIFICATION REACHED (2016) - PROPORTION OF 15 YEAR + POPULATION

	Whittlesea	Northern Melbourne	Metropolitan Melbourne
Postgraduate	4%	7%	7%
Bachelor Degree	10%	14%	15%
Advanced/Diploma	7%	7%	8%
Certificate III & IV Level	12%	11%	10%

Source: Census 2016

Access to ongoing education and training will be an important consideration in the future as jobs continue to change. This will include rapid re-training for those in industries where jobs are lost.

Whittlesea is well placed to provide these opportunities with links to educational facilities like La Trobe, RMIT and Melbourne Polytechnic.

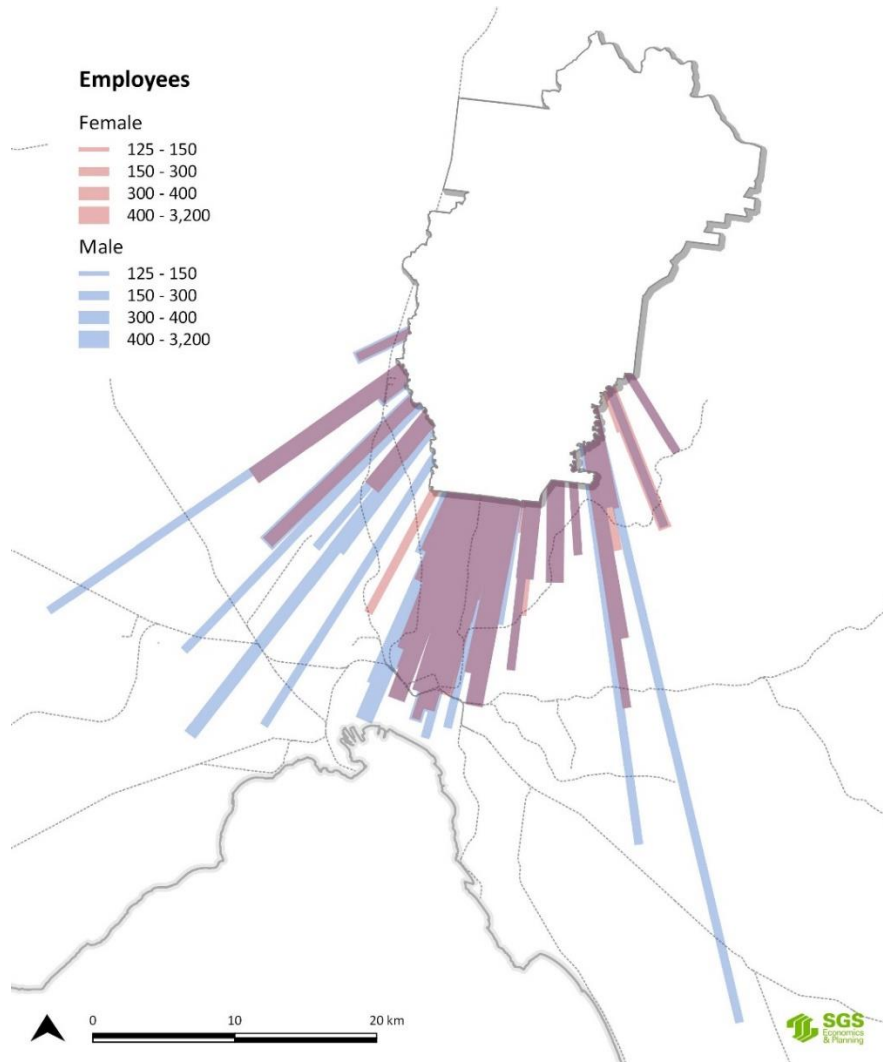
### The majority of jobs in the future will be in inner Melbourne and other major employment nodes

Around two thirds (70 per cent, 62 000 people) of the workforce currently travel outside of Whittlesea for work. Around 13 per cent (11 800) travel to the City of Melbourne (ABS census 2016). The rest travel all over the city including to the freight and logistics park near the airport, industrial areas in Melbourne’s west, Greensborough, Heidelberg and Broadmeadows (Figure 24).

This is likely to continue into the future as the sectors that are growing the most in the economy, particularly knowledge intensive jobs, are in inner city areas where they can have greater face to face interactions with clients, other professional services, and the widest reach to labour (Figure 25). Major employment growth is also projected for some suburban employment

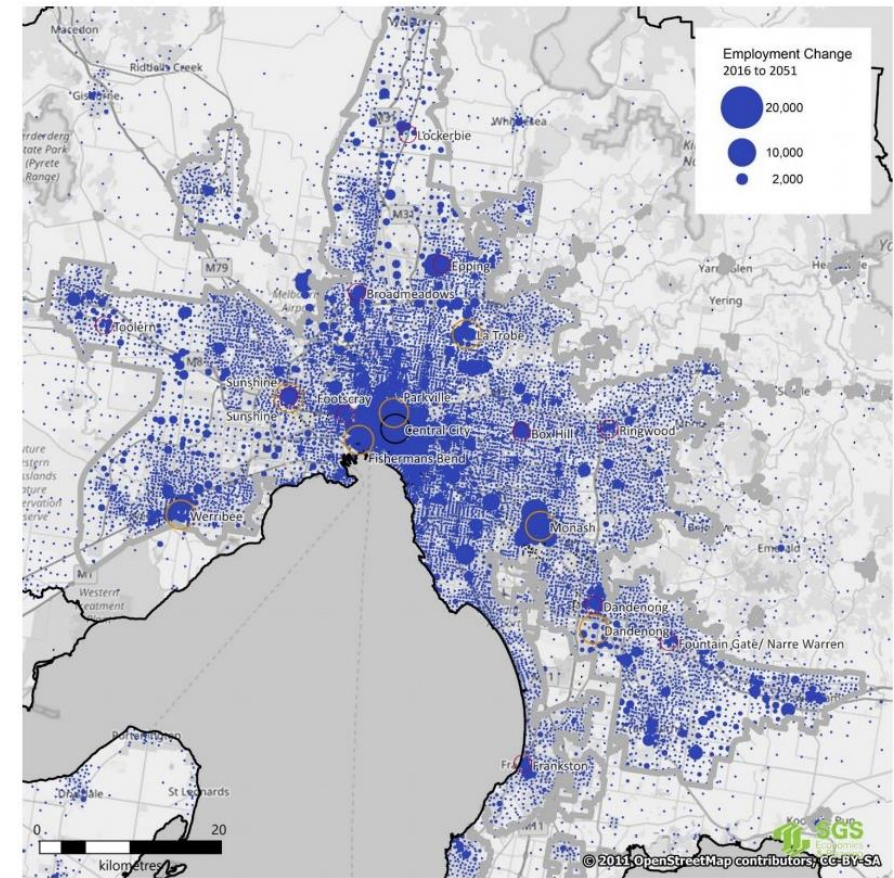
clusters, but there will be comparatively less in the outer areas of Melbourne (Figure 26).

FIGURE 24: DESTINATION OF WHITTLESEA WORKERS LEAVING THE LGA



Source: SGS Economics and Planning 2018 Data: ABS census 2016

FIGURE 25: CHANGE IN JOBS 2016-2051



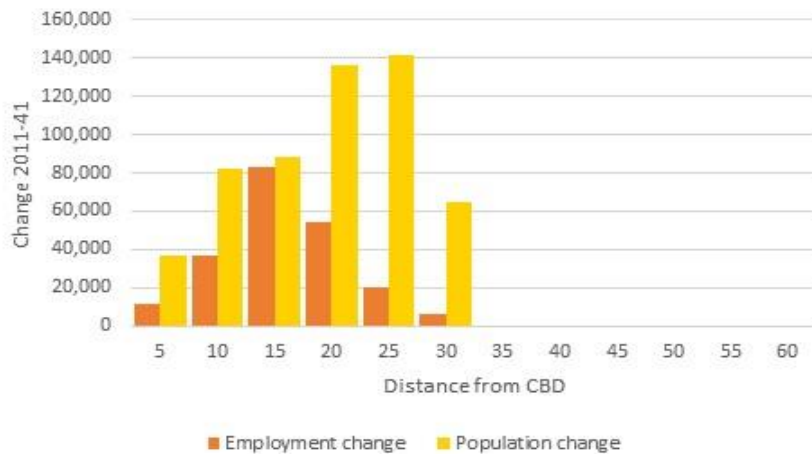
Source: SGS Economics and Planning, 2018.

In the Northern Region, jobs growth is occurring further away from the areas experiencing the most population growth (Figure 26).

Increasing connection to these growing employment areas, particularly by public transport to reduce emissions, will be important (discussed further in *Transport*).



FIGURE 26: DISTRIBUTION OF EMPLOYMENT AND POPULATION GROWTH IN NORTHERN CORRIDOR 2011-41



Source: SGS Economics and Planning, 2018.

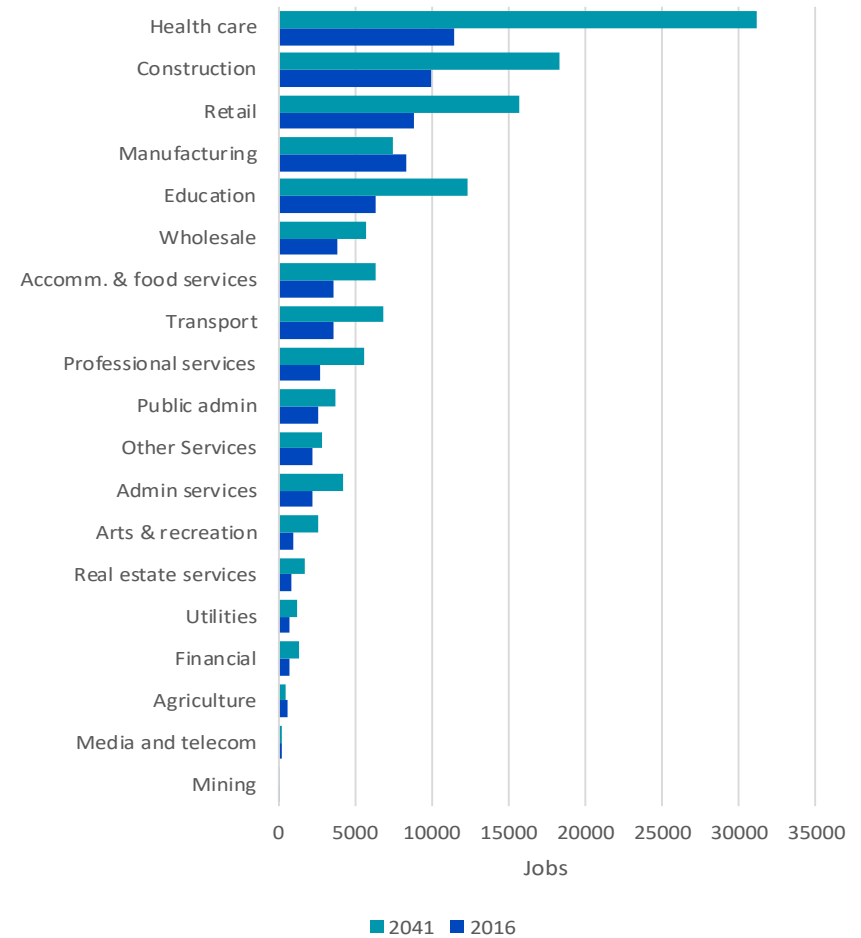
### Support can be given to grow local jobs

Around a third (30 per cent, 26 000 people) of residents work locally, within the Whittlesea LGA. The major destinations for local work include Thomastown – a major industrial area (5 300), Epping – South (5 100) also an industrial area and Mill Park – North (3 100) a major shopping centre. Council can support employment growth in these locations, via improvements to amenity, and ensuring centres have space to grow.

Whittlesea currently has a higher proportion of jobs in the industrial sector (i.e. manufacturing) and a lower proportion of knowledge intensive jobs (i.e. professional services) than both the northern region and metropolitan Melbourne. White-collar employment is largely lower skilled (e.g. retail and manufacturing) and at risk of being automated.

Health care, construction, education and retail jobs are projected to experience the most significant growth between 2016 and 2041, with manufacturing projected to decline slightly (refer Figure 27).

FIGURE 27: NUMBER OF JOBS IN WHITTLESEA 2016-2041



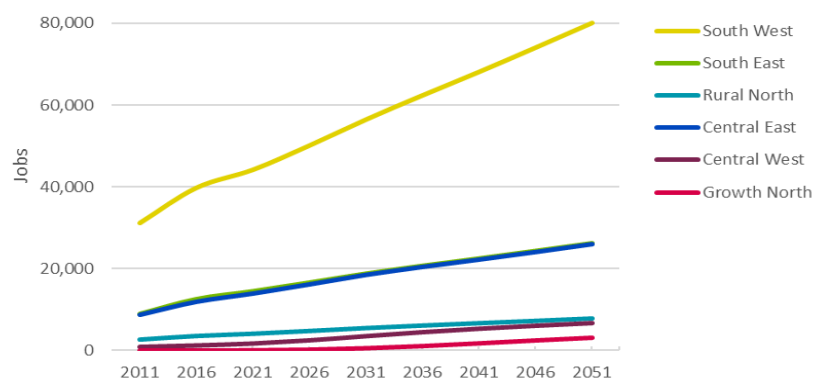
Source: SGS Economics and Planning, 2017.

The spatial distribution of Whittlesea’s 52 800 local jobs is uneven. There are significantly more in the south west (including Epping Plaza). This is also the area projected to experience significant employment growth in the future. The central west is also expected to experience jobs growth, but there is

little growth projected in the housing growth areas in the north. Many of these areas have been designated primarily for residential purposes to accommodate projected population growth in Melbourne as part of the Growth Corridor planning process.

The City of Whittlesea can support access to employment by improving access to the locations where jobs growth is occurring, via a range of active and other transport modes.

FIGURE 28. WHITTLESEA JOBS BY DISTRICT 2016 - 2041



Source: SGS Economics and Planning, 2017.

Council can also understand the change in work and support growing industries and self-employment, for which the barriers are being reduced in the new work environment.

### 1. Supporting growing industries

Key growth areas in future include:

- health and education and supporting industries
- construction, although it will likely transition from residential to commercial activity
- blue-collar jobs shifting to trades (that are less likely to be automated)
- population services.

While the location of businesses and jobs are driven by broader trends and forces, there are opportunities to embrace these, to support a range of businesses and activities to grow in Whittlesea.

In **industrial areas**, while jobs in manufacturing sector may decline, the sector will still make an important economic contribution. The sector's land use profile is likely to evolve as manufacturing continues to transition to cleaner, higher tech and less offensive activities. Many industrial areas will attract office activity and services (e.g. hospitality, other recreation activities such as gyms and childcare) to support the local workforce and attract a skilled workforce. These attributes will also support the attraction of modern industrial businesses which require high levels of amenity and access.

Careful planning of the **retail and hospitality** sector provides an opportunity to develop mix of uses in activity centres, and to create a diversity of spaces and experiences in centres. Holding events in centres which reflect the unique identity and celebrate the local population (such as fresh food and other markets, festivals, etc) will draw people and activity to centres. This requires a range of civic spaces for events in centres. Having a diversity of site owners can support competition and organic growth within centres and help create diverse places. This needs to be balanced with the need for larger sites to enable redevelopment. A strong network of centres will also support 20 minute walkability and access to jobs and services.

Activity centres are locations which can, in the long term, support **higher order commercial** (office) activity. This requires certain preconditions that Council can establish now (e.g. high levels of amenity and space for the centre to grow) acknowledging that may take several decades before the centre is mature enough to support these activities. It is important however that these are established early.

Ensuring major **institutional activities** occur in centres will also signal to the development sector that the major centre will continue to be supported. For example, delivering health, government and institutional uses in centres and in accessible locations is crucial.

### 2. Supporting new industries and start ups

Council can support and advocate for new industries, particularly around emerging technologies such as renewables. The development of these

industries increase transferable skills within the community. Councils can provide the infrastructure to support start-ups that can evolve into new sources of employment and global businesses.

### 3. Supporting self-employment

The new world of work has removed many of the barriers for people working for themselves. It allows “freelancers” to source their work globally and innovators to create new products. These new work arrangements can be supported by the development of infrastructure to support it:

- co-working locations with high speed internet
- technology and manufacturing makers spaces (where people can design and prototype new products together)
- innovation and incubation hubs
- support for the sharing and cooperative initiatives that bring local value back to local areas and support socially focused industries.

## Summary

By 2040 ...

### Changes ...

- Technology and globalisation will continue to transform the types of work on offer, replacing routine type jobs with higher skilled work in ‘high knowledge’ and ‘high touch’ industries.
- Jobs growth will be uneven across Melbourne, and within Whittlesea.
- Work is likely to continue becoming more flexible, i.e. the use of electronic communication devices for in-home care and health, co-working and makers spaces and incubators.

### Challenges ...

- The population will need skills for the new economy and people that work in automating industries (such as automotive) will need rapid retraining into areas of future growth (such as food or hospitality). Research suggests systems monitoring change needs to be established to detect people as soon as they are in trouble to prevent the emergence of populations of long term disadvantage.

- The future distribution of jobs will be influenced by broad trends which will mean many residents will still need to travel outside of Whittlesea for work, including to inner areas as well as other locations, requiring better transport options (see *Transport*).

### Opportunities ...

- Support and advocate for new industries, particularly around renewables and other emerging technologies and increase the skills within the community (both in higher and vocation education). This could be done, in conjunction with neighbouring Councils to support regional employment locations
- Some jobs ‘follow’ population growth. Creating high amenity activity centre locations for these jobs and focussing major activity in one centre will attract a greater mix of uses and employment opportunities. Over the longer term, this will improve the potential of the major centre developing to attract higher order activity such as back office and other professional jobs.
- The new world of work has removed many of the barriers for people working for themselves and allows “freelancers” to source their work globally and innovators to create new products in much more sophisticated coalitions. These new work arrangements can be supported by the development of infrastructure to support it:
  - co-working locations with high speed internet
  - technology and manufacturing makers spaces (where people can design and prototype new products together)
  - innovation and incubation hubs
  - support for the sharing and cooperative initiatives that bring local value back to local areas and support the development socially focused industries.

### Implications of not acting

- If single use retail centres are allowed to develop, the opportunity to support higher order jobs and diversity of activities in centres will be missed.
- People will have to travel further for work, and some will not engage in the workforce. This will result in inequality and a decrease in social cohesion.







# CLIMATE CHANGE

Whittlesea is facing a climate emergency. This section examines how that can be addressed.

## Change

### Climate change is the greatest threat to social, environmental and economic wellbeing

Climate change is happening now. Climate change is caused largely by the historical use and resulting emissions from non-renewable energy sources.

Australia's climate is becoming much more unstable and extreme because of climate change. Australia is already experiencing (and can expect to see) an increase in the intensity and frequency of extreme events such as heatwaves, fire, droughts, storms and flooding (Climate Council).

The increase in frequency and intensity of these events will increase risks to human health, property, infrastructure and livelihoods.

## Implications

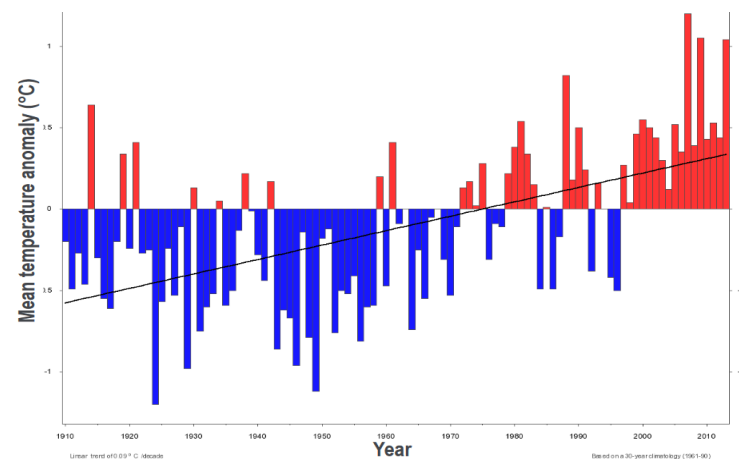
### The community will face more risks

In the City of Whittlesea, certain groups may be more susceptible to damage, be more exposed to the hazard, or have less ability to cope or recover from damage, potentially exacerbating inequality.

Average temperatures are increasing in Victoria and in Whittlesea (Figure 30). Annual temperatures are expected to rise between 2 and 3 degrees by 2050. There will be more days of extreme heat and more heatwaves (City of Whittlesea, undated). Older people, children and people with a medical condition will be at a higher risk of heat stress due to an increase in

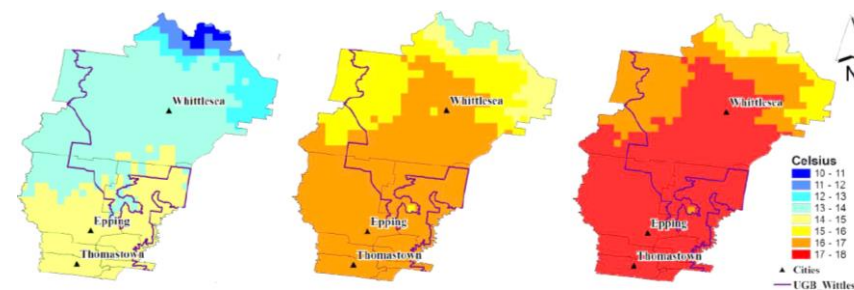
frequency of heatwaves. In 2009, and again in 2014, significant heatwaves negatively impacted the health of Victorians. In these years, heatwaves resulted in significant loss of life, with approximately 374 excess deaths recorded in 2009 and 167 in 2014 (Department of Health and Human Services, 2017).

FIGURE 29: ANNUAL MEAN TEMPERATURE ANOMALY – VICTORIA 1910 - 2013.



Source: Australian Bureau of Meteorology via Climate Council

FIGURE 30: AVERAGE ANNUAL TEMPERATURE IN WHITTLESEA 1969-1990, 2050 AND 2070



Source: City of Whittlesea undated

## The risk of natural perils will increase

Community members who live in the rural areas of Whittlesea will be at a greater and more frequent risk of grass and bushfires. The Victorian fire season will be longer, and bush and grassfires will be more intense and frequent (City of Whittlesea, undated).

On the 7<sup>th</sup> of February 2009, the Black Saturday bushfires resulted in the deaths of 173 people. This event was the world's most devastating bushfire event to date, with the day coinciding with the worst bushfire weather conditions ever recorded in Australia. Extreme heat, high winds, low humidity, and severe drought were all factors that lead to the catastrophic event (Victorian Bushfires Royal Commission, 2009). All of these factors are expected to be experienced more frequently as a result of climate change. This presents a significant risk to community members living in bushfire prone areas in Whittlesea.

Droughts are likely to get worse; Climate change along with the El Nino/ La Nina cycle will intensify, meaning longer and harsher droughts (City of Whittlesea, undated). The predicted increase in frequency of drought presents a risk to farming activities within the rural areas of Whittlesea and to water levels within Whittlesea's catchments. Drought will also have a negative impact on the health of Whittlesea's forests, national parks, grasslands of national significance, red gum woodlands, and network of rivers and creeks.

Localised flooding is predicted to increase, with more rain predicted to fall in individual events. Storm events will also increase in frequency and intensity (City of Whittlesea, undated). The predicted increase in frequency of storms and flooding is likely to increase risks to personal property and infrastructure within Whittlesea.

Increases in demand for water, and warmer conditions will make protecting the state's world-class waterways, wetlands and surrounding environments a priority. Victoria is home to many species and ecological communities that are at risk. The impacts of climate change, such as alterations to habitat and water availability and harsher fire weather, are likely to increase pressure on already threatened species and communities (Climate Ready Victoria 2018).

Without urgent action to mitigate climate change by reducing emissions, these weather events are set to intensify and worsen over time. Even if action is taken, we are locked in to a certain amount of change over the coming century which will require strategies to minimize the risk of negative health and economic outcomes. Responding to the impact of climate change will therefore have significantly increasing costs to all tiers of government and the community.

## How can Council address the climate emergency and work towards zero emissions?

### Meeting the Victorian Government target of net zero emissions by 2050

The Victorian Government has set an ambitious target of achieving zero carbon emissions by 2050, and a reduction in emissions below 2005 levels by 15-20 percent by 2020 (Victorian Government, 2018). This will require steep rates of emissions reduction and increases in carbon sequestration (Low Carbon Living CRC).

Whittlesea's commitment to uphold a zero-net increase on greenhouse gas emissions to 2022 (based on 2012 levels) is not consistent with the Victorian Government's targets and is unlikely to be sufficient to address the climate emergency.

To achieve net zero emissions, Victoria will need to transition to renewable energy, and significantly reduce waste outputs. Local governments and their communities will need to contribute significantly to this.

Innovation is underway in many local areas where local governments are divesting from fossil fuel, building local energy solutions, and examining ways to reduce car dependency.

## Increased canopy coverage and decreased waste will reduce emissions and tackle urban heat island effects

Increasing tree canopy coverage has been identified as one of the most cost efficient and effective strategies for reducing the urban heat island effect, thus reducing the local impacts of heat in our environments. Increasing tree numbers within Whittlesea, over and above standard planting programs, will increase carbon sequestration and thus contribute to reducing carbon emissions.

Urban forests also manage stormwater quality and quantity, improve air quality, provide biodiversity habitat and contribute to landscape values and aesthetics (Kendal, 2017). As the climate changes, there will be a need to ensure that resilient and appropriate trees are planted in order to maximise these benefits.

Studies into urban tree cover show the lack of private open space in modern subdivision development design has resulted in significantly less tree cover than traditional Australian suburbs. This has prompted recommendations for policy change and highlighted the important role of local government in managing trees on public land, in streets and parks (Daniel, Morrison and Phinn, 2016).

Waste generates greenhouse emissions in three key ways:

- Direct generation from the breakdown of material
- Energy use associated with recovery and management of material, and
- Transport associated with the movement of waste.

## Reducing waste to landfill will decrease emissions

While only representing a small amount of overall emissions, it is still important to manage these appropriately (State-wide Waste and Recovery Infrastructure Plan, 2017).

In Victoria, there are also strategies to minimise waste and actively recover finite resources. This will be done by:

- reducing our reliance on landfills
- encouraging resource recovery and recycling through consolidation and aggregation of waste

- improving the performance of waste and resource recovery facilities, and
- improving the evidence base for decision making at all levels of government, industry and the community (Sustainability Victoria Strategic Plan 2015-2020).

## Adaptation strategies will make Whittlesea more resilient

Local government can help the community respond to climate change through its direct operations as well as specific initiatives. This can include:

- supporting water recycling in Council managed parks, gardens and public spaces
- reducing the impact of heat through tree planting and urban forestry
- ensuring the natural environment is protected and connected so that plants and animals can adapt to changed climates
- supporting and encouraging renewable energy
- reducing the use of fossil fuels in transport, and
- carbon sequestering (through tree planting).

Urban planning plays a major role in the resilience of our community. Local governments increasingly need to ensure that major activity centres are planned to be liveable, efficiently use resources, and take into account the changing nature of natural hazards.

Other ways local government can support energy efficiency include:

- brokering bulk product purchases for residents
- lending upfront capital for solar PV via local rates mechanisms
- purchasing energy efficient products and funding innovative technology pilots, and
- procuring renewable energy supply through multi-stakeholder power purchase agreements.

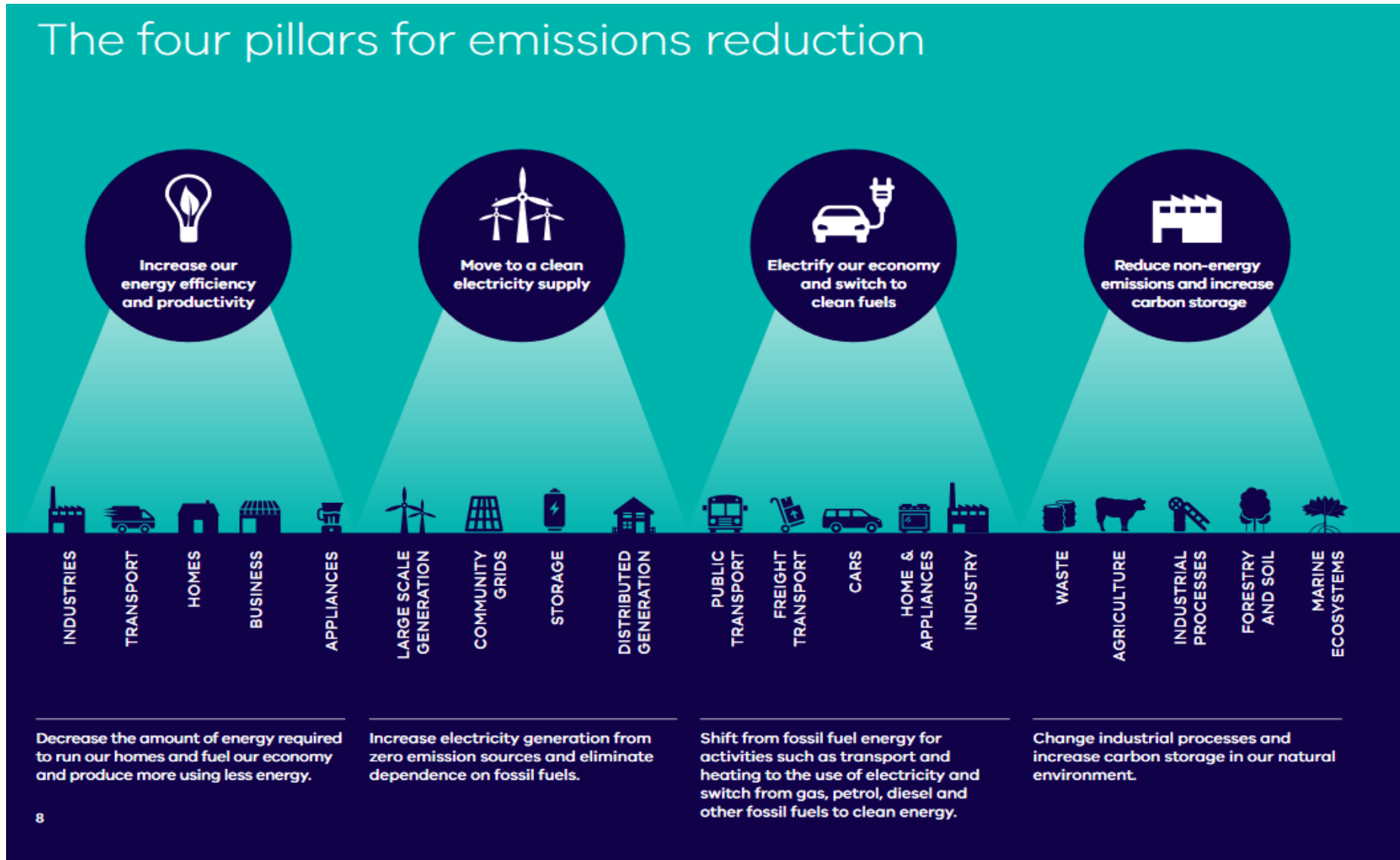
By targeting lower income households and pooling resources with other organisations, local governments can address socio-economic inequality and facilitate extra-local change towards a low-carbon city.

Council could also promote the transition to low carbon activities by providing funding for innovative or cooperative technology pilots, supporting the greening of local businesses, procuring energy efficient products,

developing strategies to increase recycling, investing in community infrastructure for electric vehicles or car sharing greening its car fleet, and divesting from fossil fuels.



FIGURE 31. THE FOUR PILLARS OF EMISSIONS REDUCTION SET BY THE VICTORIAN GOVERNMENT TO REACH NET ZERO EMISSIONS BY 2050



Source: Department of Water, Environment, Land and Planning

## Summary

By 2040 ...

### Changes ...

- Victoria and Whittlesea will be hotter and will experience more extreme weather events.
- The increase in frequency of these events will subsequently increase risks to human health, property, infrastructure and livelihoods.
- Particular groups within the Whittlesea community will be more at risk, including older people, children, people with a medical condition, and community members living in more rural settings.

### Challenges ...

- Responding to the impact of climate change will have significantly increasing costs to Council.
- Council must determine the most effective way to respond to climate change within the confines of their influence and resources.
- Mitigation and adaptation efforts often have long lead times and can be difficult to measure success in the short term.

### Opportunities ...

- The transition to renewables has the potential to create new industries and work in Whittlesea. The technological skills developed in economies that embrace renewable energy have been shown to be transferable to a range of new industries.
- Initiatives that move the population towards renewable household energy can improve the economic wellbeing of households. This has shown to be particularly important for low income households. Some Councils have vowed they will work towards ending household energy bills through initiatives such as: solar panel bulk buys, loans for solar, local government becoming a local energy retailer.
- Becoming a leader by matching the State Government target for zero net emissions by 2050 and divesting its finances
- Planting additional trees will generate a multitude of benefits for community wellbeing from decreasing the urban heat island effect, to

reducing air pollution, carbon sequestration and creating the shade required to increase walking.

### Implications of not acting:

- Climate change will get worse, resulting in more frequent and extreme weather events.
- The community will be exposed to poorer health outcomes and greater risks.
- The costs of maintaining infrastructure and services will increase.





# TRANSPORT

Drawing on the previous themes the following section outlines how transforming the transport network can help to address these.

## Change

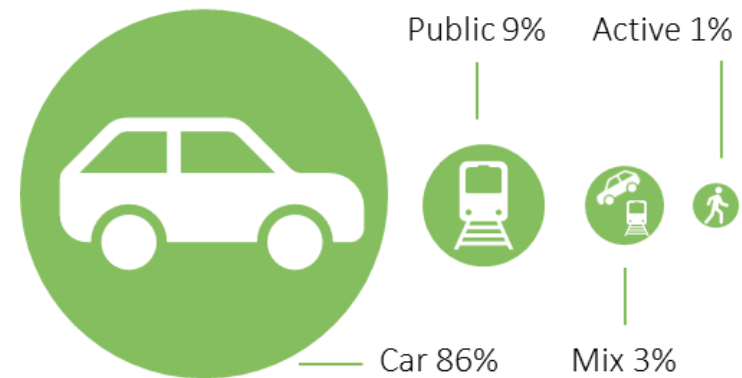
### Travel time is a significant issue for residents

The separation of residential areas from employment, and limited access to public transport, means car dependency and relatively long trips for many residents.

Transport difficulties mean growth areas residents in particular are more likely to:

- travel to work by car (the majority of journeys to work are taken by car)
- travel more than two hours per day for work
- perceive work and daily life to interfere with each other
- report they don't have enough time for family and friends (VicHealth 2011)
- have young people home alone for extended periods after school (Williams et al 2009)
- participate less in community life, with fewer joining community groups (sports, church, community, professional), get involved in their children's schools, or attend community events (Pope 2008).

FIGURE 32. MODE SHARE JOURNEY TO WORK 2016



Source: SGS Economics and Planning 2018 Data: ABS census 2016 Public transport includes train and bus. Active travel includes walking and cycling.

For some, particularly higher skilled women, travel times also lead to taking lower skilled jobs to meet caring responsibilities (Williams et al 2009).

### Congestion is likely to get worse in the future

Rapid population growth will increase vehicle trips and exacerbate congestion, particularly around the city and at peak times.

By 2046, it has been predicted the western areas of Melbourne will be as congested as inner Melbourne is now, and northern areas will be worse.

By 2046, congestion is expected to significantly affect almost half of all trips taken by car and more than 30 per cent of trips on public transport predicted to be crowded.

By 2046, congestion is expected to significantly affect almost half of all trips taken by car and more than 30 per cent of trips on public transport are predicted to be undertaken in crowded conditions in 2046 (Infrastructure Victoria 2016).

FIGURE 33: INCREASING LEVELS OF CAR CONGESTION ACROSS METROPOLITAN REGIONS OF MELBOURNE, MORNING PEAK PERIOD

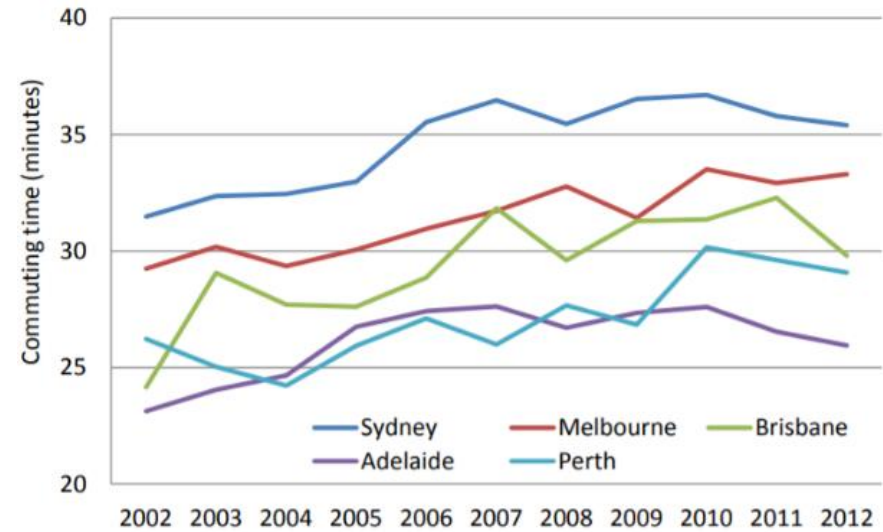


Source: Infrastructure Victoria, 2016.

People also generally have a fixed 'travel time' budget, so when there is increased congestion, they access fewer jobs, services, shops and other important parts of their daily life.

While Figure 34 illustrates an overall upward trend, it also shows a recent levelling off of this increase. This reflects the Marchetti constant whereby the perceived costs of commuting rises steeply after a one way commute exceeds around 35 minutes.

FIGURE 34. AVERAGE COMMUTING TIMES FOR FULLTIME WORKERS IN AUSTRALIAN CITIES 2002-2012



Source: BITRE analysis of HILDA data 2016.



## If things don't change, there will be 113 000 additional cars in Whittlesea by 2040

If current levels of car ownership continue there will be approximately 113 000 more cars – bringing the total to 240 400 – in Whittlesea by 2040.

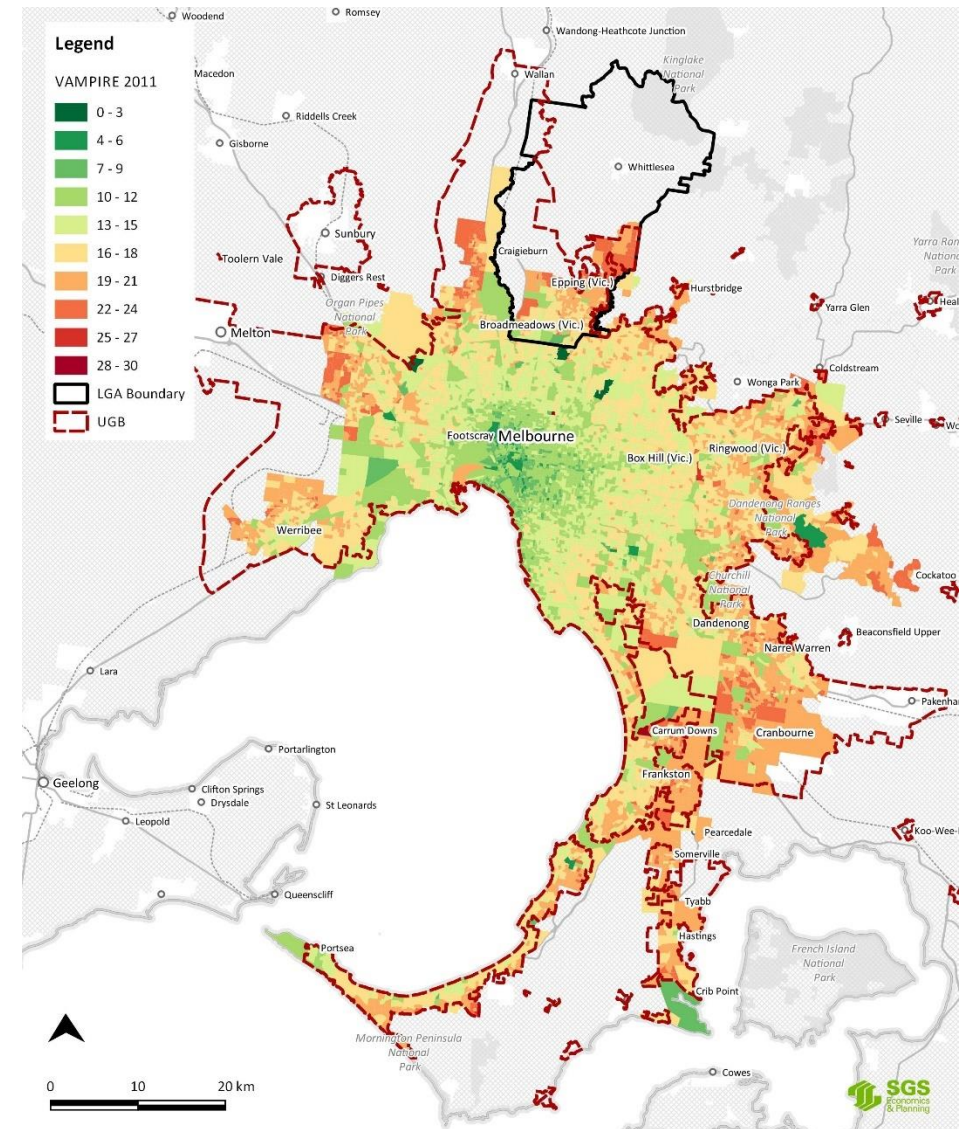
This will exacerbate climate change, decrease the quality of the environment and make Whittlesea residents among the State's most vulnerable to increases in petrol prices.

The Vulnerability Analysis of Mortgage, Petroleum, Inflation Risks and Expenditure (VAMPIRE) shows areas particularly at risk of disadvantage, and to risks and vulnerability across a number of indicators. Areas in Whittlesea rank particularly high compared to other parts of the northern region and are comparable to other growth corridors in Melbourne.

## If things don't change, our public transport will be crowded, with a 90 per cent+ increase in demand

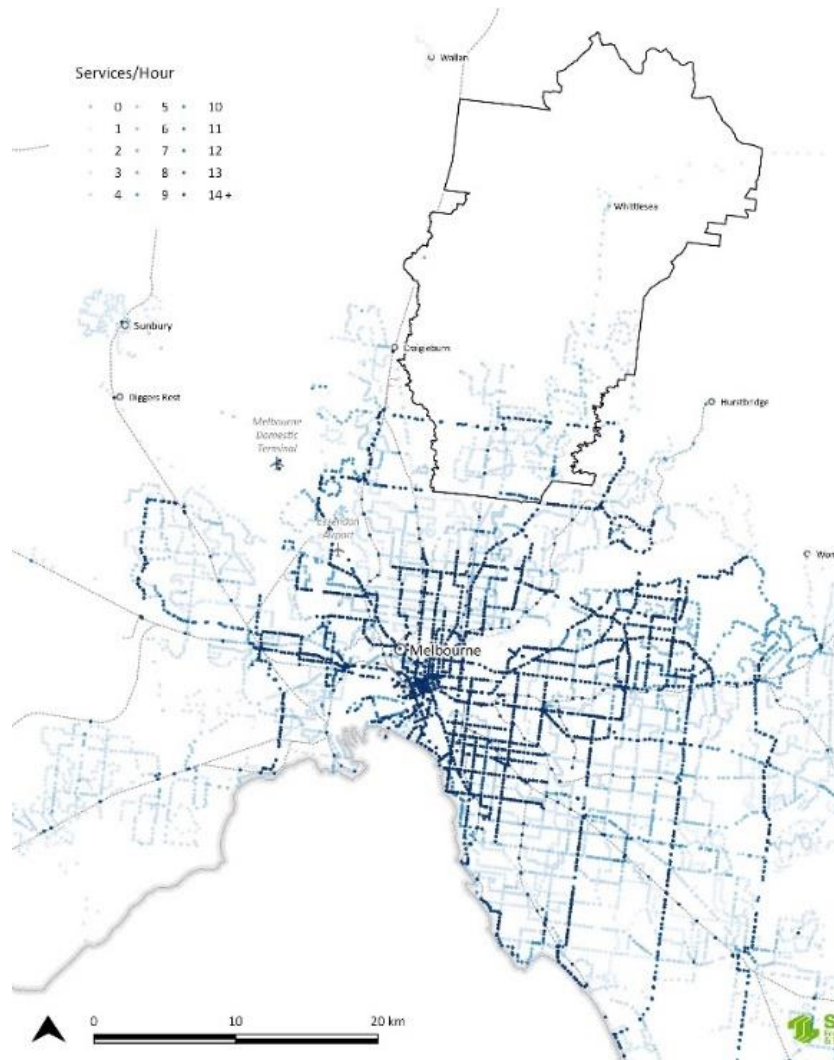
Public transport provides limited access choices for residents in Whittlesea. This is illustrated in Figure 36, which shows the number of services which stop in a particular location between 7am and 7pm. It suggests that while there are bus services in the northern part of Whittlesea, they are relatively poorly serviced.

FIGURE 35: VAMPIRE INDEX 2011



Source: Li, T., Sipe, N. and Dodson, J. (2015).

FIGURE 36. PUBLIC TRANSPORT STOP AVERAGE SERVICE FREQUENCY (7AM – 7PM)  
DECEMBER 2017



Source: SGS Economics and Planning 2018

## Implications

### There are plans for additional transport infrastructure

Some improvements to public transport and road infrastructure are planned to be delivered by Council and State Government, as well as through the development contributions system in residential estates currently in development.

Short term projects in the established part of the municipality include Mernda Rail; Plenty Road widening; Yan Yean Road widening; Ring Road widening; and O'Herns Road duplication and Interchange.

In the longer term, projects such as trains to Wollert and Metro 2 would to broaden rail network to allow the level of service required, although there is significant uncertainty regarding the timing and delivery of these projects.

### Walking and cycling opportunities are important

Walking and cycling infrastructure is important in encouraging more active transport. Linking origins (homes) and key destinations (activity centres, schools, major employment areas) is also important, as the provision of safe and attractive walking and cycling paths is a key factor in decision making about transport mode.

The availability of transport sharing options, including Sharebike or Obike, could also support increased use of active travel.

The location of activity centres and small groups of shops close to where people live is also important.

Increased levels of active travel can support improved health outcomes.

### Very few live within the Victorian government's ideal of '20 minutes' to critical places

The State Government's Metropolitan Strategy *Plan Melbourne* advocates the idea of 'living locally' and suggests a range of services and facilities should ideally be accessible within a 20 minute journey, using a range of transport modes including walking, cycling, public transport and private vehicle.

In Whittlesea, the range of locations that people can access within 20 minutes is limited (the darker green patch in the maps overleaf), and uneven across the municipality. The residents of the north district – the new growth area to the north – have the least “20 minute” access.

This is exacerbated by the lack of mixed use precincts in Whittlesea, meaning people often need to stop in multiple locations to access, for example, childcare, shops, medical, and other services.

Attracting jobs to accessible, mixed use locations will help limit commuting and travel time and distance.

Figure 37 shows the spatial extent of destinations people can access from various parts of Whittlesea in 15, 30, 45 and 60 minutes. This indicates there is already disparity in the level of access across the municipality.

## Technology will impact the way that we get around

Smart Cities and the ability to provide real-time transport data to residents is transforming the way people navigate the city. The ability in many cities to track the location of individual public transport vehicles in real time allows

for decreased waiting times and therefore increased confidence in public transport use. Networked technology also allows residents to participate in the sharing economy with ride share apps, such as Uber and more recently apps such as ‘Go Get’ allowing residents to hire out personal vehicles. Various private companies providing public bikes have also recently appeared, taking advantage of the same ability to provide the location of available services in real time. This broadened range of transport options, combined with increased levels of information regarding public and private transport options, reflects a shift to ‘transport as a service.’ This concept relates to the increased ability for a consumer to plan a trip comprising a range of transport modes, and some could potentially result in more efficient use of the transport network.

Technology such as driverless cars will also become more prevalent, potentially allowing for increased mobility, productivity and interactions. While there are also a number of risks and issues that need to be resolved, they are already being used in some locations and autonomous buses will be piloted in Whittlesea as part of the MIRVAC estate. At present, Australia is ranked 14<sup>th</sup> out of 20 nations for ‘readiness’ to accommodate autonomous vehicles<sup>7</sup>

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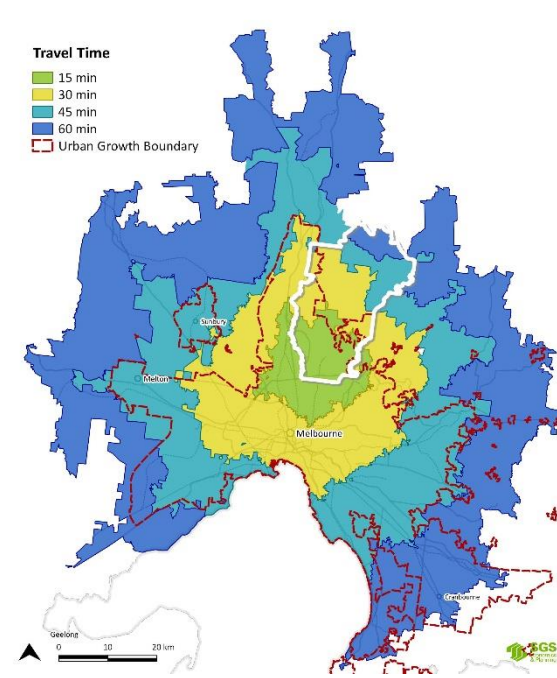
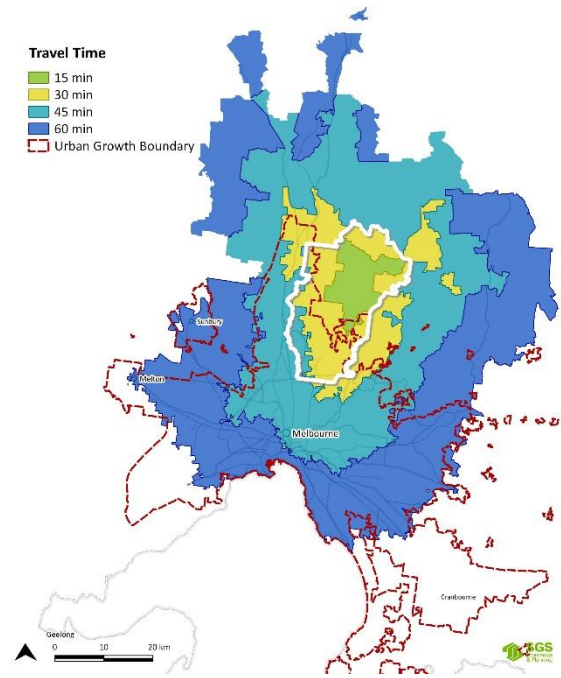
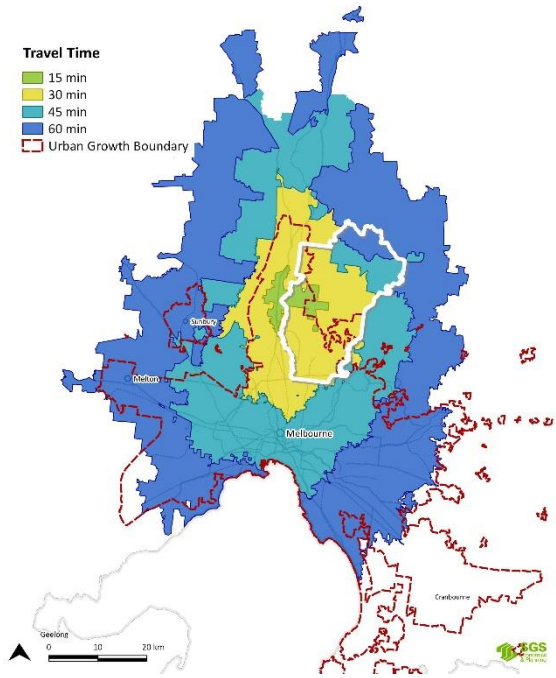
<sup>7</sup> <https://assets.kpmg.com/content/dam/kpmg/xx/pdf/2018/01/avri.pdf>

FIGURE 37 2017 ACCESSIBILITY BY CAR

North district

Township

South west district





## How can Council transform transport to reduce travel times and stop climate change?

By 2040 ...

### Changes ...

- Population and economic growth will mean there will be more trips; more people moving around and accessing jobs and services.
- Changing living and working arrangements will generate demand for additional trips and movements
- There is not likely to be significant additional public transport particularly fixed rail
- Technology is likely to impact the way people travel, including:
  - Connected and Autonomous Vehicles (CAV) will be available
  - Travel/ Mobility as a Service will be occurring
  - Shared transport services will provide opportunities and challenges

### Challenges ...

- Longer travel times to work, services and the other things people in communities do.
- Increased congestion across the network, meaning more unpredictable travel times and more time spent travelling, and reduced access.
- Increased emissions from vehicles.

### Opportunities ...

- Creating mixed use places where people can access a range of facilities and services within walking and cycling distance of home.
- Supporting increased technology and community transport services to enable local trips.
- Advocating for more integrated public transport including improved bus services which link up with train services and high frequency public transport, and for expansions to the rail network including trains to Wollert and Metro 2

### Implications of not acting

- People will spend more time moving around to access jobs and services, resulting in reduced quality of life and family and social disconnection. It will also mean that people will have reduced access to jobs and services, and reinforce existing patterns of poor health and lack of community cohesion.
- Travel times will be more unpredictable, meaning people will miss out on access to service.
- Transport emissions will increase, further impacting climate change and air quality.
- **Connected and Autonomous Vehicles** not adopted in a timely efficient and effective manner does not take advantage of benefits or leads to bad outcomes



# COMMUNITY

Community cohesion is declining in Australia but communities are organising to create solutions. Whittlesea is ahead of most in creating frameworks to activate its communities and this section outlines some of the ways it could advance this work.

## Change

### Social cohesion and trust in government are declining

Studies from around the globe, including Australia (Figure 38), show community cohesion – created by strong social connections and networks in communities – is declining. The changes described in the previous sections – population growth, increasing diversity, wide in migration, a changing economy, etc – all can create anxiety in populations that can impact on cohesion.

A lack of cohesion affects the health and wellbeing of individuals (Pope 2011). But it has also been associated with a loss of social benefits including:

- the spread of information
- harmony and solidarity
- respectful and inclusive attitudes
- collective efficacy and governance (a community's belief it can, and its willingness to, act collectively towards shared goals) and the working together than can turn community assets into outcomes (clean waterways, renewable energy projects, etc) (Pope 2011).

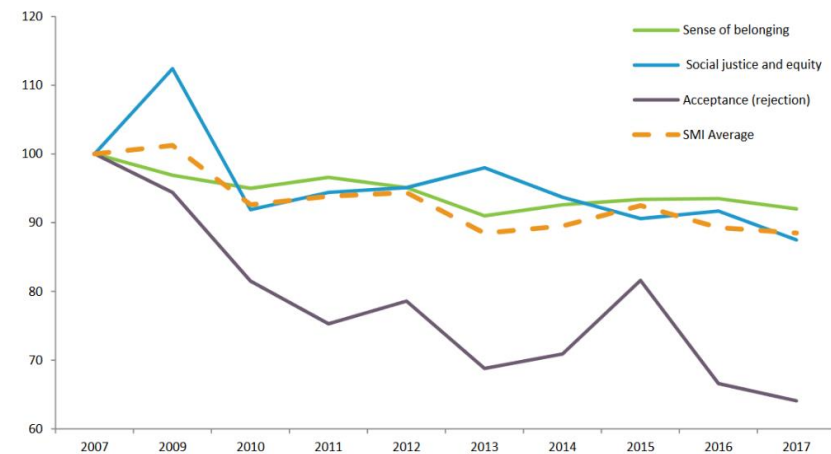
As community cohesion has declined, so has trust in government. Trust in governments around the world is now at an all-time low and trust in government in Australia fell from 45% to 37% last year (Edelman 2017). This

reflects people's doubt in governments' capacity to deal with our challenges and the increasing feeling politics is external to ordinary citizens, handed down by establishment elites from above (Edelman 2017).

This sentiment was borne out in a community survey of local governments in 2016 that while around 80% of Victorians thought local government was important, very few voted on policy (a third did not vote at all) and focus group participants felt councils only listened to "tick boxes" (Victorian Government 2016). Research has shown that a lack of trust in government and fewer networks in communities are associated with increased controversy in community planning (Pope 2011).

Australian research into new communities has found low levels of community interaction and trust were exacerbated in places where people had moved away from their existing networks, had little time for community life because of long travel times, and/or had fewer places to mix (Williams et al 2009).

FIGURE 38. THE SCANLON-MONASH INDEX OF SOCIAL COHESION, 2007-2017



Source: Scanlon Foundation 2017



## Implications

### Whittlesea has a framework for building active communities

Whittlesea has long recognised the importance of mechanisms to activate communities and is progressing on many indicators of community cohesion (Table 9). It has responded to international evidence that shows that alongside good planning to activate good housing, public buildings, public realm, economic opportunities, access to technology, transport, etc., strategies need to be found to support and encourage active communities:

- to create social and cultural life and cohesion,
- to ensure citizens have a voice/influence over community matters, and
- to provide some resources to each other through mutual aid (Young Foundation 2011).

Activities that activate communities cannot be prescribed. They need a more flexible approach that leaves room for local populations, circumstances, needs, and interests. Local government needs frameworks to help think about what local populations have energy for, and help them develop their own initiatives. This includes developing collaborative relationships with citizens and an understanding of the practical and technical they need to create a participatory culture and sharing environments. It will also include providing resources to fuel informal community makers whose activities foster informal connections, through street networks, mother’s groups or sporting groups, coops, maker spaces, repair cafes, etc.

Whittlesea has enshrined this idea in its *Community Building Strategy* and *Growth Areas Social Planning Tool* (<http://www.socialplanningtool.net.au/>), which creates partnerships in developing communities to find solutions to providing for community needs and activating community life. It has also engaged with new inspiring models like Sprout Hub, a cafe/co-working space in a growth area in Perth, that created a new method for activating new communities, investing back in the community by providing community grants the community votes on, activating them in local area decision-

making in the process. There are many other inspiring models that harness human ingenuity and creativity to bring citizens together and create better places people feel proud of.

Work in this area not only builds connections. It provides the leadership that is the antidote to the fears and anxieties people have about change. The examples created out of social planning, inspire citizens to see the opportunities the future brings in improving wellbeing and creating meaningful involvements in communities.

TABLE 9. SELECTED INDICATORS OF COMMUNITY COHESION, WHITTLESEA

	Whittlesea time trend
Sense of community	Progressing
Community accepting of diverse cultures	Progressing
Participation in decision-making	Progressing
Safety in public areas	Progressing
Community consultation and engagement	Progressing
Lobbying for the community	Progressing
Council’s overall performance	No change
Volunteering	No change
Participation in community groups	Regressing
Family violence	Regressing
Decisions are made in the community’s interests	Regressing

Source: City of Whittlesea 2017

### Others show the next step in building participation

Communities overseas have taken the work in building community connection a step further. An example comes from West Norwood in Lambeth UK. A network created 20 projects to try and build a ‘participation culture’ across the local area. The projects were a mix of two types:



- highly accessible and inclusive co-production activities that built into everyday life. These activities encouraging sharing (knowledge, space, skills) to deliver resources while connecting people. These micro activities included bulk cooking and food buying, food growing; making and repairing; and suppers, workshops, and festivals.
- larger community businesses, co-operatives and hybrid ventures that were fostered through a platform incubation program. These distributed bigger resources and included childcare cooperatives and urban energy farms (Open Works 2015).

The Lambeth experiment was successful at building a dense participation ecology and changing the economic and environmental sustainability of a neighbourhood (Open Works 2015). Micro participation was a key ingredient. A threshold of 10% of residents was needed to make changes big enough to generate benefits for the whole community (Open Works 2015).

The biggest lesson from Lambeth was the need for a supportive infrastructure to support the growth of this new socio-economic ecology (Open Works 2015). They argued local government needs to take a system wide view of the space – to examine the system as whole – and provide the supports (business development, training, space, grants, incubation expertise, etc.) needed to create scale and innovation to bigger ideas. The Lambeth experiment suggested currently there is no infrastructure and neither local government nor community initiatives know what the other offers. Support for the community is piecemeal, with resources “sprinkled” fairly ineffectively (Open Works 2015).

An extremely interesting example of a community providing a supportive infrastructure comes from Bendigo. The bHive Cooperative (<http://bhive.coop/about/>) is developing a person-to-person sharing economy platform that is a community version of the large multinational platforms like Uber, Air b and b, Deliveroo, etc. Instead of seeing local value removed to these companies, bHive will ensure the \$2.5b spent in Bendigo annually, stays in the local economy. The platform has five parts:

- The **City Hive** to enable the sharing of local events, democracy, local online news.

- The **Village Hive** to build relationships between neighbours
- The **Sharing Hive** to create local cooperatives to deliver innovative peer to peer services across energy, money, transport, food, logistics and more economic sectors
- The **Giving Hive**: a percentage of all spending in the Sharing Hive will to local charitable projects.

Whittlesea is in a strong position to further develop its existing frameworks and tools to develop its infrastructure to support anyone in its community willing to give this kind of venture a try.

### Citizens can also help solve policy challenges

In addition to building an active community that can solve challenges outside councils, there is a layer of people in communities who are willing to donate their time to local government to solve policy challenges, but who are not generally involved (Feldman 2015). These citizen experts can be found working in a range of places including new enterprises, emerging technology fields, community investment, and strategic policy. They have been shown to not want to join committees but are interested in using their expertise for public good (Feldman 2015). Harnessing this resource in communities is different from seeking the opinions of traditional community engagement. It involves new methods that allow citizen experts to come together to work through challenges, combining their expertise.

New engagement methods that mobilise citizen experts include Mexico City’s human Laboratorio Para la Ciudad (Laboratory for the City) (Feldman 2015). It is a space where expert citizens and government specialists come together to “hack” problems (Feldman 2015). The Lab famously recruited a large number of citizens and their mobile phones to map and fix their chaotic bus system. Whittlesea has a strong base of citizen experts it could draw on. These citizens can be engaged by council facilitators to solve the problems in the previous sections by bringing different knowledge, technical skill and strategies to the table. Councils will need to become experts at finding them. And may need to convince them government is the place for their ideas.

working together than can turn community assets into outcomes (clean waterways, renewable energy projects, etc) (Pope 2011).

## How can Council ensure opportunities to connect and allow our community to be involved in governance?

By 2040 ...

### Changes ...

- Community cohesion and trust in government are declining in Australia.
- New communities face particular challenges in building the connections that underpin cohesion and trust because people have moved away from their existing networks, have little time for community life because of long travel times, and/or have fewer places to mix.
- There are expert citizen's that would like to be more involved in local government, but not in the old ways on offer like committees.

### Challenges ...

- A lack of cohesion affects the health and wellbeing of individuals
- It also erodes broader social benefits including:
  - the spread of information
  - harmony and solidarity
  - respectful and inclusive attitudes
  - collective efficacy and governance (a community's belief it can, and its willingness to, act collectively towards shared goals) and the

### Opportunities ...

- Whittlesea has long recognised the importance of mechanisms to activate communities and is progressing on many indicators of community cohesion. It has responded to international evidence that shows that alongside good planning to activate good housing, public buildings, public realm, economic opportunities, access to technology, transport, etc., strategies need to be found to support and encourage active communities.
- Whittlesea has enshrined this idea in its *Community Building Strategy* and *Growth Areas Social Planning Tool*, which creates partnerships in developing communities to find solutions to providing for community needs and activating community life. to create social and cultural life and cohesion.
- Overseas examples provide evidence that could extend Whittlesea's work in creating participatory cultures.
- In addition to building an active community that can solve challenges outside councils, there is a layer of people in communities who are willing to donate their time to local government to solve policy challenges, but who are not generally involved. Finding new methods that allow citizen experts to combine their expertise will bring different knowledge, technical skill and strategies to solving challenges. Councils will need to become experts at finding them.







### 3. BUILDING OUR BEST FUTURE: LOCAL GOVERNMENT

Many of the changes local government will need to address in the future are created globally and nationally, but are felt on the ground by local communities. This report has provided a high-level view of these major trends that will impact Whittlesea by 2040.

The first section shows that Whittlesea is likely to double its population over the next two and half decades. Growth is happening alongside other global and national changes most notably, a decrease in funding available for infrastructure and services, a changing economy, and climate change. Growth will exacerbate some of the challenges related to these changes, but will also provide opportunities for improving liveability and wellbeing.

The second section of the report outlines these opportunities for the City of Whittlesea if it can find:

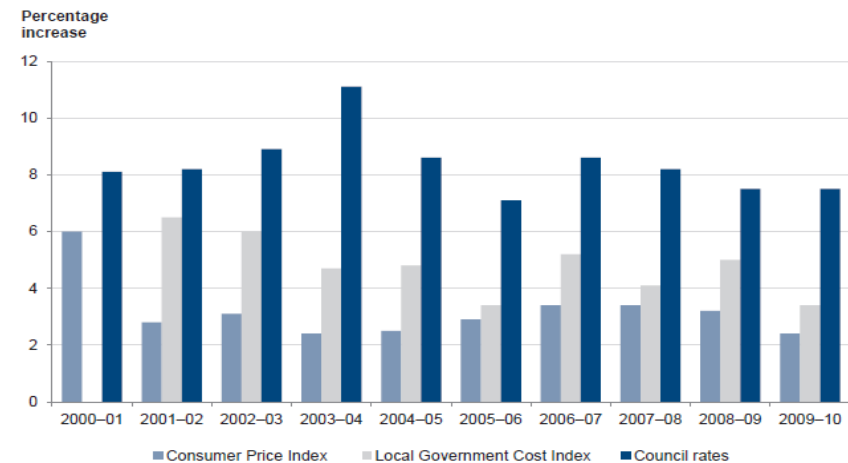
- better and more efficient ways to provide the services and infrastructure that improves community wellbeing
- ways to foster local employment in new industries in the changing economy, and to ensure its population has the skills for new work
- strategies for reducing emissions by 80% to lessen the impacts of climate change and to adapt to changing weather
- strategies for improving transport infrastructure, to create better links to the best jobs elsewhere, to reduce car dependency, and to ensure can get to the things they need with minimal travel
- frameworks and internal infrastructure to activate its communities to connect and to provide some resources itself, and to harness the expertise in communities that is solving all our greatest challenges.

This final section examines what Council needs to think about internally to realise these opportunities. It will need to be a modern public service with different types of skills and tools from the past.

#### Councils will need to work differently in the future

Governments of all kinds are under increasing pressure to decrease their spending despite increasing demand. Councils have limited means to raise funds, and currently have their rates capped under state government policies. This impacts on the way they can deal with the challenges outlined in this report (Figure 25).

FIGURE 39. AVERAGE ANNUAL INCREASE IN LOCAL GOVERNMENT COST INDEX AND CPI



Source: Victorian Auditor-General's Office based on information supplied by the Municipal Association of Victoria

Councils will not be able to meet the increasing demands on them by doing things the same way or through internal efficiency measures alone. They will need to adopt new ways of working – harnessing technology, new business models and the resources of others – to create opportunities. While a little more complex to design, these reforms promise great improvements in the scale of outcomes that can be achieved.



## Six areas of internal reform to consider

The implications sections of this report suggest six interrelated areas of reform, many of which City of Whittlesea is already working on, or is in fact leaders in.

The six areas, or capabilities, councils will need to develop in the future are:

### 1. Strong advocacy capacity

Advocacy is the processes of campaigning to get others, such as other levels of government, to deliver on issues that council does not control. This applies to the infrastructure and services, changing economy, transport and climate change challenges addressed in the previous section.

Whittlesea has a history of, and is well respected for, its advocacy capacity. It has run successful campaigns attracting infrastructure such as the South Morang train line extension and blocking gaming machines. It should continue this function, designing new campaigns around its asset mapping, community demand and travel information, to determine priorities.

### 2. Capability with technology

Technology holds great promise in improving council outcomes with fewer resources. In the first instance technology should be used to ensure the most efficient use of council resources and the seamless delivery of the “roads, rates, and rubbish” functions of local government (maintenance, public realm, information services, licencing, safety, etc). If these are operating well they give Council the social license, and free up the staff, to undertake other activities that will improve community wellbeing. These could include initiatives such as supporting the creation of:

- urban renewable energy farms (potentially becoming an energy retailer) that could dramatically improve the financial wellbeing of residents, provide new economic opportunities and reduce the impact of emissions on the environment
- makers labs where high end manufacturers can access and share the world’s open source knowledge and technology to create new products and therefore markets

- the sharing of driverless vehicles to reduce parking, congestion and travel times
- community sharing platforms that created new work in the local economy, keep money spent local, and allow sharing of resources across the community.

City of Whittlesea is already examining the use of technology to improve its services through smart cities, internet of things, data lakes, blockchain, high speed internet/broadband, artificial intelligence. Selecting some external technology projects to support will depend on local intelligence about what is happening in the community.

### 3. Staff and internal culture/processes that can facilitate partnerships and collaboration

As governments find themselves resource constrained, and where there is increasing complexity, working with others makes sense both in terms of pooling resources and utilising their knowledge/ingenuity to create better solutions. Partners could include other levels of government, business, developers, not for profits, philanthropists, and the community sector.

Building effective partnerships is a specialist discipline that has codified its practice. We know a lot about what makes a successful partnership and have tools for new business arrangements. Councils will need staff with experience in this field.

Whittlesea is a leader in building partnerships with others. It has developed its *Growth Areas Social Planning Tool* (<http://www.socialplanningtool.net.au/>) to guide the creation of partnerships that can determine community need and priorities, plan action and pool resources. Whittlesea is also unique in that it has put a lot of effort into internal partnership. It’s *Collaboration Panel* joins up work internally.

Investment in this work will pay larger and larger dividends into the future through the contributions, innovations and efficiencies it creates.

## 4. New methods for involving communities in governance

Local governments are increasingly being asked to engage with their communities to inform decision-making and it is a requirement under Victoria's *Local Government Act*.

City of Whittlesea is a front runner in this space. It has a framework and organisational commitment to activate its community. It's social planning tool also includes involving the community in decision-making built into its process.

Work overseas signals innovative ways this work could evolve – broadening the understanding of community engagement to community involvement.

While technology is driving the ability to have greater reach within communities, community engagement can also expand to include methods for involving skilled community experts to create new solutions. Examples include Mexico's *Laboratory of the People* that brings citizens experts (tech specialists, organisations making change, experts, futurists, etc) together to "hack" solutions to specific problems to create modern public service solutions.

Research has shown these citizens want to be more involved, but are not interested in the more traditional forms of local government involvement, in particular committees.

## 5. Expertise in complex communities needs

Information is the currency of new public service. All councils will need to increase their ability to understand community needs, the impacts of change (in real time), and what works in creating opportunities, in a rapidly changing and more complex world. This will include monitoring:

- the changing demands of the community (against assets),
- impacts of the changing economy and climate (including potential inequalities), and
- evaluation literature on what works in technology and new business models.

Whittlesea has a strong research unit and it may need to continue to expand its capacity as knowledge, information and strategic insight become more important as councils become facilitators and advocates.

## 6. New business models to transform public service

Overall, all of the above are examples of new business models. Councils will need to challenge the way they do things. They will need to find alternative models of service delivery, transform their own operating models, create better methods for planning, and redesign their IT.

Councils will also need to explore ways to plan with innovation in mind. This will require strategic planning to describe how it has:

- involved a broad range of knowledges (empirical, strategic, community, expert, practitioner),
- explored alternative approaches and best practice (what works), and
- considered the potential for collaboration in delivery (for example, regional services, partnerships, etc).

City of Whittlesea has already started this reform process.

Technology is changing our world and it holds great promise to transform public service, creating better ways of doing things, through advocacy, partnership, community involvement and new business models. These have the potential to dramatically increase what councils can deliver. The brightest futures will belong to the councils that adopt a mindset and organisational structure for innovation. They will generate the greatest outcomes for their communities.

## How can Council establish governance that maximises the opportunities of growth?

By 2040...

### Changes ...

- Many of the future changes outlined in this report are created globally and nationally, but are felt on the ground by local communities, and will need to be addressed by local government.
- Council will need new forms of governance if it to address challenges and realise the emerging opportunities.
- It will need to create a modern public service with different types of skills and tools from the past.

### Challenges ...

- Governments of all kinds are under increasing pressure to decrease their spending, despite increasing demand. Councils have limited means to raise funds, and currently have their rates capped under state government policies.
- Councils will not be able to meet the increasing demands on them, by doing things the same way or through internal efficiency measures alone.
- They will need to adopt new ways of working – harnessing technology, new business models and the resources of others – to create

opportunities. While a little more complex to design, these reforms promise great improvements in the scale of outcomes that can be achieved.

### Opportunities ...

Growth and other changes bring significant opportunities to Whittlesea. Council needs to consider six reforms to harness those opportunities:

1. Strong advocacy capacity
2. Capability with technology
3. Staff and internal culture/processes that can facilitate partnerships and collaboration
4. New methods for involving communities in governance
5. Expertise in complex communities needs
6. New business models to transform public service.

The brightest futures will belong to the councils that adopt a mindset and organisational structure for innovation. They will generate the greatest outcomes for their communities.







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# APPENDIX 1: LIST OF FIGURES AND TABLES

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## Tables

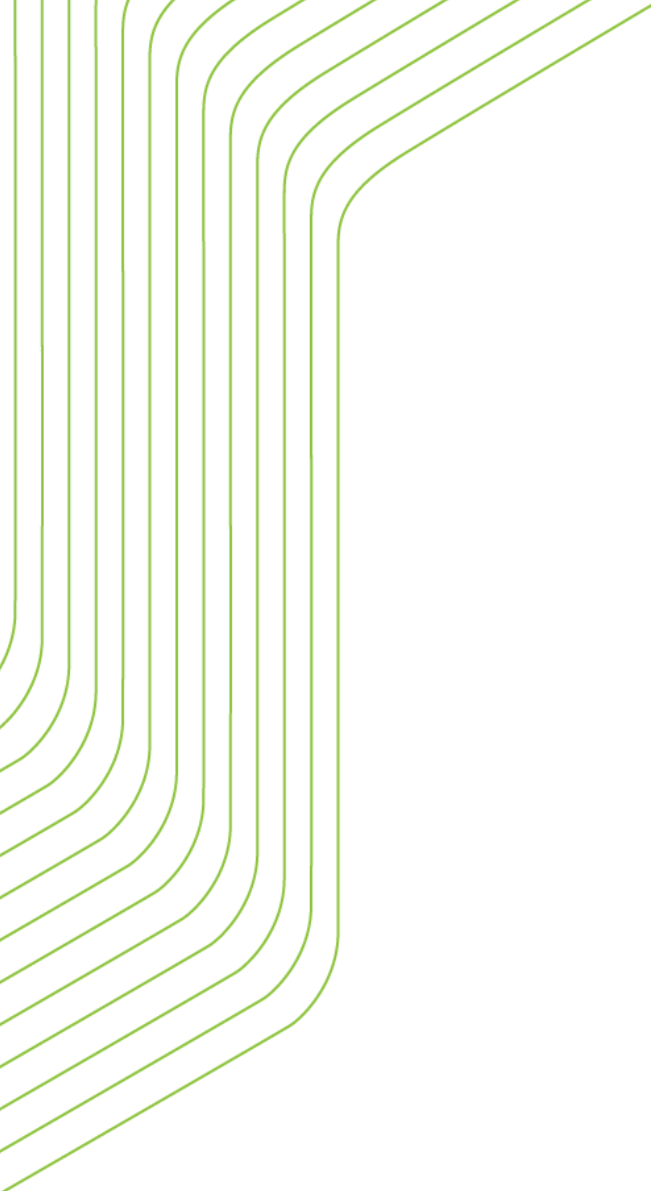
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## Contact us

### **CANBERRA**

Level 2, 28-36 Ainslie Place  
Canberra ACT 2601  
+61 2 6257 4525  
[sgsact@sgsep.com.au](mailto:sgsact@sgsep.com.au)

### **HOBART**

PO Box 123  
Franklin TAS 7113  
+61 421 372 940  
[sgstas@sgsep.com.au](mailto:sgstas@sgsep.com.au)

### **MELBOURNE**

Level 14, 222 Exhibition St  
Melbourne VIC 3000  
+61 3 8616 0331  
[sgsvic@sgsep.com.au](mailto:sgsvic@sgsep.com.au)

### **SYDNEY**

209/50 Holt St  
Surry Hills NSW 2010  
+61 2 8307 0121  
[sgsnsw@sgsep.com.au](mailto:sgsnsw@sgsep.com.au)