



City of Melville
Public Spaces Strategy

February 2017

Revision	Document No.	Date	Description of Change	Revised by (Document Owner)	Approved by (Director)	Date approved
5		13 January 2017	Updated information	Dean Cracknell	Steve Cope	
Final		21 February 2017	Noted by Council in adopting the Policy CP103 – Improving Public Spaces	Dean Cracknell	Steve Cope	24 February 2017

Plans / Policies / Frameworks:

- People, Places, Participation: A Strategic Community Plan for the City of Melville 2016-2026
- Corporate Planning and Strategy Framework
- Corporate Business Plan 2017-2021
- Natural Areas Asset Management Plan
- Health and Wellbeing Strategy 2014-2017
- Path Policy (CP-033)
- Physical Activity Policy (CP-028)
- Public Health Wellbeing Policy (CP-040)
- Street Tree Policy (CP-029)
- Urban Forest and Green Space Policy (CP-102)
- Verge Treatment Policy (CP-086)
- Urban Forest Strategy (under development)

Procedures: N/A

Review: Following adoption, this strategy will be reviewed every five years

Table of Contents

Table of Contents.....	3
Figures.....	6
Maps.....	7
Tables.....	7
Executive Summary	8
The Public Spaces Strategy at a Glance	11
1. What are Public Spaces?	15
2. Why are Public Spaces Important?	16
3. Why is a Public Spaces Strategy Required?	17
4. Strategic Alignment.....	18
5. Objectives of the Strategy	20
6. Strategic Context	21
6.1 Population and Demographic Change.....	22
6.2 Liveable Neighbourhoods	26
7. Planning for Public Spaces	27
7.1 What Makes a Great Public Space?	27
7.2 An Improved Approach to Planning for Public Spaces	28
7.3 Public Open Space Review 2004.....	29
8. Classifying Open Space.....	30
8.1 Sport Spaces	31
8.2 Recreation Spaces.....	31
8.3 Nature Spaces	32

8.4	Regional Open Space.....	32
8.5	District Parks.....	32
8.6	Neighbourhood Parks	32
8.7	Local Parks.....	33
8.8	Small Parks, Piazzas and Urban Spaces	33
8.9	Streets as Public Spaces	34
9.	Quantity of Public Space.....	38
9.1	Background.....	38
9.2	How Much Public Space Do We Have?	38
9.3	What the Inventory of Public Spaces Tells Us.....	47
10.	Quality of Public Space.....	48
11.	Strategy Responds to Community Feedback	50
12.	Challenges to Address	56
12.1	Physical Health Issues.....	56
12.2	Mental Health and Social Inclusion Issues	61
12.3	An Ageing Population	63
12.4	Providing Sports Spaces.....	64
12.5	Constraints on Purchasing More Land for New Public Spaces.....	65
12.6	Climate Change	67
12.7	Reduced Water Availability	70
12.8	Greening of the City	72
12.9	Traffic Safety Concerns	73
13.	Opportunities to Improve.....	76

13.1	Increase the Amount of Effective Public Space without Purchasing Expensive Freehold Land	76
13.2	Upgrade Underutilised Public Spaces	77
13.3	Promote Walking and Cycling	78
13.4	Respect and Celebrate Aboriginal Culture and History	79
13.5	Improve Water Management.....	81
13.6	Encourage a Mix of Different Activities and Public Space Users	83
13.7	Create Friendly Neighbourhoods	84
13.8	Support Play Streets	85
13.9	Encourage Verge Gardens	86
13.10	Prepare Park Assessments	87
13.11	Improving Natural Areas.....	89
14.	Funding.....	90
15.	Conclusion.....	91
16.	Principles to Guide Future Decisions and Projects.....	92

Figures

Figure 1 – Strategic Framework	18
Figure 2 – Estimated Resident Population by Year	22
Figure 3 – Age Structure by Group in City of Melville	23
Figure 4 – Household Type in the City of Melville in 2011	24
Figure 5 – Change in Households in City of Melville 2006-2011	24
Figure 6 – Comparison of the Previous and New Approaches to Public Spaces Strategies	29
Figure 7 – Streets as Links and Places	35
Figure 8 – Community Wellbeing Survey 2015 Feedback on the Range of Open Spaces.....	51
Figure 9 – Community Feedback Regarding Public Spaces.....	52
Figure 10 – Community Satisfaction with Parks and Public Spaces in 2016.....	53
Figure 11 – Community Satisfaction with Sport and Recreation Facilities in 2016.....	54
Figure 12 – Community Satisfaction with Natural Bushland in 2016.....	55
Figure 13 – Percentage of City of Melville Residents Undertaking Moderate Physical Exercise for at least 30 minutes	59
Figure 14 – Percentage of City of Melville Residents Undertaking Vigorous Intensity Physical Exercise for at least 15 minutes	59
Figure 15 – Projected Change in Age Structure in City of Melville.....	63
Figure 16 – Australian Climate Influences.....	67
Figure 17 – Annual Mean Temperature Anomaly – South Western Australia 1910-2015	68
Figure 18 – Annual Rainfall in Millimetres at Perth Airport 1944-2015.....	69
Figure 19 – Cycling and walking shares of urban trips in Australia, Europe, Canada and United States of America	73
Figure 20 – Probability of a Fatal Injury for a Pedestrian or Cyclist Hit by a Motor Vehicle	74
Figure 21 - Feelings of Safety Using Different Cycling Infrastructure.....	75

Maps

Map 1 - City of Melville Suburbs.....	21
Map 3 – Future Population Growth ‘Hotspots’	25
Map 2 – Population Density (Persons per Hectare) in 2011	25
Map 4 – Indicative Public Spaces in the City of Melville	43
Map 5 – Indicative Public Spaces and 400 metre Walkable Catchments in the City of Melville	44

Tables

Table 1 – Inventory of Public Spaces in the City of Melville.....	39
Table 2 – POS Tool Park Categories Compared with Department of Sport and Recreation Categories.....	40
Table 3 – Comparison of Public Space Quantities in Comparable Inner Urban and Neighbouring Local Governments.....	41
Table 4 – Distribution of Public Spaces in the City of Melville.....	42
Table 5 – Inventory of Key Facilities in City of Melville Parks	46

Executive Summary

High quality public spaces are vital components of healthy and liveable neighbourhoods. 'Public open space', which has often just been seen as parks and reserves, is referred to more broadly as 'public space' in this Strategy. It is critical that the funding available for public spaces is utilised effectively and efficiently to deliver best value for the community.

This Public Spaces Strategy (the Strategy) is intended to provide a clear strategic direction and inform future decision-making on the best ways to improve public spaces in the City of Melville (the City). The Strategy:

- Assess the amount of public space available to the community
- Identifies current and emerging challenges
- Highlights opportunities to improve public spaces
- Outlines guiding principles to inform future projects and actions

Improving public spaces is a top priority for the City as an organisation according to community feedback informing *People, Places, Participation: A Strategic Community Plan for the City of Melville 2016-2026*. A total of 1,367 people responded to a survey and 89% of respondents said that parks, reserves and natural areas were very or fairly important priorities. Public spaces are very important for the community.

An independent assessment by POS Tool¹ calculated that public spaces occupy 25.8% of the City's total area, which does not include other public spaces, such as club pay-for-use facilities and pedestrian-friendly streets. The City has more available public space than most comparable, inner-urban local governments in Perth. The City's Community Wellbeing Survey 2015 found that 90.5% of local residents agreed that the City has a sufficient range of open spaces for leisure activities.

¹ www.postool.com.au – University of Western Australia



The City has made substantial commitments to improving public spaces in recent years, including the new Carawatha Park in Willagee (pictured above) and Ogilvie Road Reserve in Mount Pleasant (pictured below).



The Strategy responds to community feedback and finds that the main issue is not a lack of overall public space, but rather how to best improve public spaces in the City.

It recommends that the City prioritise improving the **quality, useability, amenity, comfort, sustainability, variety, safety** and **accessibility** of public spaces over the purchase of expensive freehold land for additional parklands. It is recommended that the City only purchase freehold land for additional parkland if:

- The identified needs of the local community are unable to be met by improving the quality, useability, amenity, sustainability, variety, safety and accessibility of existing public spaces;
- A cost effective opportunity arises; or
- Existing local public spaces are demonstrably suffering from over-utilisation.

Purchasing expensive freehold land is not the only way to increase the amount of public space. There are cheaper and more innovative ways to increase the amount of available public space highlighted in the Strategy.

The Strategy supersedes the previous City of Melville 2004 Public Open Space Review and is informed by important State Government documents such as *Liveable Neighbourhoods* and *Healthy Active by Design*.

It also reviews the relevance of the Western Australian Planning Commission's (WAPC) *Development Control Policy – Public Open Space in Residential Areas*, which applies a general 10% public open space requirement for new subdivision on greenfields (vacant) sites. The 10% requirement is not intended to be retrospectively applied to older areas that were surveyed and subdivided prior to 1955.

The identified approach is considered to be the most effective way to improve public spaces and enhance community wellbeing for today and tomorrow.



A new high quality public space has been created on the corner of Davis and Lawlor Roads, Attadale.



Example of a pedestrian-friendly street in Applecross Village

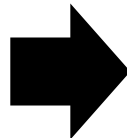
This page is intentionally blank.

The Public Spaces Strategy at a Glance

Purpose: To provide a clear direction and inform future decision-making on the best ways to improve public spaces in the City of Melville.

The Challenges:

- Physical and mental health issues are increasing in the community
- Perth's population is growing and ageing
- The community's expectations and aspirations are changing
- There is limited space for new sports reserves
- There are significant constraints on purchasing more freehold land for additional parklands
- There are financial limitations to spending more public money
- Climate change and reduced water availability will require changes to current management approaches
- Traffic concerns limit the amenity and safety of walking and cycling



Ways to Improve:



This page is intentionally blank.

Summary of Principles to Guide Future Decisions and Projects

The principles to guide future decision-making are:

1. Pedestrian-friendly streets are important public spaces.	37
2. Improvements to the quality, amenity, safety, comfort, accessibility, useability and sustainability of public spaces will help to create a more liveable city.	49
3. Physical health outcomes can be improved by making it easier for people to walk, cycle and be physically active.	60
4. Mental health outcomes can be improved by designing public spaces to encourage social interaction and activities.....	62
5. Public spaces should be accessible and comfortable for seniors.	64
6. Use a best value for money approach to improving public spaces. Purchasing expensive freehold land is generally not the most cost effective way to improve public spaces for the community.	66
7. Reducing vehicle speeds in activity centres and residential areas can improve safety and help promote walking and cycling.	75
8. Underutilised public spaces provide opportunities to improve their quality, useability and amenity.	77
9. Prioritise upgrades to walking and cycling connections to/between activity centres, schools, key public transport routes and parks...	78
10. Respect and celebrate Aboriginal culture and history in public spaces.....	80
11. Utilise water sensitive urban design in parks, drainage basins and streetscapes wherever possible.....	82
12. Attract a range of people to public spaces by providing a variety of activities and amenities.	83
13. Encouraging Community Play Streets can temporarily increase the amount of local public space in an area.	85
14. Encouraging verge gardens can help to create greener and more pedestrian-friendly streets.....	86
15. Natural area upgrades can improve environmental and social outcomes.	89

This page is intentionally blank.

1. What are Public Spaces?

High quality public spaces are important components of healthy and liveable neighbourhoods. 'Public open space', which has often just been seen as parks and reserves, is referred to more broadly as 'public space' in this Strategy.

'Public spaces' include all publicly-accessible land that could be used for sport, recreation, nature conservation, green spaces, exercise, water management, passive outdoor enjoyment and social activities. Examples of public spaces include parks, local or regional reserves, river foreshores, bushland areas, publicly-accessible school ovals, footpaths, cycle paths, publicly-accessible rooftop gardens, parklets² and streets that are or could be made more pedestrian-friendly. This definition is consistent with State Government documents, such as the draft *Liveable Neighbourhoods 2015*, *Public Open Space Strategy Guide for Local Governments* and *the Classification Framework for Public Open Space*. The public space definition recognises the wide range of benefits that public spaces provide and the way spaces are used by the community. For example, local streets and footpaths are reported as the most frequently used facilities among Western Australian adults for physical activity³, but were not considered in previous public open space strategies.



Kadidjiny Park, Melville

Kadidjiny Park is a popular park that incorporates natural, play, social and recreation elements.



Wireless Hill, Ardross

Wireless Hill is a significant natural, cultural, historical and recreation reserve.



Applecross Village, Applecross

Streets are important social, economic, recreational and tourism assets.

² A parklet is a space along a street set up to provide seating, greenery and place for people to meet.

³ Healthy Active by Design <http://www.healthyactivebydesign.com.au/design-features/movement-network>

2. Why are Public Spaces Important?

The character and image of a city or an area is often defined by its public spaces. Parks, reserves, public spaces and natural areas (or lack thereof) affect our wellbeing and quality of life. They provide a wide range of benefits, including, but not limited to: health, social, environmental, economic and spiritual benefits. They offer spaces for exercise, recreation and social interaction, habitat protection and water management. The world's most liveable cities such as Melbourne, Vienna and Vancouver have high quality streets and public spaces.

Improving public spaces is a top priority for the City as an organisation according to community feedback informing *People, Places, Participation: A Strategic Community Plan for the City of Melville 2016-2026* (Community Plan). A total of 1,367 people responded to the survey and 89% of respondents said that parks, reserves and natural areas were very or fairly important priorities, which was the highest-ranked priority along with being fit and healthy. Public spaces are very important for the community.



Harry Sandon Reserve, Attadale

Harry Sandon Reserve has retained native bushland and includes walking paths and play equipment.



Chamberlain Circle Reserve, Bateman

This 'small' park provides play equipment, grassed areas and trees for local residents.



Nature Play area, Palmyra

The local community created this nature play area in the Solomon/Justinian Park in Palmyra through Project Robin Hood.

3. Why is a Public Spaces Strategy Required?

The City needs a new strategy to guide public space decision-making and priorities. The previous Public Open Space Review 2004 reviewed the 1995 ERM Mitchell McCotter – City of Melville Open Space Report. These reports need to be updated to reflect the current context and anticipated future changes. It will also support the City's Local Planning Strategy.

This Strategy provides recommendations on how public spaces can best be improved for the benefit of the whole community. It is a considered approach to planning for public spaces based on the local context, current and emerging issues and potential opportunities. It can help avoid ad hoc decision-making and provide a plan for the future. It will help guide future projects and initiatives.



Ogilvie Road Reserve, Mount Pleasant

The City purchased this site from the Water Corporation and created a new local park for the community.



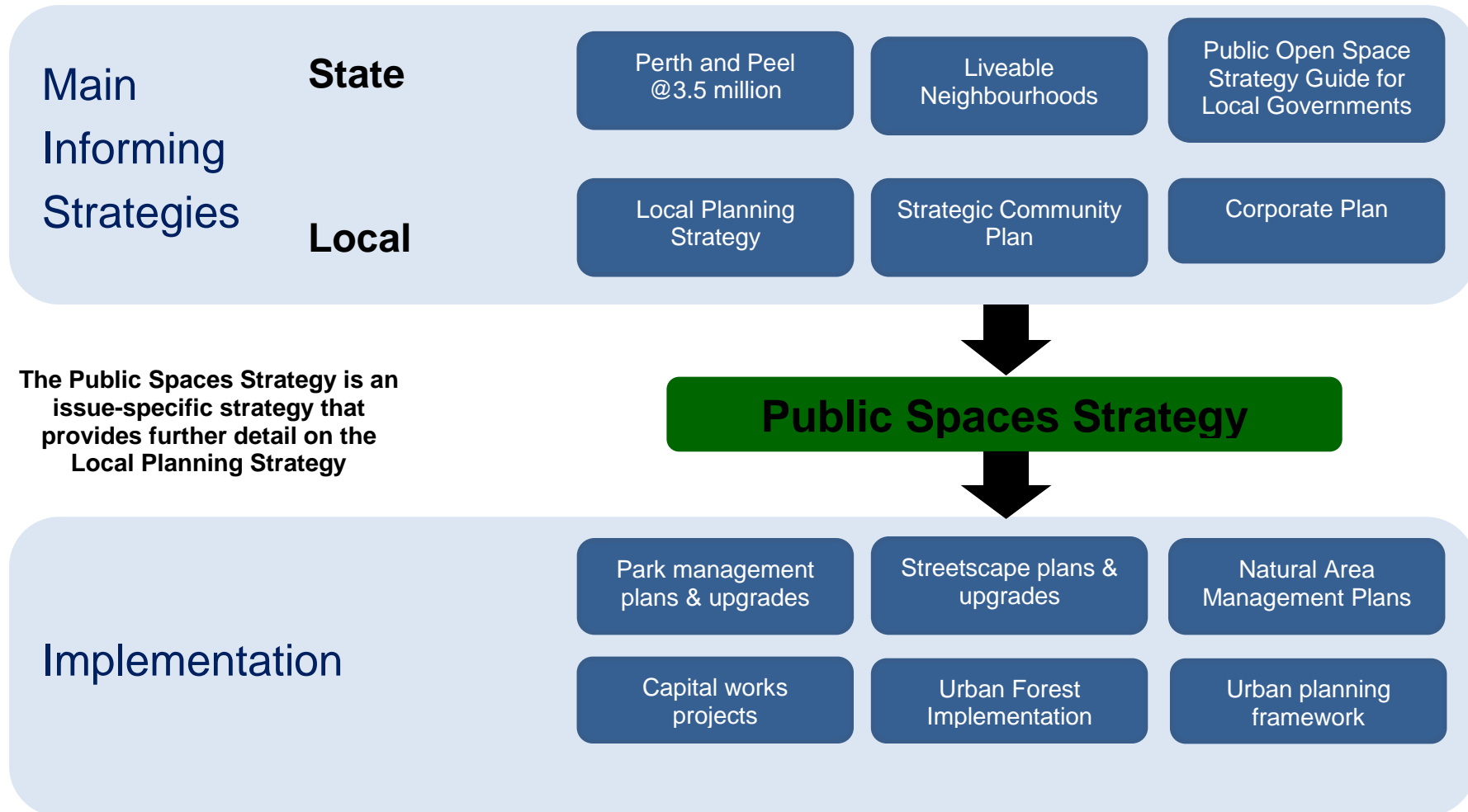
Former Bicton Sub-Station Park, Bicton

The City purchased this site from Western Power and created a new local park for the community.

4. Strategic Alignment

This Strategy fits into the State and local strategic framework as summarised in Figure 1 below.

Figure 1 – Strategic Framework









The City's Community Plan is a long-term overarching document that sets out our community's vision and aspirations for the future. It also sets out the key strategies and actions required to achieve these aspirations. The Community Plan identifies how we will get from where we are now to where we want to be.

The community's vision is:

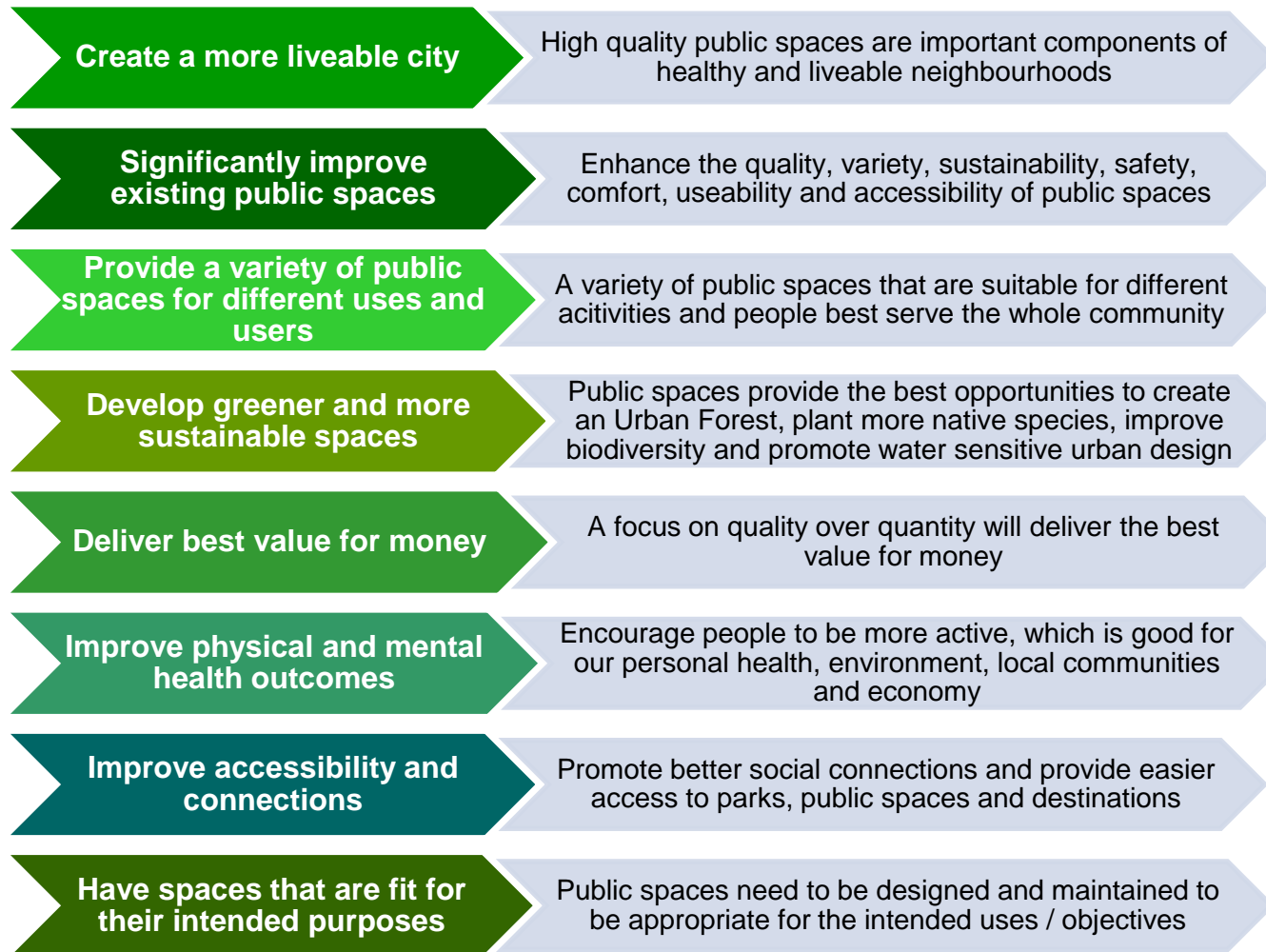
A safe City with green, leafy streets, suburbs and open spaces where people enjoy high levels of health and wellbeing, participate in local events and activities; have access to community services and local business opportunities are encouraged.

This Strategy responds to the community's vision and the aspirations in the plan.

Aspirations		Objectives	
Clean and Green		Clean and well-maintained parks, reserves, natural areas and public open spaces where everyone can socialise, be active and be safe	← This aspiration relates to providing green, high quality public spaces suitable for everyone
Sustainable and connected transport		Better public transport, cycling and walking infrastructure and responsive traffic management	← This aspiration relates to improving accessibility and connections
Growth and prosperity		Encourage development of small businesses in our suburbs and local communities	← Improving the amenity of streetscapes and the walking and cycling environment can directly assist this aspiration
Sense of community		A range of local community services, events and cultural activities throughout the year for people to get to know one another and do things together	← This aspiration relates to providing public spaces for a variety of uses and users, building social connections and the sense of community
Healthy lifestyles		Opportunities for healthy activities both indoors and out and about in local parks and suburbs walking, running, cycling and exercising individually or in groups	← This aspiration relates to improving physical and mental health outcomes
Safe and secure		People feel safe and secure at all times wherever they are and whatever they are doing	← This aspiration relates to improving the safety of streets and public spaces

5. Objectives of the Strategy

The objectives of this Strategy are to:



6. Strategic Context

The City of Melville is bounded by the Swan and Canning Rivers, the Cities of Canning, Cockburn, Fremantle and the Town of East Fremantle. The City's eastern boundary is located approximately 8 kilometres from the Perth Central Business District, includes the 18 suburbs and covers an area of approximately 52.72 square kilometres. The suburbs within the City are shown in Map 1.

Map 1 - City of Melville Suburbs



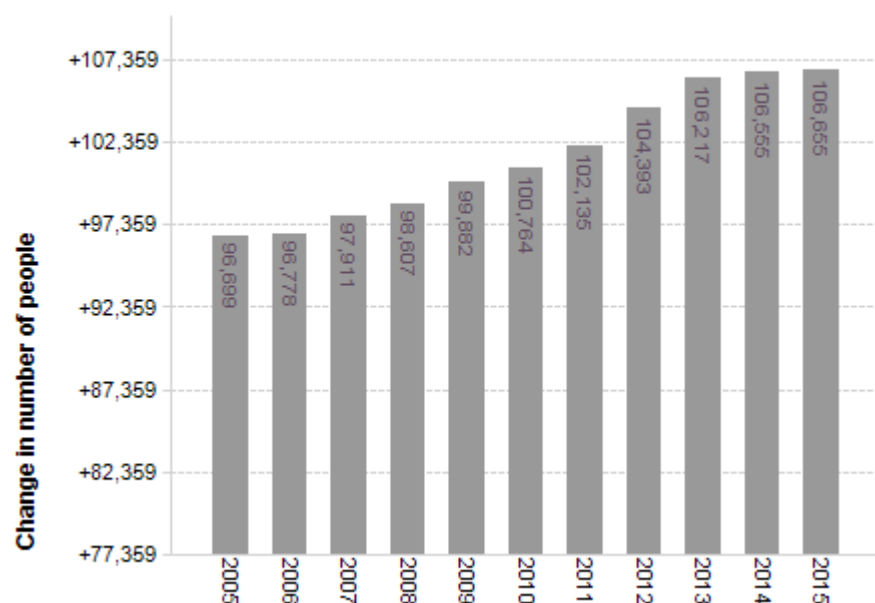
6.1 Population and Demographic Change

The City had a total estimated population of 106,655 in 2015 (.id Profile) with a median age of 40 (compared with a median age of 36 for Perth metropolitan area).

The Western Australian Planning Commission (WAPC) has set a target for the City to plan for an additional 11,000 dwellings by 2031 and 18,500 new dwellings by 2050, starting from the base year of 2011. Based on the current average of 2.5 persons per dwelling, the potential population of the City would be around 133,500 people in 2031⁴, which would be an overall growth rate of approximately 25%.

Figure 2 – Estimated Resident Population by Year

Estimated Resident Population, City of Melville

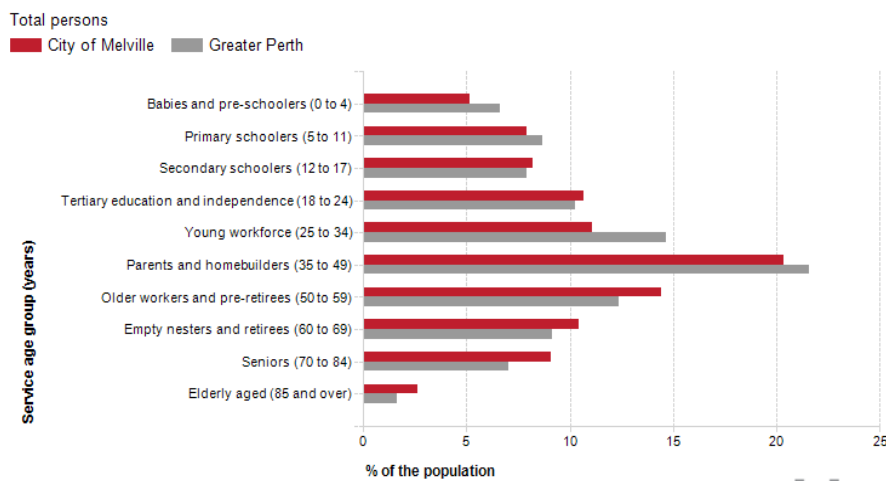


Source: Australian Bureau of Statistics, Regional Population Growth, Australia (3218.0) compiled by .id Profile

⁴ Assumes that 500 dwellings were constructed between the base year of 2011 and 2014, meaning that an additional 10,500 dwellings need to be constructed by 2031.

The City's population is ageing and is older on average than the rest of metropolitan Perth.

Figure 3 – Age Structure by Group in City of Melville



Source: Australian Bureau of Statistics 2011 Census data complied by .id Profile

The City of Melville had a much lower proportion of the 'young workforce' aged 25 to 34 in 2011 with 11.1% of the total population compared with 14.7% for all of Perth. However, this cohort increased significantly in the City between 2006 and 2011 adding 1,229 people over five years.

The City had a higher proportion of people aged 50 and above in 2011 comprising 36.6% of the total population compared with 30.2% for metropolitan Perth. The 'empty nesters and retirees' cohort aged 60 to 69 saw the biggest increase in the City with an additional 1,750 people between 2006 and 2011.

Future public spaces will need to provide for an ageing population and significantly more people aged 50 and above.

Figure 4 – Household Type in the City of Melville in 2011

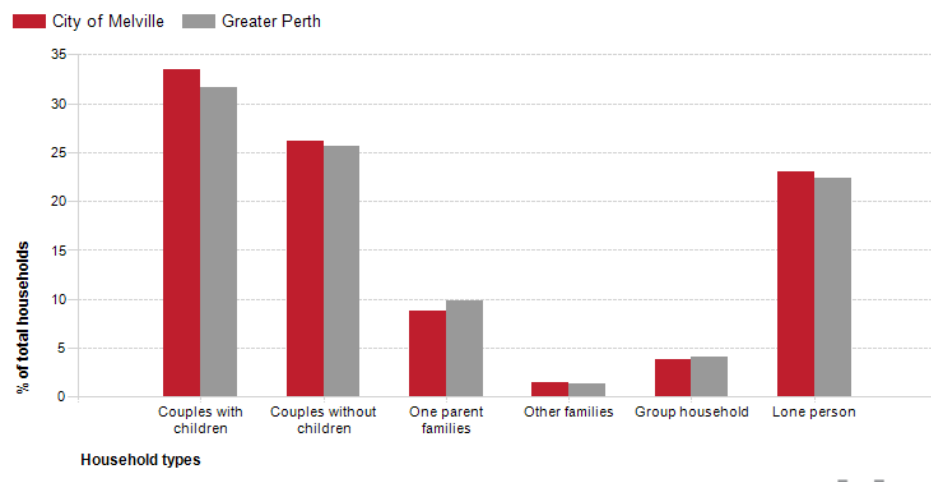


Figure 5 – Change in Households in City of Melville 2006-2011

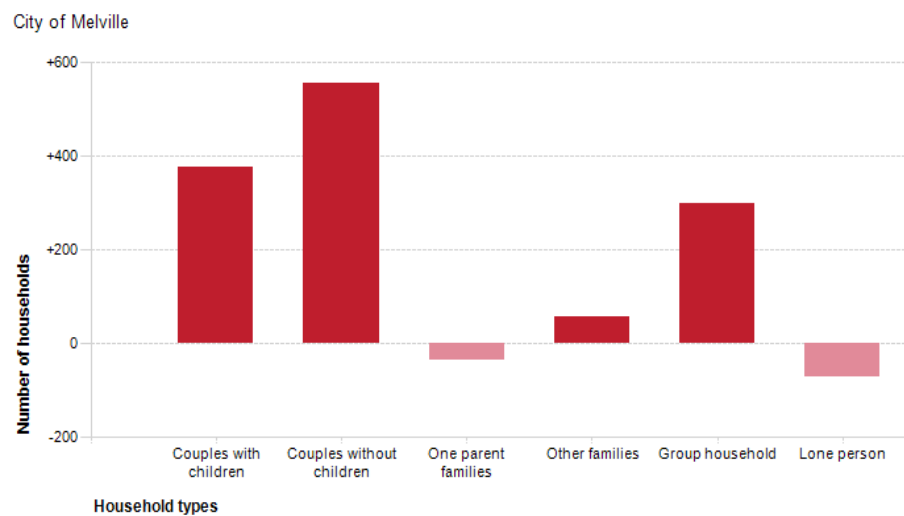
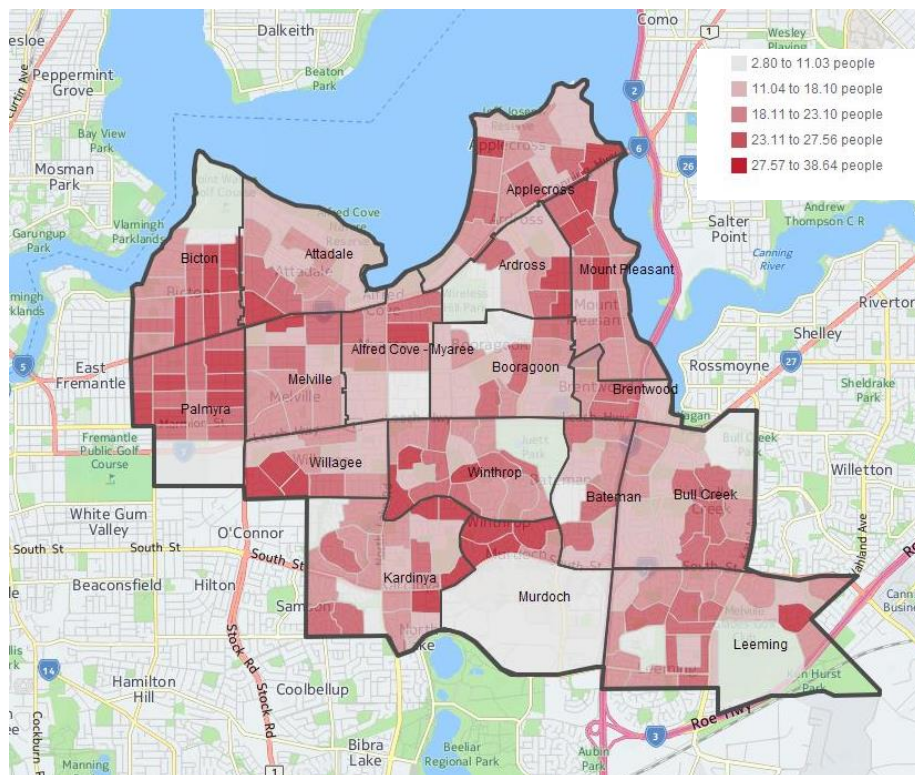


Figure 4 and 5 Source: Australian Bureau of Statistics 2011 Census data compiled by .id Profile

The household structure in the City is similar to Perth as a whole, comprising mainly of couples with children at home, couples without children and lone persons. Couples without children saw the biggest increase in numbers between 2006 and 2011, followed by couples with children as shown in Figure 5.

The population density is an important statistic to inform public space planning.

Map 2 – Population Density (Persons per Hectare) in 2011



Source: Australian Bureau of Statistics 2011 Census data by .id Profile

The highest population density in 2011 was in four areas: Attadale, Bicton and Palmyra in the west, around the Canning Bridge precinct and Mount Pleasant; Murdoch/Kardinya north of Murdoch University, where student share houses are common; and in western Willagee.

Map 3 – Future Population Growth ‘Hotspots’



Based on the City's Local Planning Strategy and Activity Centre Plans, the future population growth hotspots are expected around Canning Bridge, Murdoch, Melville City Centre, Willagee, Melville District Centre, Canning Highway and the Riseley Centre in approximate order of projected growth. These growth areas will help accommodate the additional 18,500 new dwelling expected in the City of Melville in the WAPC's *Towards Perth and Peel@3.5 Million* plans.

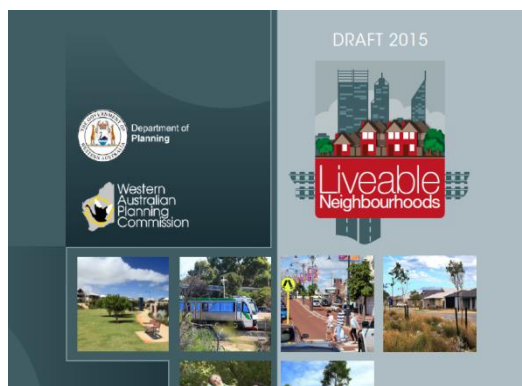
6.2 Liveable Neighbourhoods

Liveable Neighbourhoods is the WAPC's operational policy to guide the future development of the Perth and Peel region. The updated 2015 edition promotes sustainable, safe and 'liveable' communities; and walkable, accessible, attractive mixed-use neighbourhoods with interconnected street layouts supported by an efficient movement network. There is greater focus on local community needs being accessed by walking and cycling networks and local public transport, rather than over-reliance on the private car.

Liveable Neighbourhoods 2015 states that all publicly accessible lands can contribute to public spaces, even if even if they are not formally reserved as "Public Open Space" in a town planning scheme. For example, a regional sporting facility on regional open space could provide sporting opportunities, recreational opportunities such as a playground and barbeques, a walking path and water management.

Liveable Neighbourhoods states that public open space strategies are a crucial tool for local governments to guide delivery of public spaces for the community. Public open spaces provide opportunities for integrated water management and water sensitive urban design. Public open space should be designed and constructed in accordance with Water Sensitive Urban Design principles and design guidelines.

Liveable Neighbourhoods serves as a useful guide, but not all aspects are relevant for an established urban area such as the City of Melville. Some of it is more relevant in 'greenfields' areas where structure plans and large-scale subdivisions are occurring. Public spaces in the City have generally been around for a long time and it is not financially feasible to purchase large areas of land for new public parks.



Liveable Neighbourhoods Design Principles Relevant for this Strategy

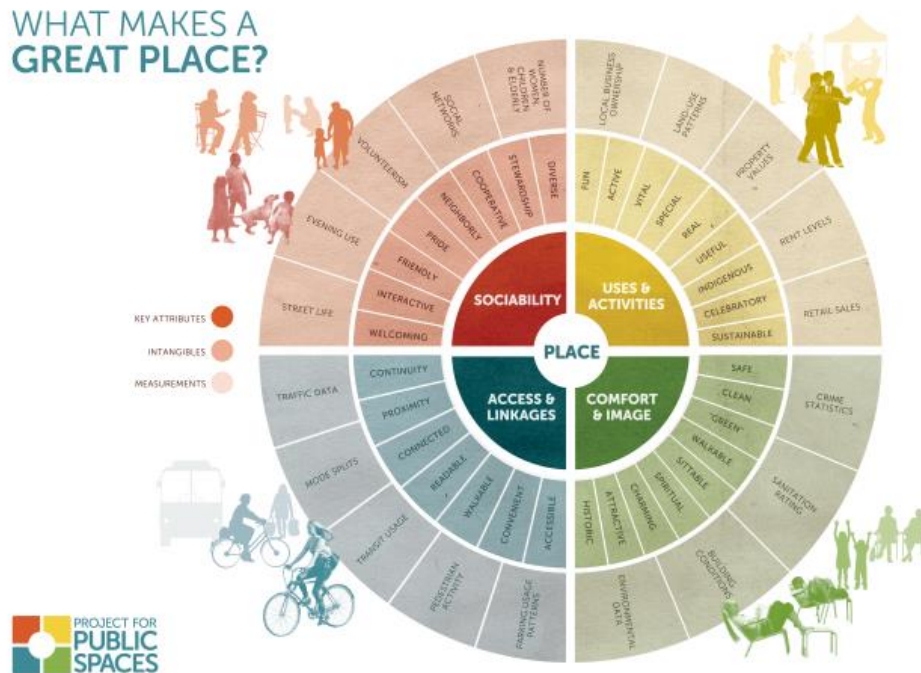
- Create a permeable street network that prioritises pedestrians, cyclists and public transport and is integrated with surrounding land use.
- Create a safe street environment for all users by applying appropriate street geometry design and traffic management.
- Coordinate the design and delivery of an integrated network of public open space that provides communities with access to nature, sport and recreation.
- Optimise the siting and design of public open space to promote accessible and efficient use of land.

7. Planning for Public Spaces

7.1 What Makes a Great Public Space?

Project for Public Spaces (PPS) is a world-leader in planning for and activating public spaces. For example, PPS helped to transform the Perth Cultural Centre from an area that was perceived to be unsafe, devoid of amenities and activities and was largely avoided to becoming one of Perth's great public places.

*In evaluating thousands of public spaces around the world, PPS has found that to be successful, they generally share the following four qualities: they are **accessible**; people are **engaged in activities** there; the space is **comfortable** and has a good image; and finally, it is a **sociable** place: one where people meet each other and take people when they come to visit.⁵*



Perth Cultural Centre has a program of activities and events to attract people to the space.

⁵ Project for Public Spaces - <http://www.pps.org/reference/grplacefeat/>

7.2 An Improved Approach to Planning for Public Spaces

The quality of public spaces is just as important as the quantity of public space.

Highly effective spaces generally offer multiple functions, so as to appeal to a wide range of users.⁶

The term ‘public open space’ (POS) has usually referred in technical terms to local public open space provided and maintained by the local government. POS has been classified as being different to Regional Open Space (ROS) reserved under the Metropolitan Region Scheme (a high-level planning scheme that applies across metropolitan Perth). Whilst there are some justifications for this approach at a strategic planning and subdivision level, the average person is not likely know the technical designation of their favourite park – they just want a place that is accessible, safe, interesting and useable.

All publicly accessible land can contribute to function, even if it is not a POS site.⁷

Public open space strategies have traditionally focussed primarily on the **quantity** of open space provided in a particular area. This has been benchmarked against the WAPC’s 10% requirement detailed in Development Control Policy 2.3 – Public Open Space in Residential Areas (DC Policy 2.3). The primary purpose of the WAPC requirements was/is to inform subdivision planning, not how to best manage existing public spaces in developed urban areas.

The traditional approach has placed little emphasis on the **quality, useability, amenity, sustainability, comfort, variety, safety and accessibility** of public open spaces. These factors are considered to be more important in the City’s case than quantity of public spaces we already have. Some of the most popular public spaces are small. A variety of spaces is critical and provides people with opportunities to choose different spaces depending on what they would like to do: play sport, have a barbeque with friends/family, walk the dog, relax, experience nature, read etc.

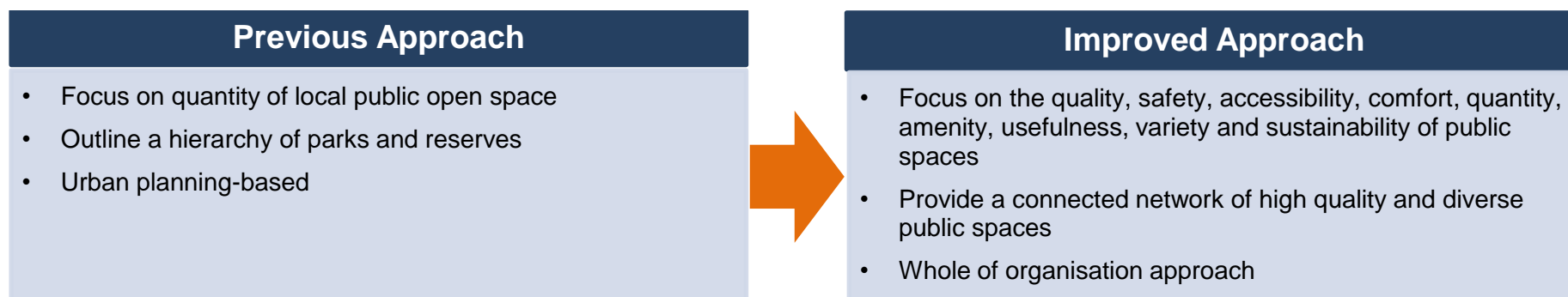
The conventional approach hasn’t acknowledged the opportunities that innovative public spaces could provide, including spaces such as: drainage basins (where there may be potential for water sensitive urban design, ecological outcomes, community use and/or improved amenity outcomes), civic spaces/squares (paved spaces), footpaths and recreational paths (that provide opportunities for walking, running and cycling plus social interaction) and even new mini-parks (such as rooftop gardens or parklets that could provide new social spaces).

This Strategy’s title deliberately refers to the plural “spaces” rather than singular “space” to differentiate it from the previous approach and include the wide variety of potential spaces that can be used for the public benefit. The new approach incorporates both the conventional approach to preparing a public open space strategy, as well as broadly examining the issues associated with the quality of spaces provided and the potential for innovative public open spaces. The new approach is contrasted with the previous approach in the Public Open Space Review 2004 below.

⁶ Draft Liveable Neighbourhoods 2015

⁷ As above

Figure 6 – Comparison of the Previous and New Approaches to Public Spaces Strategies



7.3 Public Open Space Review 2004

The City's Public Open Space Review 2004 reviewed the 1995 ERM Mitchell McCotter – City of Melville Open Space Report. It provided an inventory of parks and reserves across the City and identified the location, size, and quantity of reserves within “cells” of each suburb. The Review found that some cells have less than the 10% standard of public open space, but noted that this was not a standard to be retrofitted in to older suburbs laid out prior to the Stephenson Hepburn Plan of 1955 (which set the 10% figure). The Review was prepared in accordance with the relevant planning framework at the time. It did not assess other aspects such as quality, amenity, useability, sustainability, safety or accessibility of public open space. It also did not recognise footpaths, dual use paths etc as public space amenities.

A community survey at the time found that there was a good level of satisfaction by the community with the quality of parks within the municipality.

The Public Open Space Strategy 2004 is required to be updated because:

- It is now over 12 years old and based on a study originally completed in 1995
- It is based on a quantitative approach to planning for reserves and public open spaces that has been acknowledged in the draft Liveable Neighbourhoods 2015 as outdated and does not recognise that the quality, amenity, useability, sustainability, safety or accessibility of public spaces are all important to creating great public spaces for the community
- It is considered that with the benefit of a more holistic understanding of public spaces, there is an opportunity to consider funding the improvement of public spaces

This Strategy takes a “fresh look” at the challenges and opportunities based on the more holistic approach of Liveable Neighbourhoods and Healthy Active by Design.

8. Classifying Open Space

The Department of Sport and Recreation (DSR) prepared the peer-reviewed, cross-industry *Classification Framework for Public Open Space* (Classification Framework). The development of the framework involved extensive consultation with stakeholders in local and state government and is designed for use by professionals involved in public open space planning, design and management. The Classification Framework has been used to inform this Strategy in preference to previous approaches to classifying open space.

The draft *Liveable Neighbourhoods 2015* supports a more holistic approach to planning for public open spaces and states that:

“Highly effective spaces generally offer multiple functions, so as to appeal to a wide range of users. The identification of the function of a site does not need to align to site boundaries – a function may only cover a portion of the land area and this can be identified accordingly.

All publicly accessible land can contribute to function, even if it is not a (public open space) site. For example, a regional sporting facility on regional open space (ROS) providing sport opportunities, a Bush Forever site providing a nature function and a walking trail on an easement providing recreation opportunities.⁸

The Classification Framework contains two main categories – function and catchment hierarchy:

Function (primary use and expected activities) identifies three primary functions for open spaces:

- Sport spaces
- Recreation spaces
- Nature spaces

The **Catchment hierarchy** includes five categories:

- Regional open space
- District open space
- Neighbourhood open space
- Local open space
- Small open space

⁸ *Draft Liveable Neighbourhoods 2015*, Western Australian Planning Commission

The Classification Framework states that:

“Descriptions of the different types of public open space ... are not intended to be interpreted as prescriptive planning or design standards. Typical size range provided within catchment descriptions is intended only as a guide, not an expected standard.”

It is not assumed that descriptions of open spaces contained in this framework will match all circumstances. Categories and descriptions may need to be expanded or adapted within local policies to enable inclusion of specific sites, recognition of local characteristics or variation in application due to contextual setting, eg inner urban residential, periurban greenfield development or within regional cities or townships.”

A description of the categories is provided below in order to demonstrate the variety of public spaces available to the community.

8.1 Sport Spaces

Sport spaces provide a setting for formal structured or organised sporting pursuits capable of hosting team competitions, physical skill development and training. Sport spaces are designed to accommodate playing surface, buffer zones, and supplementary infrastructure requirements such as clubrooms, training nets and storage, as well as spatial and access requirements for spectators and visitors such as streets and parking provision.

8.2 Recreation Spaces

Recreation spaces provide a setting for informal play and physical activity, relaxation and social interaction. These spaces enhance physical and mental health of the community through activity that provides amusement, tranquillity or stimulation. Recreation spaces can be accessed by all to play, socialise, exercise, celebrate or participate in other activities that provide personal satisfaction or intrinsic reward.

Examples of recreation spaces are:

- Playgrounds and playscapes
- Community purpose sites (e.g. halls, libraries, local theatre, community gardens)
- Plazas, piazzas and civic squares (paved open pedestrian spaces to complement a main street)
- Skate parks and half-court basketball courts
- Picnic/barbeque areas, gazebos and casual seating
- Casual exercise, walking and training space for individuals and small groups
- Dog exercise and training areas
- Farmers' markets

8.3 Nature Spaces

Nature spaces provide a setting for people to enjoy and connect with nature. Sites are managed to enable access by the community whilst protecting environmental values. It may be possible to provide a high quality space for improving environmental values, by considering the viability of the site and its contribution to local biodiversity.

The City manages some important natural areas, including:

- Nine regionally significant bushland reserves
- Two regionally significant ecological communities
- 16 wetlands that are significant at regional, state or national level
- 22 heritage sites registered on state and national lists
- 14 local community interest sites
- Five scientific reference sites established as part of regional vegetation survey

The following is a brief overview of the Catchment Hierarchy.

8.4 Regional Open Space

Size is variable and dependant on function.

Regional open space (ROS) may accommodate important recreation and organised sport spaces as well as significant conservation and/or environmental features. Regional Open Space is generally reserved in the Metropolitan Region Scheme.

8.5 District Parks

5 hectares and above (50,000m²+)

District parks are designed to attract a wide range of users groups for different purposes and can accommodate them concurrently. Their large size allows provision of small and large scale activities and leisure opportunities in the same space, adjacent to and interacting with each other where appropriate.

8.6 Neighbourhood Parks

1-5 hectares

Neighbourhood parks provide a recreational and social space for a whole neighbourhood to walk to and attract different user groups by providing a variety of different opportunities. Neighbourhood parks are generally not compatible with activity centres due to their size and effect on access to the centre. There is opportunity to have both recreation and nature functions within neighbourhood parks.

8.7 Local Parks

0.4-1 hectare

Local parks are designed to accommodate daily recreation for the local community. Local parks are primarily designed to include recreational and or nature space functions, but may include small sports functions such as basketball or tennis courts. These public open spaces are best located interspersed through a neighbourhood.

8.8 Small Parks, Piazzas and Urban Spaces

Up to 4,000m² (0.4 hectare)

Smaller parks contribute to the landscape character and quality of the neighbourhood and make walking through the area more enjoyable and appealing. They can also provide new experiences for people, especially when located in or close to activity centres and high street precincts. Plazas, piazzas, civic spaces and paved open pedestrian spaces are examples of smaller parks as well as pocket parks in residential neighbourhoods. Small parks can be more intimate and promote vibrancy and activity in activity centres.



Plateia Hellas, Northbridge

Plateia Hellas is a small public space incorporating trees, seats, grassed area, public art and water fountains. Cafes, shops and apartments surround the square.



Mary Street Piazza, Highgate

The Mary Street Piazza is located on the corner of Beaufort Street and provides a space to relax in the sun and watch performances or events.



Corner of Davis and Lawlor Roads, Attadale

This new small park incorporates play equipment, rocks, a seat and native plants under shady trees.

8.9 Streets as Public Spaces

This Strategy builds on the approach led by Healthy Active by Design WA and the Heart Foundation that streets be considered as important, but under-appreciated, public spaces. Streets are a public service/amenity that most people use every day, whether to walk, cycle, look at, care for or drive along.

“Local streets and footpaths are consistently reported as the most frequently used facilities among Western Australian adults for physical activity. Good pedestrian and cycling movement networks provide safe routes for pedestrians and cyclists to travel on between destinations and encourage walking and cycling for transport and recreation.

Streets should be designed as places, not just as thoroughfares. They should encourage social interactions and create distinct and inviting spaces that people choose to experience. Streets should be places where people walk, shop, play, relax, sit and talk. Residential streets also provide a setting for informal games (e.g. street cricket/basketball).”⁹



Street Festivals

The annual Rotary Jacaranda Festival in Applecross helps to celebrate streets as public places.

Photo source: www.rotaryoutwest.blogspot.com



Adding Seats and Greenery to Streets

Seating areas and 'parklets' are becoming more common in Perth, following international trends seeking to reclaim streets for people. This parklet is outside Bread in Common in Fremantle.

⁹ Healthy Active by Design <http://www.healthyactivebydesign.com.au/design-features/movement-network>

“In a heavily car-dependent society such as Australia there is a tendency to think of city streets primarily as transport routes, thoroughfares for vehicles to drive along, often with as little hindrance as possible. But streets are also places for connecting with others – for playing, for sharing food and drink, for talking, for shopping and for watching the world go by.

Being on lively streets satisfies our need to be around other people and leads to chance encounters. It opens up opportunities for the sort of voluntary, incidental interactions that build trust, and that Jane Jacobs described as “the small change from which a city’s wealth of public life may grow”. It is also on the street that we are most likely to meet those who live closest to us – our neighbours.”¹⁰

The South Australian Government’s *Streets for People Compendium* recognises that roads for cars getting from A to B and streets for people to relax and spend time are both important for creating liveable cities. This approach is also detailed in Austroads Part 4: Network Planning.

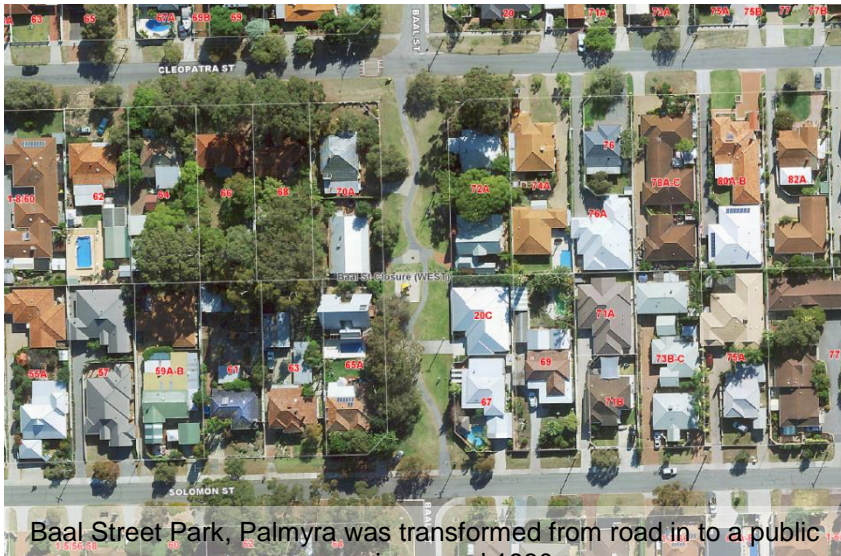
Figure 7 – Streets as Links and Places



Source: Streets for People Compendium, South Australian Government

¹⁰ *Social Cities*, Jane-Frances Kelly, Grattan Institute 2012

The City has previously created formal parks and public spaces from former road reserves, including:



Streets can either prioritise cars or pedestrians. It is difficult to successfully do both. Project for Public Spaces describes it well below.

“While streets are the most fundamental public spaces in communities, they may also be the most conflicted and under-recognised. “Streets as Public Spaces” is premised on the idea that streets should not simply move people from point A to point B, but must add value to the community along the way ... Great streets build communities as well as provide ways of connecting other great places.

Not so long ago, this idea was considered preposterous in many communities. “Public space” meant parks and little else. Transit stops were simply places to wait. Streets had been surrendered to traffic for so long that we hardly considered them public spaces at all. But now we are slowly moving away from this narrow perception of “streets as conduits for cars” and beginning to think of streets as places.”

¹¹

The Healthy Active by Design Master Checklist suggests to:

“Design attractive, interesting, welcoming and distinct streetscapes which reinforce the functions of a street as important and valuable public places, provide a safe, distinct and pleasant environment for residents and other users and add value to the amenity of adjacent housing and developments.”

Streets can become more attractive places for people through measures such as:

- Extending and upgrading footpaths and providing safe road crossings
- Promoting cycling by developing separated bicycle paths, on-road cycle lanes or bike boulevards (or a combination of measures)
- Prioritising street trees to provide shade, greenery and amenity
- Encouraging verge gardens
- Slowing vehicle speeds to improve safety and amenity
- Creating parks and public spaces from former roads (see below)

Guiding Principle

1. Pedestrian-friendly streets are important public spaces.

¹¹ Project for Public Spaces - <http://www.pps.org/blog/placemaking-main-street-into-a-destination-downtown/>

9. Quantity of Public Space

9.1 Background

The WAPC's Liveable Neighbourhoods and DC Policy 2.3- Public Open Space in Residential Areas include requirements that land in new subdivisions should be set aside for public open space. The standard requirement is that 10 percent of the gross subdivisible area of a proposed subdivision be given up free of cost to the Crown for public open space (POS). The 10 percent land ceding requirement is in addition any land required to be set aside to be later acquired by the State for Regional Open Space (ROS) or Foreshore Reserves.

The primary purpose of these WAPC requirements was/is to inform subdivision planning. The 10% POS requirement should not be retrospectively imposed on areas that were planned prior to 1955. The suburbs that were surveyed prior to 1955 include: Applecross; Alfred Cove; Ardross; Attadale; Bicton; Melville; Mount Pleasant; Palmyra and Willagee. These suburbs were planned prior to the introduction of the 10% POS standard. All suburbs within the jurisdiction of the City of Melville have been developed within the legislation in force at the time.

9.2 How Much Public Space Do We Have?

The University of Western Australia's Centre for the Built Environment has a geospatial analytic tool for public open space referred to as POS Tool. It provides a standardised methodology and calculates public space in each local government area. It allows comparisons to be made with other local government areas and provides the basis for the inventory of public spaces in the City.

The tables below have been independently calculated by POS Tool.

Table 1 – Inventory of Public Spaces in the City of Melville

Public Space Type	Number	Area in Hectares	% of Park Area	% of Total Public Space	% of Local Govt Area
Parks	168	334.1	100.0	25.9	6.3
<i>Pocket Park</i>	34	6.0	1.8	0.5	0.1
<i>Small Neighbourhood Park</i>	68	39.3	11.8	3.1	0.7
<i>Medium Neighbourhood Park</i>	27	37.9	11.0	2.8	0.7
<i>Large Neighbourhood Park 1</i>	9	27.8	8.3	2.2	0.5
<i>Large Neighbourhood Park 2</i>	9	40.2	12.0	3.1	0.8
<i>District Park 1</i>	13	73.9	22.1	5.7	1.4
<i>District Park 2</i>	5	46.3	13.9	3.6	0.9
<i>Regional Park</i>	3	64.0	19.1	5.0	1.2
Natural Space	45	947.6		73.5	18.0
Residual Green Space	25	8.3		0.6	0.2
Sub-total	238	1290.0			24.4
School Grounds	39	75.2			1.4
Total Public Space	277	1369.1			25.8

Note: Includes data for Carawatha Park, Ogilvie Road Reserve and former Bicton Sub-station Park, which were not included in 2013 POS Tool data.

Source: Centre for the Built Environment and Health (2013). Geo-Spatial Analytic tool for Public Open Space (POS). <http://www.postool.com.au>

There are various ways to categorise parks. POS Tool provides a comparison below for information purposes.

Table 2 – POS Tool Park Categories Compared with Department of Sport and Recreation Categories

POS Tool Categories		Department of Sport and Recreation Categories	
<i>Pocket Park</i>	0 - 0.299 ha	<i>Pocket Open Space</i> [^]	0 - 0.399 ha
<i>Small Neighbourhood Park</i>	0.3 ha - 0.999 ha	<i>Local Open Space</i>	0.4 - 0.999 ha
<i>Medium Neighbourhood Park</i>	1.0 ha - 1.999 ha	<i>Neighbourhood Open Space</i>	1.0 - 4.999 ha
<i>Large Neighbourhood Park 1</i>	2.0 - 3.999 ha		
<i>Large Neighbourhood Park 2</i>	4.0 - 4.999 ha		
<i>District Park 1</i>	5.0 - 6.999 ha	<i>District Open Space</i> ^o	5.0 - 19.999 ha
<i>District Park 2</i>	7.0 - 14.999 ha		
<i>Regional Park</i>	> 15.0 ha	<i>Regional Open Space</i>	> 20.0 ha

Source: Centre for the Built Environment and Health (2013). Geo-Spatial Analytic tool for Public Open Space (POS). <http://www.postool.com.au>

POS Tool should be seen as a good indication of the quantity of open space in the City, but there are some inconsistencies. For example, LeisureFit Melville, which is located on a Public Open Space reserve, is not included as a park, while Leisure Fit Booragoon is included as a park. Therefore it should be treated as a guide. POS Tool is considered to be useful though because it is independent, uses a standard approach which comparable across Perth and is publicly accessible.

The quantity of public space in the City compares very favourably with comparable local governments. The other local governments chosen for the comparison are either geographical neighbours or in the same inner-middle metropolitan Perth context as the City of Melville.

Table 3 – Comparison of Public Space Quantities in Comparable Inner Urban and Neighbouring Local Governments

Local Government Area	Percentage of Local Government Area provided as Parks	Percentage of Local Government Area as Natural Public Space	Percentage of Local Government Area as Other Public Spaces	Total Public Space as a Percentage of Local Government Area
City of Melville	6.3%	18%	1.5%	25.8%
City of Stirling	7.8%	9.2%	1.5%	18.5%
City of Canning	5.2%	18.8%	1.1%	25.1%
City of Bayswater	7.4%	1.7%	1.3%	10.4%
City of Fremantle	5.2%	3.7%	1.5%	10.4%
City of Cockburn	2.5%	27.4%	0.5%	30.4%
City of South Perth	10.5%	2.6%	3.4%	16.5%
Town of Victoria Park	10.5%	1%	2.4%	13.9%
Town of Claremont	4.2%	4.4%	3.8%	12.4%
Average	6.6%	10%	1.9%	18.2%

Source: Centre for the Built Environment and Health (2013). Geo-Spatial Analytic tool for Public Open Space (POS). <http://www.postool.com.au>

The City has more public space as an overall percentage than comparable inner urban or neighbouring local governments, with the exception of the City of Cockburn, which has large natural areas reserved. Cockburn is an outer metropolitan Council with large 'green wedge' areas (for example Bibra, Yangebup and Thomson's Lakes) and so the context is different to the City of Melville.

Public spaces are reasonably well distributed across the local government area. Virtually all residents are within walking distance (around 400 metres) of a public space. Different categories of parks are seen to have different 'catchments' depending on its typical size and facilities. For example, people are less willing to travel longer distances to go to a typical small park when compared to a typical large district or regional park. However this should only be seen as indicative as it depends significantly on the quality of the park, facilities offered, amenity and a range of other factors.

POS Tool provides a snapshot of the typical catchment distances for various types of parks and the percentage of the total population living within those catchment distances. As stated above, effectively all residents have at least one of these types of parks within 400 metres of their house.

Table 4 – Distribution of Public Spaces in the City of Melville

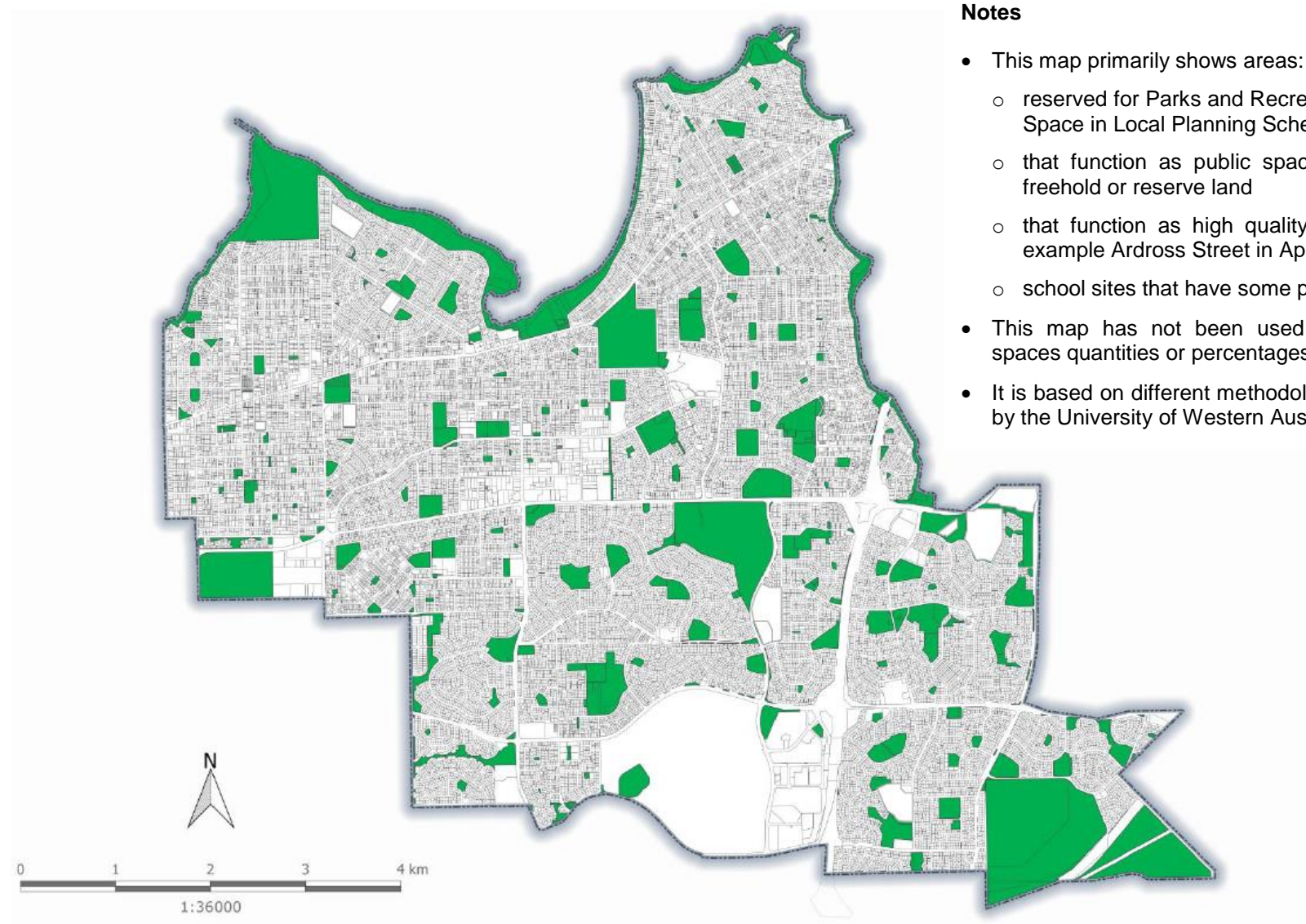
Park Type	Size of Park (Hectares)	Catchment Distance	City of Melville % of the Total Population within Catchment Area	City of Canning % of the Total Population within Catchment Area
<i>Pocket Park</i>	0 - 0.299 ha	300m	11.2%	18.2%
<i>Small Neighbourhood Park</i>	0.3 ha - 0.999 ha	400m	36%	33.3%
<i>Medium Neighbourhood Park</i>	1.0 ha - 1.999 ha	800m	43.6%	55.5%
<i>Large Neighbourhood Park 1</i>	2.0 - 3.999 ha	800m	19.8%	48%
<i>Large Neighbourhood Park 2</i>	4.0 - 4.999 ha	800m	23.5%	8%
<i>District Park 1</i>	5.0 - 6.999 ha	2000m	81.5%	77%
<i>District Park 2</i>	7.0 - 14.999 ha	2000m	53.4%	82%
<i>Regional Park</i>	> 15.0 ha	5000m	97.8%	90%

Source: Centre for the Built Environment and Health (2013). Geo-Spatial Analytic tool for Public Open Space (POS). <http://www.postool.com.au>

For example, the table shows that 43.6% of the City's residents live within 800 metres of a medium sized Neighbourhood park.

The City of Canning has been used as a comparison given it has relatively similar quantities of public spaces. The comparison shows that local government areas are different based on their particular context, geography, period of development and urban form.

Map 4 – Indicative Public Spaces in the City of Melville

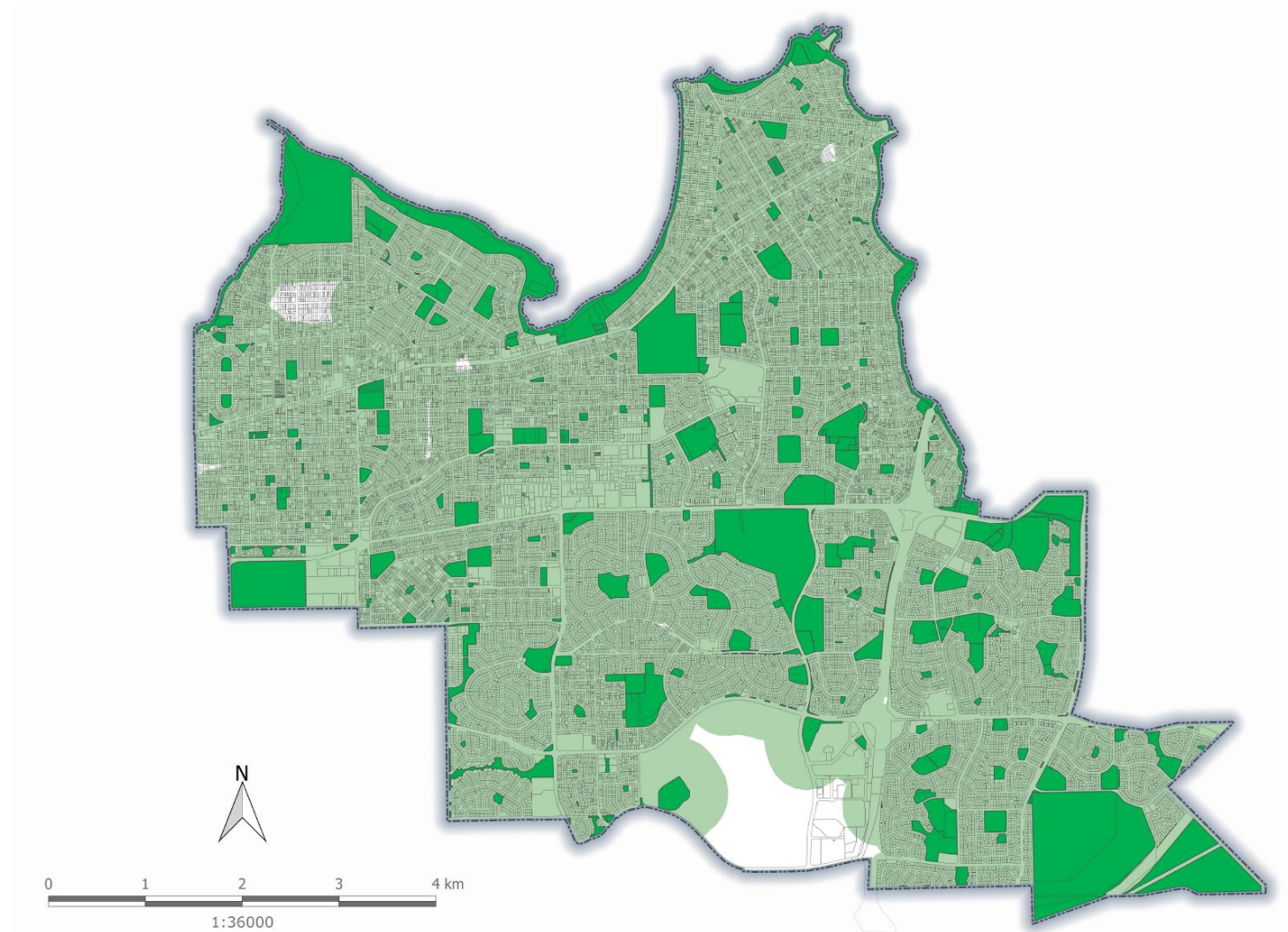


Notes

- This map primarily shows areas:
 - reserved for Parks and Recreation or Public Open Space in Local Planning Scheme 6
 - that function as public space whether they are freehold or reserve land
 - that function as high quality public space – for example Ardross Street in Applecross village
 - school sites that have some public access
- This map has not been used to calculate public spaces quantities or percentages.
- It is based on different methodology to the POS Tool by the University of Western Australia

Map 5 – Indicative Public Spaces and 400 metre Walkable Catchments in the City of Melville

Map 5 below shows the indicative public spaces and a 400 metre walkable catchment. The map shows that nearly all parts of the City are within 400 metres of a public space. The map doesn't show all the pedestrian-friendly streets.



Map 5 shows that the only areas that are not within 400 metres of a recognised public space are:

- Part of Bicton centred around parts of Pembroke Street. It is noted that the streets in this area are relatively quiet and shaded generally with footpaths. A local centre on the corner of Pembroke and Harris Streets also provides a local destination for residents (see photo below)
- Small section of Palmyra centred around Cleopatra Street, which is located within 400 metres of Lee Park located on Canning Highway in East Fremantle
- Small section of Melville on Canning Highway, which has extensive highway median planting and a section of public space not officially designated as open space in the mapping analysis
- Small section of Applecross around the corner of Sleat, Macrae and Kishorn Roads. The City has recently modified Macrae Road in this area to encourage cycling and walking, in effect improving the ability of the street to function as a public space
- Parts of Murdoch University as it is not a standard residential area typically accessed by the wider community

Creating new formal parks in these areas would be restricted (see section 12.5 below).



The local centre on the corner of Pembroke and Harris Streets, Bicton provides amenity for local residents



Point Walter, Bicton is a beautiful regional destination

POS Tool provides a summary of some of the key features of various parks in the City, as summarised in the table below. This information should be taken as a guide as parks may have been upgraded or changed since POS Tool collected the data in 2013.

Table 5 – Inventory of Key Facilities in City of Melville Parks

Park Type	Total Number	% of parks with walking paths	% of parks with poor shade on walking paths	% of parks with medium shade on walking paths	% of parks with good shade on walking paths	% of parks with seating	% of parks with picnic tables	% of parks with public access toilets	% of parks with lighting around courts, buildings, and play equipment
All Parks	168	59%	37%	8%	14%	70%	18%	10%	20%
<i>Pocket Park</i>	34	24%	88%	13%	0%	47%	6%	0%	0%
<i>Small Neighbourhood Park</i>	68	62%	57%	12%	29%	75%	18%	1%	12%
<i>Medium Neighbourhood Park</i>	27	59%	69%	13%	19%	74%	19%	7%	19%
<i>Large Neighbourhood Park 1</i>	9	89%	50%	0%	50%	67%	22%	33%	33%
<i>Large Neighbourhood Park 2</i>	9	89%	75%	25%	13%	78%	33%	22%	67%
<i>District Park 1</i>	13	77%	50%	10%	40%	85%	38%	23%	54%
<i>District Park 2</i>	5	100%	80%	20%	0%	80%	0%	40%	40%
<i>Regional Park</i>	3	67%	50%	50%	0%	100%	67%	100%	100%

Source: Centre for the Built Environment and Health (2013). Geo-Spatial Analytic tool for Public Open Space (POS). <http://www.postool.com.au>

Statistics can help inform priorities and future improvements to public spaces. An analysis of the statistics from POS Tool indicates that:

- A majority of parks across the City have walking paths
- Only 14% of the paths have been classified as having good shade over the path. This is considered to be low and can be improved through the planting of more trees alongside walking paths
- A high proportion of parks have seats. The number, siting and useability of seats in parks can be further investigated in future park audits
- A low proportion of parks have picnic tables
- A low proportion of parks have publicly accessible toilets and lighting around facilities

9.3 What the Inventory of Public Spaces Tells Us

The City has a large amount of public space and it is generally well distributed across the local government area. The City is fortunate to have large regional foreshore reserves along the Swan and Canning Rivers. These reserves are particularly important as the northern areas of the City were planned and subdivided before the WAPC introduced minimum public open space requirements for new subdivisions. The City also has large regional reserves such as Wireless Hill, Melville Glades Golf Club and Piney Lakes Reserve.

The inventory of public spaces demonstrates that the City does not need to prioritise the purchase of land for new public spaces given the overall quantity of public space it already has.

The inventory does not capture the closest and most easily accessible public spaces – our local streets.

“The local streets and footpaths are consistently reported as the most frequently used facilities among Western Australian adults for physical activity”¹²



Open Woodland at Wireless Hill

The City is fortunate to have large regional reserves as part of its network of public spaces.



Stoneham Road, Attadale

Local streets and footpaths are the most frequently used public spaces in Western Australia.

¹² Healthy Active by Design <http://www.healthyactivebydesign.com.au/design-features/movement-network>

10. Quality of Public Space

"It is difficult to design a space that will not attract people. What is remarkable is how often this has been accomplished."

William "Holly" White

"Access to high-quality green space has ... been shown to enhance both physical and mental health".¹³

The quality of public spaces directly affects their use by the community, the benefits provided and therefore their importance.

"There is no doubt we value good public parks: just think how proximity to a park can increase property prices. But measurements of available green space can be misleading A small park that is well maintained and watered, with established trees to provide shade, vibrant flower gardens for visual pleasure, quality seating and creative playgrounds, will be used far more actively than a park that is far larger but less inviting. In fact without appropriate design, parks can be too big for comfort. Some of the most successful parks are intimate mini-parks or 'pocket parks'"¹⁴

The Healthy Active by Design website provides the following evidence that the perceived quality and amenity of a space is important to encouraging use:

- *The presence of supportive infrastructure within parks such as footpaths, wooded areas, constructed and natural trails and sports facilities or equipment has been associated with park use and physical activity and walking within parks.*
- *The presence of aesthetic features such as trees and bushes, gardens, grass (i.e. irrigated lawns), flowers, natural settings and water features, as well as the availability of amenities such as toilets, picnic tables as well as the condition and maintenance of park facilities and equipment has also been identified as important for park use.*
- *Perceived park aesthetics, condition and safety have also been associated with park visitation and physical activity levels within parks.¹⁵*

The City has existing high quality parks that attract more people than similarly sized parks elsewhere. This suggests that the size of a park is only one factor and that the quality and range of activities on offer in a park are important attractors. For example, parks such as Point Walter, Heathcote, Kadidjiny Park, Carawatha Park and the Piney Lakes Sensory Playground attract large numbers of people because of what they offer.

¹³ City planning and population health: a global challenge. Billie Giles-Corti, Anne Vernez-Moudon, Rodrigo Reis, Gavin Turrell, Andrew L Dannenberg, Hannah Badland, Sarah Foster, Melanie Lowe, James F Sallis, Mark Stevenson, Neville Owen <http://press.thelancet.com/urbandesign.pdf>

¹⁴ *Social Cities*, Jane-Frances Kelly, Grattan Institute 2012

¹⁵ Healthy Active by Design <http://www.healthyactivebydesign.com.au/design-features/public-open-space>

Improving quality of public spaces is recommended to be the highest priority for the City given that public spaces already occupy 25.8% of the local government area.



Carawatha Park, Willagee is a high quality space with a range of things to do and reasons to visit



Joan Williams Park, Willagee was converted from a road to a park to provide a local play area for residents

However, quality public spaces require a considered approach as well as appropriate resourcing. Palmyra has less open space than other areas as it was developed in the early 1900's as workers sought out an area close to Fremantle in which to live. The suburb has 17 public spaces according to POS Tool. The parks in Palmyra are high quality, well maintained, have good facilities and robust maintenance plans in place. The suburb's streets are generally safe and pleasant for walking and occupy around 21% of the suburb area, increasing the amount of public space available for residents. Residents are generally satisfied with public spaces in the area (although improvements can always be made). Palmyra is an example of how high quality public spaces can be more important than the overall quantity of space.

Guiding Principle

- 2. Improvements to the quality, amenity, safety, comfort, accessibility, useability and sustainability of public spaces will help to create a more liveable city.**

11. Strategy Responds to Community Feedback

The City's Strategic Community Plan contains a range of priorities identified by the community, which helps inform the services provided and work undertaken by the organisation.

The 'Clean and Green' community aspiration describes many of the things discussed in this Strategy.

"We love the many green parks, reserves, natural areas and other open spaces that are a feature of our City. We want them to be clean and well-maintained places where we can walk the dog, ride bicycles, play sport and socialise with our neighbours, friends and family in safety at any time of day.

We want our children and grandchildren to have fun with nature play and for our little ones to be safe in fenced off playgrounds, shaded from the sun. We would like to see places where our youth can have fun too.

*We want our pathways to be smooth so that we don't trip or fall when we use them; well-shaded for when temperatures soar, and well-lit on the occasions when we are out for a walk or a run in the evening. We really like the idea of our green spaces being used for vibrant community events that we can walk or cycle to from home."*¹⁶

This Strategy directly responds to the feedback from the Community Plan, including (but not limited to):

"Continue to create more places where local residents are encouraged to walk to and be outdoors to enjoy. This is not only healthy but helps to reduce crime by keeping our streets busy and bright." Willagee resident

"I would like to see more footpaths so I can safely walk my pram around our suburb" Myaree resident

"...recreation areas could have simple additions - like walls to play tennis against, a volleyball net, soccer goals, a couple of running lanes marked in public open space such as Rick Vosper reserve - this would encourage people to be active in their immediate area." Brentwood resident

The City also undertakes a bi-annual Community Wellbeing Survey and Scorecard to receive community feedback and how it rates the services provided. A telephone survey of 401 residents was conducted in mid-2015 that was based on the local demographics from the 2011 Australian Bureau of Statistics. The following section provides a summary of the survey results.

¹⁶ City of Melville Strategic Community Plan: 'People, Places, Participation 2016-2026'

Parks, natural areas and public spaces are top priorities for our community.

- 85% of residents have used a local park or playground in the last six months
- 37% of residents have been involved in a local sporting club in the last six months
- There are 20 environmental 'Friends of' groups actively involved in caring for natural areas

City of Melville residents tend to be satisfied with most aspects of their lives and compared to WA as a whole, the City performs strongly across all facets of wellbeing. On the whole, the community is also happy with their built environment, transportation and natural environment, with most also feeling safe and secure with where they live. While a large proportion of the community indicate that there is little that the City could do to make it better, the main suggestions for improvement include improving walking and cycle paths, more cafés / restaurants and improving public transport.

Figure 8 – Community Wellbeing Survey 2015 Feedback on the Range of Open Spaces

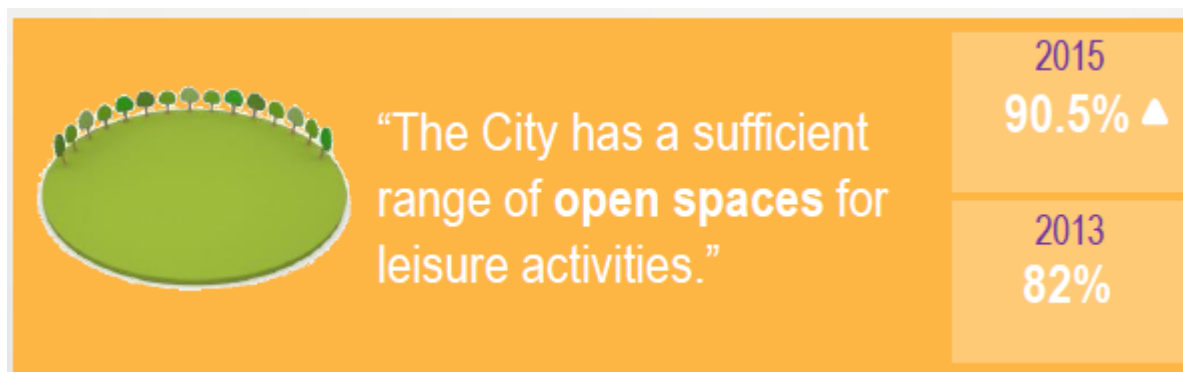
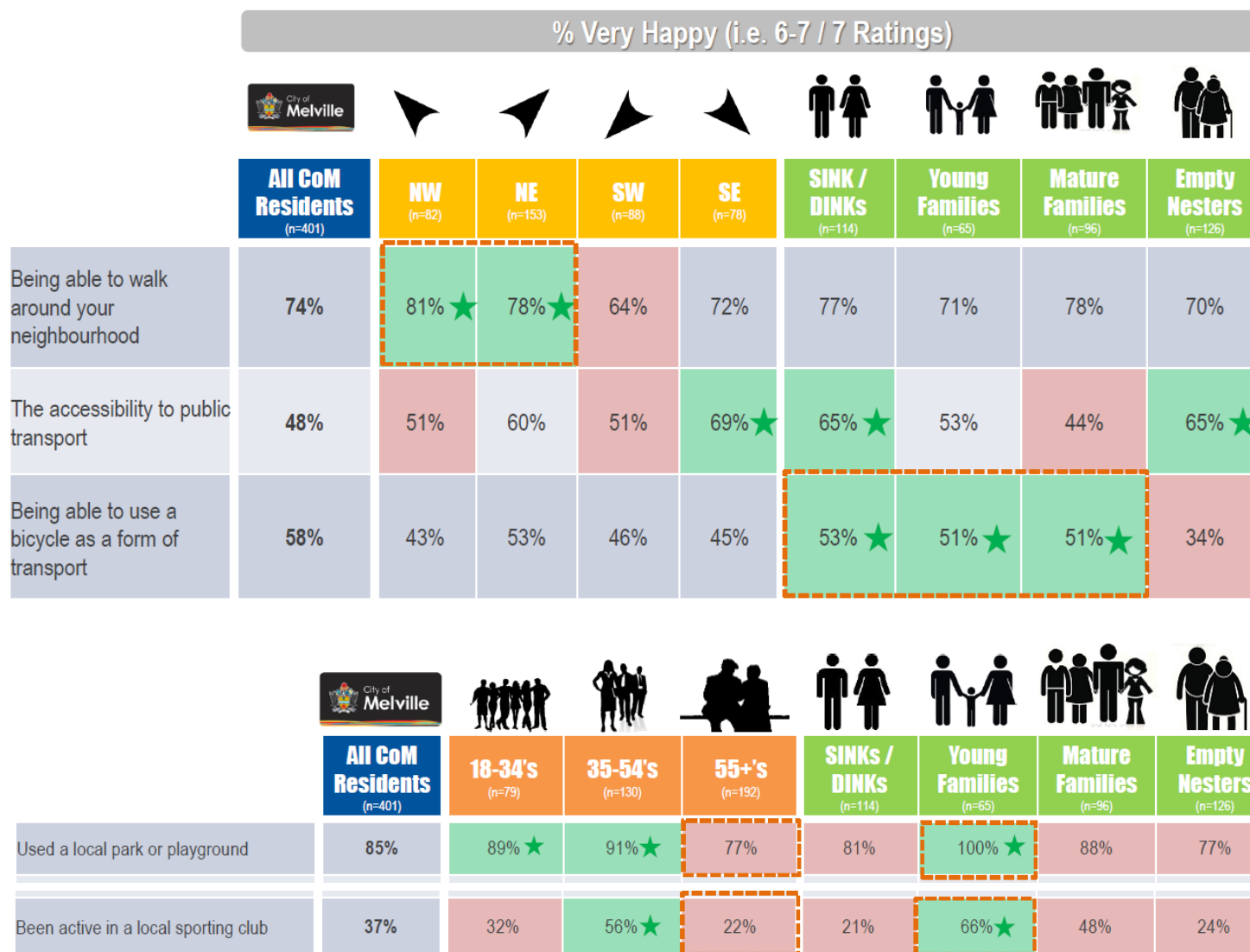


Figure 9 – Community Feedback Regarding Public Spaces



The City also surveys residents and business community every two years regarding their perceptions of services, infrastructure and facilities, to help inform future plans and improvements. The latest survey was in March and April 2016.¹⁷

Figure 10 – Community Satisfaction with Parks and Public Spaces in 2016



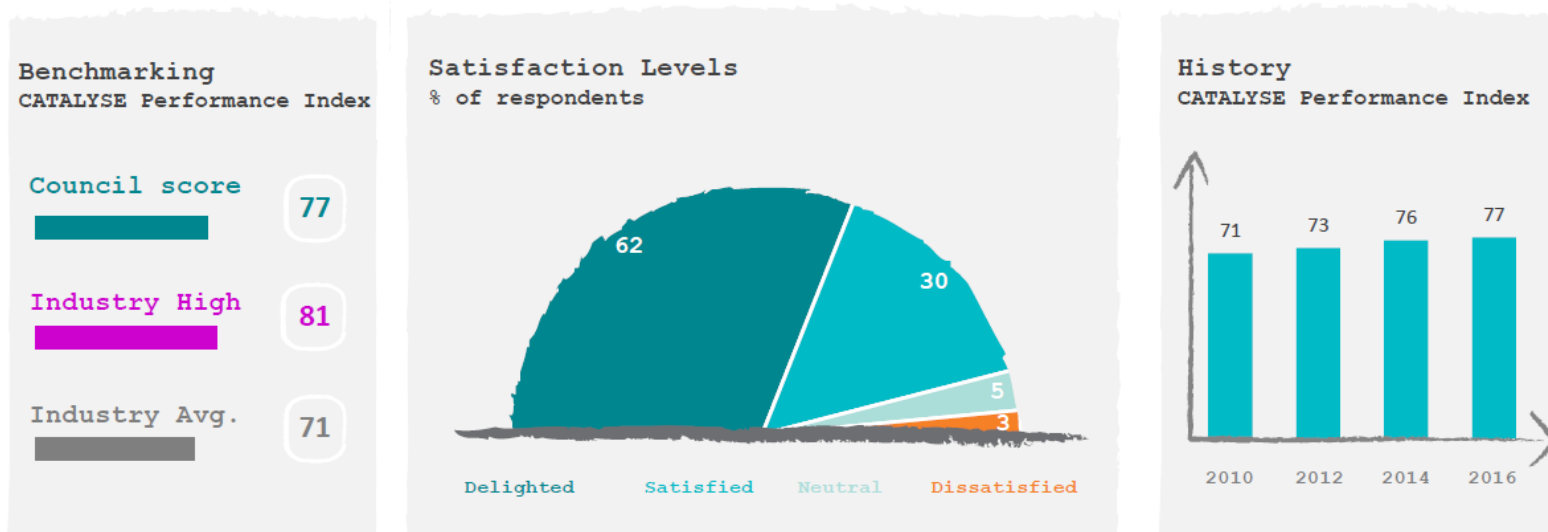
The 2016 survey found that 95% of respondents were either delighted (69%) or satisfied (25%) with the City's parks and public open spaces. The result compared very well with other local governments in Perth, being 1% off the industry high.

¹⁷ Find out more at <http://www.melvillecity.com.au/about-melville/community-engagement-and-communications/community-surveys>

Figure 11 – Community Satisfaction with Sport and Recreation Facilities in 2016

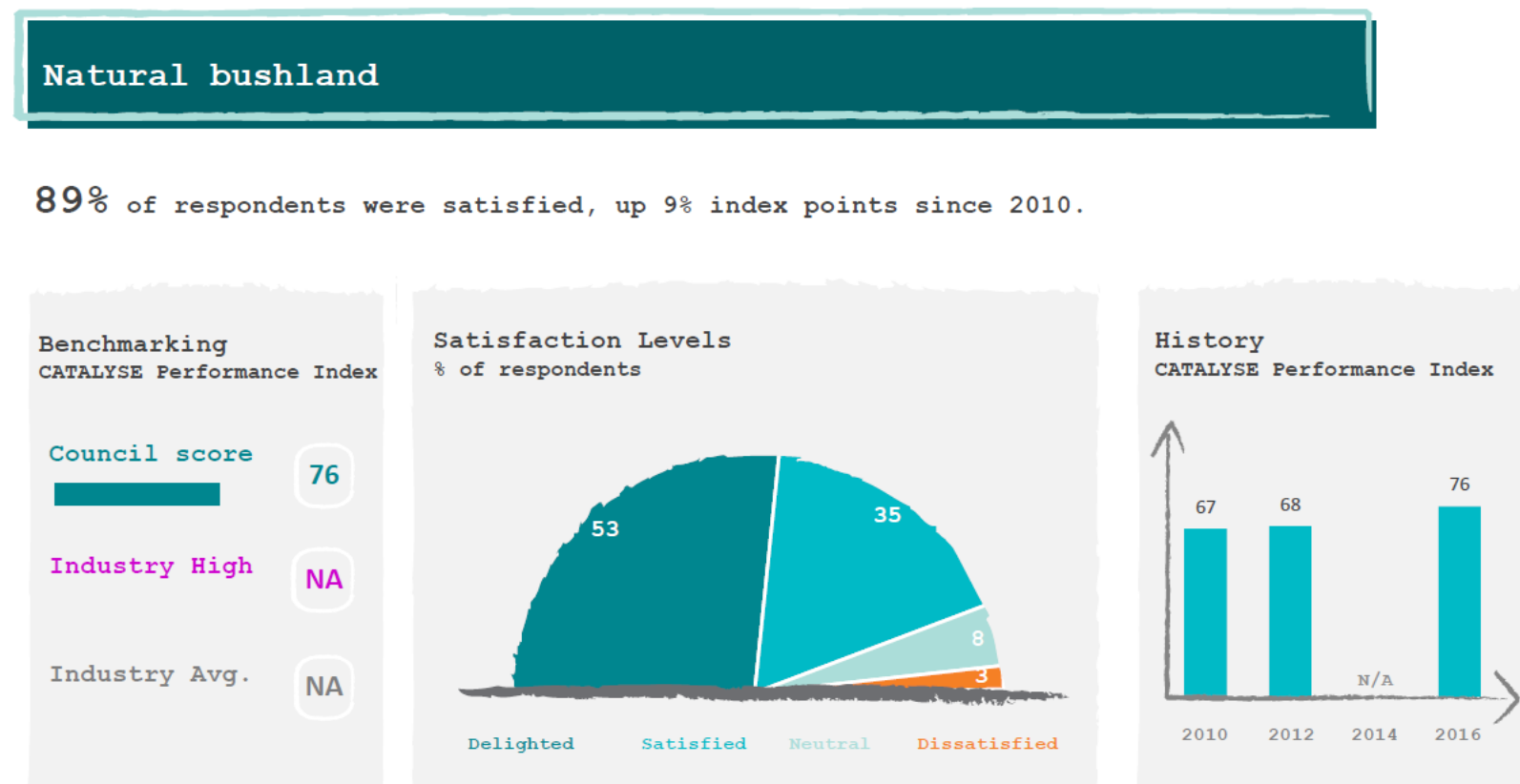
Sport and recreation facilities

91% of respondents were satisfied.



The survey found that 91% of respondents were either delighted (62%) or satisfied (30%) with the City's sport and recreation facilities. The result compared well with other local governments in Perth, being well above average.

Figure 12 – Community Satisfaction with Natural Bushland in 2016



The survey found that 89% of respondents were either delighted (53%) or satisfied (35%) with the City's natural bushland areas. Other local governments do not ask their residents this question and therefore the results cannot be compared.

The 2016 survey found that the City is doing well in many areas and in terms of public spaces, but should prioritise improvements to footpaths and cycleways based on feedback in the Community Plan.

12. Challenges to Address

12.1 Physical Health Issues

Research shows that physical inactivity is one of the most powerful, modifiable risk factors for all causes of death and disease, alongside smoking and obesity¹⁸ and is one of the biggest contributors to death and disease in Western Australia.

There is increasing evidence of a relationship between physical inactivity and poor health. In particular, inactivity has been shown to be a known risk factor for a number of diseases including cardiovascular disease, hypertension, hypercholesterolemia, obesity and diabetes.¹⁹

“Participating in regular physical activity can reduce cardiovascular disease–related deaths by up to 35%. Large population studies have repeatedly demonstrated that higher rates and intensity of physical activity are associated with greater risk reduction. If we think of physical activity as a medication and its adult dose as 30–60 minutes per day, there is scarcely anything else we could take daily that would provide such comprehensive health benefits. Our daily dose of physical activity can significantly reduce the risk of Australia’s leading killers: heart disease, type 2 diabetes and some cancers. Physical activity can also improve mental health. Physical activity has no side effects, is accessible and has little or no cost. If indeed it were a drug, we would all be taking it.”²⁰

“Regular physical activity can reduce cardiovascular disease-related deaths by 35%.”

Physical activity has no side effects, is accessible and has little or no cost. If indeed it were a drug, we would all be taking it.”

- The Heart Foundation



¹⁸ Interactive body map: physical inactivity and the risks to your health <http://bit.ly/2gu7CvP>

¹⁹ Diagnosis of Physical Activity in Western Australia Commissioned by the WA Physical Activity Taskforce. TNS Consultants, 2011.

²⁰ *Blueprint for an Active Australia*, Heart Foundation

There is overwhelming evidence which demonstrates that the built environment not only impacts on active lifestyle choices but on the health and wellbeing of individuals, families and communities.²¹

The built environment in Australia often does not encourage active lifestyles, but rather reinforces sedentary behaviour and car dependence,²² according to the national Healthy Spaces and Places Guide developed by the Heart Foundation, Planning Institute of Australia and Australian Local Government Association. According to Healthy Spaces and Places:

Research shows that the built environment can have a significant impact on a person's level of physical activity.

Good design and people-friendly spaces and places can promote active lifestyles by encouraging walking, cycling, public transport and active recreation. On the other hand, places designed around private motorised transport can limit a person's opportunities and desire to be physically active.²³

The City of Melville Health and Wellbeing Strategy 2014-2017 states that:

A complex range of factors determine people's health and wellbeing. These 'social determinants' are the conditions in which people are born, grow, live work, age and influence a person's health throughout their life. The City has a key role to play in enhancing community health by developing the local environments that support people's health and wellbeing.²⁴

Local, national and international research suggests that people's physical activity levels are heavily influenced by the design of communities, the design of streets and design of public spaces.²⁵ Studies have also shown that exposure to green spaces can be psychologically and physiologically restorative by promoting mental health, reducing non-accidental mortality, reducing physician assessed-morbidity, reducing blood pressure and stress levels and reducing sedentary leisure time.²⁶

There are a range of barriers to people undertaking physical activity. A very important barrier within the scope of this Strategy and of local governments is the often-cited lack of safe, accessible and high quality walking and cycling infrastructure in many areas. The lack of functional infrastructure to facilitate general incidental activity such as walking to the shops or cycling to work was viewed as a real barrier to exercise in the City of Melville Health and Wellbeing Strategy.

²¹ Healthy Active by Design, Heart Foundation

²² Healthy Spaces and Places: A national guide to designing places for healthy living www.healthyplaces.org.au

²³ Healthy Spaces and Places: A national guide to designing places for healthy living www.healthyplaces.org.au

²⁴ City of Melville Health and Wellbeing Strategy 2014-2017

²⁵ Healthy Active by Design, Heart Foundation

²⁶ Neighborhood greenspace and health in a large urban center - <http://www.nature.com/articles/srep11610>

The following statistics highlight the need to improve public spaces to encourage activity and exercise:

- Eight in ten Australian children do not meet national guidelines of 60 minutes of physical activity per day²⁷
- More than a third (36%) of Australians aged 15 and over do very little or no exercise at all²⁸
- Since 2001, the proportion and number of Australians doing very little or no exercise has continued to increase²⁹
- The National Health Performance Authority reports that 72% of adults in the Perth South Medicare local catchment (which includes the City of Melville) were overweight or obese in 2011-12³⁰

The Commonwealth Government's Department of Health recommends that:

- Being physically active and limiting sedentary behaviour every day is essential for health and wellbeing. It is suggested that people be active on most, preferably all, days every week
- Accumulate 150 to 300 minutes (2½ to 5 hours) of moderate intensity physical activity or 75 to 150 minutes (1¼ to 2½ hours) of vigorous intensity physical activity, or an equivalent combination of both moderate and vigorous activities, each week
- Those aged 65 or more should accumulate at least 30 minutes of moderate intensity physical activity on most, preferably all, days

²⁷ *Blueprint for an Active Australia*, Heart Foundation

²⁸ *As above*

²⁹ *As above*

³⁰ National Health Performance Authority – www.nhpa.gov.au

The 2015 Community Wellbeing Survey of City of Melville residents found that self-reported physical activity levels are below the physical activity guidelines as shown in the figures below, with around half of residents exercising well below the recommended 'dosages'.

Figure 13 – Percentage of City of Melville Residents Undertaking Moderate Physical Exercise for at least 30 minutes

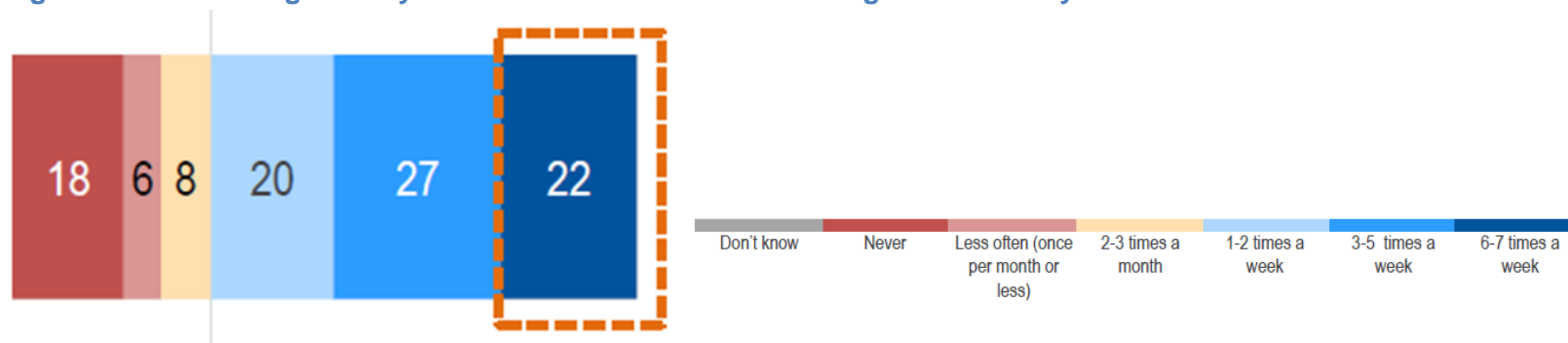
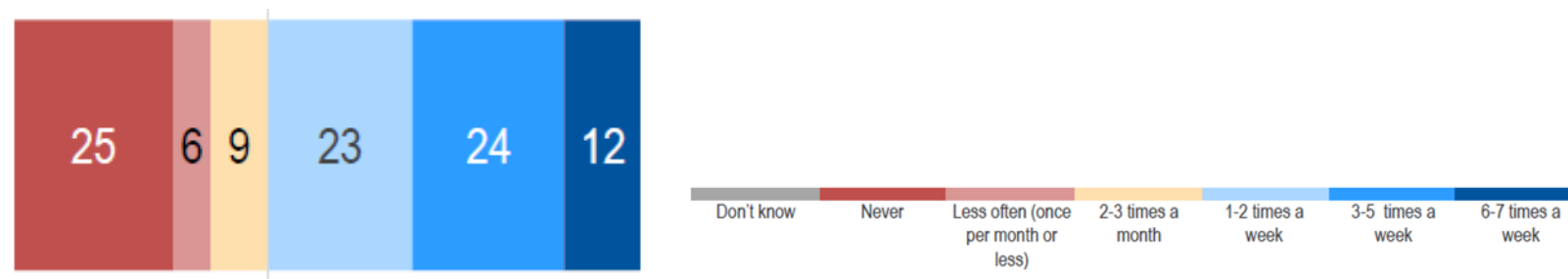


Figure 14 – Percentage of City of Melville Residents Undertaking Vigorous Intensity Physical Exercise for at least 15 minutes



Falling physical activity levels amongst children is a significant concern as habits are formed early in life. The management and prevention of long term or chronic health conditions are of greatest concern especially when catering for the health needs of an ageing population.³¹

The City has been actively working to improve the health of the community. The City's Health and Wellbeing Strategy supports the prevention of major health issues (obesity, mental illness, cardiovascular disease, cancer and diabetes) through addressing the protective/risk factors (physical activity, nutrition/healthy eating, mental health, alcohol and smoking).

³¹ Healthy Active by Design, Heart Foundation

The City promotes the 'Healthy Melville Roadstars', which take health education to the community and 'Active in the Park', which provides free exercise classes in local reserves.



The Healthy Melville Roadstars bring health education to life in public spaces



Active in the Park helps people become more active, but also helps to bring life and activity to public spaces.

Guiding Principle

3. Physical health outcomes can be improved by making it easier for people to walk, cycle and be physically active.

12.2 Mental Health and Social Inclusion Issues

Public spaces provide mental health benefits as well as places to meet others and feel connected with and part of society. They help to facilitate social connections and interaction.

“Humans are social animals: relationships are critical to our wellbeing. A lack of social connection leads to loneliness and isolation, experiences far more harmful than previously realised. There are worrying signs that isolation and loneliness are increasing in Australia. Data shows that people’s friendships and neighbourhood connections have diminished over the past two decades. Our changing population means these trends could get worse.”³²

Some of the background to mental health issues is explained in the quote below.

“Social connection is critical to our wellbeing and refers to our relationships with others. We form connections at three different levels: intimate personal and family relationships, links with a broader network of friends, relatives and colleagues, and collective connection – our feeling of belonging in our communities. All these levels of connection are important – from the close regular contact with loved ones to incidental interactions on the street.

Research shows that social connection is crucial to wellbeing. This is not surprising. Humans have evolved in an environment where group membership is essential to survival. Neuroscience research suggests that over tens of thousands of years our need to deal with other people fundamentally influenced the structure of the human brain. In a literal sense, the need to socialise and connect made us who we are today.

Already a quarter of Australian households consist of people living by themselves and this is the fastest growing household type. People living on their own are more likely to experience loneliness. Australia is an ageing society, and older people have a higher risk of isolation, as do other groups like sole parents and people with limited English.”³³

A study exploring the relationship between POS attributes and mental health in Perth found that:

- Residents near medium or high quality POS have twice the odds of better mental health as those near low quality POS.
- POS quality appears to be more important for mental health than POS quantity.³⁴

It is interesting that quality and proximity of public space appear to be more important than quantity of space for mental health outcomes.

³² *Social Cities*, Jane-Frances Kelly, Grattan Institute 2012

³³ *Social Cities*, Jane-Frances Kelly, Grattan Institute 2012

³⁴ Francis, J., Wood, L. J., Knuiman, M., & Giles-Corti, B. (2012). Quality or quantity? Exploring the relationship between Public Open Space attributes and mental health in Perth, Western Australia. Summary accessed from <http://www.sciencedirect.com/science/article/pii/S0277953612001633>

The Healthy Active by Design website also cites the benefits of attractive and high quality spaces for improving mental health issues:

- *There is evidence associating the presence of attractive public open space with enhanced mental health for adults, and that access to nature and green space assists with children's mental health*
- *The provision of natural playgrounds also helps to improve many aspects of emotional wellbeing, including minimising anxiety, repression, aggression and sleep problems and improving social behaviours.*³⁵

Public spaces with shade, greenery, a variety of things to do, seating areas, places to interact with others and get involved in activities would all help to address mental health and social inclusion issues. As an example, streets with mature street trees can improve personal health perception in ways comparable to an increase in annual personal income of \$10,000 or being up to 7 years younger³⁶.

Guiding Principle

4. Mental health outcomes can be improved by designing public spaces to encourage social interaction and activities.



Nature Playground, Webber Reserve, Willagee

The local community created this nature playground on Webber Reserve, Willagee through the City's Project Robin Hood. The nature playground provides a new experience for children as well as a meeting place for the local community.

It was created by the community for the community and helped to generate pride in the local area.

³⁵ Healthy Active By Design WA <http://www.healthyactivebydesign.com.au/design-features/public-open-space>

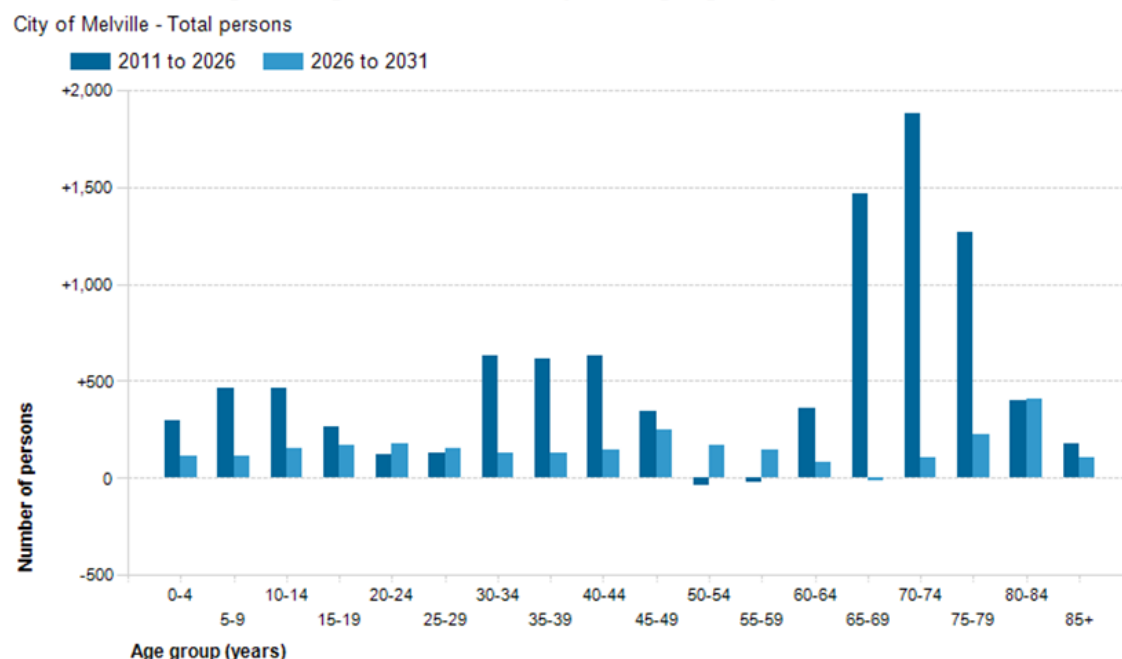
³⁶ Neighborhood greenspace and health in a large urban center - <http://www.nature.com/articles/srep11610>

12.3 An Ageing Population

Western Australia's population is rapidly ageing and the City of Melville is no exception. As of 30 June 2013, there were more than 440,000 people aged 60 years and over living in Western Australia, representing 17.6 per cent of the population. By 2021, it is projected that this number will have increased by 50 per cent to around 595,000 people, representing 21 per cent of the total population. By 2050, the number of people aged 65 to 84 years will double and the number over 84 years will quadruple.³⁷

These trends will also occur in the City as show in the graph below. The numbers of people aged 65 or more will increase significantly in coming decades.

Figure 15 – Projected Change in Age Structure in City of Melville



Source: iD Profile 2016

³⁷ Department of Local Government and Communities, 2015 Seniors Strategic Planning Framework Perth. Available from <https://www.dlhc.wa.gov.au/Publications/Pages/Seniors-Strategic-Planning-Framework.aspx>

The ageing population may have a number of possible impacts on public space planning:

- A need to have public spaces as close as possible to homes and places of residence due to reduced mobility of some seniors (who may not be able to drive or walk 400 metres for example)
- An increased need to provide footpaths and safe road crossings, particularly to community facilities, public spaces and activity centres. Footpaths should be well maintained and flat to avoid falls
- A need to provide more seats on footpaths and shared paths to encourage exercise and independence, but allow for 'rest stops'
- A need for social spaces, where people and particularly seniors can meet and talk. For example, this could be providing seats under shade in an "L" shape or "U" shape to encourage conversation

Guiding Principle

5. Public spaces should be accessible and comfortable for seniors.

12.4 Providing Sports Spaces

Sports that are physical in nature (formerly referred to as "active" uses) include: cricket, football, netball, tennis, soccer, hockey and rugby. 'Sporting' (active) reserves are used and managed differently to other (formerly referred to as "passive") reserves, where formal sports are not played.

The City prepared a Strategic Provision of Active Reserves 2011 – 2031 report in 2011 to guide the future provision and management of sports (active) reserves. The City has 20 such reserves to accommodate a diverse range of outdoor field sports and over 40 sporting clubs.

The study provided a twenty year strategic plan for the future provision of sports reserves within the City. It assessed the current and future active reserve needs for each of the current sports played within the City and outlined potential scenarios for better utilisation and distribution of clubs on the City's reserves and facilities. It found that the City faces significant challenges as it has limited opportunities to develop additional sporting fields. It placed a high emphasis on making the best use of the existing facilities, including potential relocation of some sporting clubs to reserves that are a better fit for their needs. In order to ensure suitable provision of active reserve infrastructure for the current and future needs of the community, the City is developing master plans for key locations.

The City will continue to implement the recommendations made in the Strategic Provision of Active Reserves 2011 – 2031 Report.

12.5 Constraints on Purchasing More Land for New Public Spaces

The purchase of additional land for new parks is constrained by a range of factors in the City of Melville, particularly:

- High land values
- The limited size of most landholdings and fragmented ownership, which means that it is difficult to purchase contiguous lots at the same time
- The difficulty of finding suitably located sites that could be amalgamated into an existing park (i.e. lots next to existing parks)
- Market competition for land, which means that suitable land may not be able to be purchased by the City even if this was desired
- The land purchase requirements and processes of the Local Government Act 1995

Land in the City of Melville is expensive. Based on an assumed rate of \$1,000 per square metre (land in some parts of the City would be far more expensive, while other parts may be cheaper), \$800,000 could possibly buy 800 square metres of land to add to a park, not including the landscaping of the site or adding any amenities/facilities. Additional funding would also be required on an annual basis to care for and maintain the new parkland. A park of this size would be considered small pocket park.

By comparison, \$800,000 could potentially deliver any one of the following public space benefits:

- 2.1 kilometres of new or upgraded footpaths (\$250 per square metre for a footpath 1.5m wide)
- 2,000 new trees
- 266 new bench seats
- 123 picnic tables
- 200 drink fountains
- 100 single-plate barbeques
- 123 swing sets
- 16 outdoor gym sets
- 26 half-court basketball courts

This hypothetical example highlights the opportunity of thinking creatively to best utilise the available funding for the benefit of the whole community.

The constraints noted above mean that purchasing additional freehold land for public spaces is difficult and would only be viable and warranted in limited circumstances. For example, a public utility may sell a land holding that is no longer required. This opportunity was taken by the City in 2012 when it purchased land set aside for a power substation site from Western Power on Murray Road in Bicton, which has become a park. However, these situations are rare.

The purchase of freehold land in order to retrospectively attain a 10% public open space standard in a developed and comparatively expensive urban area is not financially sustainable. The 10% standard is intended to be applied for new subdivisions on 'greenfields' (vacant) sites and is not intended to be retrospectively applied to older areas in inner Perth that were surveyed and subdivided before 1955 (when the 10% standard was first introduced). The City's suburbs that were surveyed prior to 1955 include: Applecross; Alfred Cove; Ardross; Attadale; Bicton; Melville; Mount Pleasant; Palmyra and Willagee.

"In order to enhance and maintain liveability in Australian cities we don't have to forego our love of space, rather we need to think about how we are currently using the space we have".³⁸

The key recommendation of this Strategy is that the City prioritise improvements to the quality, useability, amenity, sustainability, variety, safety and accessibility of public spaces over the purchase of expensive freehold land for additional parklands (i.e. quantity). There are many opportunities to think creatively and best utilise the available funding for the benefit of the whole community.

It is recommended that the City only purchase freehold land for additional parkland if:

- The identified needs of the local community are unable to be met by improving the quality, useability, amenity, sustainability, variety, safety and accessibility of existing public spaces;
- A cost effective opportunity arises; or
- Existing local public spaces are demonstrably suffering from over-utilisation.

Purchasing more freehold land is not the only way to increase the amount of public space available to the community. More cost effective ways to increase the amount of effective and useable public space are discussed in section 13.1.

Guiding Principle

6. Use a best value for money approach to improving public spaces. Purchasing expensive freehold land is generally not the most cost effective way to improve public spaces for the community.

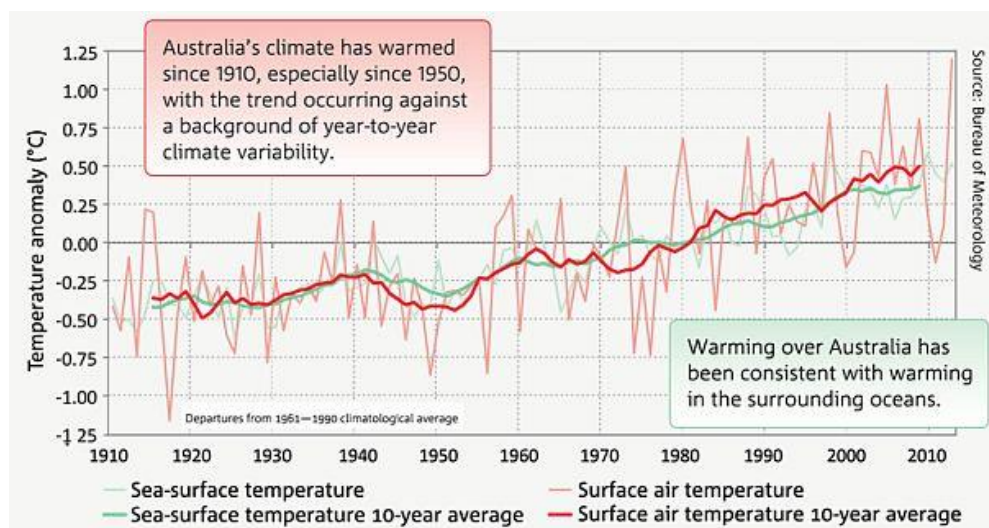
³⁸ Designer Jon Shinkfield <http://designbuildexpo.com.au/where-is-the-shade-better-planning-of-open-and-public-spaces-will-enhance-our-cities-liveability-in-the-face-of-growth/>

12.6 Climate Change

Climate change will increasingly influence Perth's climate. It will significantly affect average rainfall and temperatures over time, which in turn will affect the development, use and maintenance of public spaces. The following impacts are highlighted by the Australian Government, which will be relevant for public spaces:

- *Average temperatures will continue to increase in all seasons (very high confidence)*
- *More hot days and warm spells are projected with very high confidence*
- *A continuation of the trend of decreasing winter and spring rainfall is projected with high confidence.*
- *Increased intensity of extreme rainfall events is projected, with high confidence*
- *Time spent in drought is projected (with high confidence) to increase over the course of the century³⁹*

Figure 16 – Australian Climate Influences

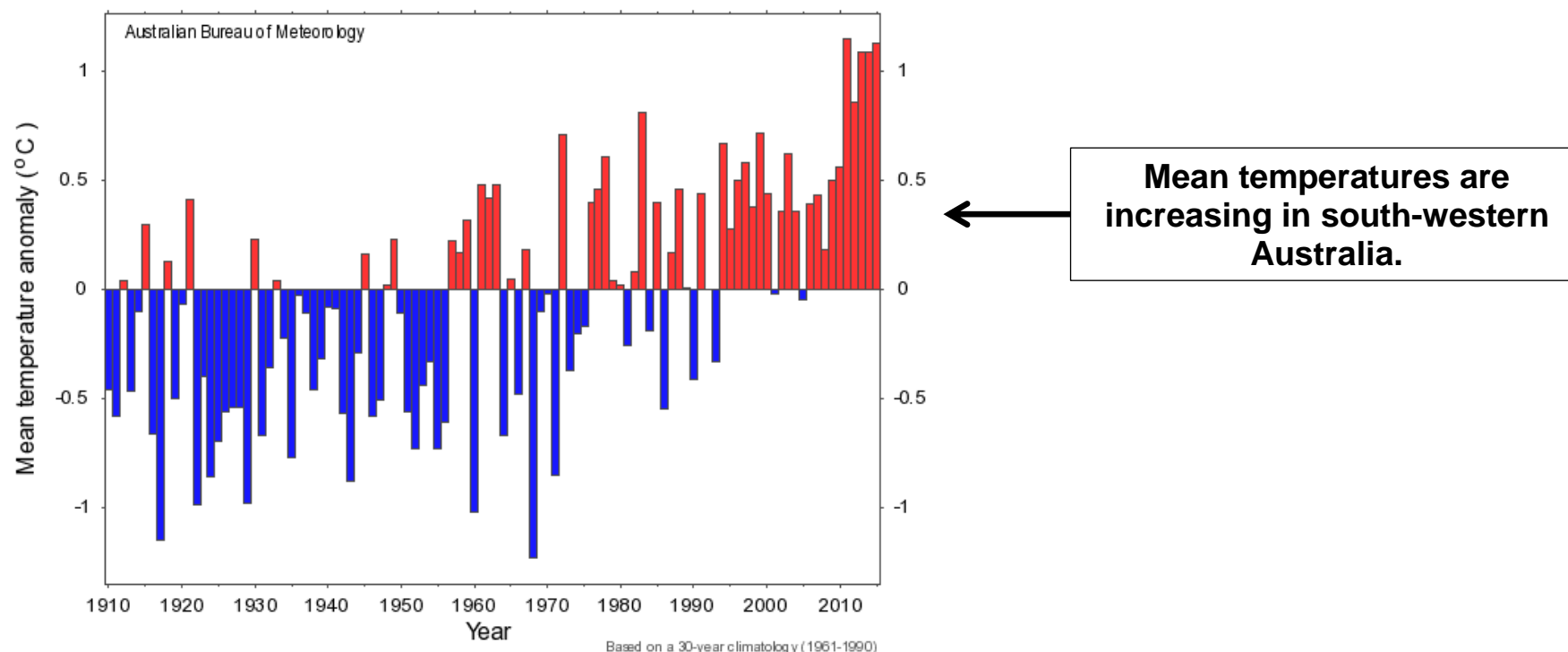


Source: Bureau of Meteorology <http://www.bom.gov.au/watl/about-weather-and-climate/australian-climate-influences.shtml?bookmark=introduction>

³⁹ Australian Government - <http://www.climatechangeinaustralia.gov.au/en/climate-projections/future-climate/regional-climate-change-explorer/sub-clusters/?current=SSWSW&tooltip=true&popup=true>

Figure 17 below shows how the mean temperature has increased over the last century in South Western Australia.

Figure 17 – Annual Mean Temperature Anomaly – South Western Australia 1910-2015



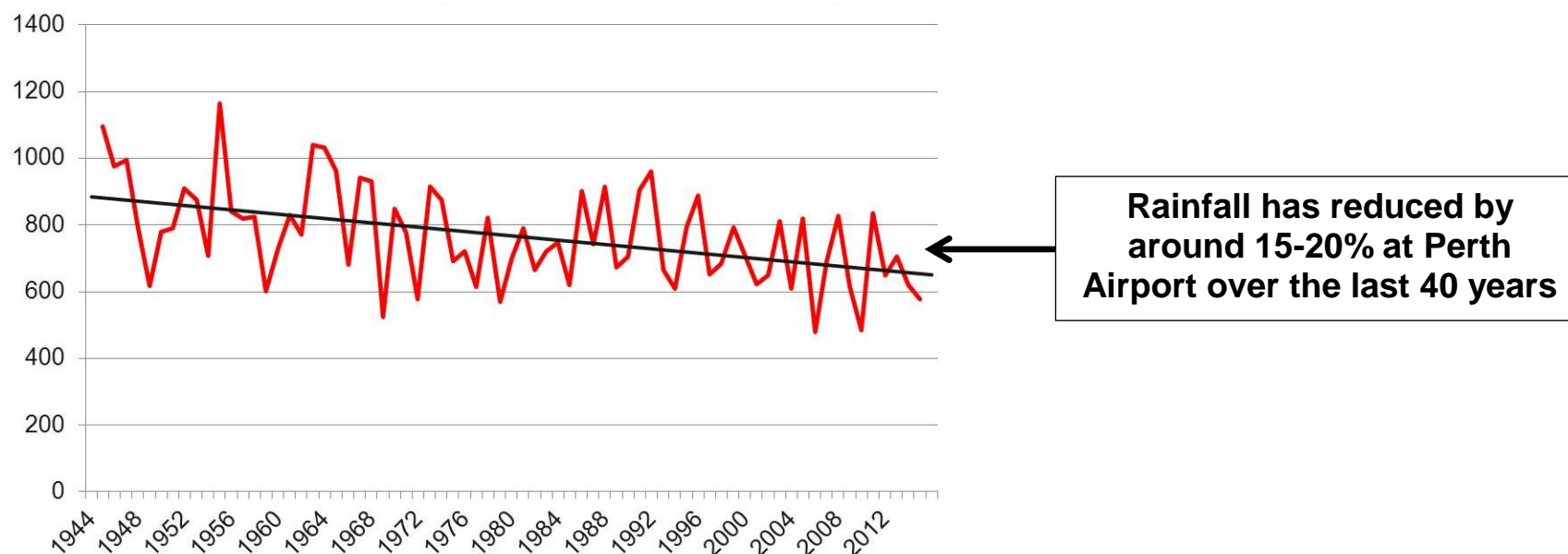
Source: Australian Bureau of Meteorology

The Australian Government predicts that average temperatures will continue to increase in all seasons and that there will be more hot days and warm spells. Higher temperatures may have the following implications:

- People may wish to use public spaces more in the early morning and in the evening to avoid the heat of the day
- More lighting of parks and reserves may be desired to allow evening and nighttime use
- Shade will be increasingly valued, particularly over footpaths, barbeque/seating areas and play equipment
- The urban heat island effect will become an even bigger issue

Figure 18 shows how annual rainfall has been reducing over time.

Figure 18 – Annual Rainfall in Millimetres at Perth Airport 1944-2015



Source: Australian Bureau of Meteorology data

The Australian Government predicts that overall rainfall levels will reduce, however there will be more intense rainfall events and the time spent in drought will increase. This may have the following implications for public spaces:

- Drainage will need to be reconsidered to cope with intense rainfall events
- There may be impacts on vegetation species in public spaces (e.g. more dryland species and less wetland species)
- Groundwater allocations for local governments will be reduced, meaning that less irrigation of public spaces will be allowed. This may mean that areas of green grass (which is irrigated by groundwater) will need to be reduced

12.7 Reduced Water Availability

An increasing lack of water will become a major issue for public spaces in the future.

Almost all of the irrigation of Western Australia's public spaces is with groundwater. According to the Department of Water, Perth's main underground water source – the Gnangara Mound, has been in decline for the past 30 years due to climate change. As annual rainfalls continue to decrease, the current level of groundwater usage will become increasingly unsustainable. Substantial reductions in use of groundwater will be required. Irrigation will have to be more efficient and targeted. Ultimately there could be forced reductions in irrigation of public spaces from ground water sources, which will have direct impacts on the quality, use and appearance of public spaces⁴⁰.

It is now a Department of Water licensing requirement for all bores to be metered. Reports are submitted to the Department of Water annually detailing groundwater monthly abstraction rates.

As part of the Parks Hierarchy approach in response to ground water licence conditions and water budgeting per park, the majority of the irrigation applied at sporting reserves will be focused on the active playing surface and reduced to the surrounds.

Stormwater runoff is a key available water resource that could provide large volumes of water for irrigation. The primary downfall of stormwater catchment is that Perth has very little rain over the summer, thus very large catchments and storage infrastructure are required to capture a sufficient volume of water. Most reserves do not have the space required for such infrastructure.

Underground water storage also has some serious issues. Firstly, in a drought year the storage may not be large enough to capture enough water for a park which could cause significant damage to the turf if other water supplies cannot be found. Secondly, much of the City's stormwater runoff is managed in sump areas, detention basins and the like. The water that is collected in these areas infiltrates its way into underground aquifers, which currently supply almost all of the water for the City's public spaces. Therefore, capturing this water in storage tanks would decrease the amount of water replenishing the aquifers, resulting in no real savings to the City's water supplies. Underground water storage also has a high capital cost. Large scale underground water storage would not be an effective solution for providing a sustainable water source in the future.

Hydro-zoning is being utilised by local governments as a means of using limited water resources more efficiently. Hydro-zoning involves "zoning" plantings so that plants with similar water requirements are clustered together to conserve water.

When additional water restrictions are enforced in the future, synthetic sports surfaces that require little or no water will become essential to satisfying the community's demands for active recreation spaces. Synthetic sports surfaces have high capital costs and some issues, however they have much greater usage capacity than natural turf and thus could be an option for local governments such as Melville that have limited land available for additional active reserve space.

⁴⁰ Department of Sport and Recreation 2007 cited in the City's Strategic Provision of Active Reserves 2011 – 2031 Report

Water sensitive urban design (WSUD) is an approach to water management that restores, where possible, the natural water cycle in built up areas. This means using streets and open space to reduce the flow of, treat and capture stormwater, minimising and improving the quality of water run-off into stormwater infrastructure networks. WSUD seeks to:

- Manage, protect and improve waterways and wetlands
- Manage stormwater runoff close to its source
- Maintain or improve water quality
- Reduce water use – for example by planting native species
- Maximise water reuse including waste water⁴¹

WSUD techniques can be applied to the design and management of streets and open space.



WSUD allows stormwater to drain from a car park into a bed of native plants at the Carawatha Park, Willagee



The streetscape upgrades on The Esplanade, Brentwood have removed kerbs to allow stormwater to drain into garden beds

⁴¹ <http://www.newwaterways.org.au/>

12.8 Greening of the City

The community feedback to develop the City's Strategic Community Plan highlighted the importance of creating a greener environment, planting more trees and vegetation and improving parks and green spaces.

The City's Corporate Strategic Environmental Plan responds to this community feedback:

Corporate Environmental Goal	Objective
Greening of the City	Increasing the vegetation canopy coverage and biodiversity on City-owned or controlled land whilst advocating for and promoting such outcomes on privately owned land within the City's boundaries.

Planting trees and greening urban areas provides a wide range of benefits, including:

- **Environmental:** Trees reduce air pollution, hold the soil together and provide habitats for wildlife such as birds and insects
- **Economic:** Trees help to increase property values and reduce the deterioration of hard assets such as concrete footpaths and roads by up to 30%
- **Climate:** Trees create shade, help cool the air, create oxygen and soak up carbon dioxide
- **Transport:** People are more likely to walk and will walk longer distances along shady streets, helping to reduce car travel
- **Character and Identity:** Trees and greenery (or lack thereof) help to define the character and identity of streets and places
- **Social:** Trees help to encourage social interaction by providing nice places and build community pride and ownership in places
- **Health and Wellbeing:** Trees encourage physical activity by providing shaded and higher amenity spaces, improving physical and mental health.
- **Safety:** Places that are cared for and well maintained reduce crime. The visual narrowing of the streets can assist with slowing vehicle speeds

The key to understanding this issue are the differences between public and private land. In broad terms, the City has direct or a large amount of control over public land, whilst it has an indirect (largely regulatory) role in controlling development of private land.

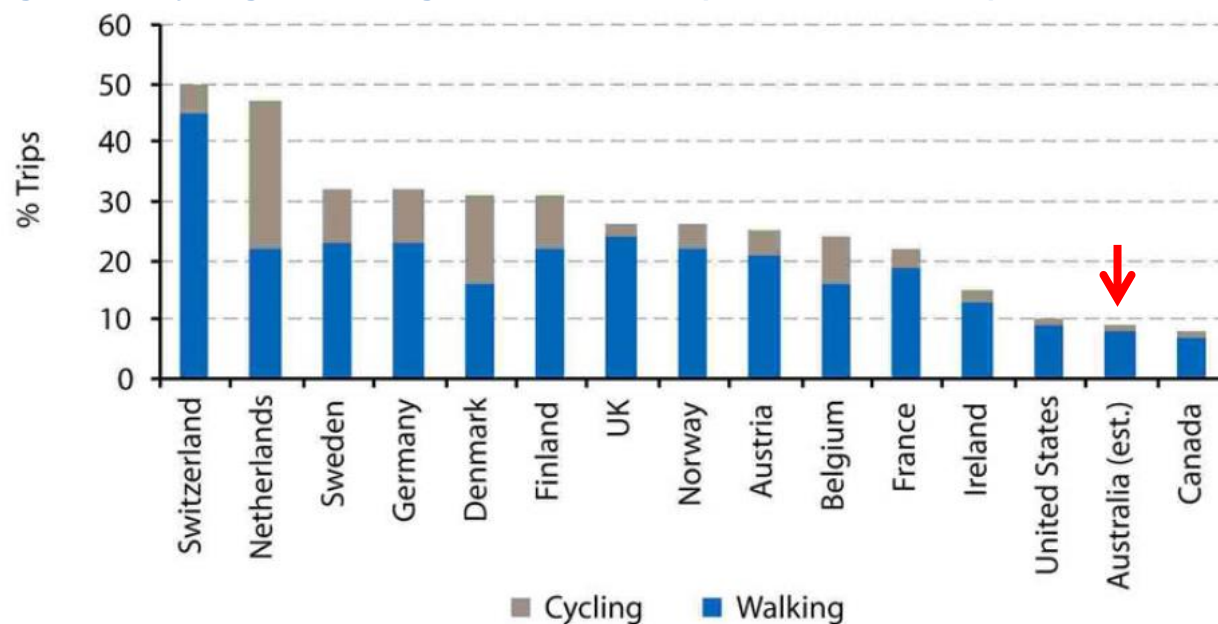
This Strategy reiterates and supports the City's intent to plant more trees and greenery in public spaces. The City is preparing an Urban Forest Strategy to guide future urban greening initiatives.

12.9 Traffic Safety Concerns

Streets provide convenient access for motor vehicles, but if cars overly dominate the environment, the street will often be perceived as unsafe for pedestrians, noisy and lacking amenity, intimacy and comfort. This sometimes results in cars being used even for short trips. Ten percent of vehicle trips undertaken across Perth are one kilometre or less. Twenty percent of morning peak hour traffic comprises of parents dropping children at school, according to Department of Transport statistics.

Streets are increasingly being recognised as important, but under-appreciated public spaces. There is strong and consistent evidence that traffic hazards (including vehicle speed) are a major constraint on active transport in Australia. Rates of walking and cycling are low when compared with other developed countries.⁴²

Figure 19 – Cycling and walking shares of urban trips in Australia, Europe, Canada and United States of America

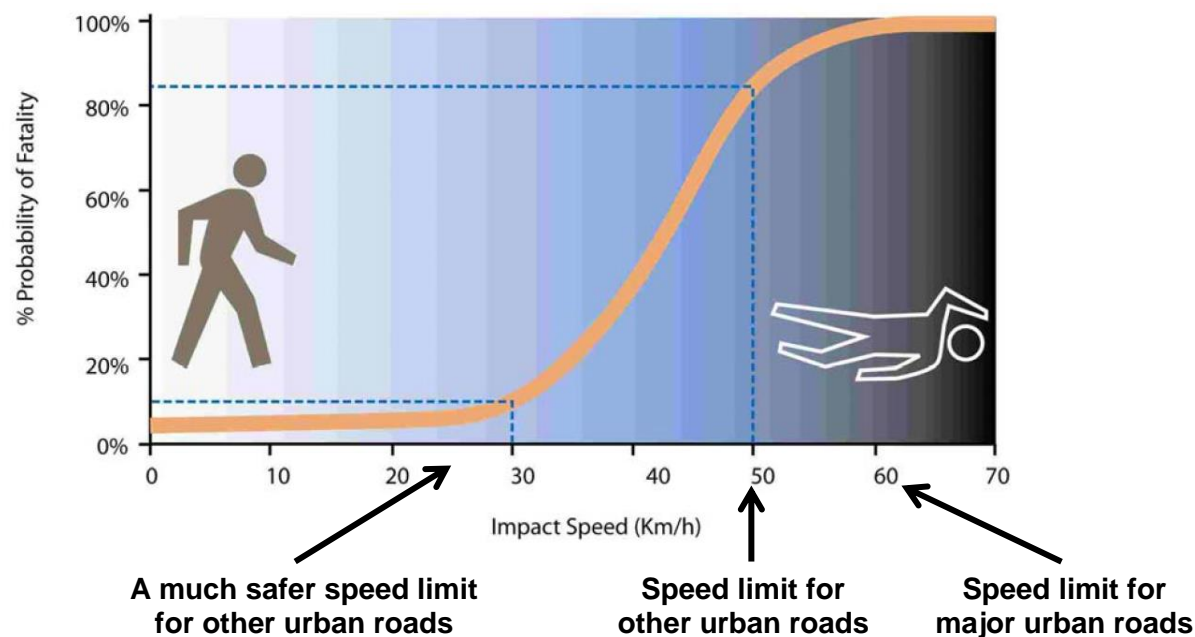


Source: Safe Speed: promoting safe walking and cycling by reducing traffic speed. Dr Jan Garrard. Commissioned by the Safe Speed Interest Group – The Heart Foundation, City of Port Phillip and City of Yarra, 2008

⁴² Safe Speed: promoting safe walking and cycling by reducing traffic speed. Dr Jan Garrard. Commissioned by the Safe Speed Interest Group – The Heart Foundation, City of Port Phillip and City of Yarra, 2008

Australia has some of the highest urban speed limits in the world. Urban speed limits in the United States and Europe are well below Australian limits. Speed limits are not the inevitable results of urban form, but an outcome of values-based policy and decision-making. There is consistent, strong evidence for the relationship between speed and risk of injury to pedestrians and cyclists. Speed is the single most important contributor to road fatalities; an aggravating factor in all crashes; and contributes to the severity of crash outcomes regardless of the cause (World Health Organisation 2008). There is also good evidence that low neighbourhood speed limits (generally 30 km/h or less) encourage walking and cycling.⁴³

Figure 20 – Probability of a Fatal Injury for a Pedestrian or Cyclist Hit by a Motor Vehicle

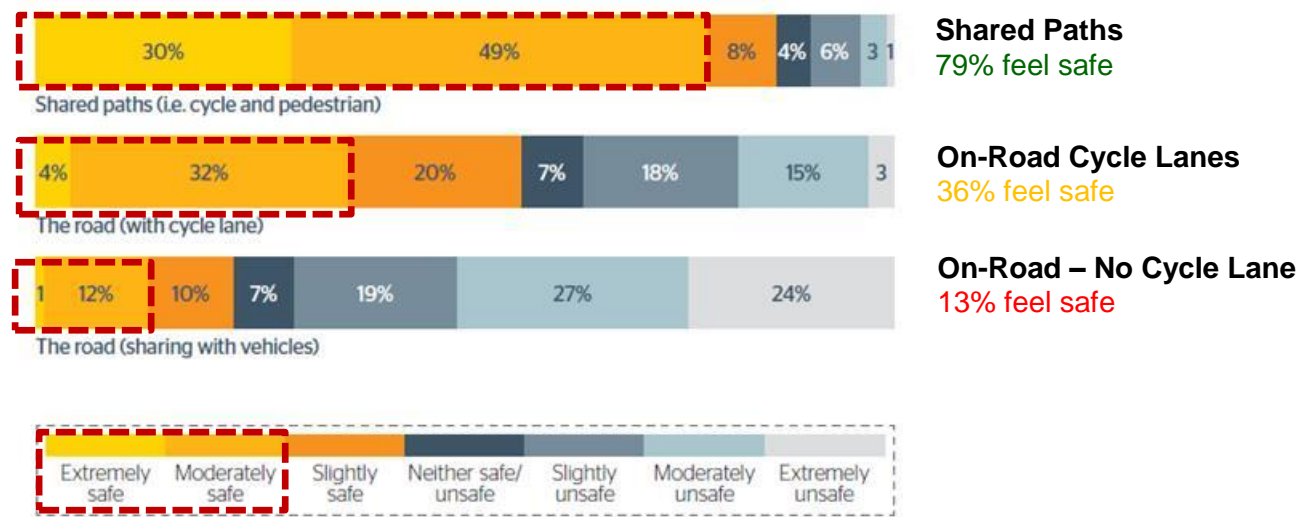


High speed limits in urban areas create safety concerns for vulnerable users such as pedestrians and cyclists. As shown in Figure 20, a pedestrian hit by a car traveling at 30kmh has a very good chance of survival, whilst a pedestrian hit by a car traveling at 60kmh has almost no chance of surviving the collision. A focus on improving safety must at least consider reductions in urban speed limits.

⁴³ Safe Speed: promoting safe walking and cycling by reducing traffic speed. Dr Jan Garrard. Commissioned by the Safe Speed Interest Group – The Heart Foundation, City of Port Phillip and City of Yarra, 2008

A 2015 RAC survey found that there are major differences of perceived safety based upon the various types of cycling infrastructure, which is also related to speed limits and concerns with mixing with high speed traffic. The survey shows that only 13% of riders would feel safe riding on the road and sharing with cars.

Figure 21 - Feelings of Safety Using Different Cycling Infrastructure



The City's Transport Strategy highlights the need to promote all travel modes. It recommends physically enhancing the walking/cycling environment and encouraging more people to walk or cycle.

It is considered that traffic issues and traffic speed in particular effects the way public spaces are used and accessed and reduces active leisure pursuits such as walking and cycling.

Guiding Principle

- Reducing vehicle speeds in activity centres and residential areas can improve safety and help promote walking and cycling.**

13. Opportunities to Improve

13.1 Increase the Amount of Effective Public Space without Purchasing Expensive Freehold Land

Purchasing more freehold land is not the only way to increase the amount of public space available to the community. More cost effective ways to increase the amount of available and useable public space include:

- Upgrading road reserves to become parks. For example, the City previously converted areas of road reserve in Willagee and Palmyra to parks, including at Joan Williams Park, Baal Street Reserve, Jagoe Loop, Tony Zuvela Park, and Three Bears Park.
- Upgrading road reserves to include more trees, seating areas, parklets or other useable public spaces.
- Making streets more pedestrian-friendly and pleasant for people to relax and spend time (for example Applecross Village).
- Upgrading drainage areas or sumps to allow public spaces and/or incorporate environmental features/plantings (natural areas are important spaces in urban areas).
- Negotiating with local schools to allow after-hours community access to school ovals. Many schools in the area already allow after-hours community access to school ovals.
- Negotiating with developers to provide publicly-accessible decks/rooftop gardens in new developments.
- Providing new footpaths / cycle paths to encourage walking and cycling.

The above examples do not require the purchase of expensive freehold land, which means that more can be done with the funding available or that public space improvement costs can be reduced.

This opportunity to improve supports the guiding principle to employ a best value for money approach to improving public spaces. Purchasing expensive freehold land is generally not the most cost effective way to improve public spaces for the community.

13.2 Upgrade Underutilised Public Spaces

The main issue to address in the City is not a lack of public spaces, but rather improving the quality, useability, amenity, sustainability, variety, safety and accessibility of existing public spaces.

There are many opportunities across the City to improve existing spaces by providing things to do, adding new amenities (seats or barbeques for example), providing shade and greenery, improving accessibility and connections, attracting different users and making spaces more environmentally sustainable. Community feedback and further detailed investigations could identify the potential opportunities. Some of the photos below show some initial potential ideas.



Street corners on Bawdan Street, Willagee

The corner of Bawdan and Bartlett Streets in Willagee occupies approximately 1,270m².



Open area on Archibald Street, Willagee

It has potential to be transformed in to a valuable public space if trees, seats, possibly play equipment or other amenities were to be installed.



Open area on Moreing Road, Attadale

The corner of Moreing Road and Cowling Street, Attadale is adjacent to local shops and businesses.

Guiding Principle

- 8. Underutilised public spaces provide opportunities to improve their quality, useability and amenity.**

13.3 Promote Walking and Cycling

High quality public spaces can help encourage exercise, health and wellbeing. Large population studies have repeatedly demonstrated that higher rates and intensity of physical activity are associated with greater risk reduction. Physical activity can significantly reduce the risk of Australia's leading killers: heart disease, type 2 diabetes and some cancers.⁴⁴

The presence, quality, safety and amenity of footpaths and cycle paths are critical for encouraging recreational walking and cycling. The quality of streetscapes, including presence shady street trees, encourages walking and cycling.

*The presence of footpaths is important to adolescents and older adults recreational walking, and (there is) strong evidence of an association with adults recreational and general walking.*⁴⁵

*Street trees provide a multitude of environmental, economic, social, and health and wellbeing benefits and are an important consideration in the planning and design processes of our urban (and suburban) areas for enhancing walkability.*⁴⁶

*There is strong evidence that the aesthetic presentation of streets can help promote active transport and recreational walking, particularly for adults and older adults.*⁴⁷

Improving walking and cycling is a high priority in the City's Community Plan and would encourage exercise, health and wellbeing. The existing budget funding for footpaths and cycle paths is limited. New (or improved) paths could be developed by allocating additional funding from the Public Open Space Reserve account.

It is recommended that upgrades should prioritise areas where the City wants to encourage walking and cycling. The high priority connections include to/between activity centres, schools, key public transport routes and parks.

Guiding Principle

9. Prioritise upgrades to walking and cycling connections to/between activity centres, schools, key public transport routes and parks.

⁴⁴ *Blueprint for an Active Australia*, Heart Foundation

⁴⁵ Healthy Active by Design <http://www.healthyactivebydesign.com.au/design-features/movement-network>

⁴⁶ As above

⁴⁷ As above

13.4 Respect and Celebrate Aboriginal Culture and History

The City of Melville acknowledges the Bibbulmun people as the Traditional Owners of the land on which the City stands today. It has a Reconciliation Action Plan 2013 – 2016 which provides a vision for respect and reconciliation between Aboriginal and Torres Strait Islander people and other Australians.

The Reconciliation Action Plan includes a number of recommendations that are supported by this Strategy, including:

- Adopting a dual-naming strategy for community spaces, public places and natural features
- Installing a memorial for the Stolen Generation people
- Interpretative signage and artworks in places of significance for Whadjuk people
- Cultural awareness talks or tours in public spaces
- Protect, maintain and promote Aboriginal cultural heritage sites
- Developing places that are focal points for the promotion and celebration of Aboriginal people and their culture

There are a number of significant Aboriginal sites in the area, including:

- Djoondalup (Point Walter)
- Goolugatup (Heathcote)
- Yagan's Lookout (Wireless Hill)
- Bidi Katitijiny (Piney Lakes Aboriginal Women's Trail)

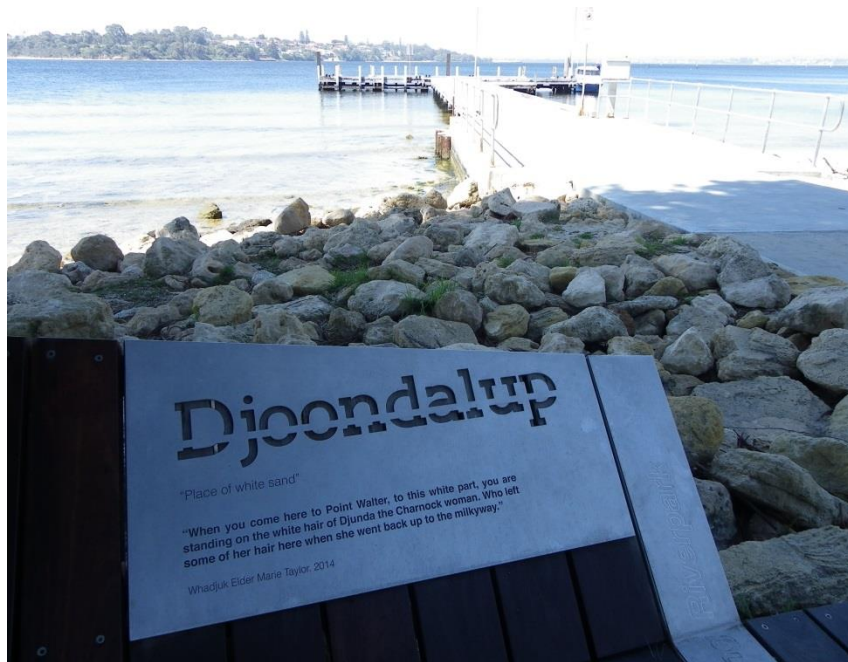
The significant Aboriginal sites are key public spaces and are further detailed in the Reconciliation Action Plan⁴⁸.

The City's public spaces provide excellent opportunities to show respect and celebrate Aboriginal culture and history as well as provide help inform and educate the community.

⁴⁸ - Also refer to <http://www.melvillecity.com.au/community-and-facilities/community-life/aboriginal-heritage-and-culture/cultural-significance>

Guiding Principle

10. Respect and celebrate Aboriginal culture and history in public spaces.



Signage at Point Walter / Djoondalup acknowledges the Aboriginal connections with the place.



Interpretative signage at Bicton Baths Reserve / Kwoppa Kepa

13.5 Improve Water Management

Spaces used for recreational or natural purposes as well as stormwater management can be classified as public spaces according to Liveable Neighbourhoods. Fenced drainage sumps and basins with no public access are not considered to be public spaces.

The City reviewed its existing drainage network in 2016 and found that:

- 63 out of the 86 sumps require no modification and generally function as expected from a drainage perspective
- 17 sumps could be reduced in size (subject to further site investigation)
- Four sumps are not required
- Two sumps could be increased in size to reduce the flooding in the local area

The review suggested that there are opportunities to increase the amount of public space by reducing the size of sumps or removing them entirely. Including water management practices in parks can also provide win-win outcomes in appropriate locations.

Parkland drainage systems can be designed to manage small, minor and major storm events. Assessment of parkland plans by multi-disciplinary teams of specialists involved in planning, engineering, recreation, landscape and environmental services can assist to enhance all parkland function.⁴⁹

Designing parks and verges to manage typical rainfall events and minor storms can help reduce pressure on the overall drainage network, provide additional water to vegetation and help recharge local aquifers. This may be possible for some parks and can be further investigated during park, streetscape and/or drainage system upgrades.

The *Public Parkland Planning and Design Guide (WA)* provides a number of water-sensitive design ideas for improving parkland amenity, including the ideas pictured on the following page. Hydrozoning landscaping into different areas based on their water needs can also help reduce water use.

⁴⁹ Public Parkland Planning and Design Guide (WA), Department of Sport and Recreation and the Department of Water



This park in Burswood accommodates drainage in heavy rainfall events, grassed areas, vegetation, seating, shade and public art. It also provides a pleasant view for surrounding townhouses.



Water run-off from The Esplanade, Brentwood drains into a swale, reducing drainage and reticulation expenses and helping to filter and clean water before it enters the Canning River

Guiding Principle

11. Utilise water sensitive urban design in parks, drainage basins and streetscapes wherever possible.

13.6 Encourage a Mix of Different Activities and Public Space Users

Public spaces that have a variety of attractions and uses are more successful as community gathering spaces. A wider variety of people are attracted to mixed use public spaces. Public spaces and parks that appeal to multiple users at different times of the day promote natural surveillance and present an opportunity to bring together diverse community groups.

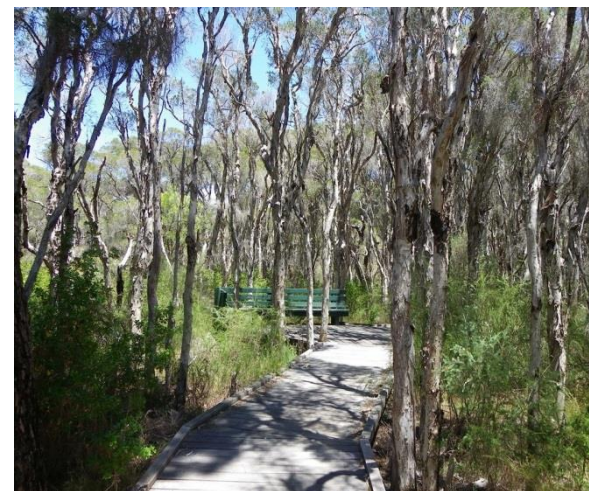
The Public Parkland Planning and Design Guide (WA) recommends to:

*Develop multiple-use parklands and balance provision of sport, recreation and nature spaces.*⁵⁰

The City's strategic approach is to create multi-function community hubs and public spaces to attract a broader range of users. This approach is more economically sustainable and can support higher quality facilities compared with single-use facilities.

Guiding Principle

12. Attract a range of people to public spaces by providing a variety of activities and amenities.



Piney Lakes, Winthrop provides a range of activities, amenities and spaces including places to relax, places to exercise (and exercise dogs), have a picnic, learn about Aboriginal culture or the environment and natural areas.

⁵⁰ Public Parkland Planning and Design Guide (WA), Department of Sport and Recreation and the Department of Water

13.7 Create Friendly Neighbourhoods

Public spaces provide places to meet friends and family and build a stronger community. The City strongly encourages people to get to know their neighbours and be part of the local community.

One of the practical ways the City helps is the Friendly Neighbourhoods programme. The Friendly Neighbourhoods community trailer makes cooking a BBQ for a large group easy. Equipped with a gas BBQ, gas bottles, cooking utensils, a marquee and lots of other useful items, the trailer has everything needed to host a community barbeque.

The trailer is available free of charge and is available for use within the City of Melville. Both individuals and community groups are welcome to take advantage of this service. Find out more at <http://www.melvillecity.com.au/community-and-facilities/community-life/friendly-neighbourhoods>.



Friendly Neighbourhoods community event in Elvira Street, Palmyra

13.8 Support Play Streets

Play Streets create play spaces by temporarily closing local streets to through traffic so that children and adults can play and socialise outside on their local street.⁵¹ Play Streets allow a group of local residents to temporarily close a local street to through traffic to have a community barbeque and encourage children to get outside, meet their friends and play on the street. The concept offers a relatively cheap and quick way to improve public spaces across the City. They can encourage exercise and active play for children and help neighbours get to know each other.

A potential approach to facilitate Play Streets could be:

- The City could prepare a set of guidelines for Play Streets and clearly indicate the circumstances where play streets would be or would not be appropriate. The City could make available resources such as the Friendly Neighbourhoods community trailer, templates for invitations to “Play Street Parties” and basic traffic management plans, signage etc
- A group of residents along a street can “opt in” to have a Play Street Party and make an application to the City to be considered and if appropriate, approved by the City. Residents would arrange and set up the Play Street in accordance with the City’s Guidelines and any relevant approvals

Guiding Principle

13. Encouraging Community Play Streets can temporarily increase the amount of local public space in an area.



Play Street photos from the United States of America sourced from Google images

⁵¹ www.playstreetsaustralia.com

13.9 Encourage Verge Gardens

The verge is the space between the roadway and the property line and often accommodates footpaths, grass and street trees. Verges are often referred to as nature strips in other states of Australia. Verges are important public spaces that could be improved by planting appropriate species, retaining mature street trees as well as planting new street trees wherever possible.

The City encourages residents to plant native, waterwise verges to reduce water and fertiliser use and increase biodiversity. It has a policy to guide verge plantings and also has a Local Plant Subsidy Scheme. Further information on the subsidy is available from <http://www.melvillecity.com.au/plantsubsidy>. Greener streets could help address the urban heat island effect (where urban areas become increasingly hotter), create habitat, save water (compared with reticulated lawn) and improve the look and feel of streets.



Source: www.sustainableoutdoors.com.au

Guiding Principle

14. Encouraging verge gardens can help to create greener and more pedestrian-friendly streets.

13.10 Prepare Park Assessments

This document is a high level, strategic overview of public spaces and therefore does not include a detailed audit of individual parks or deal with specific management issues.

The City could prepare Performance Assessments of selected parks (or all parks if there are sufficient resources) to help inform management plans and future initiatives. The assessments, for example, could consider parks in detail including (but not limited to):

- **Accessibility** for:
 - Children, seniors, youth and persons with a disability
 - Pedestrians and cyclists
 - Public transport
 - Motorists
 - How can connections and accessibility be improved?
- **Useability**
 - The potential activities that the space can be used for
 - Who is likely to use the park and why?
 - Can the park be improved to broaden the range of users?
- **Amenity**
 - How does the park look and feel?
 - Can amenity improvements be made?
- **Safety**
 - Is the park perceived to be safe?
 - Have there been safety incidents?
 - Can safety improvements be made?

- **Natural Areas and Ecology**
 - What natural areas are provided?
 - How does the park improve the ecology of the area?
 - What improvements can be made?
- **Urban Forest**
 - How does the park contribute to the Urban Forest?
 - What improvements can be made?
- **Climate Change Resilience**
 - How will climate change and reduced water availability affect the parks?
 - What climate change adaptation and mitigation measures can be introduced?
- **Social Connections**
 - Is the park a social place?
 - How can social connections be improved?
- **Facilities and Maintenance Issues**
- **Water Management**
 - Does the park incorporate Water Sensitive Urban Design?
 - Does / can the park help with stormwater management?

13.11 Improving Natural Areas

Nature spaces provide a setting for people to enjoy, learn about and connect with nature. The City manages 55 Natural Area Reserves, including some with regional, state and national importance.

Natural areas are important public spaces and provide a range of social, cultural and ecological benefits. 'Friends of' groups help to manage natural areas, demonstrating the community's strong attachment to and commitment towards nature spaces.

Nature spaces can provide opportunities for learning through interpretative signage, guided walks or educational activities. They also offer places for cultural experiences, such as the Piney Lakes Aboriginal Women's Trail.

Further resources could help improve these areas and address other issues such as fire risks and the border areas between grassed parks and bushland areas (the 'edge effect' leads to environmental issues for natural areas).

Guiding Principle

15. Natural area upgrades can improve environmental and social outcomes.



Wireless Hill, Ardross

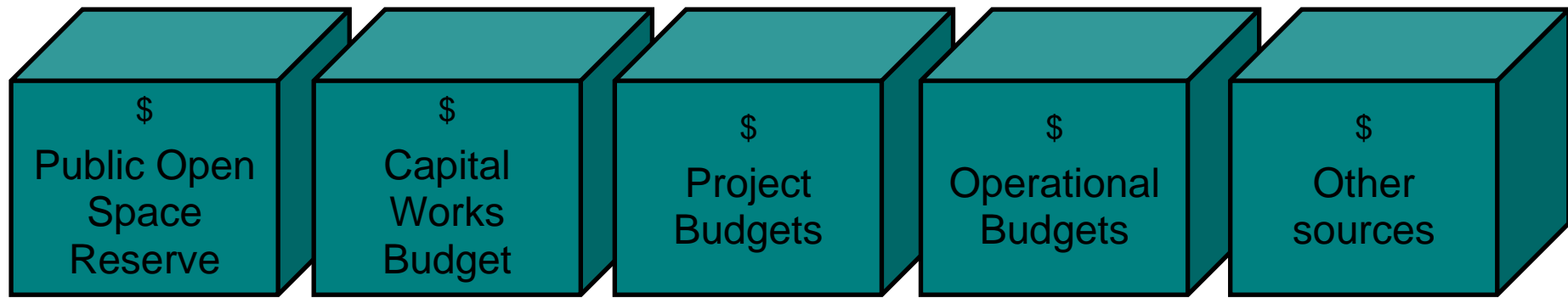


Art Wright Reserve, Melville

14. Funding

Some of the ideas in this Strategy would be new for the City, whilst some are existing actions already being undertaken by the City (for example the Friendly Neighbourhoods programme).

Funding for initiatives recommended in this Strategy could potentially come from one or a combination of the following methods.



It is recommended that the City prioritise improvements to the quality, amenity, safety, accessibility, useability and sustainability of public spaces rather than purchasing additional expensive freehold land to expand parklands. This approach would provide the best value for money for the City's residents and ratepayers.

Capital works, project and operational budgets could include ideas and initiatives from the Strategy as appropriate.

15. Conclusion

Public spaces are valuable civic assets and are essential to community wellbeing and quality of life. It is critical that funds set aside to improve public spaces are utilised effectively and efficiently to deliver the best value for money.

This Strategy provides a clear direction and informs future decision-making on the best ways to improve public spaces. It recommends that the City prioritise improving the quality, amenity, safety, accessibility, useability and sustainability of public spaces over the purchase of additional freehold land. Purchasing more freehold land is not the only way to increase the amount of public space. There are cheaper and more innovative ways to increase the amount of available public space.

An approach focussed on improving public spaces is the most effective way to improve community wellbeing for today and tomorrow.



Carawatha Park, Willagee



Robert Smith Park, Winthrop

16. Principles to Guide Future Decisions and Projects

1. Pedestrian-friendly streets are important public spaces.	37
2. Improvements to the quality, amenity, safety, comfort, accessibility, useability and sustainability of public spaces will help to create a more liveable city.	49
3. Physical health outcomes can be improved by making it easier for people to walk, cycle and be physically active.	60
4. Mental health outcomes can be improved by designing public spaces to encourage social interaction and activities.....	62
5. Public spaces should be accessible and comfortable for seniors.	64
6. Use a best value for money approach to improving public spaces. Purchasing expensive freehold land is generally not the most cost effective way to improve public spaces for the community.	66
7. Reducing vehicle speeds in activity centres and residential areas can improve safety and help promote walking and cycling.	75
8. Underutilised public spaces provide opportunities to improve their quality, useability and amenity.	77
9. Prioritise upgrades to walking and cycling connections to/between activity centres, schools, key public transport routes and parks...	78
10. Respect and celebrate Aboriginal culture and history in public spaces.....	80
11. Utilise water sensitive urban design in parks, drainage basins and streetscapes wherever possible.	82
12. Attract a range of people to public spaces by providing a variety of activities and amenities.	83
13. Encouraging Community Play Streets can temporarily increase the amount of local public space in an area.	85
14. Encouraging verge gardens can help to create greener and more pedestrian-friendly streets.....	86
15. Natural area upgrades can improve environmental and social outcomes.	89