Introduction

The Department of Environment, Land, Water and Planning (DELWP) is working in partnership with local governments, the Heart foundation (Victoria), Resilient Melbourne, Victoria Walks, developers and communities to plan for Melbourne’s future growth in population and employment.

The Geography Teachers’ Association Victoria (GTAV) has developed this resource and the MapIT! competition in association with Esri Australia and DELWP.

Image left: TANDERRUM 2015, facilitated by ILBIJERRI Theatre Company. Photo by David Harris

Contents

<table>
<thead>
<tr>
<th>Introduction</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td>1</td>
</tr>
<tr>
<td>Living locally</td>
<td>2</td>
</tr>
<tr>
<td>Curriculum links</td>
<td>5</td>
</tr>
<tr>
<td>Inquiry 1</td>
<td>7</td>
</tr>
<tr>
<td>Inquiry 2</td>
<td>11</td>
</tr>
<tr>
<td>Inquiry 3</td>
<td>15</td>
</tr>
<tr>
<td>Fieldwork</td>
<td>17</td>
</tr>
<tr>
<td>MapIT!</td>
<td>21</td>
</tr>
<tr>
<td>Appendix</td>
<td>24</td>
</tr>
</tbody>
</table>
Overview

Plan Melbourne 2017–2050 is the Victorian Government strategy to manage Melbourne’s population growth, projected to reach nine million by 2056.

Plan Melbourne is guided by the concept of ‘living locally’ – 20-minute neighbourhoods. The concept is all about creating compact, walkable and liveable neighbourhoods across the city.

This student resource draws on research, policy and the United Nations Sustainable Development Goals.

The key question for these lessons is ‘How will Melbourne accommodate its increasing population in the next 30 years?’

This resource includes three lessons introducing the concept of ‘living locally.’ There are also options of conducting local fieldwork and getting students involved in the GTAV MapIT! Competition – using GIS layers as a tool to understand the concept of ‘living locally’ and involves students working with an online GIS map (clear instructions and tutorials are provided).

Prior learnings

Prior to these lessons, students will have an understanding of liveability and a ‘sense of place’ and will have discussed why people live in certain places. They will have learnt that places are different, that quality of life is influenced by many factors, and that liveability is different from one place to another and perceived differently from one person to another.

Time required

- Inquiry 1: Why do neighbourhoods matter? (1 lesson)
- Inquiry 2: Living locally - what is the 20-minute neighbourhood? (1 lesson)
- Inquiry 3: How can walkability improve liveability? (1 lesson)
- Fieldwork – investigating walkability in my neighbourhood (3 lessons)
- MapIT! Competition (2 lessons)

AIMS

The aims of these lessons are to:

- investigate a local area in terms of liveability
- apply the concept of ‘living locally’ and a ‘20-minute neighbourhood’ to the local area
- conduct fieldwork to assess walkability in the local area
- use their creativity to plan a space that reflects their idea of a 20-minute neighbourhood.
Why neighbourhoods matter – planning for liveability

While Melbourne has been ranked highly as a liveable city – based on the Economist Intelligences Unit’s Liveability Index introduced in 2003, the city faces considerable health, social and environmentally sustainable development challenges.

Plan Melbourne 2017–2050 is the Victorian Government strategy that sets out transport, housing and planning directions and policies to respond to the challenges of a growing city, while enhancing Melbourne’s liveability. Implementation of this strategy requires community involvement in planning and decision-making to ensure we build stronger and more resilient communities.

As Melbourne grows to nine million by 2056, we must plan and invest in neighbourhoods to create more inclusive, vibrant and healthy places. The city cannot sprawl into environmentally sensitive areas or productive agricultural land as this will threaten our foodbowl, create significant infrastructure costs and have detrimental effects on the natural environment.

Partnering with community to help shape future change

State and local government are working to strengthen community participation in the planning of our city. By working with communities to understand what needs to be improved and protected at the neighbourhood level, planning can help to create more liveable, sustainable and unique communities. This process can help to create local plans to accommodate increased housing diversity and density, while improving open spaces, community infrastructure and transport links.

In a recent Plan Melbourne program, three neighbourhood projects were developed that allowed communities to collaborate with government departments and agencies to create a neighbourhood plan. In these trials, people identified their favourite locations, identified issues and put forward ideas to revitalise the neighbourhood. This involvement is encouraging residents to think more about ‘living locally’ and provides them with ownership of the change.
Living locally

20-minute neighbourhoods

The ‘living locally’ concept is all about giving people the ability to access most of their daily needs within a 20-minute return walk from home. These needs may include local shops, schools and health services and facilities.

These services and destinations are generally provided in shopping centres, high streets and villages. The land-use planning term for these places is an activity centre. The scale of each activity centre varies across the city. There are more than 800 Neighbourhood Activity Centres (NAC) across Melbourne. These places include local small group of shops and services such as a corner/convenience store, school, health/medical centre, butcher, baker, hairdresser or a chemist.

These places generally have access to some public transport which will connects people to higher order services such as hospitals, universities.

Metropolitan Activity Centres (MAC) are regionally significant places that have specialist shops and services. These higher order services are not generally required daily and therefore do not need to be within a 20-minute walk from people’s home.

By ensuring people have walkable access to an activity centre, planning can ensure people live close to services and infrastructure to meet their basic needs locally.

By providing diverse housing (townhouses and medium sized apartments) around these activity centres. Research suggests that increasing densities to at least 25 dwellings per hectare is needed to create walkable, affordable and liveable neighbourhoods.

This housing diversity can be achieved by providing a mix of housing styles:

- units and apartment blocks (three-storey or more constructions)
- reduced lot size (subdivision)
- greyfield development (infill of available spaces within existing suburbs) will be supported

Evidence suggests that low density housing estates are not sustainable, productive or liveable.
Putting walking front and centre

‘Living locally’ in a 20-minute neighbourhood means that people can walk to most of the places that meet their daily needs. Increasing walking results in improved health, less reliance on cars, increased social contacts and environmental and economic benefits. Walking most days will provide exercise and reduce car pollution by reducing the need for private vehicle trips. Walking also encourages people to meet and socially interact with neighbours and experience spaces.

While it is important for neighbourhoods to be well connected to services and destinations, the experience of walking to those destinations is also important. To encourage walking, pathways and pedestrian access must meet high standards. Pathways must be safe, accessible to people of all abilities, well-cared for, free of clutter, well lit, aesthetically pleasing and provide direct routes and short-cuts to places.

Fieldwork in your neighbourhood

Taking students into the field on a neighbourhood walk will provide an understanding of the aspects of walkability. This activity will provide students with the opportunity to consider the condition of pathways or other features that may reduce walkability for different groups of users.

Students will access technology to collect data and develop a recommendation about walkability in the local area. Finally, this can be presented to the local council so that students have an input into policy development in their local area.

Imagine if . . . MapIT! competition

The GTAV MapIT! Competition challenges students to:

- dream big
- rethink their neighbourhood and design a place of the future
- use their creativity to plan a space that reflects their idea of a 20-minute neighbourhood
- apply their knowledge and understanding in a practical way.
## Curriculum Links

<table>
<thead>
<tr>
<th>Geographical knowledge</th>
<th>Elaborations</th>
<th>Geographical knowledge and understanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors that influence the decisions people make about where to live and their perceptions of the liveability of places (VCGGK111)</td>
<td>• comparing student access to and use of places and spaces in their local area and evaluating how this affects perceptions of liveability</td>
<td>Factors that influence the decisions people make about where to live and their perceptions of the liveability of places (ACHGK043)</td>
</tr>
<tr>
<td>Influence of accessibility to services and facilities, and environmental quality, on the liveability of places (VCGGK112)</td>
<td>• examining the role transport plays in people's ability to access services and participate in activities in the local area • investigating the concept of environmental quality and surveying the environmental quality of their local area and its effect on liveability • exploring the geomorphology of the land and how this affects the liveability of a place</td>
<td>The influence of accessibility to services and facilities on the liveability of places (ACHGK044)</td>
</tr>
<tr>
<td>Influence of social connectedness and community identity on the liveability of places (VCGGK114)</td>
<td>• discussing the different types of places where people and groups can feel included or excluded, safe or threatened, and evaluating how this affects perceptions about liveability of places • investigating the extent to which people in their place are socially connected or socially isolated and its effect on liveability</td>
<td>The influence of social connectedness and community identity on the liveability of place (ACHGK046)</td>
</tr>
<tr>
<td>Strategies used to enhance the liveability of places, especially for young people, including examples from Australia and Europe (VCGGK11S)</td>
<td>• researching methods implemented in Australia and Europe to improve the liveability of a place, and evaluating their applicability to their own locality • developing a specific proposal to improve an aspect of the liveability of their place, taking into account the needs of diverse groups in the community, including, for example, young people through fieldwork in the local recreation • discussing the impact of increasing housing density on the liveability of places, and on their environmental sustainability</td>
<td>Strategies used to enhance the liveability of places, especially for young people, including examples from Australia and Europe (ACHGK047)</td>
</tr>
<tr>
<td>Victorian Curriculum: Geography Level 7</td>
<td>Australian Curriculum: Geography Level 7</td>
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<td></td>
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<tr>
<td><strong>Data and information</strong></td>
<td><strong>Geographical Inquiry and Skills</strong></td>
<td></td>
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<tr>
<td>Collect and record relevant geographical data and information from useful primary and secondary sources, using ethical protocols (VCGGC102)</td>
<td><strong>Observing, questioning and planning</strong></td>
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<tr>
<td>• gathering from a range of primary and digital sources, for example, from GIS layers, observation, annotated field sketches, surveys and interviews, or photographs, relevant data about the impacts of and responses to a hydrological hazard, or the factors influencing decisions people make about where to live</td>
<td>Develop geographically significant questions and plan an inquiry, using appropriate geographical methodologies and concepts (ACHGS047)</td>
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<td>• gathering relevant data about the ways to protect significant landscapes from a range of primary and digital sources, such as from observation, annotated field sketches, surveys and interviews, or photographs</td>
<td><strong>Collecting, recording, evaluating and representing</strong></td>
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<tr>
<td>Select and represent data and information in different forms, including by constructing appropriate maps at different scales that conform to cartographic conventions, using digital and spatial technologies as appropriate (VCGGC103)</td>
<td>Evaluate sources for their reliability and usefulness and select, collect and record relevant geographical data and information, using ethical protocols, from appropriate primary and secondary sources (ACHGS048)</td>
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<tr>
<td>• creating a map to show the spatial distribution and patterns of liveability, using computer mapping software</td>
<td>Represent data in a range of appropriate forms, for example climate graphs, compound column graphs, population pyramids, tables, field sketches and annotated diagrams, with and without the use of digital and spatial technologies (ACHGS049)</td>
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<tr>
<td>Analyse maps and other geographical data and information using digital and spatial technologies as appropriate, to develop identifications, descriptions, explanations and conclusions that use geographical terminology (VCGGC104)</td>
<td><strong>Interpreting, analysing and concluding</strong></td>
<td></td>
</tr>
<tr>
<td>• reviewing the results of an analysis to propose and defend answers to a question, emphasising at least one of the geographical concepts of place, space, environment, interconnection, sustainability, scale or change</td>
<td>Interpret geographical data and other information using qualitative and quantitative methods, and digital and spatial technologies as appropriate, to identify and propose explanations for spatial distributions, patterns and trends, and infer relationships (ACHGS051)</td>
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<td>Apply geographical concepts to draw conclusions based on the analysis of the data and information collected (ACHGS052)</td>
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<td><strong>Communicating</strong></td>
<td></td>
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<td>Present findings, arguments and ideas in a range of communication forms selected to suit a particular audience and purpose, using geographical terminology and digital technologies as appropriate (ACHGS053)</td>
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<td><strong>Reflecting and responding</strong></td>
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<td>Reflect on their learning to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic and social considerations, and predict the expected outcomes of their proposal (ACHGS054)</td>
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</tbody>
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Inquiry 1

Why do neighbourhoods matter?

Begin with students reading the introduction to Worksheet 1. Some of the terms may require unpacking, therefore complete the following activity with the class:

Reading and comprehending the text
Ask students to work with a partner to complete a reciprocal reading of ‘An introduction to living locally’. Students will read from the beginning of the worksheet to the end of the hallmarks for a 20-minute neighbourhood. You may like to pair students who can support one another in their learning abilities.

a. In their pairs, students nominate partner A and partner B.

b. Partner A begins by reading the first paragraph from the text.

c. Partner B then verbally summarises the information.

d. Both partners write down 1–2 sentences as notes which can also include diagrams.

e. This continues through each description as students swap roles to share the reading.

Conduct a class discussion to summarise the main points in the text, making sure all students have a clear understanding.

Hallmarks of a 20-minute neighbourhood
Work undertaken by DELWP in partnership with the Heart Foundation (Victoria) identified the hallmarks of a 20-minute neighbourhood.

A 20-minute neighbourhood must:

• be safe, accessible and well connected for pedestrians and cyclists to optimise active transport
• offer high-quality public realm and open space
• provide services and destinations that support local living
• facilitate access to quality public transport that connects people to jobs and higher-order services
• deliver housing/population at densities that make local services and transport viable
• facilitate thriving local economies.

Note: the text for the six hallmarks has been simplified for the students in their worksheet. The original Plan Melbourne text appears above.
Discuss with students that Melbourne has been considered the most liveable city for an extended period from 2010–2017.

In 2017 Melbourne scored 97.5/100 on the ranking system. Outline to students how a city gets such a ranking. The Economist Intelligences Unit’s Liveability Index ranks 140 cities each year on factors such as healthcare, education, infrastructure, culture, environment, crime rate, strong economy, stability.

The Index was established in 2003 and every year since Melbourne has been, at least, in the top three cities for liveability it has ranked number 1 seven times.

While Melbourne is perceived to be liveable by some international standards, the city faces significant sustainability challenges including homelessness, housing affordability (both purchasing and rental), urban heat island, transport congestion and poor public health outcomes.

Before students complete Activity 1, show the Heart Foundation video, explaining the benefits of liveable neighbourhoods.

Students then complete a ‘Graffiti activity’ where they form small group to respond to a question by jotting down a response, pass their ideas to another group to add further ideas, until every group has had the chance to respond to each question. Each group begins with a different question. Examples could include:

- What does it mean to live locally?
- What are your community activities?
- Where do activities take place in your neighbourhood?
- Where are the green streets and spaces?
- How is a place made safe?
- What public transport services are available? etc.

Challenge students at this point to think about whether a liveable city is also a sustainable city.

A sustainable city has a reduced ecological footprint, protects the natural environment, increases community wellbeing and pride in the local area, changes behaviour patterns by providing local options, encourages compact or dense living and provides easy access to work, play and schools.

Ask students to think about how people living in different parts of Melbourne might think about their city as liveable and/or sustainable. For example, living:

- in or near Melbourne’s CBD
- on the outer fringes of the city and commuting to work 20–50 kilometres each day by car
- near good public transport with great connections (e.g. trains, buses)
- close to good bike networks.

Students should then undertake further reading on Worksheet 1 and complete the activities.

To find out more about Healthy Active by Design visit www.healthyactivebydesign.com.au/resources/case-study-videos/
To find out more about the Economist Intelligences Unit’s Liveability Index reference https://pages.eiu.com/rs/753-RIQ-438/images/The_Global_Liveability_Index_2018.pdf
Activity 2 is completed here:

Plan Melbourne guides planning and development of the city from [2017–2050]. The population of Melbourne is expected to [increase] from five million in 2019 to [nine million] by 2056. This allows for some years of [planning] to create a more sustainable city.

Plan Melbourne is guided by the principle of [20-minute neighbourhoods]. It’s all about [living locally]. Creating places where people have the ability to access most of their [daily needs] within a 20-minute [return walk] from home. By building more compact walkable neighbourhoods, Plan Melbourne restricts future expansion of the city into [sensitive natural areas and productive agricultural land].

Activities 3 and 4

Even though the language in the hallmarks has been simplified for the student worksheet, ensure that all students have understood each one. In a class discussion provide examples so enhance student comprehension.

Furthermore, discuss why each hallmark is important to enhance liveability in Melbourne.

Activities 5 and 6

Ask students to consider their own neighbourhood and to rank its qualities according to the hallmark features. A table is provided for students to place a tick in the appropriate box. Have the students form small groups to see if everyone agrees on the same rankings. Then increase the size of the groupings to see if consensus on the rankings can be achieved.

Activity 7

Before students complete this activity, show an image of Figure 2 – Croydon South future opportunities from the worksheet. Read through each of the 12 opportunities. Students could revisit their ranking table and select any of the Croydon solutions that might improve their lower-ranked hallmarks/features.

Students will have a variety of ways of informing their local community about possible changes. The challenge should be in what way will the greatest proportion of the population respond to a letterbox drop. This activity should be short and sharp; a work of art is not required. The information is the key.

The following article shows some of the resistance that suburban change can bring. The residents of Dingley Village were resisting a three-storey development. Read this with the class and reflect on how the communication and council actions could have been more positive.


Inquiry 1

Why do neighbourhoods matter?
Inquiry 2

What is the 20-minute neighbourhood?

Plan Melbourne is the primary strategy to guide Melbourne’s growth until 2050. The strategy establishes directions and policies to create a more liveable city. The ‘20-minute neighbourhood’ concept underpins the strategy and needs detailed exploration to help students to understand its aims.

Teachers will find background reading on the concept at the following sites:

**Plan Melbourne 2017-2050**

The Plan Melbourne website provides three (3) short videos (each 0.35 min) can be found at this site for an introduction to the 20-minute neighbourhood concept: Liveable, Connected, Sustainable.

The website also provides a detailed insight at [Outcome 5 of Plan Melbourne](#) – Inclusive, vibrant and healthy neighbourhoods.

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**Healthy Active by Design**

Short videos by the Heart Foundation that explore what makes a liveable neighbourhood.

**20-minute neighbourhood animations**

- Living locally – how to make a liveable city
- What is a 20-minute neighbourhood

These animations show the key concepts of the 20-minute neighbourhood and are designed to be student friendly.

**20-minute neighbourhoods: Creating a more liveable Melbourne**

This official document sets out the core elements of a 20-minute neighbourhood.

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**Type of housing diversity**

**What is meant by diverse housing types?**

Diverse housing types:
- Detached housing, dual occupancies, townhouses, multi-units, shop-top housing and apartments.

Different tenure types:
- Rental, mortgage and owned properties.

Different size:
- External and internal floor space, and number of bedrooms.

<table>
<thead>
<tr>
<th>Type of housing</th>
<th>DETACHED</th>
<th>DUAL-OCCUPANCY</th>
<th>DUPLEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>A single dwelling on a single lot, separated from other dwellings.</td>
<td>Two dwellings on a single lot, generally one behind the other.</td>
<td>Two dwellings on a single lot, attached side by side.</td>
</tr>
</tbody>
</table>

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**Example**

[Detached Housing](#), [Dual-Occupancy Housing](#), [Duplex Housing](#)
The 20-minute neighbourhood

Begin this lesson by looking at Figure 1 - Plan Melbourne: 20-minute neighbourhood features on the worksheet. Ensure that the students understand the terminology used. For example, do students understand the term ‘housing diversity’?


Activity 1

Asks students to devise generalised titles for each of the colours used in figure 1. Suggestions include light blue – shops and health; bright blue – education; green – leisure; orange housing and safety; pink – movement; purple – connections and jobs.

Activity 2

Requires students to think about their own neighbourhood in terms of the components of figure 1.

Activities 3 and 4

Ask students to draw meaning from their data in Activity 1 and 2.

Activities 5 and 6

Refer to developing more diverse forms of housing within Melbourne’s boundaries to accommodate an increasing population and restrict urban sprawl. Compact design is important to developing the population density required to avoid Melbourne extending into surrounding agricultural land. The terms ‘greyfield’ (redevelopment areas) and ‘greenfield’ (new housing estates) are important in this section. The Commons, Brunswick case study is presented as an example of changing design.

Before students complete these two activities run the Continuum exercise detailed on the next page.

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**TOWNHOUSE**

* (often referred to as semi-detached)*

Typically attached to one or more dwellings or separated by a small distance (less than half a metre). Generally with private grounds and no dwellings above or below.

**MULTI-UNIT**

Several dwellings on a single or consolidated lot with private grounds, detached and generally with a shared area for car parking and access.

**APARTMENT**

Several dwellings within the same building footprint. Typically without private grounds but with a shared common entrance foyer or stairwell.

**SHOP-TOP**

A house attached to a shop, usually above.
Continuum exercise
Discuss the issue of greyfield development and ensure students understand its meaning.

1. Prepare a set of signs with opposing responses (agree/disagree) and place these at opposite ends of the room. Use pens end to end or draw a chalk line or stick a piece of masking tape on the floor between the two signs to indicate the continuum.

2. Explain that there are many places along the continuum that may represent each student’s opinion about a given statement. Model this by giving a statement such as ‘Everyone should wear a hat when they go outside’ then place yourself along the continuum. Tell students why you might have placed yourself at that position. They can then place themselves on the continuum but must be prepared to justify why they have chosen that location/stance.

3. Read this statement to the group: ‘All neighbourhoods in Melbourne should be planned to be 20-minute neighbourhoods.’ Ask students to move to the point on the continuum that best represents their opinion.

4. Students then share their reasons for placing themselves in that point on the continuum with others standing nearby. As a class, discuss why there are variations in students’ opinions.

5. Provide students with the option to pass or reconsider their placement after the discussion and move to another position along the continuum.

6. Examples of questions to ask students during this strategy are:
   • Why would someone place themselves in that position on the continuum?
   • What experiences would have brought them to that conclusion?
   • Would they feel differently if they had more information about this?
   • Was it easy to choose the position on the continuum? Why or why not?

Pose these questions and repeat the continuum exercise with the following statements:

‘Greenfield development in Melbourne must be restricted so that Melbourne can be a liveable city’

‘It’s OK for greyfield developments to occur in some neighbourhoods, but not in mine.’

Activity 7
Encourages students to involve their family in discussing the concept of a 20-minute neighbourhood.

Extension activity
The extension activity looks at one development – Yarra Bend. There is a wide range of articles available on the internet about this urban development, many provided by the developers. This article is comprehensive https://theurbandeveloper.com/articles/yarrabend-breakdown-alphington-paper-mill-development

You might also like to discuss with students’ vertical diversity and density. Here Yarra Edge is a suitable example. The following articles may be useful:
https://yarrasedge.mirvac.com/fishermans-bend
https://yarrasedge.mirvac.com/voyager

Inquiry 2
What is the 20-minute neighbourhood?
Map 2

Lower-cost housing in metropolitan Melbourne 1995 and 2015

Note: Lower-cost housing for the purpose of this illustration is defined as the cheapest 25% of all houses sold in Melbourne in the relevant year. In 1995 this was houses that sold for less than $100,000. In 2015 it was houses that sold for less than $415,000.

Source: Department of Environment, Land, Water and Planning
Inquiry 3
How can walkability improve liveability?

Research shows that 20-minutes is the maximum time people are willing to walk to meet their daily needs locally.

These daily needs may include accessing local health facilities and services, local schools and local shopping centres. This 20-minute journey represents an 800m walk from home to a destination, and back again.

Students need to understand that to create a walkable neighbourhood planning must provide services and destinations such as Neighbourhood Activity Centre’s (NAC) with 800 metres of peoples homes.

Begin by discussing with students the distance of 800 metres – an event at the athletics carnival; number of laps of the swimming pool. If you can, measure a 800-metre distance in the school grounds to help students visualise this distance.

Challenge the students to walk this distance and time themselves. Is walking 800 metres in a 20-minute neighbourhood a realistic expectation for most people? Think about young and old people, disabled, people, people pushing prams or using walking frames or mobility scooters.

Activity 1 refers to the infographic in Figure 2 - Benefits of walkable neighbourhoods from the worksheet and the list of strategies to encourage walking for students to relate to their own place.

Complete the following activity before looking at Figure 2.

Streamline activity
How does walkability improve liveability?

1. Pose this question for students to consider and write their own list of five responses on a piece of paper.
2. Students form pairs and share the responses on their lists.
3. Each pair considers both lists and streamlines these by choosing five responses to form a new list.
4. Each pair then joins with another pair to make a group of four.
5. The process of sharing and negotiating is repeated. Once again, a new list of five responses is formed for the group of four.

Groups then write their final five on a board for the class to compare and discuss.

Now study Figure 2 and complete the activity in full. Are there similar responses in the infographic? Were any benefits not included in the class list if five? If so, add them to the list.

Benefits of walkable neighbourhoods

- Can halve household transport costs
- Walking infrastructure delivers $13 benefit for every $1 spent
- Walking infrastructure can provide a higher return than rail or road
- Help reduce pollution and CO2 emissions
- Supports passive surveillance increasing safety
- Enhances sense of community and social cohesion
- Supports health, infrastructure, and environmental savings to Victorian economy
- Alleviates pressure on Melbourne’s transport
- Increases retail trading by up to 40%
- Improves health and wellbeing
Activity 2

The activity requires students to use Google Earth to be able to look in detail at specific neighbourhoods in Melbourne developed at different times in history, as well as their own neighbourhood. A compact place is vital to increasing the density of population within Melbourne whether it be in the older suburbs like Yarraville, the 20th Century then outer developments of places like Glen Waverley or the more recent urban fringe developments like Doreen. Students look at their neighbourhood in relation to the compact or not nature of these suburbs.

A history of the development of each area will provide insight to the urban development:

Yarraville
http://yarraville.org/history/

Glen Waverley

Doreen

Activity 3

Highlights one of the concerns that residents might have as their neighbourhoods becomes more compact, for example the loss of trees or additional pressures on existing services and infrastructure.

Students are provided with a recent article to analyse and the following two articles could be used as well:


https://theconversation.com/increasing-tree-cover-may-be-like-a-superfood-for-community-mental-health-119930

Activity 4

Focusses on the pedestrian safety and vehicle speed on roads. The case study here provides evidence that there is a global trend to reduce speed to 30 km/hour in neighbourhood areas. Student feedback is sought on this idea.

Although the evidence for change is presented, this could be a contentious change.

Complete the following activity:

How do you feel?

Most cities and towns in Victoria and Australia have reduced vehicle speed limits to increase pedestrian safety.

Complete this exercise on “How you feel”.

Prepare a set of emotion cards. These should include the following words: happy, sad, angry, tired, embarrassed, bored, nervous and surprised.

Students use emotion cards to respond to a number of statements.

Pose a number of ‘how would you feel?’ questions about pedestrian safety and vehicle speed limits. Ask students to assign each situation with an emotion.

Examples of statements can include the following.

How would you feel if:
- vehicle speed limits were reduced to 30 kph near schools?
- vehicle speed limits were reduced to 30 kph near schools and in all neighbourhood streets?
- a person was killed or badly injured by a car travelling at 40 kph that could have been avoided at 30 kph?
- parents allowed their children to walk or ride to school if the speed limit was 30 kph?
- there were safer zebra crossings?
- there were wider footpaths?
- there were more crossing supervisors?

Add your or your students’ own statements here.

Emotions can be tallied up to determine how most people feel. Extend this activity by encouraging a repeat of this activity with family members and friends. Is there a difference in responses?
Geography encourages fieldwork – taking the students outside the classroom and investigating the real world and applying the knowledge and skills developed in the classroom.

Each school will have specific required arrangements for undertaking fieldwork outside the school grounds – begin by ensuring these requirements are met.

This fieldwork further develops the understanding of walkability in a neighbourhood area and how it can improve liveability in the community. During the fieldwork students concentrate on the walk being undertaken – they look at the surfaces on which they are walking, the environment through which they are walking and consider the ways that these areas can be developed to increase the wellbeing and connectivity in their community.

Students will collect data, analyse it and present a report either as a PowerPoint or an infographic.

There are a number of possible options for completing this fieldwork:

- study the footpaths outside the school grounds without leaving the school property (maybe even the pathways within the school)
- visit an activity centre (NAC) or a town centre which is within the 800 metres to/from the school. Assess walkability as you walk.
- walk around the streets in the school area during class designated time
- undertake this task from your home as a homework task.

This fieldwork can be undertaken in a number of ways as set out below.
1. Develop your map

This option uses pen and a paper map and data is collected by taking photos. Two tasks are provided.

Develop a table like this sample one. Include other features to observe and report on such as footpath litter, safety when crossings roads, driveway crossings, trees on streets/nature strips, gardens overgrowing paths, types of garden plants edging footpaths, lighting for safety, footpath width, footpath surface, pedestrian links and short cuts. Go to the Heart Foundation checklist to add to your ideas.

Sample table for observations:

<table>
<thead>
<tr>
<th>Street characteristics</th>
<th>e.g. High Street and Woods Road intersection</th>
<th>e.g. Poole Crescent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Footpath width</td>
<td>Very narrow</td>
<td>Image 1</td>
</tr>
<tr>
<td>Footpath surface – even/flat etc</td>
<td>Image 1</td>
<td></td>
</tr>
</tbody>
</table>

a. Use Google Earth to produce a base map of your local area and develop a ‘Crowdspot’ system. This requires the development of a ‘traffic light system’ to be recorded on a map. In this sense a red dot indicates a location with a ‘walk issue’, green indicates a ‘favourite spot’, and yellow indicates an ‘idea spot’. Spots can be recorded on the map during the walk. A key/legend should be provided to give a comment relating to each spot. The sample in Figure 3 shows how this was applied in 20-Minute Neighbourhood Pilot Program in Strathmore.

Before you go on fieldwork, have the required colours available to mark on your map and somewhere to record specific notes for each dot that will be included in your map legend.

Figure 3: 20-Minute Neighbourhood Pilot Project Crowdspot map (Strathmore Neighbourhood Report, DELWP)
2. Utilise Apps

This option uses free Apps that can be readily downloaded. Teachers should ensure that Apps are downloaded prior to the fieldwork time and that students have a working knowledge of the Apps.

a. Instructions for using the Walking Victoria App can be found [here](www.youtube.com/watch?v=G5u0vd8S06i&feature=youtu.be)

![Figure 4: A pinned map from the Strathmore Walkability Assessment. (DELWP)](image)

Each pin can contain an image of the location and a comment on the walkability aspect that you want to highlight.

Teachers should be aware that if the finished maps are uploaded then the maps become part of the public domain – check the privacy requirements of your school before doing so.

b. A free tutorial to use Survey123 can be found at [https://gisgeography.com/esri-collector-survey123-field-work-apps/](https://gisgeography.com/esri-collector-survey123-field-work-apps/)

If you have not used Survey 123 before then spend some time getting used to it so that you can readily instruct the class.

**How To Use Esri Collector and Survey123 as Field Work Apps**

Before students begin developing questions, a discussion of appropriate and ethical questions should occur. Questions should respect the privacy of the interviewee, for example, age-based questions should provide age-blocks for the interviewee to select from, addresses of interviewees should be avoided by asking questions like whether the person lives locally, works here, or is a day visitor to the neighbourhood.

After the fieldwork session is completed students will need a lesson in the classroom to put together their response in the scenario – as a small group there is a PowerPoint or infographic to be constructed.

Students need to refer back to the scenario. It is important to select a range of places to present to the council rather than all places being about the same aspect of walkability. Visuals are most important in both a PowerPoint report and an infographic – words should be minimal and predominantly statistics. Annotated images are to be recommended. The presentation needs to be balanced – not all good points; not all bad points! Students should provide suggestions to the local council to suggest how any issues raised can be overcome.
Back in the classroom

Help students to analyse, organise and present the data they have collected.

In small groups, discuss each of the streets that were assessed on the fieldwork:

- Do the streets you visited encourage walking?
- Are all age groups from 8–80 catered for in walkability?
- How could aspects of the streets be improved for walking? You might like to sketch an image to include in the report or annotate a photo to show the council the aspects that you think should be improved.
- How could improved walkability help your local neighbourhood become a 20-minute neighbourhood? How could it improve liveability?
- Why is a 20-minute neighbourhood important to you?

These groups will each develop a submission to recommend to the local council any improvements that can be made to walkability in the area. The presentation can be a PowerPoint (8–10 slides) or an infographic.
This mapping competition encourages students to re-design their neighbourhood to improve liveability.

Your class should watch these two short animations:
- Living locally - 20-minute neighbourhoods
- What is a 20-minute neighbourhood?

Then allow students to Imagine if . . .

The task in this mapping competition is for students to redesign their local area to include better designs for liveability within a 20-minute neighbourhood. They should be creative but at the same time apply their knowledge about liveability design in relation to where they live.

One aspect to stress with students is that not all goods and services can be provided within a 20-minute walk to/from their home.

Criteria to consider when completing the map:
- location of shopping centres, health facilities and services that meet their daily needs
- location of schools, libraries and other learning spaces
- providing housing for a range of income levels and age levels
- creating a well-planned, compact area with density,
- designs that encourage walking for ages 8–80 years, safe cycling and local public transport options
- good public transport that connects to jobs, and facilities and services required less often
- safe open spaces, green streets, community gardens, playgrounds and sporting facilities are incorporated
The competition

All the information required is provided here, including:

• an instruction section on using the map and mapping tools. Student and teacher instructions can be downloaded from this section.

• GIS map is provided at this site with an instructional video on how to create the map and use the tools. This includes a Draw IT facility with instructions for students to draw their own map.

• An entry form for the competition which includes some questions for students to answer.

It is recommended that the students practice using the GIS map and tools before completing the mapping competition.

An entry form must be completed to enter the competition. As part of the competition, this form contains a few questions about their design that students need to answer to demonstrate their understanding about liveability.

Don’t forget to follow the instructions to upload the map with the entry form.

A time limit of approximately one lesson or one hour is suggested for the mapping competition activity (after one lesson where students can practice using the mapping tool).

Competition entries are to be uploaded by close of business on Monday, 11 November 2019.

Students creating winning maps will be notified about an award presentation event to be held in early December 2019.

Good luck to your students/class in this competition.
APPENDIX

Plan Melbourne 2017-2050 (extract)
Before European settlement in 1835, Aboriginal people had lived on the land now called Melbourne for at least 40,000 years. Since then, Melbourne has seen waves of growth-led transformations, with each wave leaving lasting impressions on the city’s landscape, structure and identity. Map 1 shows Melbourne’s growth over stages of its history.

Melbourne’s early structure and character were defined through the Hoddle Grid and the Gold Rush, which saw the city’s population triple between 1851 and 1854. In the decades leading up to the 1890s depression, Victoria was the wealthiest colony in the British Empire. Consequently, that era created a rich legacy of public and private buildings, distinctive boulevards and high streets, civic recreational facilities, and expansive inner-city parks and gardens.

In the late 19th and early 20th centuries, Melbourne expanded with the development of mass-transit train and tram systems. Mechanised transport enabled Melburnians to escape the crowding and congestion of the city centre for the space of the suburbs. Melbourne’s distinctive high-street shopping strips were established during this period.

The next wave of major growth came after the Second World War. Between 1947 and 1966, Melbourne’s population increased by 83 per cent—jumping from 1.2 million to 2.2 million people. It was by far the biggest change in the city’s demographics since the Gold Rush, making Victoria a multicultural society.

That demographic change was transformational—driving structural changes in the economy by giving Victoria the muscle to become the heart of Australia’s manufacturing sector. The rise in private car ownership, investment in roads, better access to housing finance and a shift of manufacturing to suburban locations saw Melbourne expand and become a city of suburbs.

Over the past two decades, Melbourne has been in the midst of a third great demographic change that rivals the Gold Rush and the post-War boom. This new wave of growth is driving a population boom in inner-city places such as Southbank and Docklands, as well as outer-suburban development in the west, north and south-east.

In the process, Melbourne has become a global city: a diverse, multicultural home to more than 4.5 million people that covers approximately 9,000 square kilometres—and Melbourne’s third wave of growth is not yet finished.

The challenge is to manage this third wave of growth so all Melburnians can benefit from the prosperity and choice it brings—well into the 21st century.
Map 1

Melbourne’s urban growth

Source: Department of Environment, Land, Water and Planning
Melbourne’s key challenges and opportunities

A growing population

Over the past decade, Melbourne has added more than 800,000 new residents. While natural population increases are still significant, many of these new residents have come to Melbourne from interstate and overseas—attracted by a range of education and employment opportunities as well as housing choices.

As identified in Melbourne’s planning policies by successive governments, to remain liveable the city must avoid the temptation to sprawl as it grows. The more the city sprawls, the greater the risk it will become an unsustainable city divided by disadvantage and inequity.

Planning must serve the current and future needs of Melburnians.

Housing must be available in locations that capitalise on existing infrastructure, jobs, services and public transport. Access to these needs to be better in many areas, particularly in Melbourne’s west and outer areas.

Melbourne’s green wedges and peri-urban areas must be properly managed so that valued features and attributes are protected. A balance must be maintained between the needs of the community, the economy and the environment.
The demographic changes facing Melbourne are profound. Between 2015 and 2051 Melbourne is projected to grow by 3.4 million people, from a population of 4.5 million to almost 8 million. During the same period, Victoria’s total population will reach 10.1 million. A population increase of that magnitude would require another 1.6 million dwellings and 1.5 million jobs. According to projections, Melbourne is experiencing its greatest population boom since the post-War era.

By 2051, the percentage of Melbourne’s population aged over 65 is projected to increase from 13.8 per cent to 20.5 per cent. This demographic change will present significant challenges for community services and infrastructure. There will also be a greater proportion of lone-person and couple-only households, although families with children are expected to continue to be the most common household type. The city will also need to keep up with the needs of the young, with Melbourne’s school-age population projected to grow by around 500,000 by 2051. Figure 1 shows Victoria’s projected population and demographic change from 2015 to 2051 and Figure 2 shows the growth in household types.
Remaining competitive in a changing economy

The global economy has changed rapidly in the past two decades, becoming more digital and mobile through digital disruption, more competitive through the further industrialisation of nations such as China, and more uncertain through the impact of climate change. In years to come, those changes are expected to accelerate, testing the capabilities of nations and states with ageing populations.

Melbourne is well placed to respond to these changes. After all, the city has a highly skilled workforce with strong international business, educational, research and cultural connections. However, to remain competitive there is a need to boost productivity, and support growth and innovation across all industries and regions. New technologies—such as self-driving cars, the development of energy storage technologies and artificial intelligence—will change the ways people live and work between now and 2050. Plan Melbourne will need to be adapted over time to accommodate those changes.

To grow jobs and create accessible, affordable and attractive neighbourhoods, Melbourne needs to take advantage of the land it has available for renewal in the city and suburbs. Increasing the number and diversity of jobs closer to where people live—in places such as suburban employment clusters, health and education precincts and industrial precincts—will help make Melbourne more productive and competitive.

In short, Melbourne has the people, places and potential to build the knowledge based industries and service industries that will drive economic growth in the 21st century.

Housing that is affordable and accessible

It is difficult to predict what types of housing people will want in 20 years. The challenge, as Melbourne grows, will be to ensure that people have affordable and accessible housing choices in places where they want to live.

Many of Melbourne’s established suburbs are already unaffordable for middle- and low-income households looking to buy or rent. This is a major concern because these suburbs often have good access to jobs, services and transport. By contrast, although new housing in outer suburbs is more affordable, it often lacks good access to jobs, services and transport.

Without strategies to provide more housing choice, Melbourne will become less affordable and liveable—risking social equity and cohesion, and slowing economic growth.

### SURPLUS AND UNDERUTILISED GOVERNMENT LAND

Government land is an important resource for delivering services to Victorians, including places to live, work and learn. The government regularly reviews its land assets to ensure that they are being used efficiently. Land that is considered to be underutilised or surplus can then be considered for community or other government purposes or be disposed of. Any proceeds can then be reinvested into other important infrastructure. More efficient use of land owned by government can help facilitate Plan Melbourne outcomes and deliver social, economic and environmental benefits.
Keeping up with the growing transport needs of the city

Melbourne’s transport system includes modern port, airport, road, rail, tram, bus, cycling and walking infrastructure. The city has an extensive freeway and arterial road network, a rail network that provides radial access to the central city and activity centres throughout the suburbs, as well as the world’s largest tram network.

The Port of Melbourne is Australia’s largest port, with links to national road and rail networks. The city’s main airport is curfew-free and expanding, and is supported by Avalon airport near Geelong and two general aviation airfields at Essendon and Moorabbin.

Although the city’s transport system has sound foundations, it is coming under increased pressure from growth. By 2050, Melbourne’s transport network will need to handle an extra 10.4 million trips per day. Congestion and overcrowding is already an issue on parts of the road and public transport network, particularly at peak times. Major investment in transport infrastructure will boost rail and road capacity to meet the transport challenge, boost productivity, conserve energy, curb greenhouse gas emissions and protect liveability.

Landmark infrastructure projects such as the Metro Tunnel will expand the capacity of the city’s transport network, but Victoria also needs to make existing infrastructure smarter and more efficient.

Climate change—the need for both mitigation and adaptation

Climate change is an economic, social, environmental and public health issue.

Climate modelling shows that Victoria is becoming hotter and drier, facing more periods of extreme heat (days over 35°C) and drought, reductions in annual rainfall and increases in intense rainfall events, and an increased risk of extreme weather events such as flood and bushfire4.

Vulnerable groups—such as the elderly, the chronically ill and low-income households—are more likely to be affected by the economic and social impacts of climate change, including rising food prices and increased demand for essential services.

Adapting to a changing climate is about taking deliberate steps to manage and mitigate these potential impacts.

Australians are among the highest emitters of greenhouse gases, per capita, in the developed world5—refer to Figure 3. Taking steps to transform Melbourne into a low-carbon city is both necessary and an opportunity. That’s why Victoria aims to reduce greenhouse gas emissions to net zero emissions by 2050—an initiative that will create a low-carbon economy, generate new jobs, drive innovation within new and traditional industries, and improve the city’s liveability.

Figure 3
Australia’s greenhouse gas emissions per capita

Our vision is that Melbourne will continue to be a global city of opportunity and choice.

Plan Melbourne’s vision for the city is guided by nine principles.

**Principle 1**
**A distinctive Melbourne**

Melbourne has an enviable natural environment, important Aboriginal cultural heritage values, a rich inheritance of open space, and landmark buildings and streets created during the population booms of the Gold Rush and post-War period. To ensure Melbourne remains distinctive, its strengths will be protected and heritage preserved while the next generation of growth is planned to complement existing communities and create attractive new neighbourhoods.

**Principle 2**
**A globally connected and competitive city**

Melbourne will develop and deliver infrastructure to support its competitive advantages in sectors such as business services, health, education, manufacturing and tourism. Employment, research, retail, cultural and sporting precincts will also be supported to ensure Melbourne remains attractive and liveable.

**Principle 3**
**A city of centres linked to regional Victoria**

The central city will remain the focus for global business and knowledge-intensive industries linked to an extensive network of clusters, centres, precincts and gateways. These physical, social and economic links will be strengthened, turning Melbourne into a city of centres linked to regional Victoria—creating social and economic opportunities across the state.

**Principle 4**
**Environmental resilience and sustainability**

Protecting Melbourne’s biodiversity and natural assets is essential for remaining a productive and healthy city. There is an urgent need for Melbourne to adapt to climate change and make the transition to a low-carbon city.

**Principle 5**
**Living locally—20-minute neighbourhoods**

Creating accessible, safe and attractive local areas where people can access most of their everyday needs within a 20-minute walk, cycle or local public transport trip, will make Melbourne healthier and more inclusive. Due to the specialised and diverse nature of work, many people will still need to travel outside of this 20-minute neighbourhood for their jobs.

**Principle 6**
**Social and economic participation**

Social mobility is essential for social cohesion. Victoria’s challenge is to make it easier for every citizen—regardless of their race, gender, age, sexuality or ability—to attain the skills they need to fully participate in the life and economy of the city and state.
Principle 7

Strong and healthy communities

To remain a city of diverse, healthy and inclusive communities, Melbourne needs to ensure its neighbourhoods and suburbs are safe and walkable. Strong communities need affordable, accessible housing; local health, education and community services; access to recreation spaces; and healthy food.

Principle 8

Infrastructure investment that supports balanced city growth

Smart infrastructure investment and better utilisation of existing infrastructure is the key to creating new jobs and driving population growth in the right places. It is also vital for the social, economic and environmental wellbeing of the city. That’s why there needs to be a pipeline of projects and initiatives that make Melbourne more sustainable, accessible and prosperous.

Principle 9

Leadership and partnership

Melbourne’s growth relies on effective governance, strong leadership and collaborative partnerships. Maintaining strong working relationships between all spheres of government, the public and private sectors and the wider community will ensure that all Melburnians share the benefits and the responsibilities of putting plans into practice.
Melbourne’s 2050 plan

Plan Melbourne’s vision for the city is guided by nine principles. To support those principles seven outcomes have been set, together with the policy directions that will be taken to reach those outcomes.

The vision for Melbourne

A global city of opportunity and choice

### OUTCOMES

1. Melbourne is a productive city that attracts investment, supports innovation and creates jobs

2. Melbourne provides housing choice in locations close to jobs and services

3. Melbourne has an integrated transport system that connects people to jobs and services and goods to market

### DIRECTIONS

1.1 Create a city structure that strengthens Melbourne’s competitiveness for jobs and investment

1.2 Improve access to jobs across Melbourne and closer to where people live

1.3 Create development opportunities at urban renewal precincts across Melbourne

1.4 Support the productive use of land and resources in Melbourne’s non-urban areas

2.1 Manage the supply of new housing in the right locations to meet population growth and create a sustainable city

2.2 Deliver more housing closer to jobs and public transport

2.3 Increase the supply of social and affordable housing

2.4 Facilitate decision-making processes for housing in the right locations

2.5 Provide greater choice and diversity of housing

3.1 Transform Melbourne’s transport system to support a productive city

3.2 Improve transport in Melbourne’s outer suburbs

3.3 Improve local travel options to support 20-minute neighbourhoods

3.4 Improve freight efficiency and increase capacity of gateways while protecting urban amenity

Regional Victoria is productive, sustainable and supports jobs and economic growth
The vision for Melbourne
A global city of opportunity and choice

OUTCOMES
1 2 3 4 5 6 7

Melbourne is a productive city that attracts investment, supports innovation and creates jobs
Melbourne provides housing choice in locations close to jobs and services
Melbourne has an integrated transport system that connects people to jobs and services and goods to market
Melbourne is a distinctive and liveable city with quality design and amenity
Melbourne is a city of inclusive, vibrant and healthy neighbourhoods
Melbourne is a sustainable and resilient city
Regional Victoria is productive, sustainable and supports jobs and economic growth

DIRECTIONS

1.1 Create a city structure that strengthens Melbourne’s competitiveness for jobs and investment
1.2 Improve access to jobs across Melbourne and closer to where people live
1.3 Create development opportunities at urban renewal precincts across Melbourne
1.4 Support the productive use of land and resources in Melbourne’s non-urban areas

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3.2 Improve transport in Melbourne’s outer suburbs
3.3 Improve local travel options to support 20-minute neighbourhoods
3.4 Improve freight efficiency and increase capacity of gateways while protecting urban amenity

4.1 Create more great public places across Melbourne
4.2 Build on Melbourne’s cultural leadership and sporting legacy
4.3 Achieve and promote design excellence
4.4 Respect Melbourne’s heritage as we build for the future
4.5 Plan for Melbourne’s green wedges and peri-urban areas
4.6 Strengthen community participation in the planning of our city

5.1 Create a city of 20-minute neighbourhoods
5.2 Create neighbourhoods that support safe communities and healthy lifestyles
5.3 Deliver social infrastructure to support strong communities
5.4 Deliver local parks and green neighbourhoods in collaboration with communities

6.1 Transition to a low-carbon city to enable Victoria to achieve its target of net zero greenhouse gas emissions by 2050
6.2 Reduce the likelihood and consequences of natural hazard events and adapt to climate change
6.3 Integrate urban development and water cycle management to support a resilient and liveable city
6.4 Make Melbourne cooler and greener
6.5 Protect and restore natural habitats
6.6 Improve air quality and reduce the impact of excessive noise
6.7 Reduce waste and improve waste management and resource recovery

7.1 Invest in regional Victoria to support housing and economic growth
7.2 Improve connections between cities and regions
Places of state significance that will be the focus for investment and growth

<table>
<thead>
<tr>
<th>PLACES OF STATE SIGNIFICANCE</th>
<th>Central city</th>
<th>National employment and innovation clusters</th>
<th>Metropolitan activity centres</th>
<th>State-significant industrial precincts</th>
</tr>
</thead>
<tbody>
<tr>
<td>PURPOSE</td>
<td>To provide for the continued growth of knowledge-intensive and high-skilled firms in the central city while continuing to be a major area for tourism, retail, residential, entertainment, sporting and cultural activities (includes St Kilda Road corridor).</td>
<td>To improve the growth and clustering of business activity of national significance, particularly in knowledge-based industries. These areas are to be developed as places with a concentration of linked businesses and institutions providing a major contribution to the Victorian economy, with excellent transport links and potential to accommodate significant future growth in jobs and in some instances housing.</td>
<td>To provide a diverse range of jobs, activities and housing for regional catchments that are well served by public transport. These centres will play a major service delivery role, including government, health, justice and education services, as well as retail and commercial opportunities.</td>
<td>To provide strategically located land for major industrial development linked to the Principal Freight Network and transport gateways. They will be protected from incompatible land uses to allow continual growth in freight, logistics and manufacturing investment.</td>
</tr>
<tr>
<td>LOCATIONS</td>
<td>• Monash &lt;br&gt;• Parkville &lt;br&gt;• Dandenong &lt;br&gt;• Fishermans Bend &lt;br&gt;• La Trobe &lt;br&gt;• Sunshine &lt;br&gt;• Werribee</td>
<td>• Dandenong &lt;br&gt;• Footscray &lt;br&gt;• Fountain Gate–Narre Warren &lt;br&gt;• Epping &lt;br&gt;• Sunshine &lt;br&gt;• Ringwood &lt;br&gt;• Broadmeadows &lt;br&gt;• Box Hill &lt;br&gt;• Frankston &lt;br&gt;Future &lt;br&gt;• Toolern &lt;br&gt;• Lockerbie</td>
<td>• Western Industrial Precinct &lt;br&gt;• Northern Industrial Precinct &lt;br&gt;• Southern Industrial Precinct &lt;br&gt;• Officer–Pakenham Industrial Precinct &lt;br&gt;• Port of Hastings Industrial Precinct</td>
<td></td>
</tr>
</tbody>
</table>
## Transport gateways
To secure adequate gateway capacity for moving passengers and freight into and out of Victoria and support future employment and economic development opportunities at major ports, airports and interstate terminals. They will be protected from incompatible land uses but adjacent complementary uses and employment-generating activity will be encouraged.

## Health and education precincts
To support health and education services that are well served by public transport in a range of locations across Melbourne. Their specialised economic functions will be reinforced, and they should provide opportunity for ancillary health and education services, retail, commercial and accommodation uses.

### Health
- Austin Hospital, Melton Health, Northern Hospital, Craigieburn Health Service, Monash Medical Centre, Knox Private Hospital, Epworth, Western Hospital

### Education
- Deakin University (Burwood), University Hill (includes RMIT Bundoora campuses), La Trobe University, Victoria University (Footscray), Victoria University (Sunshine), Swinburne University (Hawthorn), Monash University (Caufield)

## Major urban renewal precincts
To take advantage of underutilised land close to jobs, services and public transport infrastructure, to provide new housing, jobs and services. Major urban renewal precincts will play an important role in accommodating future housing and employment growth and making better use of existing infrastructure.

### Docklands
- Fishermans Bend (Lorimer)
- Fishermans Bend (Montague)
- Fishermans Bend (Sandridge)
- Fishermans Bend (Wirraway)
- Arden
- Macauley
- E-Gate
- Dynon
- Flinders Street Station to Richmond Station Corridor

<table>
<thead>
<tr>
<th>Transport gateways</th>
<th>Health and education precincts</th>
<th>Major urban renewal precincts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port of Melbourne</td>
<td>Austin Hospital, Melton Health, Northern Hospital, Craigieburn Health Service, Monash Medical Centre, Knox Private Hospital, Epworth, Western Hospital</td>
<td>Docklands</td>
</tr>
<tr>
<td>Port of Geelong</td>
<td>Deakin University (Burwood), University Hill (includes RMIT Bundoora campuses), La Trobe University, Victoria University (Footscray), Victoria University (Sunshine), Swinburne University (Hawthorn), Monash University (Caufield)</td>
<td>Fishermans Bend (Lorimer)</td>
</tr>
<tr>
<td>Port of Hastings</td>
<td></td>
<td>Fishermans Bend (Montague)</td>
</tr>
<tr>
<td>Melbourne Airport</td>
<td></td>
<td>Fishermans Bend (Sandridge)</td>
</tr>
<tr>
<td>Avalon Airport</td>
<td></td>
<td>Fishermans Bend (Wirraway)</td>
</tr>
<tr>
<td>Moorabbin Airport</td>
<td></td>
<td>Arden</td>
</tr>
<tr>
<td>Essendon Airport</td>
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<td>Macauley</td>
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<tr>
<td>Proposed Beveridge</td>
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<td>E-Gate</td>
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<tr>
<td>Interstate Freight</td>
<td></td>
<td>Dynon</td>
</tr>
<tr>
<td>Terminal</td>
<td></td>
<td>Flinders Street Station to Richmond Station Corridor</td>
</tr>
<tr>
<td>Western Interstate Freight Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possible South-East Airport</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possible Bay West Seaport</td>
<td></td>
<td></td>
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</tbody>
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