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Creating liveable cities in Australia

A scorecard and priority
recommendations for Western Australia

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What makes a liveable city?

The term 'liveability' is widely used in Australia and across the world, yet it is rarely defined. We define a 'liveable' community as one that is:

'safe, attractive, socially cohesive and inclusive, and environmentally sustainable; with affordable and diverse housing linked by convenient public transport, walking and cycling infrastructure to employment, education, public open space, local shops, health and community services, and leisure and cultural opportunities' [1]

Liveable, walkable neighbourhoods can improve public health, and can increase environmental, economic and social sustainability [2, 3]. Creating healthy, liveable communities will therefore help cities achieve the United Nations Sustainable Development Goals [4] and United Nations Habitat's New Urban Agenda [5].

We have identified seven domains that help make neighbourhoods liveable:



Liveable city scorecard

In 'Creating Liveable Cities in Australia' (2017) we presented the first 'baseline' measure of liveability in Australia's state and territory capitals [6]. This brief focuses on the results and recommendations for Perth, Western Australia. The Housing Affordability and Employment national liveability indicators have been updated using the newly available 2016 Census data from the Australian Bureau of Statistics.

We reviewed state government urban planning policies related to liveability in Sydney, Melbourne, Brisbane and Perth. Two types of indicators were mapped across the metropolitan areas of these capital cities:

1) Policy implementation indicators

We reviewed each state's policies and identified relevant, measurable spatial standards or targets. We then mapped and assessed how well states were implementing their policies.

The scorecard shows where Perth is meeting or exceeding (▲), on par (■) or falling below (▼) its policy targets.

2) National liveability indicators

In this scorecard we created a set of spatial liveability indicators which are aligned with urban policy and are also associated with chronic disease risk factors or health outcomes. We mapped these using data available nationally, allowing comparisons between Australian state capital cities.

The scorecard shows how Perth rates against the other cities:





Our main findings



- Making Perth 'liveable' is a policy objective of the Western Australian state government. Nevertheless, in some cases there is a mismatch between this aspiration and the ambition of policy targets.
- Perth has one of the best targets for the level of density required in new developments. Its target of at least 26 dwellings per hectare is enough to achieve walkable communities.
- Perth is doing well in:
 - creating smaller, more walkable street blocks
 - building a small number of walkable communities on its urban fringe
 - providing good access to larger neighbourhood and district parks within 400 m and 800 m of residences.
- However, Perth is not doing as well in implementing its policies on:
 - dwelling density
 - access to activity centres.
- Perth's public transport policy target is being achieved. But compared with other state capital cities, the policy is modest: that **60%** of residences should be within 400 m of a bus stop or 800 m of a train stop.
- So, although Perth is creating some walkable communities on the urban fringe, many of these communities are not 'liveable' because they lack access to transport, employment and infrastructure.
- **38%** of lower-income households in Perth are experiencing housing affordability stress, which appears to be spread across the entire city.
- There are no measurable spatial policies about providing local employment opportunities or encouraging walking and cycling to work. With **31%** of Perth's working population living and working in their broader local area, there is an opportunity for policies that encourage active transport for work commutes.
- There are no measurable spatial policies about food environments or for providing walkable access to supermarkets. Only **34%** of Perth's residences are located within 1 km of a supermarket.
- Promoting health and wellbeing is not included among the state objectives of Western Australia's planning legislation.

Recommendations

We recommend that the Western Australian state government:

- undertake evidence-informed integrated transport, land use and infrastructure planning to deliver affordable housing, public transport, accessible employment and amenities; and to create walkable neighbourhoods as the foundation of a liveable city
- include measurable spatial standards in all policies, regulations and guidelines for urban planning, transport and infrastructure
- set ambitious targets for all seven urban liveability domains, with specific short-term, medium-term and long-term goals. The government should:
 - maintain and fully implement the minimum housing-density target of 26 dwellings per hectare
 - maintain and implement policies that create larger, higher-quality public open spaces
 - carefully monitor the effects of a recent shift in policies which may create smaller parks
 - set more policies and targets for public transport access, that include both proximity and frequency of service
 - develop policies and targets for enhancing the food and alcohol environment in urban policy. This could improve people's access to healthy food, and reduce the health-related and social harms caused by excessive alcohol consumption.
- adopt spatial indicators to measure and monitor the implementation of state urban policies designed to create liveable communities. The government should update these at least every five years, to coincide with the Australian Bureau of Statistics Census, and more frequently where possible.
- move towards metropolitan governance that ensures that state and local government policies are consistent, based on evidence, and designed to create healthy, liveable communities
- recognise health promotion as a 'relevant planning consideration' under Clause 67 of the Western Australian Planning and Development Act 2005. This will help local government planners create healthy, liveable communities.



Walkability

What does the policy say – and how well is it being implemented?

In Western Australia, the Liveable Neighbourhoods policy includes guidelines for:

- **Access to destinations** - requires 'most' dwellings to be within 400 m of a secondary or district centre, or within 200 m of a neighbourhood centre. Perth is one of only two capital cities to have standards for access to destinations.
 - ▼ Only **10%** of residences in Perth meet its target for public transport access.
- **Street connectivity** - sets targets for the length and width of blocks to create walkable street block sizes (maximum perimeter 720 m).
 - ▲ About **71%** of Perth residential street blocks meet this target.
- **Density** - specifies a minimum of 26 dwellings per hectare. This is the most ambitious of all states' targets and is consistent with levels likely to encourage walking, and to deliver better public transport services.
 - ▼ Only **2%** of Perth's suburbs meet this target.

How does Perth rate on the national liveability indicators?

Walkability was measured nationally using a variety of indicators, shown to influence walking for transport [7]. Our combined walkability score includes dwelling density, street connectivity and access to daily living destinations within 1.6 km walking distance of home. Also presented here are indicators of access to closest activity centre and dwelling density.

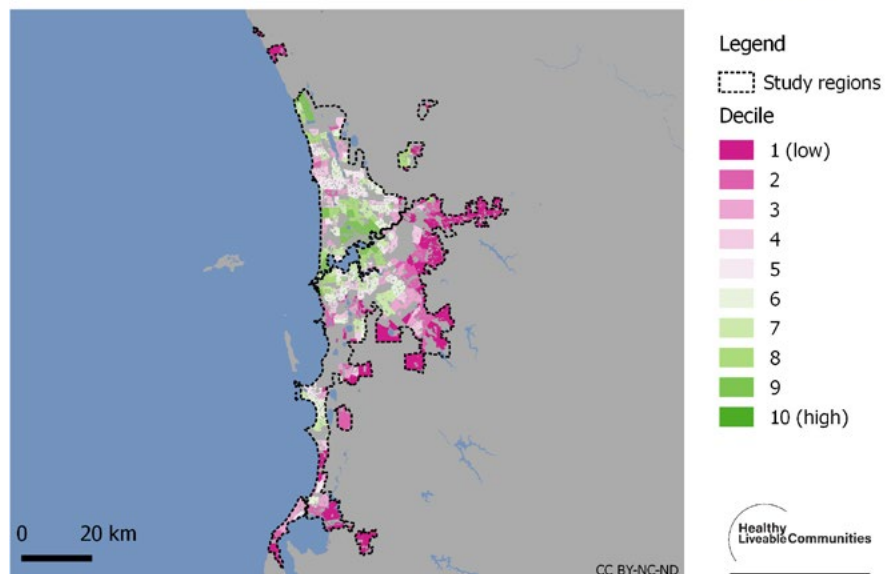
■ Walkability in Perth is best in the inner-city areas, and declines towards the urban fringe – a common pattern in Australian cities.

▲ However, unlike most other Australian cities, some areas in outer-suburban Perth are highly walkable. It shows that good urban policies, properly implemented, can create higher-density, mixed-use, walkable neighbourhoods in outer-suburban areas.

▼ Perth's dwelling density averages nearly **12 dwellings per hectare**, which is below that of Sydney (**18**), Melbourne (**14**) and Brisbane (**13**).

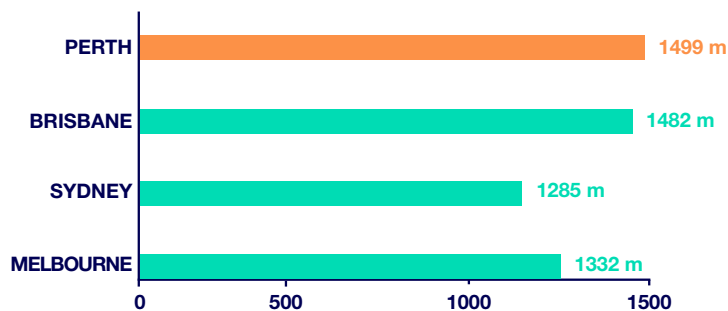
▼ On average, residences in Perth are **1.5 km from their closest activity centre** – this is similar to Brisbane (**1.5 km**) but further than those in Melbourne and Sydney (**1.3 km**).

Composite walkability indicator* for suburbs within Perth

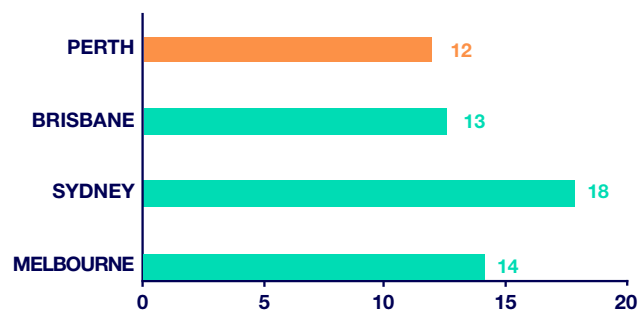


* decile score for the suburbs of Perth, combining street connectivity, dwelling density and daily living scores





Average distance in meters to the closest activity centre



Dwelling density (dwellings per hectare)

Public Transport

What does the policy say – and how well is it being implemented?

In Western Australia, the Liveable Neighbourhoods policy requires **60%** of Perth residences to have nearby access to public transport: 400 m to a bus stop, or 800 m to a train station. It does not include a target for frequency of service.

This is the least ambitious target, compared with targets of **90%** in Brisbane and **95%** in Melbourne. Sydney has the most ambitious target at **100%** for both proximate and frequent services.

▲ **64%** of residences in Perth achieve nearby access to public transport.

▼ However, only **54%** of suburbs meet the 60% policy target. Perth's outer north and outer east have the lowest level of public transport access.

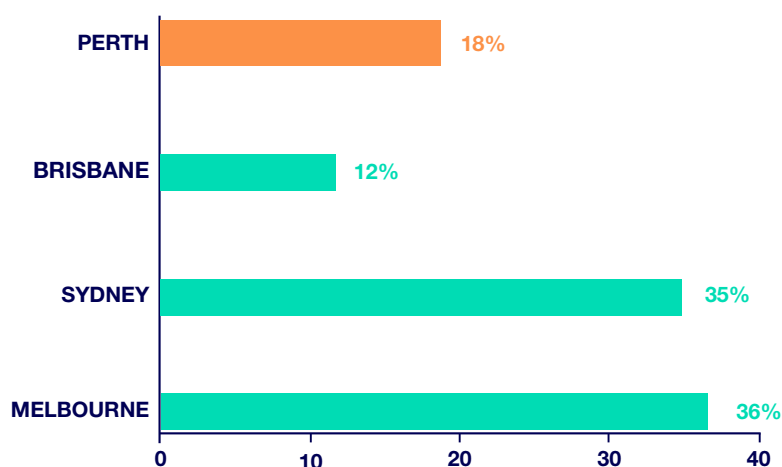
How does Perth rate on the national liveability indicator?

We measured public transport nationally using an indicator that combined public transport access with the frequency of service:

- percentage of residences within 400 m of a public transport stop with a scheduled service at least every 30 minutes between 7 am and 7 pm on a normal weekday.

This is a stronger predictor of walking for transport than access alone [8].

■ Only **18%** of Perth residences meet this national indicator, which is substantially lower than Melbourne (**36%**) and Sydney (**35%**), but higher than Brisbane (**12%**).



Percentage of residences within 400 m of a public transport stop with a service at least every 30 mins

Public Open Space

What does the policy say — and how well is it being implemented?

In Western Australia, the Liveable Neighbourhoods policy combines proximity and size of public open space, with desirable distances from residences varying by size.

The policy requires ‘most’ residences (more than 50%) be within 400 m of **local** public open space that measures between 0.4 hectare and 1 hectare in size.

■ 40% of residences and 32% of suburbs meet the target for **local** public open space.

The policy also requires ‘most’ residences (more than 50%) be within 800 m of a **neighbourhood** public open space (between 1 hectare and 5 hectares in size), and within 2 km of a **district** public open space (between 5 hectares and 20 hectares).

▲ 89% of residences and 88% of suburbs meet the target for **neighbourhood** public open space.

▲ 76% of residences and 70% of suburbs meet the target for **district** public open space.

Perth also has a relatively new proposed requirement that 100% of residences have access to public open space within 300 m.

▼ Only 64% of residences and one suburb meet this new target. Nevertheless, there is no evidence that this level of access in suburban settings is health-promoting and this policy should be monitored for its impact.

How does Perth rate on the national liveability indicators?

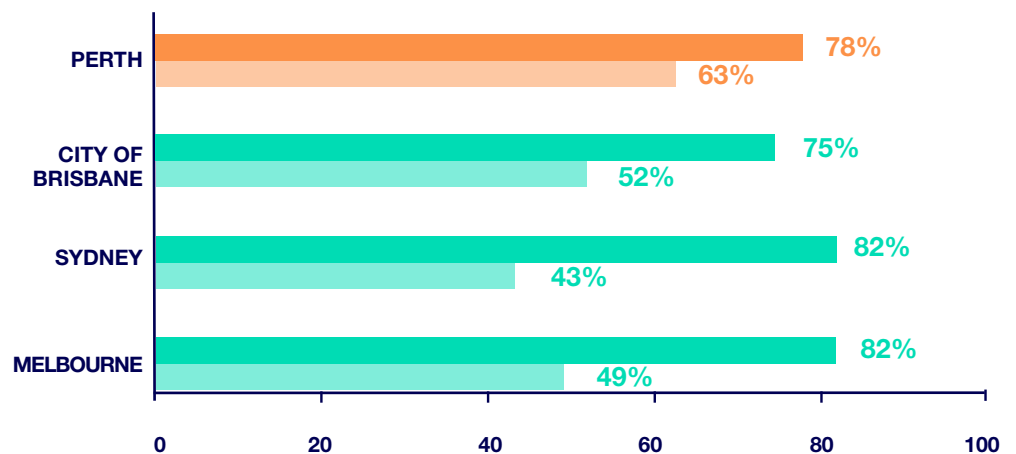
We measured public open space nationally using two indicators:

- access to a public open space within 400 m
- access to a public open space larger than 1.5 hectares within 400 m.

The latter indicator is based on evidence that smaller parks do not necessarily encourage physical activity or improve mental health [9].

■ 78% of residences in Perth are within 400 m of a public open space of any size, behind that of Melbourne and Sydney (82%) but higher than City of Brisbane (75%).¹

▲ 63% of residences in Perth are within 400 m of a public open space larger than 1.5 hectares, which is higher than City of Brisbane (52%), Melbourne (49%) and Sydney (43%).



Top bar: Percentage of residences within 400 m of a public open space
Bottom bar: Percentage of residences within 400 m of a public open space larger than 1.5 hectares

¹ In Brisbane, public open space data was only available for the City of Brisbane.

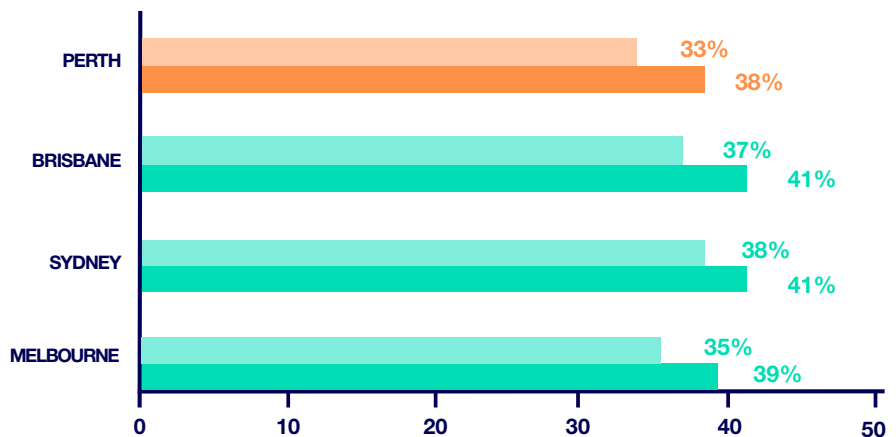
Housing Affordability

What does the policy say?

At the time of the review, we found no measurable spatial policy standards about housing affordability in Western Australia.

How does Perth rate on the national liveability indicator?

We measured housing affordability nationally using the 30/40 housing affordability measure. This identifies households in the bottom 40% of income that spend more than 30% of their total income on housing. The 30/40 measure is a well-known indicator of housing affordability [10], and is associated with poorer self-rated health, higher community dissatisfaction, and residents feeling unsafe [11].



Percentage of households in the bottom 40 percent of the income distribution spending more than 30 percent of household income on housing costs

Top Bar: 2011; Bottom Bar: 2016

Based on 2016 Census data, 38% of lower-income households in Perth are

experiencing housing affordability stress. In Perth, like most other cities, housing affordability has declined between the 2011 and 2016 Census, and suburbs with the highest levels of housing stress tend to be on the urban fringe.

Employment

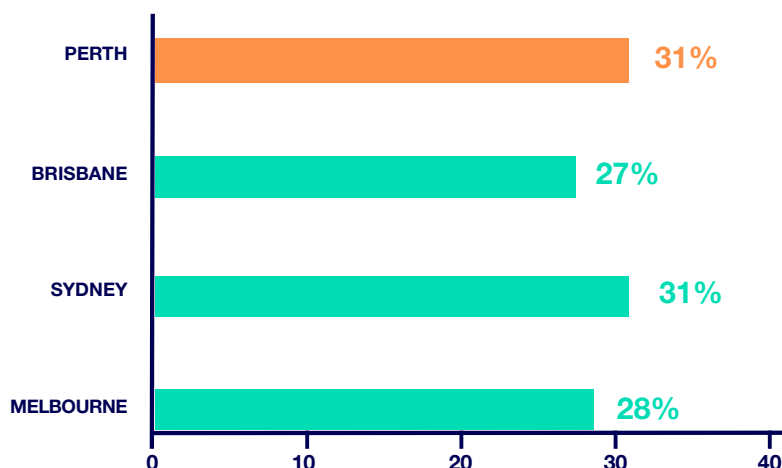
What does the policy say?

At the time of the review, we found no measurable spatial policy standards about providing employment in local areas or encouraging public and active transport to work in Western Australia.

How does Perth rate on the national liveability indicators?

We measured employment nationally using two indicators:

- percentage of employed people living in a small local area (Statistical Area 2) working in the broader local area (Statistical Area 3)



Percentage of employed people living in SA2 and working in the broader SA3

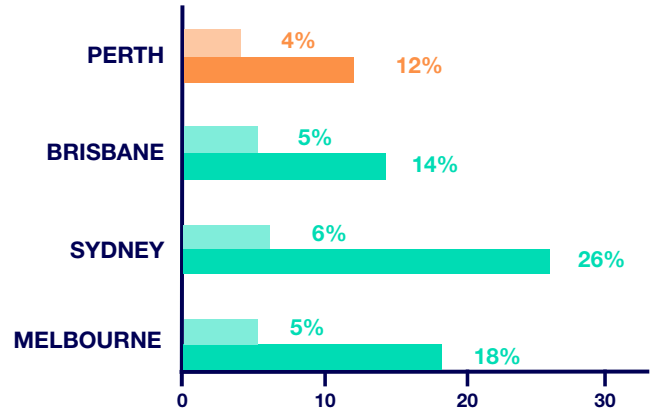
- percentage of employed people using active transport (walking, cycling) or public transport to travel to work.

Based on 2016 Census data:

▲ **31%** of employed people in Perth live and work in their broader local area (i.e., Statistical Area 3), which is higher than in Melbourne (**28%**), Brisbane (**27%**) and Sydney (**31%**).

▼ However, compared with other states, Perth has the lowest proportion of employed people using active (**4%**) or public transport (**12%**) to travel to work.

Given that over one third of employed Perth residents live and work in their broader local area, there is an opportunity to increase active and public transport journeys to work.



Method of travel to work for employed people aged 15 and over

Top bar: Percentage using active transport
Bottom bar: Percentage using public transport

Food Environment

What does the policy say?

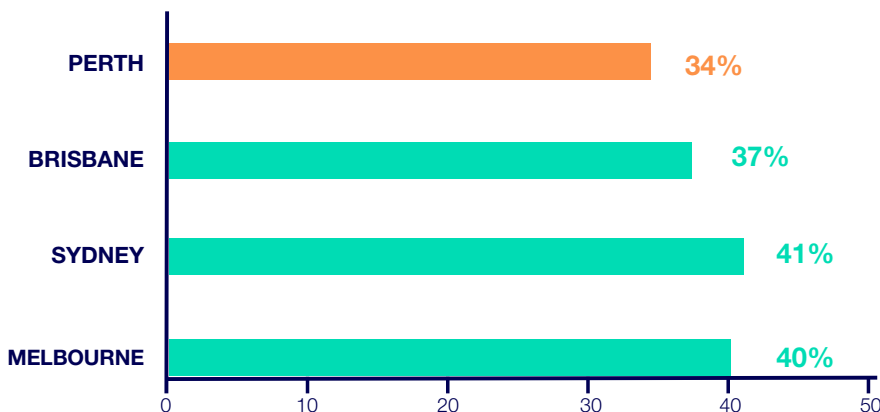
At the time of the review, we found no measurable spatial policy standards about creating a healthy food environment in Western Australia.

How does Perth rate on the national liveability indicators?

We measured the food environment nationally using two indicators:

- access to a supermarket within 1 km
- the ratio of healthy food outlets to fast food outlets.

Our previous research found modest increases in body mass index in people living in areas with healthy food ratios less than **75%** [8, 12].



Percentage of residences within 1 km of a supermarket

▼ Only **34%** of residences in Perth are within 1 km of a supermarket, which is lower than Sydney (**41%**), Melbourne (**40%**) and Brisbane (**37%**).

■ Perth has a healthy food ratio of **46%**, which is similar to other cities. This means just over half of all food outlets located within 3.2 km of homes are fast food outlets.

▼ In Perth, just **6%** of suburbs have a healthy food ratio of less than **75%**. This means these suburbs have better access to healthy food relative to fast food outlets.

Alcohol Environment

What does the policy say?

At the time of the review, we found no measurable spatial policy standards about moderating alcohol accessibility in Western Australia.

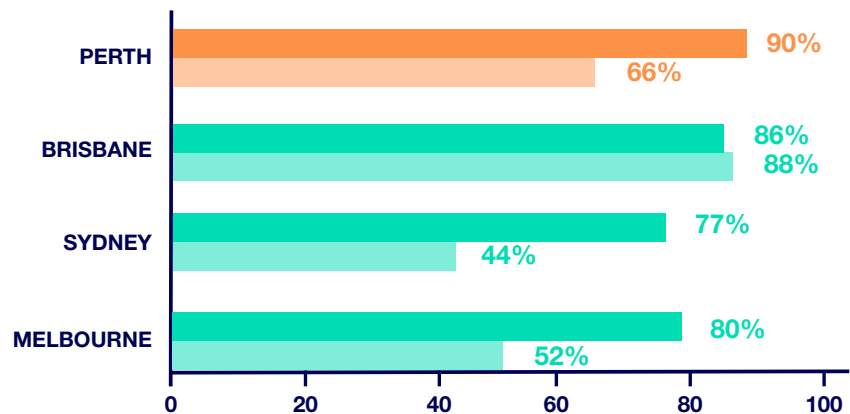
How does Perth rate on the national liveability indicators?

We measured the alcohol environment nationally using two indicators:

- percentage of residences without access to on-licence outlets (places that serve alcohol on premises, such as pubs, bars and restaurants) within 400 m
- percentage of residences without access to off-licence outlets (bottle-shops and other places that sell take-away alcohol) within 800 m.

▲ **90%** of residences in Perth are **not** within 400 m of an on-licence alcohol outlet. This is higher than Brisbane (**86%**), Melbourne (**80%**) and Sydney (**77%**).

■ **66%** of Perth residences are **not** within 800 m of an off-licence alcohol outlet. This is much lower than Brisbane (**88%**)², but higher than Melbourne (**52%**) and Sydney (**44%**).



Top bar: Percentage of residences without access to an on-licence within 400 m
Bottom bar: Percentage of residences without access to an off-licence within 800 m



² Unlike in other states, there is only one liquor licence category for off-licence alcohol outlets in Queensland: commercial hotels - which allow for up to three detached shops to be operated away from the main premises. This likely under-represents the number of outlets available, with many of these detached shops missed from the analysis.

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Creating liveable cities in Australia: A scorecard and priority recommendations for Western Australia

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The full *Creating Liveable Cities in Australia* (2017) report can be found at:

<http://cur.org.au/project/national-liveability-report/>

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