

# SOUTH PERTH ACTIVITY CENTRE PLAN





Title: South Perth Activity Centre Plan  
Project: South Perth Activity Centre  
Prepared for: City of South Perth  
Reference: CSP ACP  
Status: Final  
Version: 5  
Author: R. Duckham, M. Carolane and J. Birbeck  
Graphic Design: R. Huynh  
Approved by: E. Maketic and V. Lummer

## DISCLAIMER & COPYRIGHT

Roberts Day acts in all professional matters as a faithful advisor to its clients and exercises all reasonable skill and care in the provision of its professional services. The information presented herein has been compiled from a number of sources using a variety of methods. Except where expressly stated, Roberts Day does not attempt to verify the accuracy, validity or comprehensiveness of any information supplied to Roberts Day by third parties. Roberts Day makes no warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, validity or comprehensiveness of this document, or the misapplication or misinterpretation by third parties of its contents.

Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favouring by Roberts Day.

This document cannot be copied or reproduced in whole or part for any purpose without the prior written consent of Roberts Day.

## CITATION

This document should be cited as follows:

R. Duckham, E. Maketic & M. Carolane. (2019), South Perth Activity Centre Plan, prepared by Roberts Day Pty Ltd & City of South Perth.

© Roberts Day Pty Ltd, 2019

ABN 53 667 373 703, ACN 008 892 135

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

RobertsDay  
*planning.design.place*





## SUMMARY INFORMATION

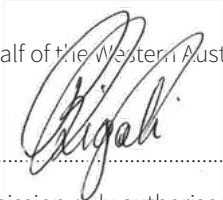
### ENDORSEMENT PAGE

This activity centre plan is prepared under the provisions of the City of South Perth Town Planning Scheme No 6.

IT IS CERTIFIED THAT THIS ACTIVITY CENTRE PLAN WAS APPROVED BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON:

**21-Dec-2021**

Signed for and on behalf of the Western Australian Planning Commission:



an officer of the Commission duly authorised by the Commission pursuant to section 16 of the Planning and Development Act 2005 for that purpose, in the presence of:



Witness

**23-Dec-2021**

Date

**21-Dec-2031**

Date of Expiry



# TABLE OF AMENDMENTS

AMENDMENT NO.	SUMMARY OF THE AMENDMENT	AMENDMENT TYPE	DATE APPROVED BY WAPC



## SUMMARY TABLE

The summary table below provides key statistics and planning outcomes of the activity centre plan. The main purpose of the summary table is to provide a quick reference point to convey the nature and key outcomes of the activity centre plan to facilitate efficient capture of digital information and for clarity, ease of analysis and tracking. The summary table may also be used to assess compliance with policies and targets set in the State and local planning framework and in any relevant high level planning strategy or structure plan.

ITEM	DATA		ACTIVITY CENTRE PLAN REF (SECTION NO.)
Total area covered by the activity centre plan (gross)	102.46 hectares (excluding Kwinana Freeway)		Part 2 Section 1.3 Plan Area
Total area covered by the activity centre plan (nett)	41.05 hectares (excluding existing open space and road reserves)		Part 2 Section 1.3 Plan Area
Area of each land use proposed	N/A*		
Total estimated lot yield	N/A +		
	<b>2031</b>	<b>2041</b>	
Estimated number of dwellings	2,750 dwellings	4,250 dwellings	Part 2 Section 6.2 Forecast Activity
Estimated gross residential density	26.8 dwellings per hectare	41.5 dwellings per hectare	
Estimated (nett) residential site density	67.0 dwellings per site hectare	103.5 dwellings per site hectare	
Estimated population	4,750 people	7,500 people	Part 2 Section 6.2 Forecast Activity
Estimated commercial floor space (total including Retail)	106,360sqm NLA	130,356sqm NLA	Part 2 Section 6.2 Forecast Activity
Estimated Retail floor space	13,860sqm NLA	20,356sqm NLA	Part 2 Section 6.2 Forecast Activity
Number of high schools	No additional		
Number of primary schools	No additional		
Estimated area of public open space:			
• Existing Parks and Recreation Reserve	40.15 hectares		
• Proposed Parks & Recreation Reserve	0 hectares		
• Existing Local Open Space	0.1329 hectares		
• Proposed Local Open Space	0 hectares		
Total area	40.2829 hectares		

### Notes

\* The ACP area is an established inner city precinct which features – and will continue to feature – mixed use development. No areas of discrete land uses are proposed in the ACP. Refer to estimated number of dwellings and commercial floor space, below.

+ As the centre is well-established, and land is extensively subdivided, no additional lots are proposed as part of this ACP. However some lots may be created or amalgamated in the course of redevelopment within the ACP area. The ACP area includes 301 freehold lots as at August 2018.



## EXECUTIVE SUMMARY

This Activity Centre Plan (ACP) follows directly from the Place and Design Report, prepared for the City of South Perth in May 2017. The Place and Design Report was the outcome of workshops and extensive community engagement, exploring the issues affecting South Perth, recognising a broad spectrum of views and interests, and developing a vision and objectives for the future of the South Perth activity centre. As the centre is identified as a District Centre in the State activity centres hierarchy, preparation of an ACP was a major recommendation of the Place and Design Report.

The ACP refines and implements the vision developed through the Place and Design Report. The overarching vision statement is for the South Perth Activity Centre Plan area (ACP area) to be:

*A distinctive inner city centre, tourism destination and residential neighbourhood that is shaped by its connection to nature, unique assets, distinctive buildings, and future-forward approaches to sustainable living. Its lively centre and pedestrian friendly tree-lined streets connect locals and visitors to its diverse businesses, transport nodes and local heritage.*

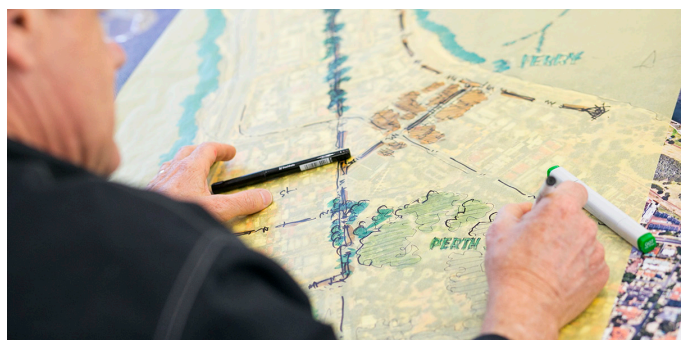
The overarching vision statement is supported by four character area statements (see Part One section 2) that address the diverse and varying ways that density, activity and public space will be addressed across the ACP area.

The ACP comprises:

- **Part One:** Implementation Section, which includes the ACP area map, plan series, character statements for the character areas and development requirements.
- **Part Two:** Explanatory Section, which is to be used as a strategic guide that provides the background, rationale, design basis and intent of the ACP to support the implementation of Part One.
- **Appendices:** Economic and Demographic Assessment; Transport and Movement Analysis, Environmental Assessment Report, Civil Services Report, Local Water Management Strategy, Sea Level Rise Summary Assessment, and Community Benefit Contribution Framework which provide the evidence base that has informed the preparation of the ACP.

Part One of the ACP is to be read in conjunction with Schedules 9B (for the ACP area with the exception of the Landmark Site) and 13 (for the Landmark Site) of the City of South Perth Town Planning Scheme No. 6. The planning scheme implements key parts the ACP by setting objectives and development requirements to regulate development.

The ACP area is already a great urban neighbourhood, defined by its vibrant and diverse community, exceptional amenities and stunning natural setting in an unrivalled central location. It is therefore not surprising that there is demand for the area to grow, especially as the wider Perth metropolitan area grows. The ACP and town planning scheme set a clear vision and detailed planning requirements to manage the growth of the area to ensure that development builds on its unique characteristics,





enhances its economic prosperity and strengthens its vitality for current and future residents, workers and visitors.

The ACP draws on important elements of stakeholder and community engagement, undertaken through the Place and Design project in 2017. This is reflected in the character area-based approach in the ACP, with clear objectives for each character area and development requirements designed to support and build upon the features of each area.

Part One sections 3 and 4 set out detailed requirements for new development including land uses, building height, plot ratio and floorplate size limits, setbacks and design quality standards. All applications for new development in the ACP area will be assessed against these requirements to ensure that private development supports the big-picture vision.

An important component of the future of South Perth is the transport network (see Part One section 5 and Part Two section 8). Although the development of a train station at South Perth is not a direct objective of the ACP, the development controls and other actions identified in the ACP are expected to strengthen the case for a station to be built.

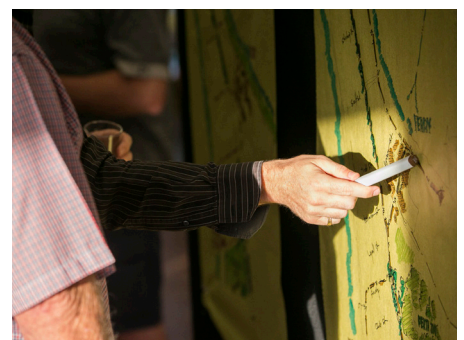
There is a strong focus on reducing car dependence and use in the ACP area. The ferry and bus services already offer transit oriented development opportunities, and the high quality public realm encourages pedestrians and cycling. Increasing the use of non-car transport modes is important to ensure that the transport network remains efficient and effective as the local area and wider city grow in size.

The public realm is also recognised as both exceptional and important (see Part One section 6 and Part Two section 9), and is retained and enhanced through the guidance provided in the ACP.

The ACP aims to provide both flexibility and certainty, by setting clear objectives, guidance and requirements for development proposals, including a detailed framework with clear limits for the approval of larger buildings. The Community Benefit Contribution Framework in Part One section 7 addresses a specific issue raised by stakeholders: that development in the area should deliver benefits to the users of the area. Any application seeking additional development potential (height or plot ratio) above the primary limits must meet prerequisite amenity and design criteria and provide a community benefit contribution to the City, proportional to the size of the development. These community benefit contributions will be pooled by the City, to be used on items that benefit the users of the area.

The ACP is designed to cater for expected demand to 2041, and potentially beyond. However, it should be subject to review regularly, to ensure outcomes match intent. Therefore key performance indicators have been identified in Part One section 9 to enable ongoing monitoring of progress towards the articulated vision.

The South Perth activity centre is already important - and has substantial further potential. This ACP seeks to harness that potential for the benefit of all stakeholders in the present and future.



# CONTENTS

## PART ONE: IMPLEMENTATION

<b>1.0 INTRODUCTION .....</b>	<b>2</b>
1.1 Activity Centre Plan area .....	2
1.2 Activity Centre Plan Structure .....	2
1.3 Relationship to the Scheme and Deemed Provisions .....	2
1.4 Relationship to the Residential Design Codes .....	3
1.5 Exercise of Discretion .....	3
1.6 Commencement .....	3
1.7 Activity Centre Plan Map .....	3
<b>2.0 CHARACTER AREAS AND OBJECTIVES ....</b>	<b>4</b>
2.1 Activity Centre Plan Objectives and Vision .....	4
2.2 A Character Area-Led Approach .....	4
2.3 The Character Areas .....	5
<b>3.0 ACTIVITY.....</b>	<b>8</b>
3.1 Land Use .....	8
3.2 Housing Diversity .....	9
<b>4.0 BUILT FORM .....</b>	<b>10</b>
4.1 Building Envelope .....	10
4.2 Plot Ratio .....	13
4.3 Other Development Requirements .....	14
<b>5.0 MOVEMENT AND ACCESS .....</b>	<b>27</b>
5.1 Local Road Network .....	27
5.2 Public Transport.....	28
5.3 Pedestrian and Cyclist Movement.....	29
<b>6.0 PUBLIC REALM .....</b>	<b>30</b>
6.1 Public Open Space .....	31
6.2 Public Streets.....	32
6.3 Privately Owned Public Open Space .....	33
<b>7.0 COMMUNITY BENEFITS FRAMEWORK....</b>	<b>34</b>
<b>8.0 OTHER DEVELOPMENT REQUIREMENTS</b>	<b>36</b>
8.1 Design Review Process .....	36
8.2 Studies and Plans Required .....	36
8.3 Precinct Strategies .....	37
<b>9.0 MONITORING AND REVIEW .....</b>	<b>38</b>
9.1 Ten year review and renewal of the ACP .....	38
9.2 Review of Community Benefit Contribution Framework .....	38
9.3 Key Performance Indicators .....	38
9.4 School Facilities .....	39
<b>10.0 DEFINITIONS.....</b>	<b>40</b>

## PLAN SERIES.....41

<b>Plan 1:</b>	Activity Centre Plan.....	42
<b>Plan 2:</b>	Street Type Plan .....	43
<b>Plan 3:</b>	Street Interface Type Plan .....	44
<b>Plan 4:</b>	Movement and Access Plan .....	45
<b>Plan 5:</b>	Public Realm Plan .....	46

## FIGURES

<b>Figure 1:</b>	Activity Centre Plan Area.....	5
<b>Figure 2:</b>	Building Envelope .....	10
<b>Figure 3:</b>	Podium Elements.....	11
<b>Figure 4:</b>	Corner Truncations .....	11
<b>Figure 5:</b>	Tower Floorplate and Tower setbacks.....	12
<b>Figure 6:</b>	Plot Ratio and Building Envelope .....	13
<b>Figure 7:</b>	Street Interfaces.....	14-15
<b>Figure 8:</b>	Location of registered Aboriginal heritage sites .....	17

## TABLES

<b>Table 1:</b>	Minimum Non-Residential Plot Ratio .....	9
<b>Table 2:</b>	State Registered Heritage Places .....	16
<b>Table 3:</b>	Registered Aboriginal heritage sites within or adjacent to ACP area boundary .....	16
<b>Table 4:</b>	Floor to Ceiling Heights.....	22
<b>Table 5:</b>	Bicycle Parking Requirements .....	24
<b>Table 6:</b>	Vehicular Parking Requirements.....	26
<b>Table 7:</b>	Supporting Documentation Required .....	36

## APPENDICES

<b>Appendix 1:</b>	Design Excellence Guide
<b>Appendix 2:</b>	Community Benefit Contribution Project list
<b>Appendix 3:</b>	Community Benefit Procedural Guide

## PART TWO: EXPLANATION

### 1.0 INTRODUCTION.....74

1.1 Plan Purpose .....	74
1.2 Plan Objectives .....	75
1.3 Plan Area.....	76
1.4 Evidence based planning.....	76

### 2.0 CENTRE CONTEXT.....78

2.1 Regional Context.....	78
2.2 Local Context.....	84
2.3 Planning Framework.....	88

### 3.0 PROCESS .....

3.1 Developing the Plan .....	95
3.2 Key Stakeholder Messages .....	96



## 4.0 VISION .....97

4.1	Place Vision.....	97
4.2	Character Areas.....	97

## 5.0 PLAN COMPONENTS .....106

## 6.0 ACTIVITY.....108

6.1	Existing Activity.....	108
6.2	Forecast Activity.....	110
6.3	Activity Key Issues.....	114

## 7.0 BUILT FORM .....121

7.1	Existing Built Form.....	121
7.2	Building Typologies.....	125
7.3	Built Form Key Issues.....	128

## 8.0 MOVEMENT .....142

8.1	Existing Movement.....	142
8.2	Movement Forecasts.....	145
8.3	Movement Key Issues.....	146

## 9.0 PUBLIC REALM .....151

9.1	Existing Public Space.....	151
9.2	Key Issues.....	158

## 10.0 SERVICING.....161

10.1	Sewerage Reticulation.....	161
10.2	Water Reticulation.....	161
10.3	Gas Supply.....	161
10.4	Electrical Supply.....	161
10.5	Telecommunications.....	161
10.6	Drainage.....	161

## 11.0 ENVIRONMENT.....162

11.1	Environmental Assessment Report.....	162
11.2	Sea Level Rise Summary Assessment.....	163

## 12.0 NEXT STEPS FOR SOUTH PERTH.....164

12.1	Implementation.....	164
12.2	Further Actions.....	165

## FIGURES

<b>Figure 1:</b>	Activity Centre Plan Area and Boundary.....	77
<b>Figure 2:</b>	Regional Context and Centre Hierarchy.....	81
<b>Figure 3:</b>	Local Context.....	84
<b>Figure 4:</b>	Demographic Summary.....	87
<b>Figure 5:</b>	Planning Timeline.....	94
<b>Figure 6:</b>	Mends Character Area: Vision for 2041.....	99
<b>Figure 7:</b>	Richardson Character Area: Vision for 2041.....	101
<b>Figure 8:</b>	Mill Point Character Area: Vision for 2041.....	103
<b>Figure 9:</b>	Hillside Character Area: Vision for 2041.....	105

<b>Figure 10:</b>	Delivering the Vision.....	107
-------------------	----------------------------	-----

<b>Figure 11:</b>	Existing Activity.....	108
-------------------	------------------------	-----

<b>Figure 12:</b>	Split of Growth by Character Area.....	111
-------------------	--	-----

<b>Figure 13:</b>	Ground Floor Retail Area Extent 2041.....	117
-------------------	---	-----

<b>Figure 14:</b>	Modelling Growth: How forecast growth is managed in keeping with the vision and principles of the Place and Design Report.....	119
-------------------	--	-----

<b>Figure 15:</b>	Pattern of Lot Size.....	121
-------------------	--------------------------	-----

<b>Figure 16:</b>	Building Age.....	122
-------------------	-------------------	-----

<b>Figure 17:</b>	Building Height.....	123
-------------------	----------------------	-----

<b>Figure 18:</b>	Street Setbacks.....	124
-------------------	----------------------	-----

<b>Figure 19:</b>	3D Built Form Comparison Highlighting Change in Controls.....	129
-------------------	---	-----

<b>Figure 20:</b>	Floorplate Size Control Explanation.....	130
-------------------	--	-----

<b>Figure 21:</b>	Plot Ratio Explanation.....	132
-------------------	-----------------------------	-----

<b>Figure 22:</b>	Recommended Traffic Speed.....	149
-------------------	--------------------------------	-----

<b>Figure 23:</b>	Public Open Space Map.....	153
-------------------	----------------------------	-----

<b>Figure 24:</b>	300m Walkable Catchment.....	155
-------------------	------------------------------	-----

<b>Figure 25:</b>	Labouchere Road Indicative Cross Section.....	156
-------------------	---	-----

<b>Figure 26:</b>	Place Audit.....	157
-------------------	------------------	-----

## TABLES

<b>Table 1:</b>	Forecast Inner-City Population Growth.....	78
-----------------	--	----

<b>Table 2:</b>	Broader Trends Influencing South Perth.....	79
-----------------	---	----

<b>Table 3:</b>	Summary of Relevant Provisions of the City of South Perth Strategic Community Plan 2017-2027 ..	90
-----------------	---	----

<b>Table 4:</b>	Stages of the ACP Development Process.....	95
-----------------	--	----

<b>Table 5:</b>	Key Stakeholder Messages from Place and Design Project Engagement.....	96
-----------------	--	----

<b>Table 6:</b>	Forecast Growth in the ACP Area.....	111
-----------------	--------------------------------------	-----

<b>Table 7:</b>	Building Typologies.....	125
-----------------	--------------------------	-----

<b>Table 8:</b>	Development Activity as at February 2019.....	127
-----------------	---	-----

<b>Table 9:</b>	General Approach to Design Elements by Character Area.....	136
-----------------	--	-----

<b>Table 10:</b>	Open Space Schedule.....	151
------------------	--------------------------	-----

<b>Table 11:</b>	Existing Open Space Typologies.....	152
------------------	-------------------------------------	-----

<b>Table 12:</b>	Existing Street Typologies.....	156
------------------	---------------------------------	-----

## APPENDICES

<b>Appendix 1:</b>	Economic and Demographic Assessment
<b>Appendix 2:</b>	Transport and Movement Analysis
<b>Appendix 3:</b>	Environmental Assessment Report
<b>Appendix 4:</b>	Civil Services Report
<b>Appendix 5:</b>	Local Water Management Strategy
<b>Appendix 6:</b>	Sea Level Rise Summary Assessment
<b>Appendix 7:</b>	Community Benefit Contribution Framework



# PART ONE IMPLEMENTATION

This Part sets out the vision for the area and provides guidance for the implementation of the Activity Centre Plan. It is to be read in conjunction with Schedules 9B and 13 of the City of South Perth Town Planning Scheme No. 6.





## 1.0 INTRODUCTION

### 1.1 ACTIVITY CENTRE PLAN AREA

This Activity Centre Plan (ACP) applies to the land contained within the inner edge of the line denoting the Activity Centre Plan area boundary on Plan 1 (ACP area).

### 1.2 ACTIVITY CENTRE PLAN STRUCTURE

The ACP comprises:

- Part One: Implementation Section
- Appendices: Design Excellence Guide (Appendix 1); Community Benefit Contribution Project List (Appendix 2); Community Benefit Contribution Precedural Guide (Appendix 3).
- Part Two: Explanatory Section
- Appendices: Economic and Demographic Assessment (Appendix 1); Transport and Movement Analysis (Appendix 2); Environmental Assessment Report (Appendix 3); Civil Services Report (Appendix 4); Local Water Management Strategy (Appendix 5); Sea Level Rise Summary Assessment (Appendix 6) and Community Benefit Contribution Framework (Appendix 7).

Part One includes the Activity Centre Plan (Plan 1), plan series, character statements and objectives for the character areas and development requirements.

Part Two is to be used as a strategic guide that provides the background, rationale, design basis and intent of the ACP to support the implementation of Part One.

The Appendices provide the evidence base that has informed the preparation of the ACP.

### 1.3 RELATIONSHIP TO THE SCHEME AND DEEMED PROVISIONS

The ACP is made pursuant to Part 5 of Schedule 2 of the *Planning and Development (Local Planning Schemes) Regulations 2015* (the Deemed Provisions) and is to be read in conjunction with Schedules 9B (for the ACP area with the exception of the Landmark Site) and 13 (for the Landmark Site) of City of South Perth Town Planning Scheme No 6 (the Scheme). In the event of any inconsistency between the ACP and the Scheme, the Scheme shall prevail to the extent of the inconsistency.

The provisions of the ACP are:

- relevant to the application of the provisions of Schedules 9B and 13; and
- to be given due regard in determining development applications as required by clauses 43(1) and 67(h) of the Deemed Provisions.

Part 2 of the ACP also functions as a strategic guide to the Scheme. As such it may provide guidance for future scheme amendments within the ACP area, and provide additional context for the application of discretion regarding development in the ACP area.

The ACP has been prepared in accordance with State Planning Policy 4.2 Activity Centres for Perth and Peel (SPP4.2), Western Australian Planning Commission (WAPC) Structure Plan Framework (2015), and with regard to relevant City of South Perth and WAPC planning policies.

#### 1.3.1 Relationship to Policies

Where the ACP is inconsistent with a local government planning policy, the ACP shall prevail to the extent of any inconsistency.

Where a matter is dealt with in a state planning policy but not in the ACP, the relevant matters in the state planning policy shall apply in addition to the requirements of the ACP.



## 1.4 RELATIONSHIP TO THE RESIDENTIAL DESIGN CODES

All residential development shall be in accordance with the requirements of State Planning Policy 7.3 - Residential Design Codes (Volume 1 and Volume 2) and is to be read in conjunction with Schedules 9B and 13 of the Scheme.

## 1.5 EXERCISE OF DISCRETION

Where discretion is required to be exercised under this ACP in relation to development requirements, due regard must be had to:

- the relevant provisions of the Scheme; and
- the relevant character area statement in this ACP; and
- the relevant character area objectives in the Scheme; and
- the objectives in this ACP relating to the particular aspect of the application for which the discretion is sought.

Schedule 9B of the Scheme provides for the exercise of discretion regarding a number of development requirements, including building height and plot ratio in Elements 2 and 6 respectively. The Scheme sets out the circumstances under which additional height and/or plot ratio above the primary limits may be approved and the limits to the amount of additional development potential that may be approved.

Schedule 13 of the Scheme provides for the exercise of discretion on the Landmark Site regarding a number of development requirements, including setbacks and building height in Element 1, and car and bicycle parking bays in Element 3. The Scheme sets out the circumstances under which reduced setbacks, additional height and/or reduced parking bays may be approved.

## 1.6 COMMENCEMENT

In accordance with the Deemed Provisions, the ACP shall become operational upon its approval by the WAPC.

## 1.7 ACTIVITY CENTRE PLAN MAP

The ACP map allocates land to character areas and shows the zoning and residential density code of land within the ACP area. The ACP map (Plan 1) and other plans are provided at the end of Part 1 of the ACP.

## 2.0 CHARACTER AREAS AND OBJECTIVES

### 2.1 ACTIVITY CENTRE PLAN OBJECTIVES AND VISION

This ACP seeks to implement the principles of the South Perth Place and Design Report, prepared for the City of South Perth in May 2017.

The objective of the ACP is to apply the principles of the Place and Design Report, and other sound planning and design principles, to shape and guide development of the ACP area having regard to:

- its role as an inner city activity centre; and
- the outcomes of the demographic and economic assessment, transport and movement analysis and other relevant background studies (see Part 2 and appendices).

The ACP is intended to be regularly monitored and reviewed.

The vision for the ACP area was developed through the South Perth Place and Design project in 2017, and builds on the values and priorities of local stakeholders. The vision is also layered and multi-faceted, with an overarching vision statement to steer the ACP area's evolution supported by four character area statements (see section 2.3) that address the diverse and varying ways that density, activity and the public realm will be addressed across the ACP area.

The overarching vision statement is for the ACP area to be:

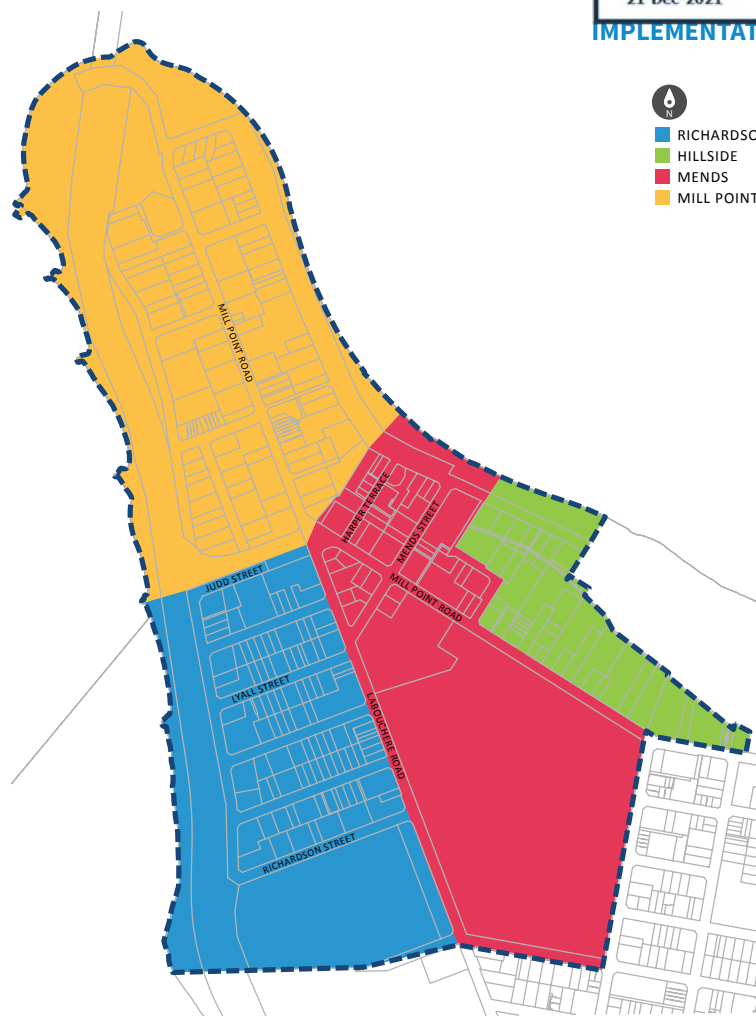
*A distinctive inner city centre, tourism destination and residential neighbourhood that is shaped by its connection to nature, unique assets, distinctive buildings, and future-forward approaches to sustainable living. Its lively centre and pedestrian friendly tree-lined streets connect locals and visitors to its diverse businesses, transport nodes and local heritage.*

### 2.2 A CHARACTER AREA-LED APPROACH

The Place and Design Report defined four character areas, as shown in Figure 1 and considered the future of the ACP area in the context of each character area and how each character area can evolve in the future.

A character statement for each character area is set out in section 2.3. Objectives for each character area are provided in Schedule 9B. All development proposals shall be considered having due regard to the character statement and objectives of the relevant character area.

**Figure 1:** Activity Centre Plan Area



## 2.3 THE CHARACTER AREAS

The following character area statements are to be read in conjunction with the objectives for each character area described below.

### 2.3.1 Mends

The Mends character area is the cultural and commercial heart of the ACP area; a place where residents and workers enjoy a wide diversity of recreational and commercial offerings, as well as significant amenities including Windsor Park, the Foreshore and Perth Zoo. In the future, the area will leverage these amenities to create a truly great destination where residents, visitors and businesses mix together in a vibrant environment with frequent events and activities during the day and at night.

#### 2.3.1.1 The Mends character area has the following objectives:

- i. The Mends character area will feature a mix of uses, including significant retail activity and office, residential and short stay uses.
- ii. Development shall present articulated street frontages and cater for high levels of activity.
- iii. Retail tenancies should be designed to engage with the street environment, with a focus on Mends Street.
- iv. Land uses with higher intensity visitation should be located on the ground floor, with non-residential land uses encouraged on the lower floors and residential use on the upper floors.
- v. Building height and massing should be reflective of the area's location near a transit node (South Perth Ferry Terminal); including potential for larger scale buildings that support public transport use.
- vi. Buildings should be designed to minimise negative amenity impacts on Windsor Park and Perth Zoo.
- vii. Setbacks above podium level along Mends Street should be calibrated to maintain its human-scale feel.
- viii. Open spaces should be urban and functional. The South Perth Foreshore should provide contrast with the hard-edged character of Elizabeth Quay through the use of soft landscaping.

### 2.3.2 Richardson

The Richardson character area contains a mix of building styles and land uses. The establishment of a train station near Richardson Street will establish the area as a vibrant gateway to Perth Zoo and the wider activity centre. Future development will enhance the diverse character of the area, building upon the intricacy of its urban fabric characterised by varied lot sizes and building heights, retained heritage cottages and green pedestrian links. Residents will be accommodated within a mix of diverse housing options.

#### 2.3.2.1 The Richardson character area has the following objectives:

- i. The Richardson character area will feature an eclectic mix of building heights, including taller buildings, a range of lot sizes and a mix of uses.
- ii. Active street frontages will be concentrated along Labouchere Road, Richardson and Lyall Streets to enable vibrant, active links to Perth Zoo, Mends Street and a future South Perth Train Station.
- iii. Traditional office, small scale shops and other commercial uses are encouraged on the ground and lower floors with a mix of office and residential on the upper floors.
- iv. Development opportunities should be maximised in this area, particularly through coordinated development and amalgamation of smaller lots
- v. Tall buildings should be dispersed throughout the area, based on availability of development sites, generally stepping down in height towards Labouchere Road and Melville Water to allow mid-block views.
- vi. Buildings should be adaptable and able to accommodate residential and commercial uses.
- vii. Street setback areas, where provided, should provide soft landscaping and relief at the human scale.
- viii. Appealing mid-block pedestrian connections should be provided where possible to achieve better connections between streets and open spaces.
- ix. Amenity impacts from the freeway should be managed with a visual and physical buffer through the use of landscaping, tree planting and low sound walls.
- x. The wide streets in the area provide an opportunity to improve amenity for pedestrians, cyclists and residents.
- xi. Portions of Richardson Park not utilised as sports grounds should be upgraded to create active edges incorporating play spaces, exercise equipment and landscaping elements.

### 2.3.3 Mill Point

The Mill Point character area is a predominantly residential area characterised by green, leafy streets and buildings set back from the public realm. This significant amenity is complemented by its proximity to the South Perth Foreshore and views to the Perth CBD and Swan River. In the future, this character will be enhanced through upgrades to the public realm and new development that responds to and enhances the special amenities that make the area a great place to live.

#### 2.3.3.1 The Mill Point character area has the following objectives:

- i. The Mill Point character area will be mainly residential and characterised by green, leafy streets.
- ii. Development should be predominantly residential, with buildings set back from the street and ground floors activated by street-accessible apartments, lobbies or small scale commercial tenancies where appropriate.
- iii. Limited commercial development, such as small scale local shops or cafes, may be considered appropriate in selected locations.
- iv. Architecture should reflect the garden character of the area through the incorporation of green roofs and living walls where appropriate.
- v. Taller buildings should aim to minimise undue impacts on solar access and preserve view corridors between buildings wherever possible.
- vi. Building heights should generally step down towards the Northern end of the South Perth Peninsula and the Swan River in accordance with the applicable Building Height and Plot Ratio Limits to establish a cohesive skyline form and preserve view corridors.
- vii. Street setback areas should be lushly landscaped to provide pedestrian respite and street trees.
- viii. Mature street trees should be protected and replaced over time as required to maintain greenery in the streets.
- ix. The South Perth Esplanade should be upgraded as a low speed waterfront boulevard and park with pedestrian and cyclist movements prioritised.
- x. Publicly-accessible private open spaces should be provided at key locations along Mill Point Road.
- xi. Amenity impacts from the freeway should be managed with a visual and physical buffer through the use of landscaping, tree planting and low sound walls.



### 2.3.4 Hillside

The Hillside character area is a secluded residential area with a wide variety of building styles and dwelling typologies overlooking the Swan River. Despite its close relationship to the Mends area, it maintains a quiet residential character. In the future infill development will complement and supplement existing residential towers, providing additional community benefit through the creation of small green spaces and new public connections to the South Perth Foreshore.

#### 2.3.4.1 The Hillside character area has the following objectives:

- i. A largely residential area, with some opportunity for non-residential uses nearer to Mends Street and along Mill Point Road.
- ii. There are a variety of building heights and styles, including taller buildings overlooking the Swan River and Perth Zoo.
- iii. Buildings should minimise undue impacts on solar access and preserve view corridors between buildings wherever possible.
- iv. Architecture should contribute to the existing diversity of styles in the area, whilst complementing the unembellished and rectilinear character of existing buildings.
- v. Where practicable, buildings should be generously set back from Mill Point Road in continuance of the existing character.
- vi. Development along the South Perth Esplanade should generally reflect historic setbacks.
- vii. Appealing mid-block pedestrian connections should be provided where possible to achieve better connections between Mill Point Road and the Foreshore.
- viii. Ray and Darley Streets should be designed to provide adequate space for pedestrian and cyclist movement while remaining functional in serving businesses and residences.
- ix. The South Perth Esplanade should be upgraded as a low speed waterfront boulevard and park with pedestrian and cyclist movements prioritised.

## 3.0 ACTIVITY

Land use permissibility is contained in Schedules 9B and 13. To complement these provisions, the ACP contains objectives for land use, matters relevant to the exercise of discretion, uses not listed, minimum non-residential plot ratio and housing diversity applicable within the ACP area and individual character areas.

### 3.1 LAND USE

The provisions of the ACP reflect the need to direct and manage forecast growth for the ACP area to 2041, as set out in Part 2, including approximately:

- 2,309 additional dwellings
- 12,184 square metres of additional retail space
- 47,000 square metres of additional office and other commercial space (excluding retail)

The growth forecast in Part 2 and the land use provisions of this ACP will be subject to regular review.

Land uses should be distributed in a logical manner, in keeping with sound planning principles, the relevant character area objectives and the objectives outlined below.

### OBJECTIVES

- To encourage land uses that will contribute to the desired character of each character area.
- To ensure population growth is accompanied by employment growth in appropriate locations having regard to the character area statements and objectives.
- To ensure residents, workers and visitors to South Perth are well served by a range of appropriate retail and entertainment options.
- To locate land uses to best focus activity and vitality in South Perth, generate economies of agglomeration, and create a place of distinction and community value.
- To direct uses with high employment, residential or visitor intensity around current and future nodes of public transport.

### DEVELOPMENT REQUIREMENTS

#### 3.1.1 Residential Density

A density code of R-AC0 applies to the entirety of the ACP area, including the landmark site.

Under Schedule 9B, density of all land uses in the ACP area is measured and expressed as plot ratio. Schedule 9B contains provisions controlling the amount of plot ratio that buildings may contain.

Density controls for the Landmark Site are set out in Schedule 13.

#### 3.1.2 Land Use Permissibility

Land use permissibility within each character area is specified by Element 1 of Provision 5 of Schedule 9B.

Land use permissibility for the landmark site is specified by Element 2 of Provision 5 of Schedule 13.

### 3.1.3 Exercise of Discretion:

When determining development applications which propose land uses listed as “D” (Discretion) and “DC” (Discretion with Consultation) in Schedule 9B, the local government shall have due regard for the following matters in addition to any other matters which it is required to consider:

- The overarching vision statement for the ACP area
- The character area statement of the relevant character area set out in section 2.3 of this ACP
- The objectives of the character area set out in section 2.3 of this ACP
- The objectives of clause 3.1 of this ACP
- How the proposed land use(s) will contribute to managing the forecast growth of dwellings, residents, visitors, retail space and other commercial space within the ACP area
- For ground floor uses:
  - Preferred ground floor activity and uses for the character area as set out in Schedule 13 (as applicable);
  - Street type as outlined in Plan 2; and
  - Street interface type as outlined in Plan 3.

### 3.1.4 Minimum Non-Residential Plot Ratio

To ensure the ongoing provision of non-residential space and that growth in residential population corresponds with growth in local services and employment opportunities, the minimum ratios in Table 1 apply for non-residential or adaptable development within character areas across the ACP area.

Adaptable floor space for this provision shall be in accordance with section 4.3.5 of this ACP.

Calculation of plot ratio for this provision excludes car parking and associated circulation space.

**Table 1:** Minimum Non-Residential or Adaptable Plot Ratio

CHARACTER AREA	MINIMUM NON-RESIDENTIAL OR ADAPTABLE PLOT RATIO
Mends	1.0 or 30% of total, whichever is lesser
Mill Point	No Requirement
Hillside	No Requirement
Richardson	1.0 or 30% of total, whichever is lesser

## 3.2 HOUSING DIVERSITY

### OBJECTIVES:

- To support the growth of sustainable communities and a broad range of household types across the ACP area by facilitating choice in high quality housing
- To ensure development of a range of housing types offering variety in built form, size and typology

### DEVELOPMENT REQUIREMENTS

#### 3.2.1 Dwelling Diversity

Development that contains 20 or more dwellings shall provide:

- at least 20% of those dwellings as studio or single bedroom dwellings with a maximum provision of 50%; and
- at least 10% of those dwellings as three- or more-bedroom dwellings.

Percentage requirements may be rounded down to the nearest whole unit.



## 4.0 BUILT FORM

### 4.1 BUILDING ENVELOPE

#### OBJECTIVES:

- To define an appropriate space and volume within which development may occur
- To ensure lots are able to manage development form in support of the vision for the ACP area and the objectives of the relevant character area

#### 4.1.1 Building Height

#### OBJECTIVES:

- To ensure that building heights are consistent with the desired future scale and built form of the activity centre and character area.
- To ensure that the interface between character areas is appropriately managed.
- To facilitate and manage growth across the ACP area based on population growth forecasts and identified economic and transport capacity, reflecting the Centre's role as an inner city activity centre.
- To establish a consistent and transparent performance-based approval process that accommodates additional development potential in return for community benefit contributions in appropriate locations and development proposals.
- To locate larger scale developments within walking distance of the Mends Street ferry terminal and the future South Perth train station to optimise access to transit services for new development.

#### DEVELOPMENT REQUIREMENTS

##### 4.1.1.1 Building Height

- Building height shall be in accordance with Provision 5, Element 2 of Schedule 9B.
- Building height for the landmark site shall be in accordance with Provision 5, Element 1 of Schedule 13.

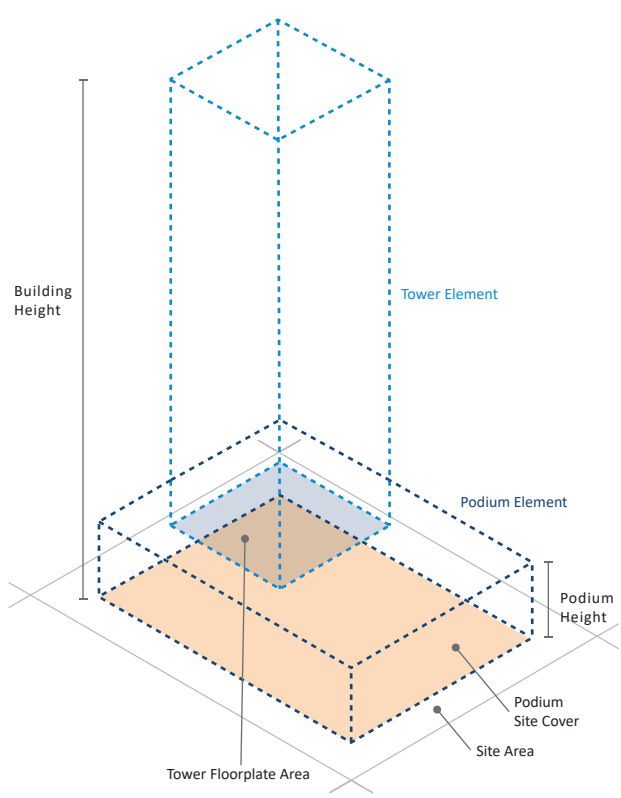
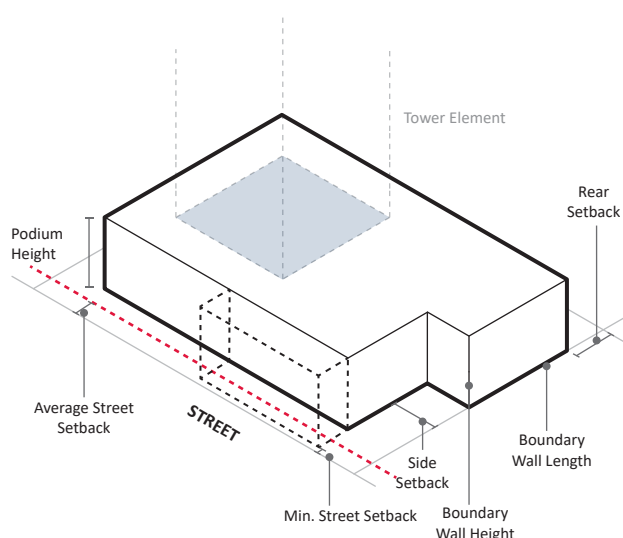


Figure 2: Building Envelope

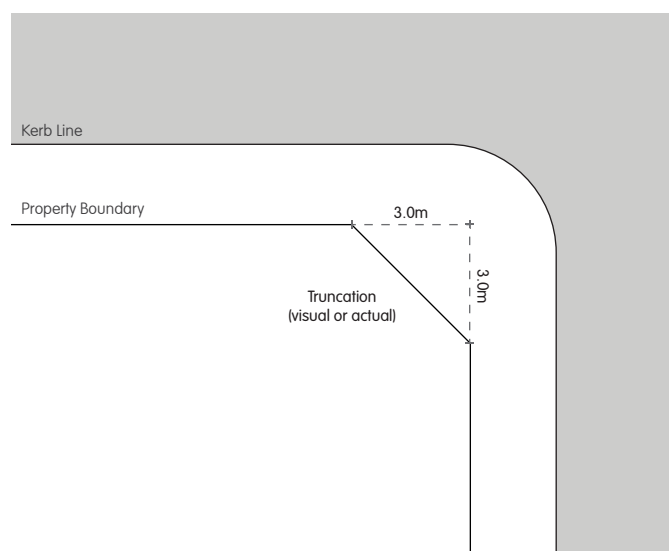
## 4.1.2 Podium Setbacks, Height and Site Cover

### OBJECTIVES

- To ensure buildings contribute to a public realm that creates interest and encourages pedestrian movement.
- To provide human-scale development fronting onto a defined hierarchy of streets, as outlined on Plan 3.
- To support the development of a human scale, vibrant streetscape experience whilst ensuring that a viable built form siting and access solution can be achieved.
- To articulate the base of buildings with high-quality material and design elements that complement neighbouring buildings and contribute to a pedestrian scale.



**Figure 3:** Podium Elements



**Figure 4:** Corner Truncations

### DEVELOPMENT REQUIREMENTS

#### 4.1.2.1 Podium Site Cover and Setbacks

Podium site cover and podium setbacks for development shall be in accordance with Provision 5, Element 3 of Schedule 9B.

Podium setbacks for development on the landmark site shall be in accordance with Provision 5, Element 1 of Schedule 13.

#### 4.1.2.2 Podium Street Setback Encroachment and Variation

Where permitted in accordance with Provision 5, Element 3.2 of Schedule 9B, podium street setback controls may be averaged in response to site and context conditions where it can be demonstrated that the variation does not have a detrimental impact on the streetscape character and local amenity.

Where setbacks are averaged, part(s) of the podium may be permitted to have a lesser street setback provided the average street setback for the entire podium is not less than the minimum setback required in accordance with Provision 5, Element 3.2 of Schedule 9B.

In averaging setbacks, the minimum setback permissible is 50% of the setback shown on the Map 3 of Schedule 9B. This provision does not apply to the landmark site.

#### 4.1.2.3 Use of street setback areas

Street setback areas are not to be used for car parking.

#### 4.1.2.4 Podium Street Corner Truncations

Notwithstanding podium street setback requirements, all development shall maintain a visual or actual street corner truncation of 3 metres by 3 metres measured from the corner of the lot.

#### 4.1.2.5 Podium Side and Rear Setback Variation

Where permitted in accordance with Provision 5, Element 3.3 of Schedule 9B, podium side and rear setbacks may be varied down to nil within the Mill Point, Hillside and Richardson character areas where it can be demonstrated that the variation does not have a detrimental impact on adjacent properties, streetscape character or local amenity.

#### 4.1.2.6 Street elevations – maximum length of walls

The elevation(s) of the podium fronting any street shall not exceed a wall length of 20 metres without modulation in the form of a setback or projection with a depth of at least 3 metres and a length of at least 3 metres.

### 4.1.3 Tower Setbacks and Separation

#### OBJECTIVES

- i. To ensure amenity for building occupants is maintained by providing adequate separation between towers.
- ii. To minimise the potential for closely located buildings to create an effect of cumulative bulk.
- iii. To ensure wind impacts are effectively managed by separation of buildings.
- iv. To enable sightlines, breezes and sunlight to penetrate adequately between buildings.

#### DEVELOPMENT REQUIREMENTS

##### 4.1.3.1 Tower Setbacks

Tower setbacks shall be in accordance with Provision 5, Element 4 of Schedule 9B.

Tower setbacks on the landmark site shall be in accordance with Provision 5, Element 1 of Schedule 13.

### 4.1.4 Tower Maximum Gross Floorplate Area

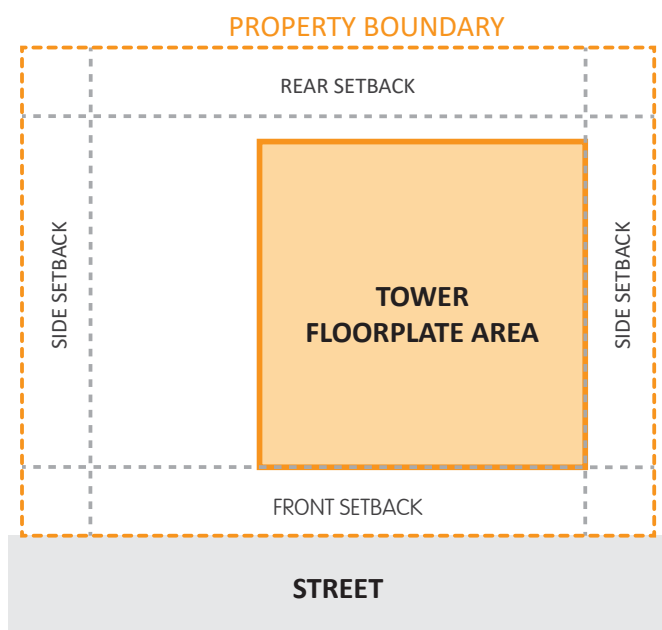
#### OBJECTIVES

- i. To ensure that all buildings adhere to the principle that, if a building is taller, it must be more slender in proportion to the overall lot size and have more space around it.
- ii. To maintain opportunities for view corridors between buildings, minimise overshadowing and limit building bulk.
- iii. To organise and articulate tall building towers to promote design excellence, innovation and sustainability.
- iv. To minimise wind impacts arising from bulky or closely grouped buildings.

#### DEVELOPMENT REQUIREMENTS

##### 4.1.4.1 Tower Maximum Gross Floorplate Area

The maximum gross floorplate area of each floor of a tower shall be in accordance with Provision 5, Element 5 of Schedule 9B.



**Figure 5:** Tower Floorplate and Tower setbacks



## 4.2 PLOT RATIO

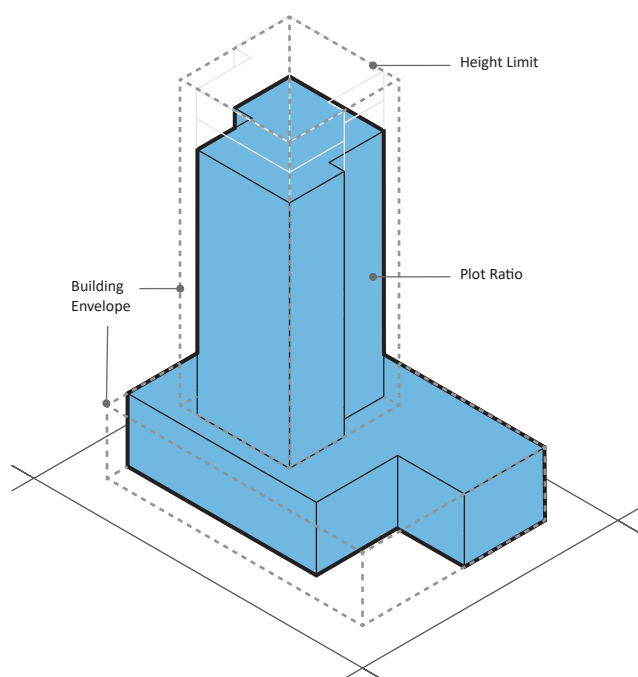
### Objectives:

- To control the amount of development permitted on any development site within the defined building envelope.
- To provide sufficient space within the building envelope to encourage variation in building design in response to individual site conditions.
- To encourage building designers to consider the best allocation of plot ratio area.

### DEVELOPMENT REQUIREMENTS

#### 4.2.1 Plot Ratio

- Plot ratio shall be in accordance with Provision 5, Element 6 of Schedule 9B.
- There is no plot ratio limit for the landmark site in accordance with Schedule 13.



**Figure 6:** Plot Ratio and Building Envelope

## 4.3 OTHER DEVELOPMENT REQUIREMENTS

### 4.3.1 Street Interface

#### OBJECTIVES

- To support pedestrian amenity and activity by ensuring a high level of visual interest and design quality in the building façade(s) addressing the public domain.
- To ensure that street level conditions in each character area are enhanced through complementary new development.
- To ensure that residential and commercial ground floor uses are provided in appropriate locations.
- To create opportunity for activation and passive surveillance of the public domain contributing to a sense of vitality and safety.

#### DEVELOPMENT REQUIREMENTS

##### 4.3.1.1 Street Interface Design

Facade categories that apply to the ground floor of new development are as per the Street Interface Type Plan (Plan 3). New development shall be in accordance with the relevant controls contained in 4.3.1.2 to 4.3.1.4 inclusive.

##### 4.3.1.2 Active Street Interface

Active street interfaces are designed to enable direct visual and physical contact between the street and the interior of buildings to encourage casual surveillance of and interaction with the public domain. Clearly defined entrances, windows and shop fronts are elements of the building façade that contribute to an active street interface.

Active street interface design shall deliver:

- Retail and commercial units shall be individually articulated with a width of between 6 metres and 9 metres that provide direct, universal access to the public footpath.
- Blank walls or sections of walls that are blank shall not exceed 2 metres in length.
- Articulation of shop front design in accordance with City of South Perth design guidance on frontage design (for example with appropriate use of stall risers, window design, awnings and other architectural features), and/or the design of existing retail frontages neighbouring the development site.
- Awnings and canopies for all streets shall be set back 1.5 metres from the kerb line.
- A minimum of 50% of the width of the street interface at the ground floor shall be clear and un-tinted vision glass.
- Active frontages with nil setbacks as per Map 3: Setbacks in Schedule 9B require design for active trading frontages, and are preferred to be built to a nil setback, unless otherwise providing for pedestrian amenity.
- Alfresco areas may be encouraged where there is high pedestrian activity and where verge space is adequate.
- The minimum floor-to-ceiling height of the ground floor of all buildings shall be 4.0m.

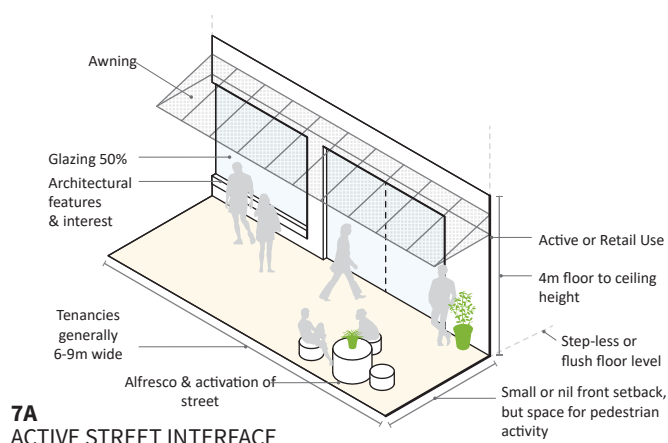


Figure 7: Street Interfaces

## DEVELOPMENT REQUIREMENTS

### 4.3.1.3 Semi-Active Street Interface

Semi-active street interfaces contain active elements (which substantially interact with the street, like retail uses) and passive elements (which do not, like residential uses), even within individual buildings. They provide for interaction with the public realm and a range of uses within buildings that are separated (horizontally or vertically) to provide privacy and amenity for occupants. The definition of private, semi-public and public space is clear in semi-active street interfaces.

Semi-active street interface design shall deliver:

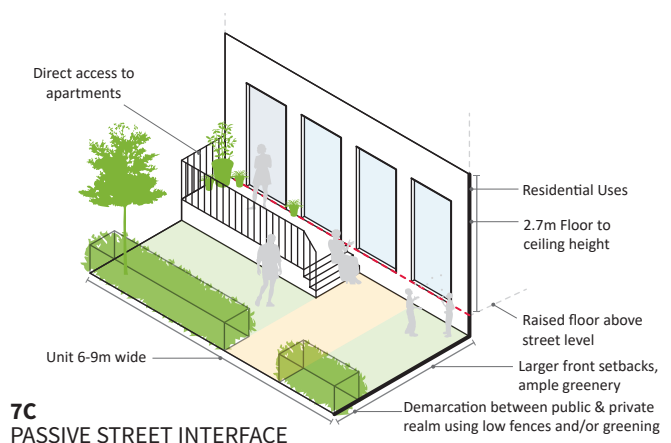
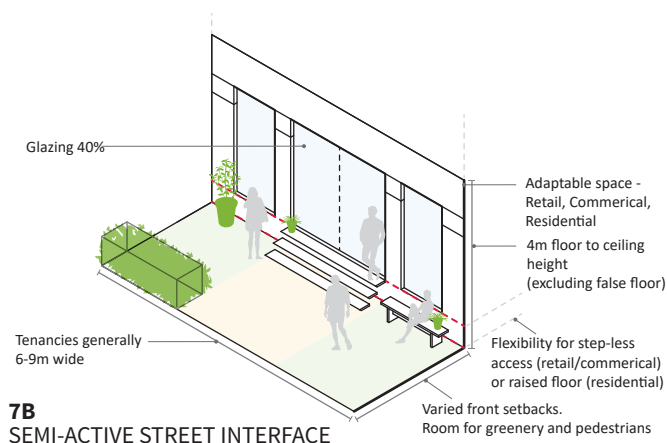
- Ground floor tenancies should demonstrate capability for conversion between residential and commercial uses including:
  - minimum floor-to-ceiling height of 4.0m;
  - accessibility requirements in accordance with the National Construction Code;
  - ability to provide vertical separation from the street of 0.6-1.0 metres; and
  - ability to accommodate servicing requirements.
- For streets with nil setbacks, awnings and canopies shall be provided for all streets, set back 1.5 metres from the kerb line.
- Frontages with setbacks may use the setback area for commercial activity such as alfresco dining provided the immediately adjacent ground floor uses are not residential and/or the impact on neighbours' amenity would be acceptable.
- Buildings fronting the street shall provide a minimum of 40% of the width of the street interface at the ground floor as clear and un-tinted glass.

### 4.3.1.4 Passive Street Interface

Passive street interfaces are predominantly residential and do not promote commercial activity except where it is compatible with the residential character and amenity of the street interface. Privacy and clear definition between public and private realms are considered important.

Passive street interface design shall deliver:

- Ground level apartments that are individually articulated in their massing with a width of between 6 metres and 9 metres.
- Finished floor level raised between 0.6 metres and 1.0 metres above the adjacent street level.
- Clear delineation between public space and private dwellings through the use of fences, walls and planters that are visually permeable above 1.2 metres in height.
- Residential units facing the street shall contain a living space that provides windows, openings, balconies and/or courtyards facing the street to encourage active use within the street interface area and passive surveillance over the public domain.
- Sites may include an element of commercial activity, such as alfresco dining, within the street setback area provided the immediately adjacent ground floor uses are not residential and/or the impact on neighbours' amenity would be acceptable, and where providing for an intended non-residential land use in accordance with Schedule 9B.



## 4.3.2 Heritage

### OBJECTIVES

- To protect and enhance heritage places within the ACP area.
- To ensure that new development responds sensitively to places within the ACP area that are listed on the local government's heritage list, and State Registered Heritage Places, and does not adversely affect the character of a heritage place.

### DEVELOPMENT REQUIREMENTS

#### 4.3.2.1 Interface with Heritage Buildings

- For development on a site comprising or adjoining a heritage place, the local government may require greater setbacks than those specified in Schedule 9B, to protect the visual significance and integrity of the heritage place.
- The siting and design of any building on a site adjoining a heritage place shall respect the visual significance and integrity and not overwhelm or adversely affect the heritage place having regard to the design, size, scale, setbacks and proportion of the proposed building, particularly as viewed from the street.
- For any new development on a site that involves additions and alterations to a heritage place, or is on a site containing or adjoining a heritage place, the application for development approval shall be accompanied by a heritage impact statement justifying the appropriateness of the built form of the new development.
- New development involving additions or alterations to a heritage place shall retain, re-use and maintain the integrity of the existing heritage place within the new development.

#### 4.3.2.2 Aboriginal Heritage

There are 6 registered Aboriginal heritage sites located within and immediately adjacent to the ACP area (refer to Table 3). Where a development is proposed within any registered site, advice should be sought from the Department of Planning, Lands and Heritage to understand obligations under the *Aboriginal Heritage Act 1972*.

**Table 2:** State Registered Heritage Places

STATE REGISTERED HERITAGE PLACES
P4795 Narrows Bridge
P2394 Old Mill
P2390 South Perth Police Station (fmr)
P2389 Old Mill Theatre
P2393 Old Council Offices
P2392 Windsor Hotel
P4689 Stidworthy Residence (fmr)

**Table 3:** Registered Aboriginal heritage sites within or adjacent to ACP area boundary (DPLH 2021)

SITE ID	SITE NAME	STATUS	TYPE
3536	Swan River	Registered Site	Mythological
3703	Spring Street	Registered Site	Camp, Names Place, Water Source
3704	Kings Park Waugul	Registered Site	Ceremonial, Mythological, Plant Resource, Water Source
3705	Foreshore Camping Ground	Registered Site	Camp, Hunting Place
4406	Como	Registered Site	Fish Trap





**Figure 8:** Location of registered Aboriginal heritage sites

### 4.3.3 Amenity and Design Quality

#### OBJECTIVES

- i. To ensure that building design maintains high levels of occupant amenity within new and established buildings.
- ii. To ensure that building design is of a high quality and contributes to the desired future character of the character area and ACP area.
- iii. To ensure that buildings with additional height and/or plot ratio above the primary limits set in Schedule 9B achieve an excellent standard of design
- iv. To ensure that development in proximity to road and rail transport noise sources provides suitable noise mitigation measures.
- v. To ensure that buildings do not cast excessive shadows over adjacent properties.
- vi. To minimise negative impacts of development on the amenity of Perth Zoo.
- vii. Encourage early consultation with the Perth Zoo, for development proposals adjacent to Perth Zoo.

#### DEVELOPMENT REQUIREMENTS

##### 4.3.3.1 Design Quality

- a. Design quality shall be in accordance with Element 7 of Schedule 9B.
- b. In determining whether Element 7 of Schedule 9B is satisfied, the Design Review Panel or South Perth Activity Centre Design Review Panel will operate within their respective Terms of Reference, and have regard for the WAPC's Design of the Built Environment State Planning Policy suite, including any supporting guidelines.
- c. For any proposed comprehensive new development, the decision maker may include condition(s) on a determination notice which requires reconciliation of the proposed detailed design against the approved plans, on advice from the Design Review Panel, Government architect or delegate (as appropriate).
- d. In determining whether Element 7 of Schedule 9B is satisfied, the local government or other decision maker shall be satisfied that the proposed comprehensive new development provides a high level of amenity within the public realm by:
  - i. being of a scale along the street frontage which is conducive to creating a comfortable pedestrian environment; and
  - ii. minimising adverse wind impacts; and
  - iii. allowing for appropriate levels of sunlight penetration into key pedestrian and public spaces; and
  - iv. contributing to an attractive skyline and outlook from the public realm within the immediate locality and surrounding vantage points; and
  - v. be satisfied that the proposed comprehensive new development provides a high level of internal amenity within the development itself by providing for appropriate natural light access, natural ventilation, privacy and outlook.
- e. In determining whether Element 7 of Schedule 9B is satisfied for any proposed comprehensive new development above the Primary limits under Elements 2 and 6 of Schedule 9B, the Design Review Panel or South Perth Activity Centre Design Review Panel, must have regard to the WAPC's Design Excellence Guide. In the absence of any such guide, regard must be given to the Design Excellence Guide as contained within Appendix 1 of this ACP.
- f. The South Perth Activity Centre Design Review Panel shall be administered in accordance with the South Perth Activity Centre – Terms of Reference which can be found at: State Design Review Panel ([www.wa.gov.au](http://www.wa.gov.au)).

## DEVELOPMENT REQUIREMENTS

### 4.3.3.2 Entertainment Noise

Applications proposing any of the following uses shall be accompanied by a noise management plan prepared to the satisfaction of the local government:

- Café/Restaurant (with greater than 50sqm floorspace);
- Cinema/Theatre;
- Club Premises;
- Hotel;
- Indoor Sporting Activities;
- Night Club;
- Reception Centre;
- Small Bar;
- Tavern; or
- Any other use, whether it is listed in Schedule 9B or not, that is considered by the local government to require a noise management plan.

### 4.3.3.3 Transport Noise

Development affected by noise from the rail line or Kwinana Freeway shall be designed with due regard to the requirements of State Planning Policy 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning.

### 4.3.3.4 Overshadowing

All new development shall achieve the Element Objectives and applicable provisions of the Residential Design Codes – Volume 2 with respect to overshadowing. Shadow diagrams are to be submitted demonstrating the extent of impact, if any, on adjoining lots.

### 4.3.3.5 Building bulk

Building Bulk should be located to minimize overshadowing of Perth Zoo.

## **4.3.4 Sustainability, Landscaping and Water Management**

### **OBJECTIVES**

- i. To encourage development that reduces environmental impacts in construction and operation and promotes sustainable lifestyles, reducing energy consumption, water use and waste generation.
- ii. To ensure the environmental performance of new development is of a high standard.
- iii. To reduce pressure on infrastructure and utilities by reducing demand for their use.
- iv. To encourage the incorporation of water sensitive urban design principles in new development to improve water management, natural features and public open space, and to reduce flooding risk

### **DEVELOPMENT REQUIREMENTS**

#### **4.3.4.1 Sustainability**

All development to which the City of South Perth Local Planning Policy P350.01 Environmentally Sustainable Building Design (as amended) applies shall achieve and provide certification of at least a four star green star rating under the relevant Green Star rating tool.

#### **4.3.4.2 Landscape Design, Tree Canopy and Deep Soil Areas**

All new development shall achieve the Element Objectives and applicable provisions of the Residential Design Codes – Volume 2 with respect to landscape design and tree canopy and deep soil areas.

In resolving landscape design for any new comprehensive development, it is recommended that regard is given to the City's Landscape Design Guidelines for the ACP area, and where possible selection of native plant species is encouraged.

#### **4.3.4.3 Water Management**

A Development Water Management Report (DWMR) shall be submitted with a development application to demonstrate how the design criteria and objectives contained within Section 4 of the Local Water Management Strategy (contained within Appendix 5 of Part Two) are met with respect to:

- Water Conservation
- Stormwater Management
- Water Sensitive Urban Design; and
- Groundwater Management

Where a development is proposed that is unable to meet the design criteria identified in Section 4, a DWMR shall be submitted with a development application and demonstrate how water management matters within or impacted by the development will be appropriately managed.

#### **4.3.4.4 Stormwater Management**

All development is to manage stormwater up to the 1% Annual Exceedance Probability (AEP) within lot boundaries. A Stormwater Management Plan shall be submitted with a development application to demonstrate appropriate management and disposal of stormwater from a proposed development.

#### **4.3.4.5 Acid Sulfate Soil Management**

Where development or construction activities will disturb acid sulfate soils, an Acid Sulfate Soil Management Plan is required to be prepared in accordance with DWER guidelines. Preparation of an Acid Sulfate Soil Management Plan will be required as a condition of development approval.



## DEVELOPMENT REQUIREMENTS

### 4.3.4.6 Groundwater Management

Where a development proposes excavation below the groundwater level, the following supporting information shall be provided with the development application:

- i. groundwater assessment report including detail of predevelopment monitoring and groundwater modelling (if required); and
- ii. Geotechnical and soil investigations.

Where a development proposes excavation below the groundwater level (e.g. for a basement carpark), justification shall be provided with the development application for the proposed construction approach, having regard to the criteria and objectives of the Local Water Management Strategy (contained within Appendix 5 of Part Two). Building design shall minimise groundwater drawdown and construction dewatering, and avoid requirements for ongoing dewatering.

Where a development proposes excavation below the groundwater level, preparation of a Dewatering Management Plan shall be required as a condition of development approval.

### 4.3.4.7 Flood Protection

All development shall have adequate flood protection from at least a 1 in 100 (1%) Annual Exceedance Probability (AEP) flood event.

Development approval shall not be granted to a new building unless the finished floor level of any habitable room is at least 500 millimetres above the 1 in 100 (1%) AEP flood event level, inclusive of any forecast sea level rise. Regard shall be given to Appendix 6 Sea Level Rise Summary Assessment in relation to the forecast sea level rise AEP flood level.

Where a development involves a facility that is required to function during a 1 in 100 (1%) AEP flood event, such as but not limited to a Hospital, development approval shall not be granted unless it can be demonstrated that the functionality and safety of the facility (including risk of isolation and the ability to evacuate) can be maintained during the flood event.

### 4.3.5 Adaptability

#### OBJECTIVES

- To create robust urban places by ensuring buildings, in particular at the ground floor, are adaptable over time to provide for a wide range of uses and changing demands.
- To extend the life of buildings by ensuring flexibility of use.
- To attract greater investment in building quality, for longer lasting buildings.

#### DEVELOPMENT REQUIREMENTS

##### 4.3.5.1 Floor to Ceiling Height

Development throughout the ACP area is to be consistent with the minimum floor to ceiling heights detailed in Table 2.

Floor to ceiling heights for ground floors in active and mixed streets are to be in accordance with section 4.3.1 Street Interface. In the event of any inconsistency, the greater value shall apply.

Spaces designed for flexibility should demonstrate ease of compliance with the National Construction Code for the various uses in the justification of the proposed design.

**Table 4:** Floor to Ceiling Heights

USE	MINIMUM HEIGHT
Residential uses	2.7 metres
All Ground Floor Flexible or Non-Residential uses	4.0 metres
Above Ground Floor Flexible or Non-Residential uses	3.3 metres

## 4.3.6 Detailing and Materials

### OBJECTIVES

- To ensure that building exteriors positively contribute to the desired future character of the relevant character area and streetscape.
- To ensure that the quality of design detail in new development is of a consistently high standard across the ACP area.

### DEVELOPMENT REQUIREMENTS

#### 4.3.6.1 Facade Materials

Where visible from the street, the podium element of development should include a range of materials to add articulation and visual interest.

Painted unclad concrete should not be a principal finishing material or exceed more than 20% of the area of a building façade.

#### 4.3.6.2 Roof Design

Roof-top mechanical or telecommunications equipment shall be integrated into the design and massing of the upper floors of the building and shall not be visible above roof level.

#### 4.3.6.3 Servicing Design

A waste management plan shall be prepared for each new development and submitted with the development application to ensure refuse collection can be undertaken in accordance with the requirements of the local government.

Servicing and utilities elements should be screened from view or, if required to be on the outside of the building, should be integrated into the fabric of the building.

#### 4.3.6.4 Public Art

All development with a value of \$4 million or greater shall contribute towards public art in accordance with the City of South Perth Local Planning Policy P316 Developer Contribution for Public Art and Public Art Spaces (as amended).

#### 4.3.6.5 Awnings

Where a building has a nil setback to the street boundary, an awning shall be provided over the street footpath. The projection depth of the awning shall be at least 2.5 metres, provided that there is a clearance distance of at least 1.5 metres from the face of the road kerb to the awning.

This requirement may be reduced where necessitated by the local street conditions.

#### 4.3.6.6 Building Entries

Notwithstanding the provisions of section 4.3.1 of this ACP, the primary entry to a building's upper floors shall be accessed and addressed from the street. The entry shall be a well-lit, clearly identifiable element of the building.

### 4.3.7 Bicycle Parking and End of Trip Facilities

#### OBJECTIVES

- To reduce car dependence and facilitate a modal shift towards sustainable transport options, including cycling.
- To provide choice of mode of travel to and from the ACP area.
- To provide appropriate facilities for cyclists thereby encouraging cycling as a convenient, enjoyable, healthy and sustainable mode of transport.
- To encourage an active and healthy community.

#### DEVELOPMENT REQUIREMENTS

##### 4.3.7.1 Bicycle Parking Rates

Bicycle parking bays for non-residential development shall be provided at the rates specified in Table 5.

All bicycle parking is to be secure and conveniently located

##### 4.3.7.2 End of Trip Facilities

End of trip facilities including showers and lockers shall be provided for all new non-residential development in accordance with the rates specified in Table 5.

**Table 5:** Bicycle Parking Requirements

NON-RESIDENTIAL	
Employee	1 per 100sqm of net lettable area
Visitor	1 per 100sqm of net lettable area
End of Trip Facilities	1 shower per 10 bicycle parking bays
	1 locker per bicycle parking bay



### 4.3.8 Vehicle Parking and Access

#### OBJECTIVES

- To ensure car parking access is safe and convenient, and where possible coordinated between developments.
- To reduce car dependence and facilitate a modal shift towards sustainable transport options.
- To encourage new development to explore and implement alternatives including car-share schemes.
- To ensure parking provides for mobility needs but to also encourage a modal split towards alternative forms of transport.

#### DEVELOPMENT REQUIREMENTS

##### 4.3.8.1 Car Parking Provision

Non-residential parking is to be provided in accordance with the rates specified in Table 6. These requirements may be rounded to the nearest whole number.

Parking may be unbundled from individual tenancies and exchanged within individual developments provided both parties are residential or both parties are non-residential. Exchanges between residential and non-residential land uses are not permitted.

##### 4.3.8.2 Access to On-Site Parking

Crossovers to on-site parking shall be limited to one per development.

For sites with more than one street frontage, additional crossovers may be considered where it can be demonstrated that the Objectives of Clause 4.3.8 will be satisfied, and provided that a maximum of one crossover is provided per street frontage.

Direct vehicular access from Mends Street, Mill Point Road and Labouchere Road should be avoided wherever possible.

##### 4.3.8.3 Parking Location

Parking shall be located behind the building facade and screened from public view.

Underground parking structures shall have regard for groundwater levels and potential impacts of the underground parking structure on groundwater, and root systems of trees and other vegetation.

##### 4.3.8.4 Car Sharing

Parking requirements for residential development may be reduced by maintaining a car share scheme to be approved by the local government. Each car share bay/vehicle may be substituted for up to ten residential parking bays, to a maximum of four car share bays. Car share bays shall be designated as common property.

##### 4.3.8.5 Scooters and Motorbikes

One scooter/motorbike bay shall be provided per 20 non-residential car parking bays required.

##### 4.3.8.6 Cash in Lieu of Parking

For all uses, cash in lieu of parking may be sought, in accordance with the relevant provision of the Scheme and any relevant City of South Perth policy.



**Table 6:** Vehicular Parking Requirements

USE	PARKING REQUIREMENT
Short stay Accommodation	Minimum 0.1 bays per room or suite
All other non-residential uses	Minimum 2 bays per 100sqm of net lettable area Maximum 3 bays per 100sqm of net lettable area
Student accommodation	Minimum 0.1 bays per room or suite

## 5.0 MOVEMENT AND ACCESS

This section does not impose requirements on development proposed in the ACP area. This section provides guidance for complementary improvements that may take place in the movement network to improve the ACP area. Where possible, this guidance should inform planned improvements made by the City of South Perth or other public agencies.

This section does provide guidance for development to complement and thereby capitalise on planned improvements, and may align with community benefit contributions to be provided in exchange for additional development potential.

The Movement and Access section is intended to:

- Provide guidance for development to be well suited to its immediate public realm interface and designed to support clear, safe and attractive access to development sites.
- Indicate recommended future investments in the movement network to support the vision and objectives for the Activity Centre Plan.
- Provide additional context for discretionary decision-making on development applications.
- Provide guidance for community benefit contributions provided in exchange for additional development potential.

### 5.1 LOCAL ROAD NETWORK

#### OBJECTIVES:

- To improve the design of local roads to enhance their safety and utility for all users.
- To manage regional through-traffic and congestion points through recommended improvements to the local road network.
- To improve pedestrian safety and amenity by realising a reduction in traffic speeds.
- To reduce car dependence and facilitate a modal shift towards sustainable transport options.

#### GUIDANCE AND INTENDED OUTCOMES

##### 5.1.1 Speed Limits

A posted speed limit of 40 kilometres per hour should apply in the ACP area in accordance with the Movement and Access Plan (Plan 4).

##### 5.1.2 Signalised Intersections

Signalised intersections with pedestrian phases should be added or enhanced at the Mill Point Road/Labouchere Road and Judd Street, Mends Street and Mill Point Road, Richardson Street and Labouchere Road, and Angelo Street and Labouchere Road intersections in accordance with Plan 4.

##### 5.1.3 Left-in Left-out Intersections

Other streets in the Richardson character area intersecting with Labouchere Road should be reconfigured to provide left in-left out movement only.

##### 5.1.4 On-Street Parking

On-street off-peak short-term parking along Labouchere Road and Mill Point Road should be introduced to support businesses and residential uses in accordance with Plan 4. Other on-street parking should be managed in accordance with the relevant City of South Perth parking strategy.

##### 5.1.5 Additional Street Connections

Opportunities to improve connectivity through the creation of additional street connections should be considered in accordance with Plan 4.

## 5.2 PUBLIC TRANSPORT

### OBJECTIVES:

- i. To establish the ACP area as a transit-oriented activity centre supported by multi-modal transit services and infrastructure.
- ii. To reduce car dependence and facilitate a modal shift towards sustainable transport options.
- iii. To support the delivery of a South Perth train station by planning to focus the distribution of forecast growth in a way that contributes to the business case for the South Perth train station as a “destination station”.

### GUIDANCE AND INTENDED OUTCOMES

#### 5.2.1 Bus Priority

The Mill Point Road/Labouchere Road and Judd Street intersection should be reconfigured to include a northbound bus priority lane and signal phase to address congestion delays in accordance with Plan 4.

#### 5.2.2 Enhanced Bus Service

Local bus services should be modified in partnership with the Public Transport Authority, in order to establish high-frequency connections to key regional destinations as detailed in Appendix 2.

#### 5.2.3 South Perth Train Station

A new train station should be constructed at the location established within the Kwinana Freeway median, in line with long term strategic planning. Development opportunities within adjoining public land, and associated value capture potential should be investigated.

#### 5.2.4 Ferry Service

Expansion of the local ferry network by either private or public operators should be encouraged to increase access to the ACP area from wider Perth, supported by an additional berth at Mends Street.



## 5.3 PEDESTRIAN AND CYCLIST MOVEMENT

### OBJECTIVES:

- To improve pedestrian safety and amenity thereby encouraging walking as a convenient, enjoyable, healthy and sustainable mode of transport.
- To reduce car dependence and facilitate a modal shift towards sustainable transport options.
- To reduce the detrimental barrier effect of busy roads for pedestrians and cyclists, particularly Labouchere and Mill Point Roads.
- To integrate the ACP area with the regional principal shared path network to increase access to cycling facilities and encourage cycling as a convenient, enjoyable, healthy and sustainable mode of transport to, from and within the ACP area.

### GUIDANCE AND INTENDED OUTCOMES

#### 5.3.1 Footpath Width

Street verges, in coordination with setback controls contained in section 4.1.2 in the ACP, should ensure a minimum footpath width of 4.0 metres is provided for pedestrian use along Mill Point Road and Labouchere Road.

#### 5.3.2 Pedestrian Crossings

All intersecting streets along Mill Point Road north of Judd Street and along Labouchere Road north of Richardson Street should incorporate raised 'wombat' crossings and all intersections should be raised along South Perth Esplanade for pedestrian priority, in accordance with Plan 4.

#### 5.3.3 Long Term Cycle Network

Primary and secondary cycle routes should be constructed as per Plan 4 in accordance with the Department of Transport Long Term Cycle Network.

#### 5.3.4 Advance Stop Lines

Advance stop lines should be provided for cyclists on Mends Street where it intersects with Mill Point Road and Labouchere Road.

#### 5.3.5 Safe Active Streets

Lyall Street, Richardson Street and Mends Street should be redesigned to incorporate the Department of Transport's "Safe Active Streets" principles in order to establish an integrated and connected cycle network.

#### 5.3.6 Dedicated Cycle Paths

An on- or off-street cycle connection along Labouchere Road should be established to connect with the existing routes along Labouchere Road south of Angelo Street.



## 6.0 PUBLIC REALM

This section does not impose requirements for development proposed in the ACP area. This section provides guidance for complementary improvements that may take place in the public realm, particularly in relation to green spaces, to improve the ACP area. Where possible, this guidance should inform planned improvements made by the City of South Perth or other public agencies.

This section does provide guidance for development to complement and thereby capitalise on planned improvements and may align with community benefit contributions to be provided in exchange for additional development potential.

The Public Realm section is intended to:

- Provide guidance for development to be well suited to its immediate public realm interface and designed to contribute positively to the public realm.
- Indicate recommended future investments and opportunities for improvement in public open space (including regional open space).
- Provide additional context and direction for discretionary decision-making on development applications.
- Provide guidance for community benefit contributions provided in exchange for additional development potential, with respect to public realm upgrades and provision of privately owned public open space.

## 6.1 PUBLIC OPEN SPACE

### OBJECTIVES:

- To create an integrated public open space network that supports public activity and connects local and regional destinations.
- To enhance the quality of life for residents, workers and visitors by providing new quality public open spaces including pocket parks, plazas and green links.
- To ensure that new development adjoining the open space network complements the landscape character and enhances accessibility and activation of open space.

### GUIDANCE AND INTENDED OUTCOMES

#### 6.1.1 Public Space Typologies

Public Space typologies should reflect the desired future character described at 6.1.2-6.1.4. For further guidance refer to Plan 5: Public Realm Plan.

#### 6.1.2 Managed Foreshore

Managed foreshore areas provide spaces for recreational, cultural and community activity along the foreshore of the Swan River. These areas provide spaces for a range of informal and formal activities and events, including active and passive recreation.

Managed foreshore areas should be maintained and enhanced in accordance with the relevant City of South Perth strategy and/or management plan.

#### 6.1.3 Natural Foreshore

Natural foreshore areas are conservation areas attracting less intensity of activity that support local flora and fauna and provide opportunities for interaction with nature through viewpoints and cultural and education elements. They may also support cyclist and pedestrian movement via dedicated paths such as the Kwinana Freeway Principal Shared Path.

Natural foreshore areas should be maintained and enhanced in accordance with the relevant City of South Perth strategy and/or management plan.

#### 6.1.4 Urban Park

Urban parks are multi-functional spaces that appeal to residents, workers and visitors and provide day- and night-time activation. They are the focus of activity within the public realm, with high quality public amenities such as lighting, barbeque facilities, exercise equipment, shade structures and event infrastructure. Urban parks are designed to support and encourage passive and active recreation, including organised sport, and may also provide incidental retail, food and beverage tenancies on a temporary or longer term basis. Urban parks should incorporate high quality design and materials including public art, interactive media, lighting, surfacing and planting to strengthen local character and identity.

Urban parks should be maintained and enhanced in accordance with the relevant City of South Perth strategy and/or management plan.

#### 6.1.5 Pocket Park

Pocket parks are small-scale open spaces designed to enhance local resident and worker amenity by functioning as “outdoor rooms” for meeting and relaxing. Pocket parks may also provide green space, shade and tree canopy cover, mitigate traffic noise and incorporate defined spaces to accommodate multiple users with some separation and privacy, and provide opportunities for occasional activation including food vendors and local events.

Pocket parks should be developed and maintained in accordance with Part 6.3.1 of this ACP.

#### 6.1.6 Existing Landscaping

Where public space upgrades occur, existing planting and mature trees should be retained wherever possible.

## 6.2 PUBLIC STREETS

### OBJECTIVES:

- To create a defined hierarchy of streets that support and encourage pedestrian movement.
- To enhance landscape quality and character by retaining and supplementing existing street trees.
- To enhance the design of streets in a way that strengthens local character and identity.

### GUIDANCE AND INTENDED OUTCOMES

#### 6.2.1 Street Typologies

Public streets are classified as garden streets, mixed streets or main streets and should generally accord with the respective desired future character identified at 6.2.2-6.2.4. For further guidance refer to Plan 5: Public Realm Plan.

#### 6.2.2 Garden Streets

The future character of Garden Streets should:

- Be green and well landscaped, with extensive street trees and continuous shade-tolerant planting along street verges
- Incorporate low impact seating and lighting to encourage passive use
- Configure on-street parking to create a meandering carriageway which slows through-traffic and prioritises walking and cycling
- Incorporate bulb-outs and kerb extensions containing additional planting where possible
- Provide depth in tree canopy by staggering street trees within both parking and verge alignments
- Incorporate widened footpaths and extensions in key locations to provide useable public space such as parklets, grouped seating, urban agriculture and play equipment
- Integrate water sensitive urban design systems wherever practical
- Accommodate on-street parking

#### 6.2.3 Mixed Streets

The future character of Mixed Streets should:

- Be urban in character and predominantly hardscaped, with a range of pedestrian amenities and street furniture to encourage use
- Provide depth in tree canopy by staggering street trees within both parking and verge alignments
- Provide a consistent palette of furniture and materials that reflects the local character area
- Integrate water sensitive urban design systems wherever practical
- Accommodate on-street parking

#### 6.2.4 Main Streets

The future character of Main Streets should:

- Be dynamic and urban in nature with a high density of pedestrian amenities such as street furniture, public art and high quality lighting
- Emphasise pedestrian movement and reduce the impact of traffic and parking on the pedestrian experience
- Incorporate widened footpaths and extensions in key locations to provide useable public space such as parklets, alfresco areas, busking and event infrastructure and cultural and interpretive installations
- Maximise street tree planting within parking or verge alignments
- Integrate water sensitive urban design systems wherever practical
- Provide a premium palette of furniture and materials which contribute to creating a distinctive, highly activated destination
- Provide shelter for pedestrians in the form of awnings over footpaths

## 6.3 PRIVATELY OWNED PUBLIC OPEN SPACE

### OBJECTIVES:

- To improve local amenity by creating additional green space within private land for use by the local community.
- To enhance local character by creating visually distinctive points of interest within the urban environment.
- To deliver through-site links which function as interconnected greenways around buildings, linking streets with highly landscaped, easily accessible and comfortably surveilled connections.

### GUIDANCE AND INTENDED OUTCOMES

The exact location of private pocket parks and mid-block links is to be determined as part of the development application process.

#### 6.3.1 Private Pocket Parks

Private pocket parks may be generally located as identified in Plan 5 and must:

- Be a minimum of 80 square metres in area
- Allow unobstructed access to the public at all times
- Reflect a passive, landscaped character in Hillside and Mill Point character areas and an active, hardscaped plaza character in Richardson and Mends character areas.
- Function as an extension of the public realm with no fencing or other obstructions which create visual or physical separation
- Be sufficiently illuminated to maintain public safety and encourage activation after dark
- Provide street furniture, landscaping and planting which address and integrate with the building frontage
- Be maintained in perpetuity by the landowner or Strata body
- Where creation of a Private Pocket Park is proposed, formal protection through an easement or other legal instrument may constitute a community benefit contribution as detailed in Section 7.5.

#### 6.3.2 Mid-Block Links

Private mid-block links are to be located generally as identified in Plan 5 and must:

- Be of sufficient width and designed to provide a sense of safety
- Allow unobstructed access to the general public at all times
- Provide an uninterrupted paved pedestrian path for its full length
- Function as an extension of the public realm with no gates or other obstructions which create visual or physical separation
- Be sufficiently illuminated to maintain public safety and encourage activation
- Appropriately respond to adjoining ground floor facades, with screening of blank or service areas and direct interface with windows, private communal areas, commercial tenancies and other active facades.
- Provide extensive landscaping comprised of trees and feature planting in deep soil zones, planters or green walls
- Be maintained in perpetuity by the landowner or strata body

Where creation of a mid-block link is proposed, formal protection through an easement or other legal instrument may constitute a community benefit contribution as detailed in Section 7.5.



## 7.0 COMMUNITY BENEFITS FRAMEWORK

This ACP and Schedule 9B aim to facilitate variety in the built form of the ACP area, within clear limits. Schedule 9B defines a building envelope through podium height, setback and site cover limits, tower setback and floorplate size limits and total building height and plot ratio limits. Building height and/or plot ratio above the primary limits may be approved, in accordance with Schedule 9B, where development proposals will not have a significant adverse effect on the amenity of the locality, achieve an excellent standard of design, and provide a community benefit contribution in return for additional development potential.

Where under Schedule 9B a community benefit contribution is required to obtain approval of building height and/or plot ratio above the primary limits, the contribution may be provided in three ways:

1. a monetary contribution paid to the local government to be expended on items within the ACP area; or
2. delivered by a developer onsite to the equivalent monetary contribution value; or
3. a combination of both.

The landmark site is subject to the provisions of Schedule 13, including Provision 5, Element 14, which defines the requirements to provide community benefits through the development of the site.

### OBJECTIVES:

- i. To provide guidance in the exercise of discretion by decision makers under Schedule 9B.
- ii. To provide clear prerequisites to be met for approval of height and/or plot ratio above the primary limit.
- iii. To provide definitions and upper limits to the development requirements of this ACP and Schedule 9B.
- iv. To ensure additional development potential corresponds with community benefit contributions.
- v. To ensure the approval of additional development potential is fair, transparent and legible.

### DEVELOPMENT REQUIREMENTS:

#### 7.1 Qualifying for Additional Development Potential

Under Schedule 9B approval for building height and/or plot ratio above the primary limit, where permissible under Elements 2 and 6 of Schedule 9B, can only be granted if the requirements of Element 7 and 8 of Schedule 9B are satisfied.

#### 7.2 Design Quality

The architectural design of a proposed building with building height and/or plot ratio above the primary limit must satisfy the requirements of Element 7 of Schedule 9B and 4.3.3.1 of this ACP. The proposal should make a unique contribution to the built form of the ACP area in support of the vision of the ACP and the relevant character area objectives in Schedule 9B.

In determining whether this design quality requirement is satisfied, the nominated Design Review Panel, South Perth Activity Centre Design Review Panel, or equivalent body is to undertake its assessment in accordance with the requirements set out at 4.3.3.1 of this ACP.

#### 7.3 Community Benefits

Community benefit contributions should be expended on items that benefit the users of the ACP area, including (but not limited to):

- community facilities;
- streetscape and public realm upgrades;
- street trees and landscaping;
- upgrades to public open space
- movement network and transport infrastructure; or
- placemaking initiatives.

A list of potential community benefit contribution items is contained within Appendix 2 - Community Benefits Contribution Project List.

## DEVELOPMENT REQUIREMENTS:

Where a community benefit is proposed and is not an item contained within Appendix 1 - Community Benefits Contribution Project List, the proposed community benefit should meet all of the following criteria:

- Does not relate to a component of a development such as façade quality, street activation, landscaping (including landscaping of the verge) that is otherwise required for developments within the ACP area;
- Does not relate to a commercial tenancy (including café, childcare centre or gym etc.);
- The community benefit is publically accessible with no membership or entry fees;
- Supported by a Community Needs Analysis (CNA) prepared by an appropriately qualified consultant, to the satisfaction of the City. The CNA must demonstrate or provide evidence for existing or future 'need/demand' within the ACP area for the proposed contribution item. Regard shall be given to the CNA contained within the Community Benefit Contribution Framework within Appendix 7; and
- Compliance with the criteria as set out in this clause is at the City's discretion.

### 7.4 Management and Expenditure of Community Benefit Contributions

The City will establish and maintain a dedicated South Perth Activity Centre Community Benefit Contribution Fund and all monetary community benefit contributions shall be deposited into this fund.

Community Benefit Contribution funds shall be managed and expended in accordance with the Community Benefit Contribution Framework contained within Appendix 7.

Prioritisation criteria is contained within the CBCF to determine which projects should receive funding from community benefit contributions as they are received. The prioritisation criteria within the CBCF should be considered by the City when determining funding allocation.

Funds received as community benefit contributions should be expended within 8 years or as soon as practical from receipt of payment.

### 7.5 Community Benefit Contribution Procedural Guide

The process of agreeing and delivering community benefits, from the point at which an applicant submits a development application, through to payment of the contribution and delivery of the benefit items by the developer or local government is set out within the Community Benefit Contribution Procedural Guide contained within Appendix 3 of Part 1 of this ACP.

## 8.0 OTHER DEVELOPMENT REQUIREMENTS

### 8.1 DESIGN REVIEW PROCESS

All development applications will be referred to the City of South Perth's Design Review Panel (DRP), nominated Design Review Panel, South Perth Activity Centre Design Review Panel, or equivalent body for the purpose of providing advice on architectural design, to ensure that a high standard of design quality is provided in all proposals and that qualitative design factors are considered in the development approval process.

### 8.2 STUDIES AND PLANS REQUIRED

The following studies and plans (including but not limited to) may be required by the local government to provide certainty in considering and managing key issues associated with a proposed development and to ensure high quality development within the ACP area.

**Table 7:** Supporting Documentation Required

ITEM REQUIRED	STAGE AT WHICH REQUIRED	APPROVAL AUTHORITY
Noise Impact Assessment	With Development Application	City of South Perth
Transport Impact Assessment	With Development Application	City of South Perth
Wind Impact Assessment	With Development Application	City of South Perth
Heritage Impact Assessment (where development is adjacent to or incorporating a heritage place)	With Development Application	City of South Perth
Groundwater Management Site Investigations (Geotechnical and soil investigation & Groundwater Assessment report)	With Development Application	City of South Perth
Development Water Management Report	With Development Application	City of South Perth
Stormwater Management Plan	With Development Application	City of South Perth
Waste Management Plan	With Development Application	City of South Perth
Report on Building Sustainability (in accordance with City of South Perth Policy P350.01 Environmentally Sustainable Building Design)	With Development Application	City of South Perth
Landscape Plan	With Development Application	City of South Perth
Public Art Contribution Plan (in accordance with City of South Perth Policy P316 Developer Contributions for Public Art and Public Art Spaces)	Condition of development approval	City of South Perth
Groundwater Management Plans (Dewatering Management Plan & Acid Sulphate Soil Management Plan)	Condition of development approval	City of South Perth
Construction Management Plan	Condition of development approval	City of South Perth

### 8.3 PRECINCT STRATEGIES

Other strategies that may be developed or reviewed by the City of South Perth to deliver the vision for the ACP area include (but are not limited to):

- Public Art Strategy
- Parking Strategy
- Public Assets Strategy
- Public Realm Strategy
- Foreshore Management Plan
- Train Station Development Plan
- Detailed Design Guidance for Retail Tenancies
- Economic Development Strategy
- Community Development Strategy
- Tourism and Destination Development Strategy

Where relevant to particular development proposals in the ACP area, these strategies will be given due regard in determining development applications for these proposals.



## 9.0 MONITORING AND REVIEW

### 9.1 TEN YEAR REVIEW AND RENEWAL OF THE ACP

This ACP has been designed to accommodate change to 2041. However in keeping with ACP requirements and prudent long term planning, the ACP should be reviewed approximately every 5 to 10 years to ensure it remains suited to achieving the vision for the ACP area.

### 9.2 REVIEW OF COMMUNITY BENEFIT CONTRIBUTION FRAMEWORK

The Community Benefit Contribution Project List will be reviewed annually to ensure that the document is current and all listed projects are accurately valued. The review should identify projects that have been completed and should be removed from the Project List; and projects that have been partially completed and therefore need to be updated in the Project List. A more comprehensive review of the entire CBCF should occur on a 5-yearly basis as set out within Part 11 of Appendix 7 Community Benefit Contribution Framework.

### 9.3 KEY PERFORMANCE INDICATORS

The following Key Performance Indicators provide the means of monitoring and assessing the effectiveness of the ACP provisions in delivering the vision and desired outcomes for the ACP area. City of South Perth planning processes should support the collection of planning and development data as required to monitor these indicators.

#### 9.3.1 Activity

INDICATOR	MEASURE
Commercial Floorspace	Cumulative amount of additional commercial floorspace constructed.
Retail Floorspace	Cumulative amount of additional retail floorspace constructed.
Dwelling Completions	Number of dwelling completions and cumulative residential floorspace constructed.
Tourism Visitation	Net tourism visitation per year. Growth within forecast growth range is considered positive.
Population Growth	Population growth relative to forecast growth band. Growth within forecast growth range is considered positive.
Jobs Growth	Local employment growth relative to forecast growth band. Growth within forecast growth range is considered positive.

#### 9.3.2 Built Form

INDICATOR	MEASURE
Building Sustainability	Percentage of buildings with recognised sustainability certifications. Growth in number of certified buildings, and higher levels of certification as a proportion of total building stock, is considered positive.
Community Benefit Contributions	Amount of community benefit contributions provided by new development in exchange for additional development potential.
Plot Ratio	Average variance between primary Plot Ratio entitlement and approved Plot Ratio in new development. No variance or positive variance is considered positive.



### 9.3.3 Movement

INDICATOR	MEASURE
<b>Transportation Mode Share</b>	The percentage of residents using various forms of transportation to travel to work. An improving trend and higher values for public transport, cycling and walking is considered positive.
<b>Pedestrian and Cyclist Infrastructure</b>	Extent of recommended pedestrian infrastructure upgrades implemented, for example linear kilometres of infrastructure constructed. More recommended modifications being implemented over time is considered positive.
<b>Public Transport Infrastructure</b>	Extent of recommended transport network infrastructure and service upgrades implemented. More recommended modifications being implemented over time is considered positive.
<b>Road Network Modification</b>	Extent of recommended modifications to local road network implemented. More recommended modifications being implemented over time is considered positive.
<b>Train Station</b>	Progress towards construction and operation of the South Perth train station. Planning and government funding commitments are considered positive.

### 9.3.4 Public Realm

INDICATOR	MEASURE
<b>Public Realm Enhancement</b>	Number of local streets and public spaces with completed upgrades. Increasing number of streets over time is considered positive.
<b>Street tree planting</b>	Number of additional street trees planted per year. An increasing number of street trees over time is considered positive.
<b>Privately Owned Public Open Space</b>	Number of new privately-owned public open spaces delivered in new development. Delivery of privately-owned public open spaces is considered positive.

## 9.4 SCHOOL FACILITIES

While there are no schools located in the ACP area, it is acknowledged that the Peninsula forms part of the catchment area to South Perth Primary School and Como Secondary College. As the ACP is implemented, and residential populations increase, the City will liaise with the Department of Education to determine the impact to existing school site capacity. This is an item for annual or two-yearly monitoring by the Department of Education and the City.

## 10.0 DEFINITIONS

Unless the context requires otherwise, words and expressions used in this ACP shall have the respective meanings given to them:

- a. as set out below; or
- b. if they are not defined below:
  - i. in Schedule 9B; or
  - ii. in Schedule 1 of the Scheme; or
  - iii. as per the R-Codes.

**ACP area** refers to the Activity Centre Plan area shown in Figure 1.

**Awnings** means a covering attached to the exterior wall of a building for the purposes of shade or shelter.

**Building Height** has the same meaning as 'height, building' as per the R-Codes.

**Character Area** means an area shown as a character area on Figure 1 and Plan 1: Activity Centre Plan area to outline the intended character of development that should occur on that land.

**Deemed Provisions** means Schedule 2 of the *Planning and Development (Local Planning Schemes) Regulations 2015*.

**Landmark Site** means a prominently located site, with the potential for prominent development that enhances the definition and identity of the precinct.

**Mixed Street Interface** means street frontages that promote visual or physical connectivity between those spaces in the street and those on ground floors of buildings through a mix of commercial and residential land uses.

**Public Space** means the area defined as a Street or Open Space on the Activity Centre Plan Map 5: Public Realm

**Schedule 9B** means Schedule 9B of the Scheme.

**Schedule 13** means Schedule 13 of the Scheme.

**Scheme** means City of South Perth Town Planning Scheme No. 6.

**Setback Encroachment** means a building (or portions thereof) sited within the prescribed minimum horizontal distance between a wall at any point and an adjacent lot boundary, measured at right angles (90 degrees) to the boundary.

**Tower Separation** means the shortest distance between the outside surfaces of two towers, excluding balconies, eaves, and terraces.

**Unbundled Parking** means an arrangement by which parking spaces within a development are rented or sold separately, and may be traded between unit owners of a development, rather than automatically included with the rent or purchase price of a residential or commercial unit. Also known as decoupled parking.

**WAPC** means Western Australian Planning Commission.

## 11.0 PLAN SERIES

**Plan 1:** Activity Centre Plan

**Plan 2:** Street Type Plan

**Plan 3:** Street Interface Type Plan

**Plan 4:** Movement and Access Plan

**Plan 5:** Public Realm Plan

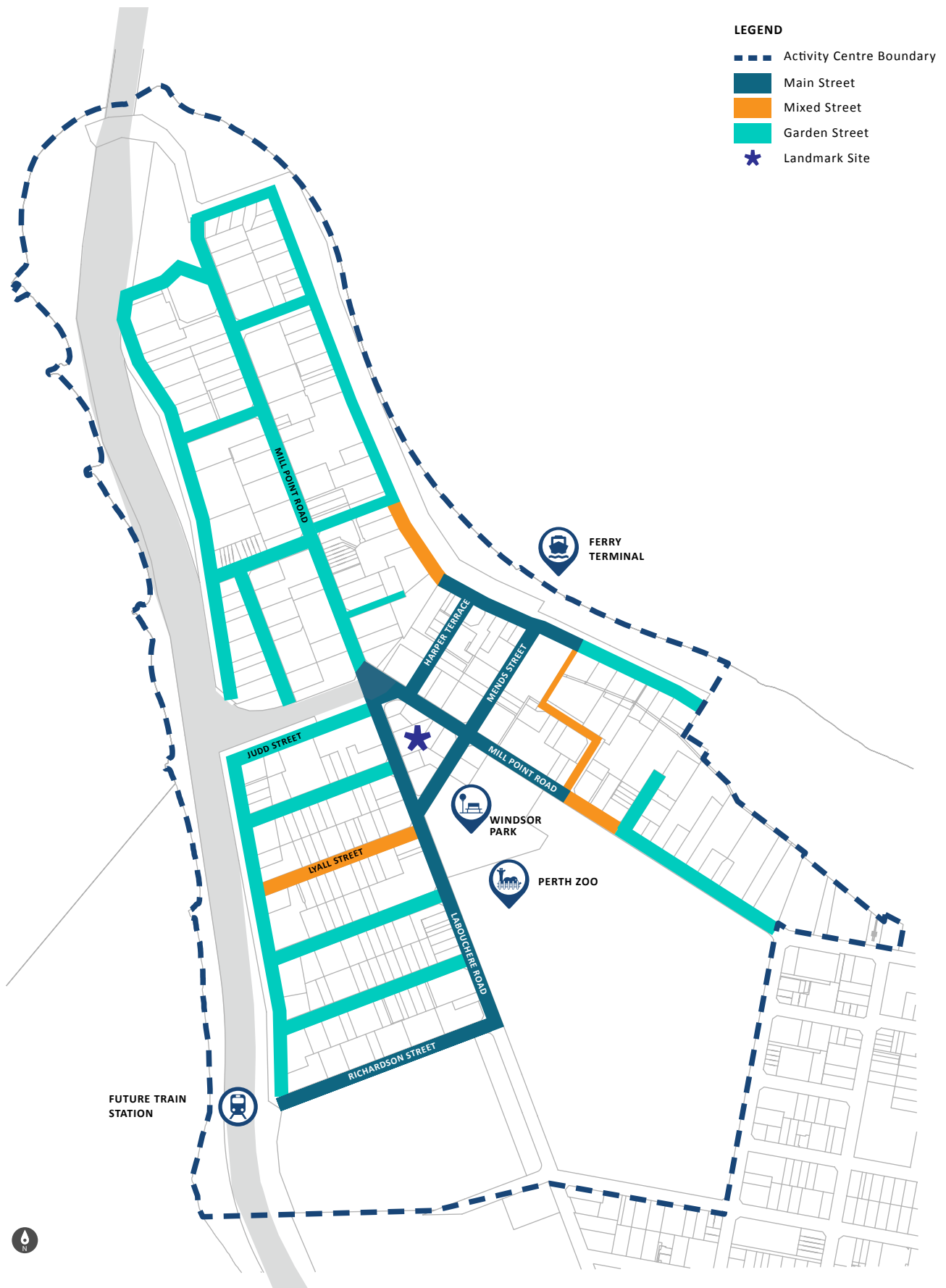
**Note – Additional plans regulating development are included in Schedule 9B of the Scheme.**

## PART ONE IMPLEMENTATION

### Plan 1: Activity Centre Plan



**Plan 2:** Street Type Plan



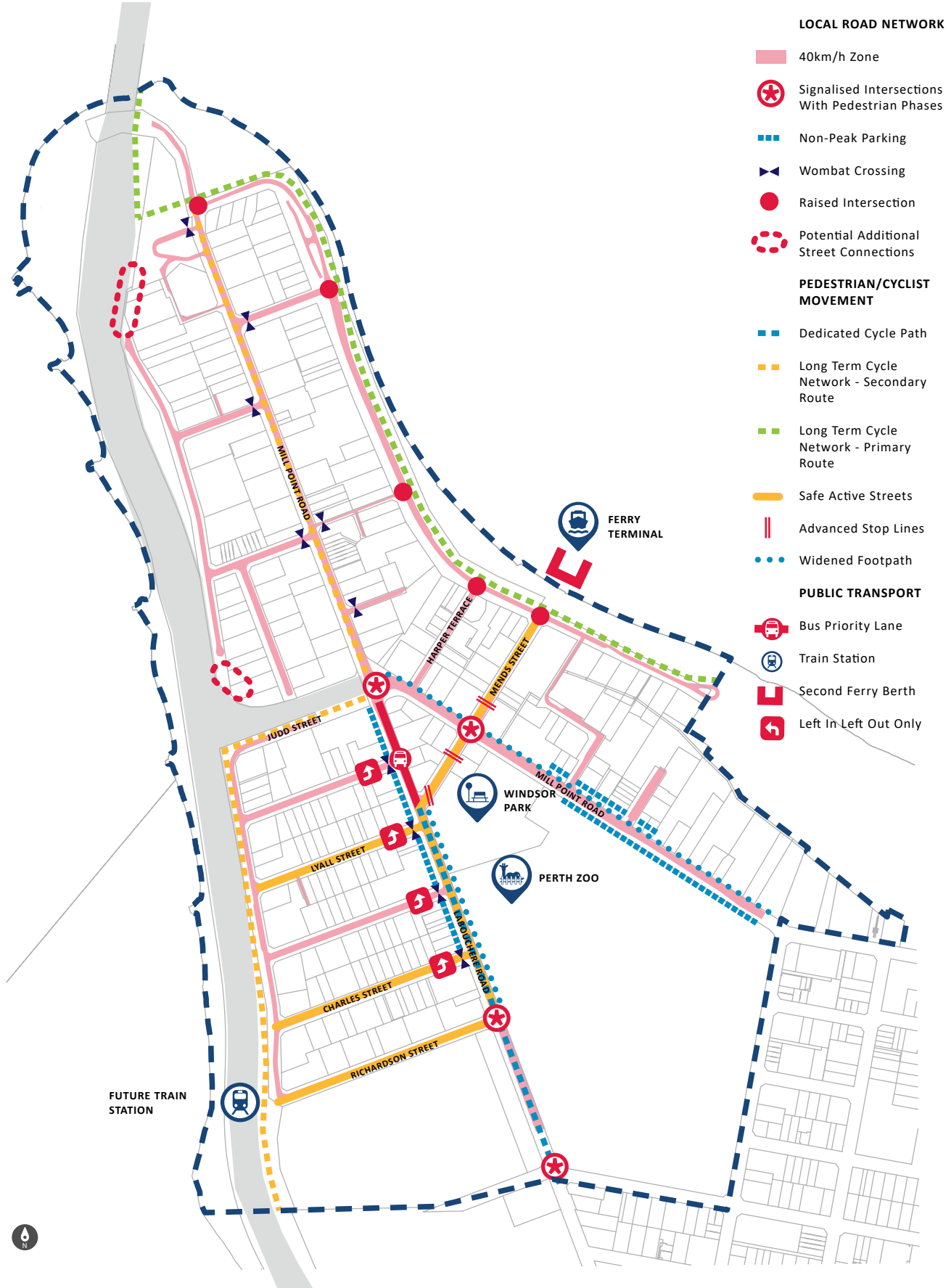


## PART ONE IMPLEMENTATION

### Plan 3: Street Interface Type Plan



**Plan 4:** Movement and Access Plan



## PART ONE IMPLEMENTATION

### Plan 5: Public Realm Plan



## APPENDIX 1: DESIGN EXCELLENCE GUIDE

## Appendix 1: Design Excellence

### Defining Design Excellence

Good design is WA Government policy. All projects, large or small, should demonstrate good design. This expectation is now embedded in State Planning Policy 7.0 Design of the Built Environment (SPP 7.0) and is supported by further policy, guidelines and processes such as;

- State Planning Policy 7.3 *Residential Design Codes, Volume 2 - Apartments* (SPP 7.3)
- State Design Review Panel (SDRP) program
- Western Australian Planning Commission (WAPC) *Design Review Guide*
- local government design review panels.

*Design Excellence* is a requirement or expectation of a standard of design quality that is 'above and beyond' the minimum expectations set out in SPP 7.0 and other relevant State planning policies.

In exceeding the requirements of these policies, a project is recognised to have surpassed typical industry practice and market standards. It results in outcomes that are innovative, distinctive and memorable.

### Design Excellence and the SPP 7.0 Design Principles

The following interpretation of the SPP 7.0 Design Principles, outlines the more exacting standard of design outcome required for proposals seeking to achieve Design Excellence. These enhanced requirements can be used to inform the design, review and decision-making processes for projects seeking excellence.

Good Design (SPP 7.0)	Design Excellence
<b>1. Context and character</b>	
<i>Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.</i>	<p><i>A project that has achieved Design Excellence;</i></p> <ul style="list-style-type: none"> <li>• <i>delivers an intelligent and highly legible site-specific response to the characteristics of a local area;</i></li> <li>• <i>is highly responsive to the features and qualities of the natural and built environment;</i></li> <li>• <i>is highly responsive to Aboriginal culture and history and significant post settlement heritage;</i></li> <li>• <i>plays a key role in enhancing a distinctive and memorable identity for the area; and</i></li> <li>• <i>makes a significant positive contribution to the current and intended future character of their locality.</i></li> </ul>
The distinctive characteristics of a local area include its prominent natural and built features, the overall qualities of its built environment, local aboriginal culture and history, significant post-settlement heritage, as well as social, economic and environmental conditions.	
Good design responds intelligently and sensitively to these factors in order to positively contribute to the identity of an area, including adjacent sites, streetscapes and the surrounding neighbourhood. Interpretative responses to context are encouraged; imitation of existing features should be avoided.	
Good design also responds positively to the intended future character of an area. It delivers appropriate densities that are consistent with projected population growth, and able to be	



sustained by existing or proposed transport, green and social infrastructure.

Consideration of local context is particularly important for sites in established areas that are undergoing change or identified for change. It is also important for greenfield development, to ensure a site-specific response to existing landscape.

## 2. Landscape quality

*Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.*

Good landscape design protects existing environmental features and ecosystems, enhances the local environmental context and restores lost or damaged ecosystems, where possible. It considers environmental factors such as water and soil management, ground and site conditions, solar access, microclimate, tree canopy, urban heat island impacts, habitat creation and preservation of green infrastructure – balancing these against social, cultural and economic conditions.

Good landscape design employs hard and soft landscape and urban design elements to create external environments that interact in a considered manner with built form, resulting in well-integrated, engaging places that contribute to local identity and streetscape character

Good landscape design provides optimal levels of external amenity, functionality and weather protection while encouraging social inclusion, equitable access and respect for the public and neighbours. Well-designed landscape environments ensure effective establishment and facilitate ease of long term management and maintenance.

*A project that has achieved Design Excellence;*

- demonstrates that the enhancement and improvement of local environmental systems, flora and fauna is a priority;
- provides significant external amenity by exceeding requirements for establishing habitat and supporting mature trees;
- delivers highly-integrated, memorable public and private places that make a significant contribution to local identity and streetscape character;
- complements and enhances the character or intended future character of the local area; and
- Is supported by clear and sustainable management arrangements that will maintain or enhance the quality of constructed and natural landscapes over time.

## 3. Built form and scale

*Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.*

Good design achieves an appropriate built form by responding to site characteristics and surrounding built fabric in a considered manner, mitigating negative impacts on the

*A project that has achieved Design Excellence;*

- delivers a highly considered built form outcome (mass and height) that carefully and successfully negotiates between existing character and an intended future character;
- intelligently mitigates negative impacts on the amenity of neighbouring properties; and

amenity of neighbouring properties and the public realm.

Good design considers the orientation, proportion, composition, and articulation of built form elements, to deliver an outcome that is suited to the purpose, defines the public domain, respects important views, contributes to the character of adjacent streetscapes and parks, and provides good amenity for people at ground level.

- *delivers exceptional amenity to the public realm.*

#### 4. Functionality and build quality

*Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.*

Well-designed functional environments provide spaces that are suited to their intended purpose and arranged to facilitate good relationships to other spaces, and ease of use. Good design provides flexible and adaptable spaces to maximise their utilisation and accommodate appropriate future requirements without the need for major modifications.

Good build quality is achieved by using durable materials, finishes, elements and systems. The outcome should be a development that is well-detailed, resilient to the wear and tear expected from its intended use, is easy to upgrade and without excessive maintenance requirements. Consideration should be given to the full life-cycle of the proposal and mitigation of potential climate change impacts.

Good design accommodates services in an integrated manner, without detriment to the overall design outcome.

*A project that has achieved Design Excellence;*

- *employs innovation and creativity to meet the current and future needs of users;*
- *demonstrates functional benefits over the full life-cycle of the development by enhancing operational efficiency, minimising maintenance and incorporating future-proof aspects; and*
- *achieves excellent build quality and demonstrates durability of materials, systems and finishes that are well-integrated with the overall design intent.*

#### 5. Sustainability

*Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.*

Sustainable built environments use passive environmental design measures at various scales, responding to local climate and site conditions by providing optimal orientation, shading, thermal performance and natural ventilation. Reducing reliance on technology for heating and cooling minimises energy use, resource consumption and operating costs over the life-cycle of the project.

*A project that has achieved Design Excellence;*

- *demonstrates that the sustainability of the built environment is a priority;*
- *delivers ambitious environmental, social and economic outcomes that will assist to promote the identity of the local area as a sustainability hub;*
- *legibly employs passive solar design principles and active sustainability mechanisms across the development and site; and*

Sustainable design also includes the use of sustainable construction materials, recycling, good waste management practices, re-use of materials and existing structures, harnessing of renewable energy sources, and total water cycle management. Good design considers the ease with which sustainability initiatives can be maintained and managed.

Sustainable landscape and urban design adheres to established water-sensitive urban design principles, minimises negative impacts on existing natural features and ecological processes, and facilitates green infrastructure at all project scales.

- *positively contributes to the broader context of natural features and ecological processes.*

## 6. Amenity

*Good design optimises internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.*

Well-designed external spaces provide welcoming, comfortable environments that are universally accessible, with effective shade as well as protection from unwanted wind, rain, traffic and noise. Good design mitigates negative impacts on surrounding buildings and places, including overshadowing, overlooking, glare, reflection and noise.

Good design provides internal rooms and spaces that are adequately sized, comfortable and easy to use and furnish, with good levels of daylight, natural ventilation and outlook. Delivering good levels of internal amenity also includes the provision of appropriate levels of acoustic protection and visual privacy, adequate storage space, and ease of access for all.

*A project that has achieved Design Excellence;*

- *exceeds standard requirements for internal and external amenity for occupants and visitors;*
- *delivers spaces that are generous, welcoming and universally accessible;*
- *makes a significant contribution to the amenity of the public realm; and*
- *intelligently mitigates negative impacts on the amenity of neighbouring buildings and places.*

## 7. Legibility

*Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.*

Good urban design makes places easy to navigate, with recognisable routes, intersections and landmarks while being well-connected to existing movement networks. Sightlines are well-considered, with built form responding to important vantage points.

Within buildings, legibility is served by a clear hierarchy of spaces with identifiable entries and

*A project that has achieved Design Excellence;*

- *establishes a very high degree of implicit legibility – at building, site and precinct scales - through built form and landscape design, without reliance upon active mechanisms such as signage systems; and*
- *delivers seamless physical and visual integration with broader existing movement networks.*

clear wayfinding. Externally, buildings and spaces should allow their purpose to be easily understood, and provide clear distinction between public and private spaces.

Good design provides environments that are logical and intuitive, at the scales of building, site and precinct.

## 8. Safety

*Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.*

Safety and security is promoted by maximising opportunities for passive surveillance of public and communal areas and providing clearly defined, well-lit, secure access points that are easily maintained and appropriate to the purpose of the development.

Good design provides a positive, clearly defined relationship between public and private spaces and addresses the need to provide optimal safety and security both within a development and to adjacent public realm.

Designing for safety also involves mitigating any potential occupational safety and health hazards that might result from a development during its construction, maintenance and operation.

*A project that has achieved Design Excellence;*

- *establishes a very high degree of implicit safety through built form and landscape design.*

## 9. Community

*Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.*

Good design encourages social engagement and physical activity in an inclusive, equitable manner, enabling stronger communities and improved public health outcomes.

In residential proposals, good design achieves a mix of dwelling types, providing housing choice for different demographics, living needs and household budgets, and accommodating all ages and abilities.

*A project that has achieved Design Excellence;*

- *offers an inclusive and equitable response to local community needs and broader social context, now and into the future; and*
- *strengthens communities by promoting active, diverse and vibrant places and spaces.*

## 10. Aesthetics

*Good design is the product of a skilled, judicious design process that results in*

*A project that has achieved Design Excellence;*

*attractive and inviting buildings and places that engage the senses.*

Good design resolves the many competing challenges of a project into an elegant and coherent outcome. A well-conceived design concept informs all scales, from the articulation of building form through to materiality and detail, enabling sophisticated, integrated responses to the character of the place.

In assessing design quality, consideration of aesthetics should not be limited to style and appearance; the coherence of the design concept and the cultural relevance of the proposal. should also be taken into account.

- *results in a sophisticated, elegant and coherent design solution at all scales;*
- *establishes a distinctive and memorable identity; and*
- *makes a significant contribution to the character of the locality.*



APPENDIX 2: COMMUNITY BENEFIT CONTRIBUTION PROJECT LIST

# Community Benefits Contribution Framework Project List

No.	Upgrade Type						Project Information			Estimated Cost			Value			Timing
	Community facilities	Streetscape and public realm	Street trees and landscaping	Upgrades to public open space	Transport infrastructure	Placemaking initiatives	Project	Project description	Document or source	Approximate community benefit contribution	Approximate municipal capital funding (like for like asset replacement cost)	Approximate Total Cost	Reach (1=local & 4= regional)	Impact (1=minor & 5= major improvement)	Value Score (sum of criteria )	Triggers
Hillside Character Area																
							Parker Street - Local Streetscape Upgrade	Upgrades to the street including widened footpaths, cycle friendly roads (with painted cycling symbol), street pocket park (seating/small play space), landscaped verges, new street bins.	Draft Landscape Design Guidelines	\$316,620	\$79,290	\$395,910	1	5	6	
							Ray Street - Local Streetscape Upgrade	Upgrades to the street including wider footpaths for both pedestrians and cyclists, wider landscaped verges.	Draft Landscape Design Guidelines	\$495,540	\$100,000	\$595,540	2	3	5	
							Mill Point Road South (between Labouchere Road and Onslow) - Connector Road Upgrade	Upgrade of the road with asphalt colouring and line markings to enforce new 40km/hr limit, widening of the footpath around bus stops.	Draft Landscape Design Guidelines	\$72,000	\$360,000	\$432,000	4	4	8	<b>Condition</b> Asphalt at end of serviceable life <b>Civic Heart</b> Completion of Civic Heart development
							East Mindeerup Foreshore Upgrade	Upgrade of the East Minderup Foreshore as part of the City's 'Connect South' project. Framed open lawn area for use as a flexible event space, new footpaths, seating, shaded areas and a small stage to host community performances.	Connect South Mends Street	\$500,000	\$0	\$500,000	4	3	7	<b>Shade and Vista Analysis</b> Completion of shade and vista analysis

No.	Upgrade Type						Project Information			Estimated Cost			Value			Timing
	Community facilities	Streetscape and public realm	Street trees and landscaping	Upgrades to public open space	Transport infrastructure	Placemaking initiatives	Project	Project description	Document or source	Approximate community benefit contribution	Approximate municipal capital funding (like for like asset replacement cost)	Approximate Total Cost	Reach (1=local & 4= regional)	Impact (1=minor & 5= major improvement)	Value Score (sum of criteria )	Triggers
Mends Character Area																
							Mends Street (North) - Local Streetscape Upgrade	Upgrades to the street to create a shared pedestrian space which will slow traffic and improve the pedestrian experience. Roads to be narrowed to enlarge footpaths, shrub planting to green the street, paving thematics to be extended up the street and alfresco areas, street furniture, bike parking and lighting to be introduced to activate the street.	Connect South Mends Street	\$1,180,000	\$120,000	\$1,300,000	4	3	7	<b>Civic Heart</b> Completion of Civic Heart development
							Mends Street (South) - Local Streetscape Upgrade	Upgrades to the street to tie in with Civic Heart streetscape upgrades. Upgrades include new street furniture, landscaping and footpath treatments.	Connect South Mends Street	\$80,000	\$100,000	\$180,000	3	3	6	<b>Civic Heart</b> Completion of Civic Heart development
							Harper Terrace - Local Streetscape Upgrade	Streetscape upgrades including widened footpaths, landscaping, traffic-calming street treatments.	Connect South Mends Street	\$675,000	\$100,000	\$775,000	3	4	7	<b>Development</b> Completion of major developments on the street
							Harper Terrace & South Perth Esplanade Street Intersection Upgrade	Reduce road widths at intersections to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$524,000	\$115,000	\$639,000	2	3	5	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							West Mindeerup Foreshore Upgrade	Upgrade of the West Minderup Foreshore as part of the City's 'Connect South' project. Framed open lawn area adjacent to the existing beach, new footpaths, seating, and shaded areas to support users of the beach and foreshore. The area will support casual activities such as lounging, sunbathing and picnicking and can also host small pop-up events such as yoga classes and outdoor movies.	Connect South Mends Street	\$400,000	\$0	\$400,000	4	3	7	<b>Shade and Vista Analysis</b> Completion of shade and vista analysis
							Mindeerup playground	Upgrades to existing play space on the foreshore, including additional animal themed play equipment, parental seating, planting.	Connect South Mends Street	\$700,000	\$100,000	\$800,000	3	4	7	<b>Condition</b> Existing playground reaches the end of its serviceable life
							Windsor Park	Upgrades to improve park interface with heritage buildings, outdoor activity areas, interpretive signage and public art; improvements to the existing path and enhanced wayfinding to the zoo, themed public art furniture; upgrades to the zoo forecourt, laneway activation to the theatre and a beer garden for the bowling club.	Connect South Mends Street	\$900,000	\$0	\$900,000	3	4	7	<b>Perth Zoo</b> Perth Zoo reorientating entrance as per Perth Zoo masterplan
							Windsor Park toilet	Internal refit	Draft Public Toilet Plan	\$30,000	\$30,000	\$60,000	3	1	4	
							Upgrade of Old Mill Theatre	Upgrade of the theatre hall and lounge area and allow better technology i.e. sound system, lights control etc.	Community Recreation Facilities Plan 2019 - 2033	\$350,000	\$0	\$350,000	3	3	6	
							Upgrade of Heritage House	Upgrade the Heritage house to an Art Gallery and Visitors Centre (subject to Old Mill Education Centre not proceeding), installation of external lighting features.	Community Recreation Facilities Plan 2019 - 2033	\$250,000	\$0	\$250,000	3	3	6	<b>Development</b> Old Mill Education Centre upgrade does not proceed.

No.	Upgrade Type						Project Information			Estimated Cost			Value			Timing
	Community facilities	Streetscape and public realm	Street trees and landscaping	Upgrades to public open space	Transport infrastructure	Placemaking initiatives	Project	Project description	Document or source	Approximate community benefit contribution	Approximate municipal capital funding (like for like asset replacement cost)	Approximate Total Cost	Reach (1=local & 4= regional)	Impact (1=minor & 5= major improvement)	Value Score (sum of criteria )	Triggers
Mill Point Character Area																
							South Perth Esplanade Cycle Infrastructure	Provide a dedicated cycle pathway which connects to the greater cycle network; separated pedestrian footpaths adjacent to cycle path. Provision of new cycle infrastructure such as bicycle pump/ repair stations, water fountains, e-bike charging stations and secure sheltered and unsheltered bike parking facilities.	Draft Landscape Design Guidelines and Joint Bike Plan	\$294,300	\$63,000	\$357,300	4	5	9	
							Mill Point Road North & Queen Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$524,000	\$115,000	\$639,000	3	4	7	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							Mill Point Road North & Stirling Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$524,000	\$115,000	\$639,000	3	4	7	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							Mill Point Road North & Scott Street Intersection Upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$524,000	\$115,000	\$639,000	3	4	7	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							Scott Street & Stone Street Intersection Upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$500,000	\$115,000	\$615,000	1	3	4	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							Scott Street & Melville Parade Intersection Upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$500,000	\$115,000	\$615,000	1	3	4	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							Melville Parade & Stirling Street Intersection Upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$500,000	\$115,000	\$615,000	1	3	4	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							Stone Street - Local Streetscape Upgrade	Upgrades to the street including widened footpaths, cycle friendly roads (with painted cycling symbol), street pocket park (seating/small play space), landscaped verges, new street bins.	Draft Landscape Design Guidelines	\$703,600	\$176,200	\$879,800	2	5	7	
							Stirling Street - Local Streetscape Upgrade	Upgrades to the street including widened footpaths and verge landscaping improvements.	Draft Landscape Design Guidelines	\$291,000	\$122,000	\$413,000	1.5	5	6.5	
							Mill Point Road North - Connector Road Upgrade	Upgrade of the road to include traffic calming treatments to facilitate shared use for vehicles and bikes (e.g. Safe Active Street treatment). Widening of footpaths with retention of existing street trees.	Draft Landscape Design Guidelines	\$36,000	\$410,000	\$446,000	3	1.5	4.5	<b>Condition</b> Asphalt at end of serviceable life
							Freeway Entrance On-ramp Beautification	Planting and landscaping at the entrance to the precinct to reinforce local green and leafy character.	Place and Design Report South Perth Peninsula	\$200,000	\$100,000	\$300,000	4	2	6	
							Melville Parade North Reserve Dog Park	Upgrade of existing grassed reserve to provide for off-leash dog recreation area.	Draft Landscape Design Guidelines	\$300,000	\$0	\$300,000	2	2	4	<b>Development</b> Slowdown of development in precinct (the area is currently used for parking of construction vehicles
							South Perth Esplanade West Foreshore	Improved shade and shelter facilities (whilst maintaining vistas), provision of new lighting infrastructure to improve safety and amenity.	South Perth Foreshore Strategy and Management Plan	\$706,700	\$0	\$706,700	4	5	9	<b>Shade and Vista Analysis</b> Completion of shade and vista analysis

No.	Upgrade Type						Project Information			Estimated Cost			Value			Timing
	Community facilities	Streetscape and public realm	Street trees and landscaping	Upgrades to public open space	Transport infrastructure	Placemaking initiatives	Project	Project description	Document or source	Approximate community benefit contribution	Approximate municipal capital funding (like for like asset replacement cost)	Approximate Total Cost	Reach (1=local & 4= regional)	Impact (1=minor & 5= major improvement)	Value Score (sum of criteria )	Triggers
							Narrows Toilet Upgrade	Upgrade the public toilet and include change & shower facilities and Universal Access Toilet (UAT).	Disability Access & Inclusion Plan 2017-2021	\$300,000	\$100,000	\$400,000	3	2	5	
							Upgrade of Old Mill Education Centre	Upgrade of the Old Mill Education Centre to multi-story building to allow for a visitor centre/ multi-purpose education hall.	Community Recreation Facilities Plan 2019 - 2033	\$500,000	\$0	\$500,000	3	3	6	



No.	Upgrade Type						Project Information			Estimated Cost			Value			Timing
	Community facilities	Streetscape and public realm	Street trees and landscaping	Upgrades to public open space	Transport infrastructure	Placemaking initiatives	Project	Project description	Document or source	Approximate community benefit contribution	Approximate municipal capital funding (like for like asset replacement cost)	Approximate Total Cost	Reach (1=local & 4= regional)	Impact (1=minor & 5= major improvement)	Value Score (sum of criteria )	Triggers
Richardson Character Area																
							Melville Parade South Shared Path	Provision of a new shared cycle and pedestrian path along the western side of the road linking to the wider cycle network.	Draft Landscape Design Guidelines	\$200,000	\$0	\$200,000	3	2	5	
							Richardson Park Skate Park / Outdoor Youth Space	Provision of an abilities skate park.	Community Needs Assessment	\$650,000	\$0	\$650,000	3	5	8	<b>Acoustic Assessment</b> Completion of acoustic impact assessment by a qualified professional
							Richardson Park Playground Expansion	Expansion of existing playground facilities.	Draft Landscape Design Guidelines	\$200,000	\$0	\$200,000	3	4	7	<b>Condition</b> Existing playground reaches the end of its serviceable life
							Charles Street - Local Streetscape Upgrade	Upgrades to the street including widened footpaths, cycle friendly roads (with painted cycling symbol), street pocket park (seating/small play space), landscaped verges, new street bins	Draft Landscape Design Guidelines	\$1,055,400	\$264,300	\$1,319,700	3	5	8	
							Bowman Street - Local Streetscape Upgrade	Upgrades to the street including widened footpaths, cycle friendly roads (with painted cycling symbol), street pocket park (seating/small play space), landscaped verges, new street bins	Draft Landscape Design Guidelines	\$844,320	\$211,440	\$1,055,760	2.5	5	7.5	
							Lyll Street - Local Streetscape Upgrade	Upgrades to the street including wider footpaths for both pedestrians and cyclists; wider landscaped verges.	Draft Landscape Design Guidelines	\$715,780	\$230,000	\$945,780	3	4	7	
							Labouchere Road (north of Angelo Street) - Connector Road Upgrade	Upgrade of the road with asphalt colouring and line markings to enforce new 40km/hr limit and provide additional median strip.	Draft Landscape Design Guidelines	\$150,400	\$752,000	\$902,400	4	4	8	<b>Civic Heart</b> Completion of Civic Heart development <b>Condition</b> Asphalt at end of serviceable life
							Melville Parade & Lyall Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$500,000	\$115,000	\$615,000	1	3	4	
							Melville Parade & Bowman Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$500,000	\$115,000	\$615,000	1	3	4	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							Melville Parade & Hardy Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$500,000	\$115,000	\$615,000	1	3	4	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							Labouchere Road & Bowman Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$150,000	\$0	\$150,000	4	3	7	<b>Civic Heart</b> Completion of Civic Heart development
							Labouchere Road & Charles Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$150,000	\$0	\$150,000	4	3	7	<b>Civic Heart</b> Completion of Civic Heart development
							Labouchere Road & Richardson Street intersection upgrade	Provision of a new signalised intersection (traffic lights) with pedestrian phases.	Draft Landscape Design Guidelines	\$150,000	\$800,000	\$950,000	4	5	9	<b>Station</b> Confirmation that the Train Station will proceed and more details regarding the planned bus route

No.	Upgrade Type						Project Information			Estimated Cost			Value			Timing
	Community facilities	Streetscape and public realm	Street trees and landscaping	Upgrades to public open space	Transport infrastructure	Placemaking initiatives	Project	Project description	Document or source	Approximate community benefit contribution	Approximate municipal capital funding (like for like asset replacement cost)	Approximate Total Cost	Reach (1=local & 4= regional)	Impact (1=minor & 5= major improvement)	Value Score (sum of criteria )	Triggers
							Labouchere Road & Lyall Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$150,000	\$0	\$150,000	4	3	7	<b>Civic Heart</b> Completion of Civic Heart development
							Labouchere Road & Hardy Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$150,000	\$0	\$150,000	4	3	7	<b>Civic Heart</b> Completion of Civic Heart development
							Labouchere Road & Angelo Street intersection upgrade	Provision of a new signalised intersection (traffic lights) with pedestrian phases.	Movement Network Report	\$900,000	\$100,000	\$1,000,000	4	4	8	<b>Civic Heart</b> Completion of Civic Heart development
							Richardson Reserve - toilet and change facilities at WCG Thomas Pavilion	Upgrade existing toilet and change rooms to include gender neutral facilities to accommodate female sports; Universal Access Toilet (UAT) & shower facilities.	Community Recreation Facilities Plan 2019 - 2033	\$150,000	\$50,000	\$200,000.00	3	2	5	
Any Character Area																
							Pocket Park	A small park or plaza within a private development that is accessible to the general public. Functions of the space could include a place to sit or relax, play, meet friends, take a lunch break, read a book, walk the dog, or for neighbourhood gatherings. Pocket Parks opportunities are identified by Plan 5 – Public Realm Plan and are subject to development requirements under Part 6.3 of the ACP.	Community Needs Analysis (element)	\$150,000	\$0	\$150,000	1	3	4	
							Mid-Block Link	Publicly accessible pedestrian connections provided through private developments to improve access to open spaces and to the wider precinct. Connections are to be highly landscaped, easily accessible, and comfortably surveilled. Private Mid-Block Link as identified by Plan 5 – Public Realm Plan of the ACP	South Perth Activity Centre Plan	TBD	\$0	TBD	2	3	5	

## APPENDIX 3: COMMUNITY BENEFIT CONTRIBUTION PROCEDURAL GUIDE

# South Perth Activity Centre Plan

## Community Benefit Contribution Procedural Guide

September 2021

We acknowledge the custodians of this land,  
the Whadjuk Nyoongar and their Elders past,  
present and emerging.

We wish to acknowledge and respect their  
continuing culture and the contribution they  
make to the life of this city and this region.



# Contents

1. Introduction	1
2. Community Benefit Contribution Requirements	1
3. Contract Sum	1
4. Community Benefit Contribution Offer	1
5. Process for a Monetary Community Benefit Contribution	2
6. Forecast Contract Sum and Valuation of Onsite Community Benefit(s)	3
7. Development Approval Conditions and Advice Notes	4
8. Management of Funds	5
9. Period of Operation	5
10. Review and reporting requirements	6



## 1. Introduction

- 1.1 The purpose of the Community Benefit Contribution Procedural Guide (Procedural Guide) is to outline the process associated with the proposition and delivery of community benefit contributions in accordance with Element 8 of Schedule 9B of Town Planning Scheme No.6 (TPS 6) and the South Perth Activity Centre Plan (ACP). The Procedural Guide addresses:
- (i) Information to be submitted with a development application seeking building height and/or plot ratio above the primary limits;
  - (ii) Calculation and payment of community benefit contributions;
  - (iii) Conditions and advice notes to be applied to development that enable building height and/or plot ratio above the primary limits;
  - (iv) Management of the Community Benefits Contributions Fund by the City of South Perth (the City);
  - (v) Delivery of the benefit items by a proponent or the City; and
  - (vi) Review and reporting requirements for the Community Benefits Contribution Fund.

## 2. Community Benefit Contribution Requirements

- 2.1 Element 8.3 of Schedule 9B sets out the method for calculating public benefit contributions as follows:
- Where a public benefit contribution is to be paid to the City in accordance with 8.2.4(a), the amount payable shall be in accordance with whichever of the following formula that yields the greatest contribution amount:*
- a.  $(3\% \times \text{total contract sum}) \times (\text{Number of storeys above the Primary standard \% total number of storeys})$ ; or
  - b.  $(3\% \times \text{total contract sum}) \times (\text{m}^2 \text{ of plot ratio area above the Primary standard \% m}^2 \text{ of total plot ratio area})$ .

## 3. Contract Sum

- 3.1 For the purposes of Clause 8.3 of Schedule 9B of TPS 6, 'contract sum' shall include all contractors' preliminaries, fees, overhead and profit, trade contract values, provisional sums and contingency/risk amounts. The contract sum shall be inclusive of all contracts including early/forward/enabling/third party works and/or subsequent contracts required to complete the development.
- 3.2 Notwithstanding Part 4.1, the contract sum must not include the monetary value of any community benefit contribution provided onsite as part of a development. In this regard, valuation of any onsite community benefit contribution does not include the valuation of land (including for development of a mid-block links or pocket parks).

## 4. Community Benefit Contribution Offer

- 4.1 As part of a development application which proposes building height and/or plot ratio above the primary limit, a written offer of a community benefit contribution shall be made to the local government. The offer shall be made using the following procedure:
- 4.1.1 Together with a development application, a document shall be submitted specifying whether the community benefit contribution is to be:
    - (i) A monetary offer in accordance with Clause 8.2.4(a) of Schedule 9 of TPS 6 and calculated as per Clause 8.3(a) or (b); or
    - (ii) Delivered onsite in accordance with Clause 8.2.4(b) of Schedule 9 of TPS 6; or
    - (iii) Delivered in-part as an onsite contribution and in-part as a monetary offer.
  - 4.1.2 To the extent that the applicant's proposal comprises or includes a monetary offer, the document shall include a statement committing to a monetary payment prior to submission of an occupancy permit application.
  - 4.1.3 To the extent that the applicant's proposal comprises or includes (a) community benefit contribution(s) proposed to be delivered onsite, the document shall include the following details and be accompanied with associated supporting documents to demonstrate the following:
    - (i) describing what the onsite contribution(s) is/are proposed to comprise, including drawings, artist's

impression and any other information that the City may require to enable an understanding of what the contribution will comprise;

- (ii) describing how the proposed onsite contribution(s) aligns with the Community Benefit Contribution Framework (CBCF) contained within Appendix 7 of the ACP;
  - (iii) the applicant's forecast of what the development's contract sum will be, in accordance with Part 5 of this Procedural Guide, reconciled against a valuation of the proposed onsite contribution(s) by an appropriately qualified Quantity Surveyor.
  - (iv) a statement acknowledging that in the event that the final value of the proposed onsite contribution(s) is assessed as less than the required contribution amount, following a final valuation, then the balance must be paid by the applicant as a monetary contribution prior to submission of an occupancy permit application. The final valuation is determined prior to submission of an occupancy permit application.
- 4.2 Acceptance of the offer, described above, is at the discretion of the local government and will form part of its broader consideration of the development application.
- 4.3 The City shall reject any offer to deliver a community benefit contribution on site that is deemed to be inconsistent with the ACP. Where a proposal is deemed to be inconsistent with the ACP the application will be recommended for refusal.

## 5. Process for a Monetary Community Benefit Contribution

- 5.1 Following development approval and prior to submission of a building permit application, the applicant shall provide information to the City to verify the contract sum in accordance with Part 4 of this Procedural Guide. The contract sum should be evidenced by submitting the executed construction contract including contract sum breakdown.
- 5.2 The City, as part of the review of the valuation of the contract sum, may seek the services of an independent third party to verify its value. In such cases, all costs and expenses will be borne by the applicant. Following the review, the City will issue the applicant with a letter stating a provisional community benefit contribution amount.
- 5.3 Prior to submission of an occupancy permit application the applicant shall submit information to the City to verify the final contract sum. Such information may include the final account statement between the applicant/owner and the contractor. The City will consider the information provided by the applicant and issues the applicant with the final community benefit contribution amount.
- 5.4 The contract sum may exclude non-residential tenancy fit out costs and variations to the contract associated with purchaser/owner upgrades/changes.
- 5.5 Payment of the contribution shall also be made to the City prior to submission of an occupancy permit application.

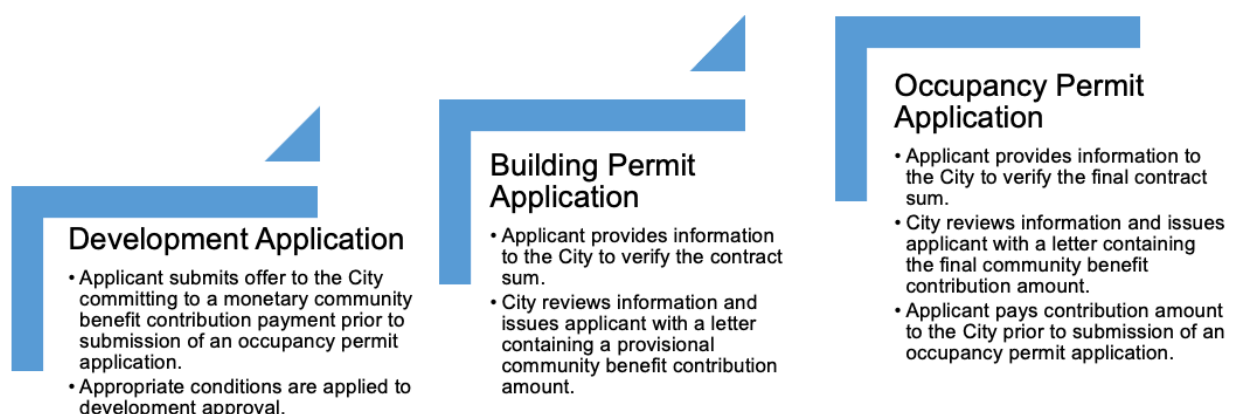


Figure 1 – Monetary Contribution Process Summary

## 6. Forecast Contract Sum and Valuation of Onsite Community Benefit(s)

- 6.1 Where a community benefit contribution is proposed to be delivered onsite, a 'forecast contract sum' is required to be submitted as part of the development application to determine the monetary contribution which would otherwise be required under Clause 8.2.4(a) of Schedule 9B of TPS 6.
- 6.2 Where the proposed onsite item(s) is of a lesser value than the total required community benefit contribution calculated in accordance with Clause 8.3 of Schedule 9B, the balance must be provided as a monetary contribution, paid prior to submission of an occupancy permit.
- 6.3 A 'forecast contract sum' is an estimate of the amount that the contract sum will ultimately be, having regard to Part 4 of this Procedural Guide.
- 6.4 The forecast contract sum and onsite community benefit item(s) proposed must be accurately valued, to the satisfaction of the City by an appropriately qualified Quantity Surveyor, registered with the Australian Institute of Quantity Surveyors, or with demonstrated equivalent qualifications.
- 6.5 The City, as part of the review of the valuation of the forecast contract sum, may seek the services of an independent third party to verify its value. In such cases, all costs and expenses borne by the City in determining the value of the contract sum will be paid for by the applicant.
- 6.6 Prior to submission of an occupancy permit application, the final contract sum is to be submitted to the City with a final valuation of the onsite benefits that were delivered. The contract sum may exclude non-residential tenancy fit out costs and variations to the contract associated with purchaser/owner upgrades/changes.
- 6.7 The City, as part of the review of the valuation of the final contract sum and valuation of delivered onsite benefits, may seek the services of an independent third party to verify its value. In such cases, all costs and expenses will be borne by the applicant.
- 6.8 Where the proposed onsite item(s) is of a lesser value than the total required community benefit contribution the City will issue a letter stating the final community benefit contribution amount to be paid to the City prior to submission of an occupancy permit application.

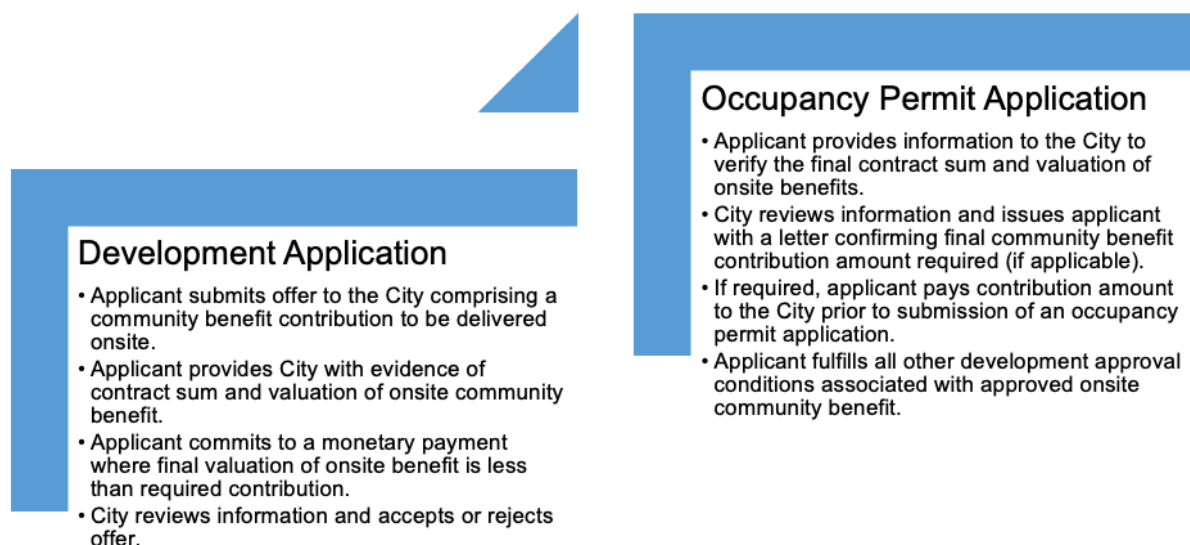


Figure 2 – Onsite Community benefit Contribution Process Summary

## 7. Development Approval Conditions and Advice Notes

Where approval of building height and/or plot ratio above the primary limits is recommended, the following conditions will be placed on the approval. The wording of these template conditions and advice notes may be modified as required, at the City's discretion.

### 7.1 Where a Monetary Contribution is Imposed

#### 7.1.1 The following condition and advice note shall be applied to the approval.

*Condition:*

1. *A community benefit contribution, calculated in accordance with Clause 8.3 of Schedule 9B of Town Planning Scheme No. 6, shall be made by way of monetary payment to the local government prior to the submission of an occupancy permit application.*

*Advice note:*

1. *For the purposes of Clause 8.3 Schedule 9B of TPS 6, guidance is given as to the calculation of the 'contract sum' within Appendix 8 - Community Benefit Contribution Procedural Guide of the South Perth Activity Centre Plan.*

### 7.2 Where Requirement of Onsite Community Benefit Contributions is Imposed

#### 7.2.1 Conditions of development approval will be prepared as needed where onsite items are to be proposed. To meet the requirements of the ACP and CBCF, conditions are required to ensure all community benefits delivered onsite are done so in perpetuity and are appropriately open and accessible to the public. This is to be achieved through a management plan and an easement in gross on the title.

#### 7.2.2 Conditions will be specific to the community benefit item(s) to be provided, generally as per the following:

1. *Prior to the submission of an occupancy permit application, a Community Benefits Management Plan shall be developed, for the **\*insert community benefit item(s)\***, addressing the following matters:*

- i. *The hours of public accessibility;*
- ii. *The manner that these benefits are made available to the public and South Perth community in perpetuity for the life of the development; and*
- iii. *Identifying the precise portions of cubic space:*
  - (a) *on which the community benefit item(s) will be located;*
  - (b) *which the public are to have access to in order to enjoy the community benefit items; and*
  - (c) *which are to comprise the means of access within the development to areas (a) and (b) (collectively **Public-Benefit-Related Cubic Space**);*
- iv. *Any other matter deemed relevant by the City.*

*The Plan shall be submitted to the City of South Perth for approval. No strata plan should be prepared or lodged, and the landowner from time to time acknowledges that no strata plan will be supported by the local government, which proposes any part of the Public-Benefit-Related Cubic Space to be located otherwise than on common property of the strata plan. The strata company for the subject site shall be responsible to ensure that the approved community benefits management plan is implemented and adhered to all times to the satisfaction of the City of South Perth. In the event that, or for so long as, that the development does not take the form of a strata subdivision, the owner(s) of Public-Benefit-Related Cubic Space, shall be liable (and in the case of more than one such owner, jointly and severally liable) to ensure that the approved community benefits management plan is implemented and adhered to all times to the satisfaction of the City of South Perth.*

2. *Prior to the submission of an occupancy permit application, the owner shall register on the Certificate of Title for the lot(s), which shall be carried over on to any future Certificate of Title in the event the development becomes the subject of a Strata Plan, a public access easement in gross granted to the local government burdening the Public-Benefit-Related Cubic Space.*

*The easement shall be prepared in such manner that it shall carry over and bind the Public-Benefit-Related Cubic Space. The easement is to state:*

- i. *Details of the community benefit;*
- ii. *The operation of the approved community benefit is subject to an approved community benefits management plan that shall be implemented and adhered to all times.*

*Notice of this restriction is to be included on the diagram or plan of survey (deposited plan). The easement is to be registered at the owner's expense, to the satisfaction of the City of South Perth.*



3. *Unless the community benefit item(s) approved under condition \_\_\_\_ is/are assessed by the local government as equally or exceeding the amount otherwise calculated under Clause 8.3 of Schedule 9B of TPS 6, a community benefit contribution, calculated in accordance with that clause, shall be paid to the local government prior to the submission of an occupancy permit application. The amount of the contribution is to be finalised by the local government following reconciliation by the local government against the value of the community benefit contribution items provided as part of the development being **\*insert community benefit item(s)\***. Such reconciliation is to occur in accordance with the South Perth Activity Centre Plan Community Benefit Contribution Procedural Guide. The valuation of approved onsite benefits is to be at the expense of the applicant/owner.*

## 8. Management of Funds

### 8.1 Community Benefits Fund

- 8.1.1 The City will establish and maintain a dedicated South Perth Activity Centre Contribution Fund and all community benefit contributions shall be deposited into this fund.
- 8.1.2 The South Perth Activity Centre Community Benefit Contribution Fund is a reserve account in accordance with the *Local Government Act 1995*. All community benefit contributions within the South Perth ACP Area shall be paid from it. The purpose of this reserve account and the use of money in it is limited to the application of funds for delivery of community benefits within the ACP area in accordance with the provisions of the ACP.
- 8.1.3 Interest earned on contributions credited to the South Perth Activity Centre Community Benefits Fund reserve account may only be applied in the ACP Area.

### 8.2 Projects Funded from the Community Benefits Fund

- 8.2.1 All projects funded from the Community Benefits Fund must be identified in Appendix 2 of Part 1 of the ACP or justified in accordance with the relevant sections of the ACP.
- 8.2.2 Projects will be selected to be funded and approved by Council as part the City's Capital Works Program and annual budgeting process from time to time.

### 8.3 Projects Funded from Multiple Sources

- 8.3.1 Projects may be funded entirely from the Community Benefits Fund or by co-funding from multiple sources.
- 8.3.2 Sources of funding for individual projects will be decided on a case-by-case basis depending on the availability of funds and the needs of the project. Wherever possible the City will identify complementary funding sources to leverage the Community Benefit Contribution Fund to deliver the maximum possible community benefit.
- 8.3.3 For projects that have established funding sources, the Community Benefits Fund is not intended to replace that established funding source(s). For example, the City funds streetscape renewal (like for like replacement) through the City's Capital Works Program. Therefore, the extra cost for supplementary upgrades such as improved materials, kerb realignment, additional or improved lighting, planting and/or landscaping could be funded by the Community Benefits Contribution Fund.

### 8.4 Criteria for Investment

- 8.4.1 The timing and amount of community benefit contributions is dependent on development and is therefore irregular and uncertain. The ACP is designed to manage the Community Benefits Contribution Fund in a flexible way with regular review and update.
- 8.4.2 Prioritisation criteria have been established within the ACP to help determine which projects should receive funding from community benefit contributions. The prioritisation criteria within the ACPs to be considered by the City when determining funding allocation.

## 9. Period of Operation

- 9.1 Funds received as community benefit contributions should be expended as soon as practical and within 8 years of receipt of payment.

## 10. Review and reporting requirements

### 10.1 Review of the Community Benefit Contributions Formula

- 10.1.1 Following approval of the ACP, the City shall review the community benefit framework including provisions contained within Schedule 9B of TPS 6, to review the effectiveness of the framework. The timing of the review shall be dependent on the uptake of development and receipt of community benefit contributions.

### 10.2 Community Benefit Contributions Register

- 10.2.1 The City will maintain an accurate and up to date register of all community benefit contributions. The register shall detail:

- (i) development approvals that contain a condition requiring a community benefit contribution;
- (ii) Where the development is located, including the address and the character area within the ACP;
- (iii) The amount of the monetary contribution received or details of the onsite community benefit contribution approved;
- (iv) The date the payment was received and when it needs to be invested by.

- 10.2.2 The register will be made available for public viewing on the City's website.

### 10.3 Community Benefit Contributions Reporting

- 10.3.1 In accordance with Element 8.4 of Schedule 9B of TPS 6, the City of South Perth shall publish an annual statement that provides information about expenditure of the community benefit contribution.
- 10.3.2 The South Perth Activity Centre Community Benefit Contribution Fund will also be reported as part of the Annual Financial Report.





# PART TWO EXPLANATION

**This Part explains the intended effect of the Activity Centre Plan, outlining the analysis and context that has informed its preparation and detailing how the provisions of the plan will deliver the vision for the South Perth Activity Centre.**



## 1.0 INTRODUCTION

The South Perth Activity Centre Plan area (the ACP area) is a place in transition. Over the decade to 2018, the area has experienced significant changes to its planning framework and urban form. These changes were first driven by planning to support the construction of a South Perth Train Station, which commenced in 2006 during the development of the Perth to Mandurah rail line and culminated in the creation of the South Perth Station Precinct in 2013. Over time the overarching planning framework has also matured and changed, including the identification of South Perth as an inner city District Centre in State Planning Policy 4.2 Activity Centres for Perth and Peel.

There is increasing demand for new living and working opportunities close to central Perth and this is expected to continue to drive change in the ACP area into the future. The growth of Greater Perth in general, and the inner city in particular, is expected to create considerable demand for development within South Perth over the coming decades and it is therefore important that the area is well planned and carefully managed to ensure that growth builds on the area's unique characteristics, enhances its economic prosperity and strengthens its vitality for current and future residents, workers and visitors.

The City of South Perth initiated the development of the South Perth Activity Centre Plan (ACP) in 2017. The ACP builds on the South Perth Place and Design process undertaken in 2017 and the resultant report (May 2017), which established a long-term vision for the area to be implemented through an updated planning framework. This ACP seeks to bring that vision to life.

### 1.1 PLAN PURPOSE

The Activity Centre Plan (ACP) provides the guiding framework (strategic vision and statutory framework) for the planning and development of the area by taking a holistic, long term approach that can be updated over time to respond to current issues and stakeholder aspirations. The Activity Centre Plan will guide decision-making by local and state government, landowners and residents regarding movement and access, land use and built form within the Activity Centre Plan area.

The ACP directly responds to stakeholder issues and concerns related to the area's planning framework, which was implemented following the preparation of the South Perth Station Precinct Plan in 2011. Since that time, considerable development has occurred in the ACP area and further change is expected into the future. This has underlined the need for a robust planning framework that provides a consistent vision for the area that can be reviewed and updated over time to responsibly manage growth and adapt to changing circumstances as they arise.

The review of the planning framework began in August 2015 when consultants were engaged to review the relevant scheme provisions and procedures. This highlighted a number of issues in the scheme, and provided recommendations based on research into how other planning jurisdictions address similar issues. The study did not involve any community or stakeholder engagement and the report focused on technical statutory planning matters and recommended further amendments to Town Planning Scheme (TPS) No. 6. The findings and recommendations identified the need to undertake a high level, collaborative planning and design exercise in the area to inform future planning and development.

In response to the above recommendation the South Perth Peninsula Place and Design Project was undertaken in 2017. The focus of this project was to review the vision articulated in the South Perth Station Precinct Plan (2011) and to develop approaches for managing the area's growth in a way that captures the most benefit for the area's residents, workers and visitors. The project included two introductory stakeholder workshops before an intensive five-day Planning Design Forum, which brought over 100 community members, stakeholders and consultants together to develop a shared understanding of the issues and recommendations for further planning of the area.



The process culminated in the preparation of the South Perth Peninsula Place and Design Report, May 2017. This report provides an overview of the process and sets out a renewed vision for the area, as well as recommended goals, ideas and actions to achieve this vision. The report includes recommendations relating to creating a robust planning framework, improving built form outcomes, improving the movement and access network, and improving the public realm and streetscapes. A key recommendation of this report was the preparation of an Activity Centre Plan for the area.

Council considered this report in June 2017 and noted that the report would form the basis of the ongoing planning of the area. The goals and ideas of the Place and Design Report have therefore played an important role in informing the Activity Centre Plan.

The ACP is to provide clarity and certainty for decision-makers, landowners and the community regarding what is considered an appropriate form of development in the ACP area and how growth will be managed. Read in conjunction with Schedule 9B of the Scheme, the ACP responds to identified issues by establishing built form and land use controls based on forecast growth and in support of the vision for the ACP area as articulated in this plan (for example the elements described in the character statements and objectives of each character area). At the same time, the ACP helps to direct and plan for improvements to public space, the transport network, services and infrastructure to support ongoing economic vitality and a high quality attractive environment.

The ACP notionally works towards a ten-year timeframe, while articulating a long-term vision for the area that will not be fully realised within this timeframe. By starting with a long-term view, the plan aims to ensure that development in the short-term supports the 'bigger picture' vision.

## 1.2 PLAN OBJECTIVES

Following the completion of the South Perth Peninsula Place and Design Project in May 2017, the City of South Perth developed a project scope and objectives for the preparation of an Activity Centre Plan. There are five key objectives that underpin the preparation of the ACP:

1. Establish a common vision and robust planning framework that reflects local stakeholder expectations and State Government requirements
2. Ensure that urban development responds to its context and contributes to the desired future local character by providing community amenity and benefit to residents, workers and visitors through well-designed buildings and places
3. Improve accessibility through a comprehensive approach to transport that encourages walking, cycling and public transport
4. Create great public spaces that maximise recreational opportunities, reinforce South Perth's character and improve ecological sustainability
5. Acknowledge and strengthen the status of the centre as a significant regional destination



## 1.3 PLAN AREA

The South Perth Station Precinct Plan area was reviewed as part of the Place and Design Project in 2017. Through this process it was recommended to focus on a wider area than that included in the South Perth Station Precinct because the areas surrounding the core Station Precinct area were considered to be closely connected and intrinsically linked. An expanded area, totalling 113.04 hectares, excluding Kwinana Freeway, based on logical and natural boundaries, would allow for community facilities, public realm, built form and character to be equitably considered and managed, as well as capture the area within an 800 metre catchment of the key transport node of the ferry. Within this area, 41.05 hectares is freehold land.

Therefore, the ACP area incorporates land generally within an 800m or 10-minute walkable radius of the Mends St Jetty and future South Perth Train Station, as well as residual areas which form a natural extension of the centre by virtue of their land use, character, or geographic location and boundaries. The South Perth Peninsula is a naturally defined area bounded by the Swan River on three sides and separated from the suburban area of South Perth by Sir James Mitchell Park, Royal Perth Golf Course and Perth Zoo. These features define a logical boundary for the ACP area.

As explored within the Place and Design Report, within the ACP are areas of distinct character, with a variety of land uses and built form. The ACP provides guidance for future development that is intended to support the desired future form and function of four defined character areas within the wider ACP area. This is reinforced by detailed character statements, objectives and requirements that consider both the street and individual site components.

## 1.4 EVIDENCE BASED PLANNING

Good planning practice requires planning documents to be informed by a sound and robust evidence base, and as such the ACP has been informed by detailed background studies. This evidence base provides the rationale for the plan and is explained in Part 2 of the ACP and the appendices. It is compiled from a range of different data sources including:

- Regional planning strategies, policies and guidelines of the State Government;
- Visioning and stakeholder engagement undertaken through the South Perth Peninsula Place and Design project in 2017;
- Detailed data that identifies population and economic trends, compiled into an Economic and Demographic Assessment (Appendix 1); and
- Detailed investigations and modelling of traffic and parking, compiled into a Movement Network Assessment (Appendix 2).

It is important that the formulation of this ACP considers all of the factors influencing and impacting upon the future development of the City. State Government strategies and policy provide important guidance that is then refined based on other local factors and evidence, such as population and economic trends and forecasts. This information provides high level guidance as to how planning should occur and an outline of what we need to plan for respectively.

It is also important that the key implications identified through researching these factors are appropriately balanced. Greatest weight should be given to data that is robustly researched and locally grounded and less weight given to 'generic' standards and guidelines. The aim is to use the most up to date data available to develop a plan that is robust and flexible to manage expected growth and that can be updated over time as new information becomes available.

**Figure 1:** Activity Centre Plan Area and Boundary



## 2.0 CENTRE CONTEXT

This section is based on the South Perth Activity Centre Economic and Demographic Assessment report in Appendix 1, which outlines the key drivers and trends affecting growth in Metropolitan Perth and Western Australia and the implications for the City of South Perth and the ACP area.

### 2.1 REGIONAL CONTEXT

The South Perth Activity Centre is located on the Swan River at the geographic centre of metropolitan Perth, and its proximity to the Perth CBD and other key regional centres means that it will continue to play a pivotal role in the growth and prosperity of the region. The area is attractive for housing, retail and office space, and is growing as an important destination for visitors and tourists. It is therefore crucial to plan ahead to maximise and manage the area's potential.

From the time of colonisation in the early 19th century to the end of World War II, Perth was a relatively small town and did not develop a dense Victorian core like the eastern Australian capital cities. Following World War II, the city began to grow more rapidly and in 1984 it became larger than Adelaide. Since the early 1980s Perth has grown steadily and since 1992 the population has grown from under 1.3 million to approximately 2 million in 2016. This growth of roughly 700,000 people in 24 years represents a 54% increase over the 1992 population and this growth is forecast to continue, with the Australian Bureau of Statistics (ABS) forecasting that the city will grow to between 3.9 and 5.4 million residents by the year 2051.

The State Government released the Perth and Peel @3.5 Million strategic planning documents in March 2018, which are based on planning for a population of 3.5 million residents in Greater Perth. These documents articulate the Government's policy of directing a higher percentage of growth towards the central sub-region of Perth, which is discussed further at section 2.3.

Significant growth is expected in neighbouring local government areas and activity centres in accordance with State Government policy and reflective of the attractiveness of the inner city area. Table 1 shows forecast population for the five inner-most local governments in Perth and selected suburbs, containing key activity centres within each. All of these areas are forecast to grow strongly; however, there is a range of growth rates according to local circumstances.

**Table 1:** Forecast Inner-City Population Growth

AREA	2016 POPULATION	2031 POPULATION	ADDITIONAL POPULATION (2016-2031)	AVERAGE ANNUAL CHANGE
<b>City of Perth</b>	<b>26,902</b>	<b>38,552</b>	<b>11,650</b>	<b>1.25%</b>
West Perth	3,615	4,270	655	0.52%
Perth - central	3,175	6,578	3,403	2.71%
East Perth - Riverside	882	4,011	3,129	6.31%
<b>Town of Victoria Park</b>	<b>36,755</b>	<b>49,913</b>	<b>13,158</b>	<b>1.94%</b>
Burswood	2,518	13,179	10,661	7.60%
<b>City of Vincent</b>	<b>35,592</b>	<b>48,244</b>	<b>12,552</b>	<b>1.65%</b>
<b>City of South Perth</b>	<b>44,100</b>	<b>56,879</b>	<b>12,779</b>	<b>1.89%</b>
South Perth	12,858	18,790	5,932	1.90%
<b>City of Subiaco</b>	<b>17,109</b>	<b>21,312</b>	<b>4,203</b>	<b>1.22%</b>
Subiaco (North)	3,265	4,953	1,688	3.09%

Source: [forecast.id.com.au](http://forecast.id.com.au), 18/07/2018



### 2.1.1 Regional Trends and Influences

The need for the ACP area to grow and change is influenced by environmental, social and economic factors that will shape the way people live and work. As highlighted above, Perth has matured over the last 30 years and grown into a global city that is home to more than two million people and many globally-recognised organisations and attractions. Being located in the centre of this city, the South Perth Activity Centre is both influenced by external factors and also plays an important role as a location for business, tourism, recreation and living. Key regional trends and influences that will impact the ACP area in significant ways and have informed the development of the ACP include:

**Table 2:** Broader Trends Influencing South Perth

<b>URBAN GROWTH AND CONSOLIDATION</b>	<p>Long-term population projections show Greater Perth growing to between 3.9 and 5.4 million residents by 2050, from its population of approximately 2 million in 2016.</p> <p>As in other capital cities, much of this growth will occur in the inner city as more Australians embrace higher density living. This phenomenon is driven by economic and lifestyle choices that prioritise proximity to services and employment. These additional residents and their associated employment and housing needs will change Perth.</p> <p>Western Australian Planning Commission (WAPC) policy requires that 47% of this expected growth be accommodated through infill development, primarily within the Central Sub-region within which South Perth is located (see Perth and Peel @3.5 Million, WAPC 2018). This equates to an additional 400,000 people and 215,000 dwellings, and much of this growth will be accommodated within significant activity centres such as South Perth.</p> <p>These targets are significant but should not be mistaken for anticipated demand. The modelling that informs this Activity Centre Plan is unconstrained by issues such as local land availability, infrastructure capacity, local market expectations and servicing capacity. This approach is critical in ensuring that the assessment examines the full economic and social potential of the area, rather than a future profile that is capped by existing infrastructure and investments.</p>
<b>AGEING POPULATION</b>	<p>Australia is undergoing an unprecedented demographic transformation. Today, around 13% of people in Perth and Peel are aged over 65, and this is expected to almost double to 22% by 2050, accompanied by a forecast six-year increase in life expectancy.</p> <p>An increasingly aged population will have an impact on people's lifestyles, housing choice, the services they require and the structure and function of the labour market and cities. Perth's ageing population is a major challenge, with implications for housing, accessibility and the ability for citizens to age in place.</p>
<b>THE ASIAN CENTURY</b>	<p>By 2030, two thirds of the world's middle class will reside in Asia. The growth in population and wealth in the region is generating a significant demand for goods and services, including resources, tourism, and health and education services. This economic shift will build new export markets, trade relations, business models and cultural ties for Australia, and especially Perth, which is poised for prosperity with 60% of the world's population within two hours of its time zone.</p> <p>New industries oriented at servicing this market are likely to diversify Perth's economic base, can have positive implications for South Perth, and should be accommodated and capitalised upon.</p>

## PART TWO EXPLANATION

<b>DIGITAL DISRUPTION</b>	<p>The ever-increasing immersion of individuals, communities, governments and businesses in the online world is expected to create significant disruption to traditional business models, the retail sector and patterns of employment. As online companies are increasingly able compete with large established industries in the delivery of goods and services, the need for physical offices and storefronts will be challenged.</p> <p>The retail sector is expected to experience change, notably with shopping and activity destinations relying on unique experiences and attractions to encourage visitors and customers.</p> <p>Remote online working also has the potential to change how people work, enabling greater decentralisation and a reduced reliance on central offices for businesses of all sizes.</p>
<b>TRANSPORTATION REVOLUTION</b>	<p>For decades, the geography of Perth has been shaped by the private car as the primary means of transportation. However, trends in public transit and vehicle sharing, and increasing desirability for walkability, will radically transform transportation. Around Australia, shared mobility services, such as ride-hailing and car sharing have broadened transport options and increased accessibility, while traditional public transport as well as walking and cycling are also increasing in popularity.</p> <p>Over the longer term, self-driving vehicles will reshape urban transportation, redefining the function of streets and radically reducing the need for public and private parking infrastructure.</p>
<b>CLIMATE CHANGE</b>	<p>Climate change is already impacting urban environments and will continue to place pressure on urban areas, including increasing temperatures, more frequent extreme weather events and sea level rise. Perth's inner city is particularly vulnerable, with concentrations of buildings, roads, and other valuable infrastructure.</p> <p>In addition, increasing temperatures will exacerbate existing "heat island" effects from urban areas.</p> <p>Urban renewal areas need to consider measures to mitigate against these climate change impacts. Ongoing private development and public investment must diligently consider the implications of climate change and deliver appropriate engineering and building responses which ensure lasting resilience.</p>

## 2.1.2 Activity Centre Hierarchy

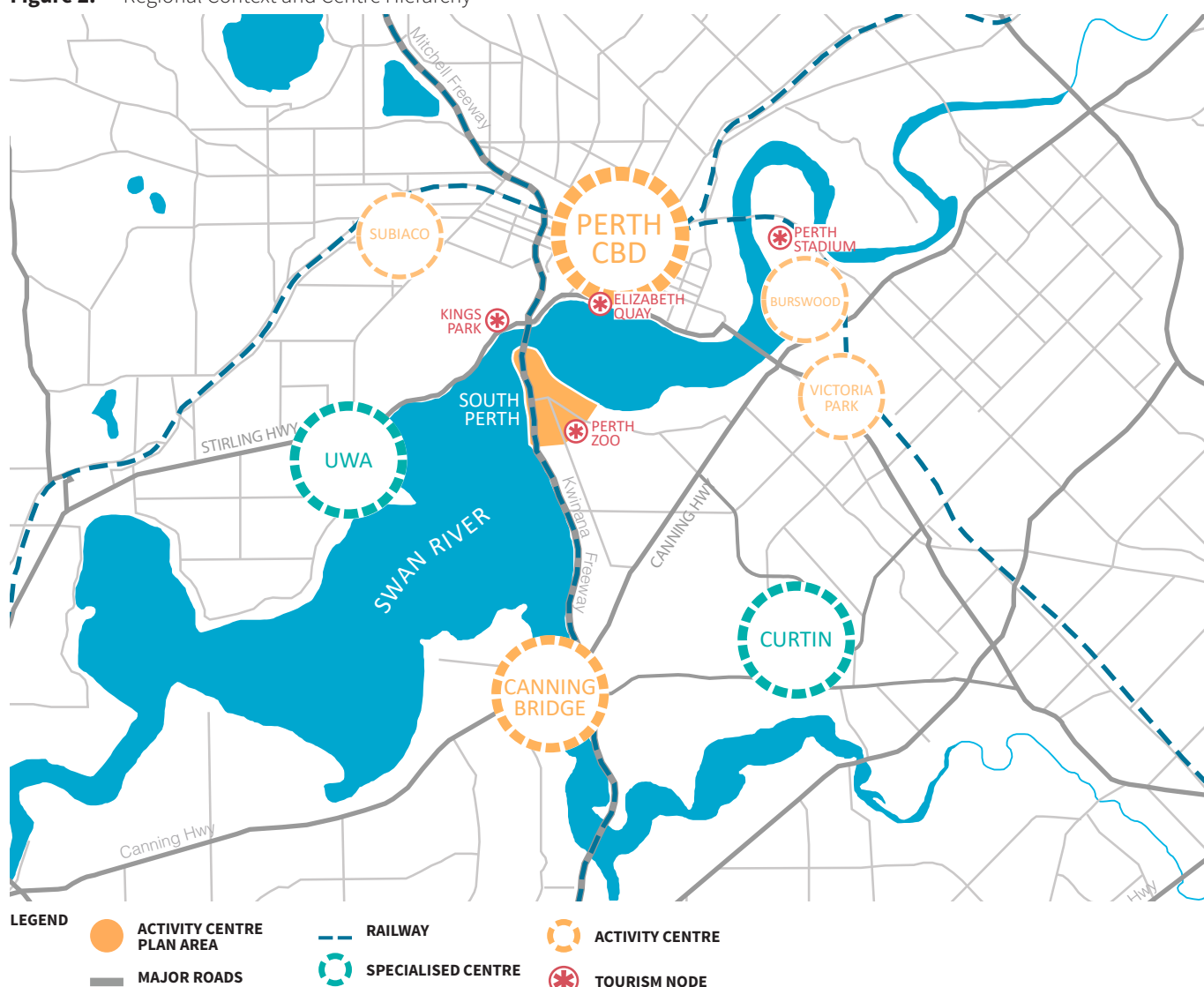
South Perth is one of 35 activity centres within the Central Perth sub-region, as established by WAPC's State Planning Policy 4.2 Activity Centres for Perth and Peel (SPP4.2). Other significant centres within the region include the Perth CBD across the Swan River, the Victoria Park and Subiaco Secondary Centres, the University of Western Australia and Curtin-Bentley Specialised Activity Centres as well as the Canning Bridge and Burswood District Centres. Together, these centres provide a broad range of complementary employment, entertainment, education and commercial functions which are readily accessible from the ACP area, as shown in Figure 2.

As a district centre within the Central sub-region, the ACP area is expected to conform to a series of typical characteristics and performance targets, as set out in SPP4.2. District centres are defined in the policy as lower-order centres with retail and commercial uses focused on servicing local resident needs.

It should be noted that SPP4.2 provisions relating to District Centres are uniform across the metropolitan area. Consequently, the guidance for South Perth as a district centre is not calibrated to its context and further detailed planning is required, beyond the provisions of SPP4.2. The ACP area is centrally-located with high residential densities, major public transport infrastructure, an established commercial office market, strong convenience and experiential retail offering and significant tourist and visitor destinations, providing it with the capacity to support a higher proportion of retail and commercial floor space than other District Centres.

These factors have been considered in assessing the current performance of the centre and the appropriateness of district centre density targets in SPP4.2, with specific assessment of the ACP area's unique characteristics and economic drivers informing the development of tailored population, commercial and retail growth forecasts. This assessment is provided at Appendix 1.

**Figure 2:** Regional Context and Centre Hierarchy





### 2.1.3 Regional Assets

The ACP area possesses a range of regionally significant assets and infrastructure, which establish it as a significant Activity Centre with greater regional importance than a standard District Centre and underpin its potential for significant future growth.



#### **SOUTH PERTH FORESHORE**

The expansive foreshore reserve is one of Perth's most popular and highly utilised parks, providing important connection to the Perth CBD. Extending from the Mends Street Jetty, it provides open space and facilities for local and regional residents and regionally significant events such as the Australia Day Skyshow.

*Development along the foreshore should respond to its prominent position, visible from the river and the Perth CBD, and its context bordering the foreshore, as reflected in the existing public realm character and the foreshore management plan.*



#### **MENDS STREET JETTY**

One of two major jetties in Perth, the Mends Street Jetty accommodates the second stop in the Elizabeth Quay ferry route. The jetty provides direct access to the heart of Perth CBD's most significant redevelopment area, and is an important tourism asset.

*The jetty provides a unique arrival point to the ACP area that should be met with built form that announces arrival and reinforces the place character of South Perth. Development should reflect a more intense pedestrian environment, and encourage activity and interaction from passing pedestrian traffic and active use of the adjacent foreshore.*



#### **KWINANA FREEWAY**

Kwinana Freeway provides the ACP area with direct connectivity to regional centres from Joondalup to Mandurah, and the closer centres of Perth CBD and Canning Bridge. This makes the ACP area one of the most highly accessible centres for regional visitation. This accessibility would only be further enhanced by the construction of the proposed South Perth train station within the Freeway reserve.

*In addition to managing noise considerations from the freeway and railway, development should be designed to facilitate safe and convenient access to the freeway for motorists and across it for pedestrians and cyclists.*



### PERTH ZOO

Established in 1898, Perth Zoo has been a regionally significant tourist destination in inner Perth for over a century. Located at the centre of the ACP area between Mill Point and Labouchere Roads, Perth Zoo ranks amongst Perth's most heavily visited tourism destinations, attracting 657,000 visitors to South Perth in 2016/17.

*Development and infrastructure should help to increase visitation to the Zoo as a major asset for South Perth and a destination that attracts people to the area. The interface with the Zoo should be managed to ensure that the amenity of visitors and animals is not unreasonably impacted as the surrounding area grows and evolves.*



### MENDS STREET PRECINCT

Mends Street is one of central Perth's most established café, retail and restaurant precincts. Anchored by the Windsor Hotel, it offers a diverse range of convenience and experiential shopping, dining and entertainment, which are of local and regional significance with potential for further growth and enhancement.

*The future of retail is experiential and place-based. Located between two major tourism attractors, Mends Street offers a significant opportunity to capitalise on this if the public realm retains appeal, local character and distinctiveness (especially at ground level) is maintained, and if the mix of uses is carefully curated.*



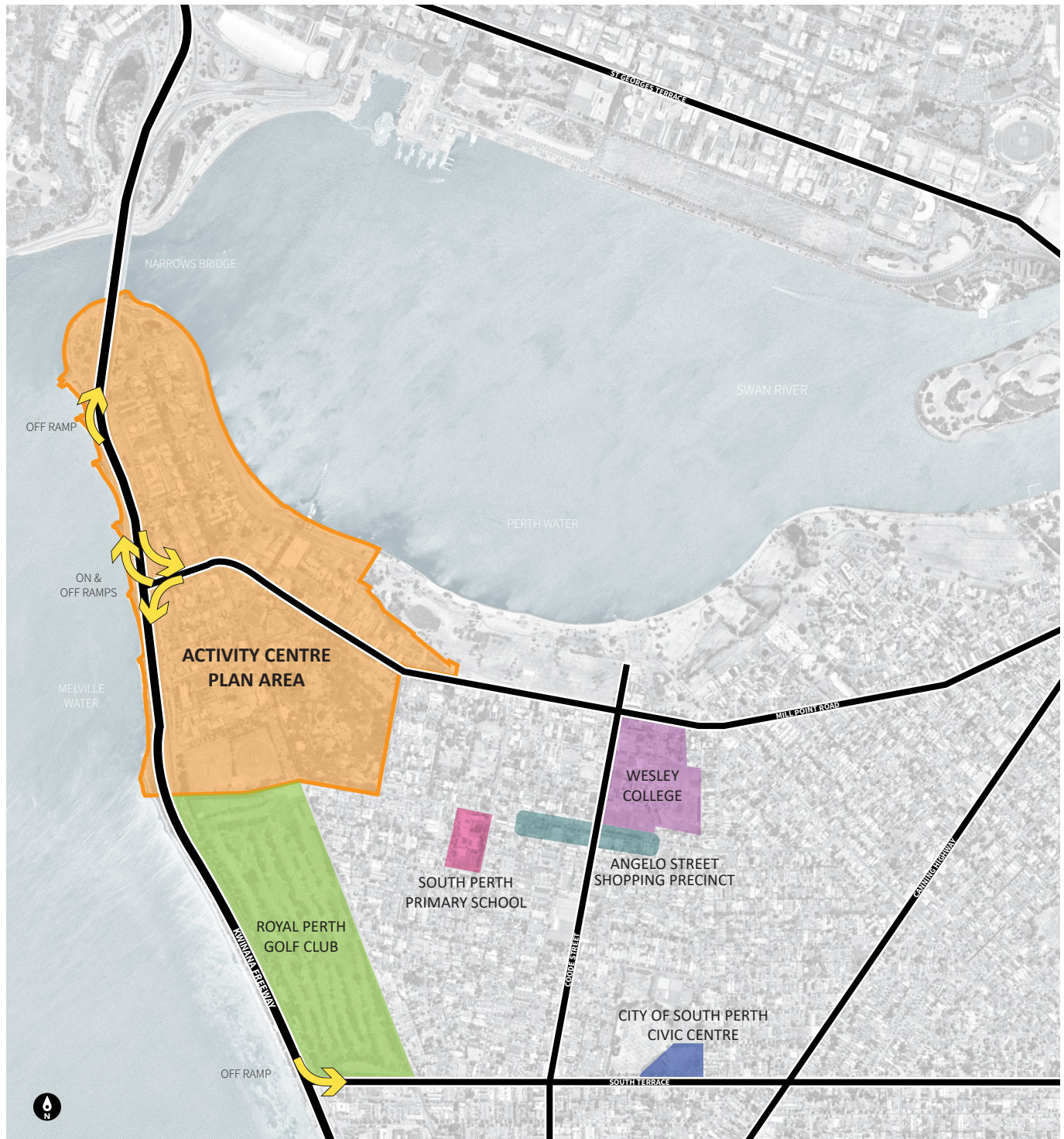
## PART TWO EXPLANATION

### 2.2 LOCAL CONTEXT

As an existing relatively high-density neighbourhood, the ACP area enjoys urban and natural features not found anywhere else in Perth. Its high quality existing buildings, remarkable natural setting, commanding City and water views and diverse tourism attractions establish it as a highly desirable place to live, work and visit.

With a narrow peninsula spanning Perth and Melville Water, and panoramic views towards Kings Park and of the Perth CBD skyline, the area's incredible setting is unique.

**Figure 3:** Local Context





### 2.2.1 History

Successive waves of development have shaped the ACP area as it is seen today, with its defining buildings and spaces reflecting a century of growth and development. This process continues today, with the area's current development being just one chapter in a much larger process that will continue to evolve for years to come.



#### NOONGAR STEWARDSHIP

The Beeloo Noongar people are the traditional owners of land, with the area between present day Richardson Park and Millers Pool being an important camping and fishing area known as Booryulup.

The Old Mill site is a significant birthing place for Aboriginal women. The South Perth foreshore is known by Noongar people as Gaboodjoolup or 'the place of the shore'.



#### COLONIAL SETTLEMENT

Following the establishment of the Swan River Colony, the first land grant in the area was awarded to William Shenton, whose Old Mill still stands today as one of Perth's few surviving links to the first years of European settlement.

Despite its proximity to Perth, the area remained an isolated rural area for much of Perth's early colonial history. Whilst early European settlers tilled the area's sandy soils with little success, Chinese immigrants in the late 1800s established market gardens along the South Perth foreshore, supplying fresh produce to central Perth throughout the heady days of the Gold Rush.

## PART TWO EXPLANATION



### EARLY 20TH CENTURY

South Perth emerged as one of Perth's first suburban frontiers in the early 1900s, rapidly growing into a residential area defined by federation cottages. This growth was accompanied by new amenities, including the establishment of Royal Perth Golf Club and the Perth Zoo.

This growth gave rise to the first cross-river ferry service, connecting South Perth with central Perth. After extended delays and debate a tram service was installed in 1922, connecting the suburb to Perth via the Causeway and eventually extending along Mends Street, Angelo Street and Labouchere Road.

Throughout the 1920s and 30s Como was the fashionable weekend retreat of Perth's younger set. Como Beach was a popular swimming spot, and dances at the Pagoda Ballroom became a rite of passage for teenagers and young adults during the otherwise spartan Depression years.

South Perth sent contingents of men and women to both World Wars, but was notably affected by the Second. American servicemen quartered at the Windsor Hotel brought new ideas and attitudes to the still-isolated peninsula, and the Parks family's photography business on Mill Point played an understated role in the war effort, processing film from Catalina reconnaissance seaplanes after they landed on Perth Water. Anti-aircraft trenches were dug across every public park and playing field, often by schoolchildren, while the South Perth A.R.P. Group co-ordinated air raid drills and gas mask practice from their makeshift headquarters on the corner of Angelo and Anstey Streets.

### POST-WAR BOOM

The post-war period brought a new wave of change to South Perth, with the rapid growth of Perth's southern suburbs leading to the development of the Kwinana Freeway and Narrows Bridge.

Opening in 1959, the Narrows Bridge forged a direct connection between South Perth and Perth's CBD, spurring significant redevelopment with old cottages replaced with multi-storey towers. Residential developments from the 1960s and 1970s along Mill Point Road remain as some of the tallest residential buildings in Perth.



### TURN OF THE CENTURY

The late 1990s and early 2000s brought yet another wave of development to the ACP area, stirred by demand stemming from the resources boom. This resulted in the development of several multi-storey residential buildings, most prominently north of Judd St along Mill Point Rd.

The 2011 South Perth Station Precinct Plan sought to continue the area's evolution, encouraging significant commercial and residential growth with the intent of securing a local train station on the Mandurah railway line. Whilst funding for a train station is yet to be secured as of 2018, these changes attracted mixed use, high-density development to the area.





## 2.2.2 Demographics

Planning for the ACP area must account for the makeup of the present and future South Perth community, and needs of current and future residents, workers and visitors. Further detail regarding the figures presented below are in Appendix 1 to this Activity Centre Plan.

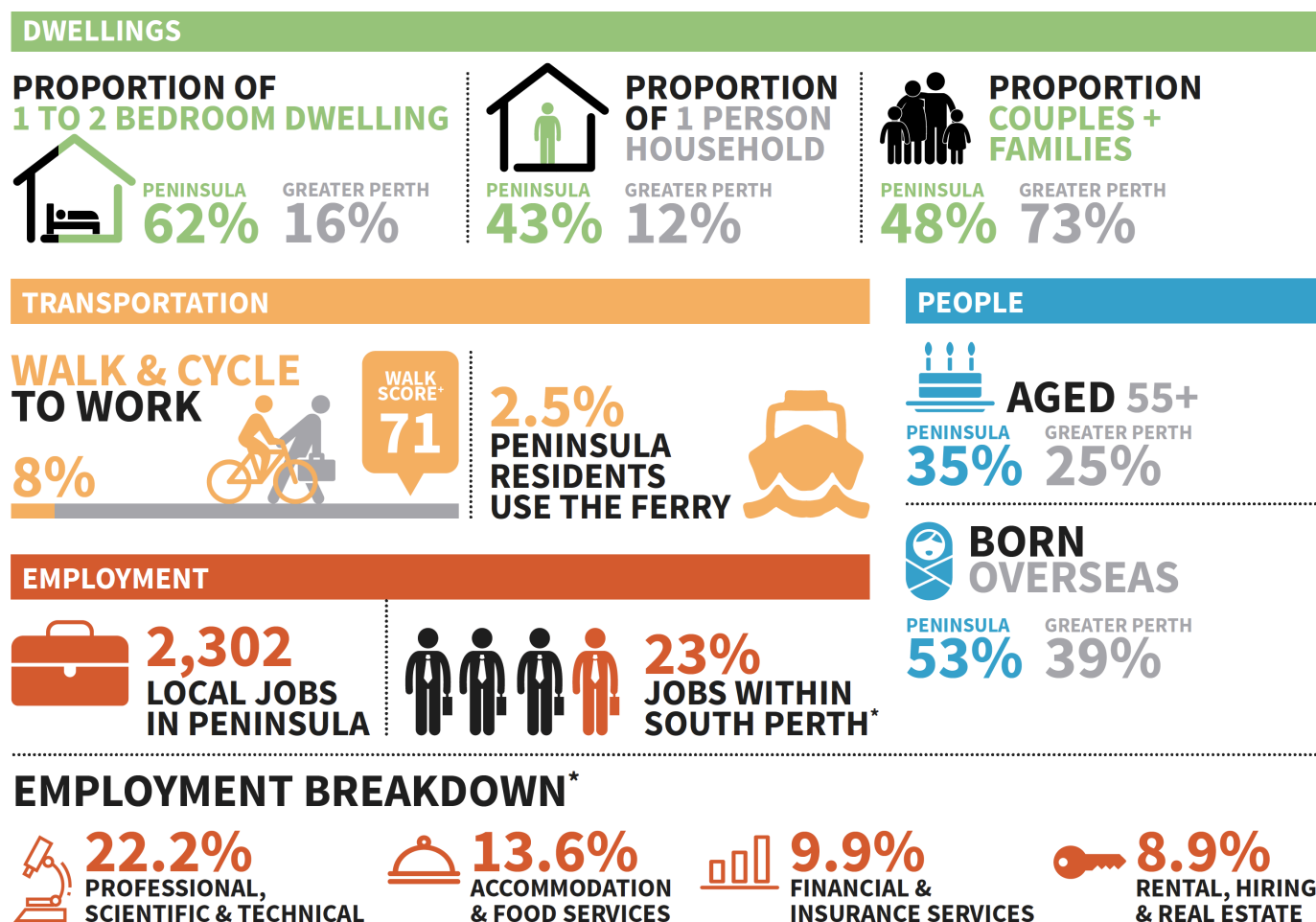
The population of the ACP area has been relatively static over the decade to 2016, with the 2016 residential population of 2,675 residents being largely unchanged since 2006. Census data indicates that the resident population is younger than the Greater Perth average, with 32.3% of residents aged between 20-34 years compared to 22.6% across Greater Perth. The ACP area also has relatively few young families with children, with just 6.9% of the population aged below 15 years compared to 19.1% in Greater Perth. The area also has a high overseas-born population, comprising 53.1% of all residents compared to 38.7% of Greater Perth.

Local residents tend to be relatively affluent, with a higher proportion of residents earning very high incomes (greater than \$3,500 per week) compared to Greater Perth. Residents were also more likely to be earning no income, due to a significant retiree population (16.3% of the population aged over 65 years).

Residents of the ACP area are less car-dependant than the Perth average, with fewer residents driving to work and more using the bus or ferry, or cycling to work compared with Greater Perth. Public transport patronage is close to double the Perth average, with approximately 15% of residents catching the bus to work. Meanwhile cycling to work, while higher than in Greater Perth as a whole, is relatively low compared to inner-city areas in other Australian cities at less than 5%.

The information below provides a snapshot of this changing area and its unique demographic attributes.

Figure 4: Demographic Summary



SOURCE: All Census 2016, Except + Walkscore (www.walkscore.com) \* Census 2011 (Note: Figures in Place + Design Report are from Census 2011)



## 2.3 PLANNING FRAMEWORK

### 2.3.1 Key Plans and Strategies

The ACP is informed by several State and local government policies and strategies that are relevant to the study area. The ACP is principally informed by State Planning Policy 4.2: Activity Centres for Perth and Peel, which provides the framework and guidelines for activity centre plans and classifies South Perth as a District Centre.

Other key plans and strategies include Perth and Peel @ 3.5 Million, Development Control Policy 1.6: Planning to Support Transit Use and Transit Oriented Development and the City of South Perth Strategic Community Plan 2017-2027. These plans and strategies are outlined below.

#### PERTH AND PEEL @3.5 MILLION (MARCH 2018)

The Perth and Peel @ 3.5 Million document provides an overarching strategic framework for the Perth and Peel region to grow to accommodate a population of 3.5 million people by the year 2050. The vision articulated in Perth and Peel @ 3.5 Million is for *a great, connected city that is globally competitive and technologically advanced; that is sustainable, resilient and respects its natural assets and heritage; that maximises the use of new and existing infrastructure; that offers a mix of housing and lifestyle choices; and that respects and acknowledges the regions' sensitive natural environments and their respective ecosystems.* Key to achieving this vision is for a greater proportion of the city's growth to occur within the established urban area, particularly activity centres, station precincts and along high-frequency public transport routes.

The overarching strategic framework is supported by four planning and infrastructure frameworks for the Central, North-West, North-East and South Metropolitan Peel sub-regions, which provide guidance on sustainable development over the next three decades to ensure the impact of urban growth on areas of environmental significance is minimised; to protect heritage; and to maximise the benefits of available land and existing infrastructure.

South Perth is located in the Central sub-region. The Central Sub-regional Planning Framework aims to establish a long-term integrated planning framework for land use and infrastructure, with a focus on guiding future infill growth into key locations, including activity centres. The Central Sub-region is expected to provide approximately 213,130 new dwellings by the time Perth's population reaches 3.5 million, with a minimum target of 8,300 new dwellings to be in the City of South Perth.

Activity centres are described in the Central Sub-regional Planning Framework as *focal points well served by transport infrastructure that provide areas for commercial and social activity together with residential population.* South Perth is identified as an activity centre in the framework.

#### STATE PLANNING POLICY 4.2: ACTIVITY CENTRES FOR PERTH AND PEEL (AUGUST 2010)

The main purpose of SPP4.2 is to specify generic planning requirements for the planning and development of new, and the redevelopment and renewal of existing, activity centres in urban areas of the Perth and Peel region. It is predominantly concerned with the location, distribution, and broad land use and urban design criteria for activity centres, and with coordinating their land use and infrastructure planning. The policy reflects the intention of the WAPC to encourage and consolidate residential and commercial development into activity centres.

SPP4.2 provides a hierarchy of centres to guide public investment in infrastructure and promote private development, as well as generic guidance on the characteristics of each type of centre. In the policy, South Perth is classified as a District Centre. Importantly, the guidance in SPP4.2 is intended for all district centres regardless of their location and unique function and characteristics. The requirements in SPP4.2 are intended to guide and complement the detailed planning of activity centres and should be balanced with, and considered alongside, other factors such as; locational context, the existing and ongoing primary role and function of each centre, the centre's capacity for growth and redevelopment, the growth pattern of the suburb and local government area, and the appropriate level of growth for the centre having regard to these factors.

As highlighted in the Place and Design Report and reaffirmed by the economic and demographic assessment in Appendix 1, the importance of South Perth as a visitor destination and as a highly accessible fringe CBD activity centre elevates it well above a conventional district centre as envisaged in SPP4.2. With this level of retail and commercial floorspace comes a commensurate intensity of residential development.

Given South Perth's location, visitor appeal, fringe-CBD functions, existing established pattern of medium to high density, character and context, the guidance provided in SPP4.2 is not considered to be sufficient for this ACP in the long term (particularly beyond 2031).



#### **STATE PLANNING POLICY 5.4: ROAD AND RAIL TRANSPORT NOISE AND FREIGHT CONSIDERATIONS IN LAND USE PLANNING (SEPTEMBER 2009)**

SPP5.4 provides criteria for the assessment of planning proposals on land adjacent to road or rail infrastructure that generates significant noise impacts. The policy includes principles that ensure sensitive developments are located away from noisy transport infrastructure and, where uses are located adjacent or nearby to such infrastructure, noise impacts are minimised.

The Kwinana Freeway and Perth-Mandurah rail line are adjacent to the ACP area and new noise-sensitive development in the vicinity of these noise sources must therefore comply with SPP5.4.

#### **DEVELOPMENT CONTROL POLICY 1.6: PLANNING TO SUPPORT TRANSIT USE AND TRANSIT ORIENTED DEVELOPMENT (JANUARY 2006)**

The purpose of DC1.6 is to set out a position for planning and development around transport infrastructure, primarily aimed at improving access and increasing public transport demand. DC1.6 applies to 'transit-oriented precincts' within 800 metres of high frequency heavy rail or major bus transfer stations and within 400 metres of high frequency bus stops.

The South Perth activity centre is very well served by public transport, including four bus routes (numbers 30, 31, 34 and 35) servicing the area, a ferry terminal and potential future train station. The entire ACP area is therefore a potential transit oriented precinct (as defined in the policy) and the ACP must have regard to the recommendations of the policy to ensure that transport infrastructure is supported by suitable levels of population and activity.

## CITY OF SOUTH PERTH STRATEGIC COMMUNITY PLAN 2017-2027

The City's Strategic Community Plan is a high level document containing the broad strategies for governance of the City and facilitation of coordinated growth. The Vision of the SCP is:

*'A City of active places and beautiful spaces. A connected community with easily accessible, vibrant neighbourhoods and a unique, sustainable natural environment.'*

The Community Plan is separated into 4 key focus areas; community, economy, environment (built and natural) and leadership. Each focus area has associated aspirations, outcomes and strategies. This Activity Centre Plan contributes to the Community Plan outcome 3.2 Sustainable built form and will also contribute to the delivery of various other strategies as outlined below:

**Table 3:** Summary of Relevant Provisions of the City of South Perth Strategic Community Plan 2017-2027

FOCUS AREA	OUTCOMES	STRATEGIES
Economy	Activated places	Facilitate activity centres and neighbourhood hubs that offer a diverse, viable and attractive mix of uses.
		Reinforce the South Perth peninsula as the City's primary activity centre by reinvigorating key assets and destinations.
Environment	Connected and accessible City	Facilitate a safe, efficient and reliable transport network.
		Facilitate a pedestrian and cycle friendly environment.
		Implement and maintain integrated transport and infrastructure plans.
	Sustainable built form	Develop a local planning framework to meet current and future community needs and legislative requirements.
		Promote and facilitate contemporary sustainable buildings and land use.
	Enhanced environment and open spaces	Maintain and improve ecosystem biodiversity of the City.
		Protect and enhance the City's urban forest.
		Improve the amenity value and sustainable use of our streetscapes, public open spaces and foreshores.
		Facilitate effective management of the Swan and Canning River foreshore.
	Resource management and climate change	Promote and implement sustainable water, waste, land and energy management practices.
		Manage the risks associated with climate change.
Leadership	Advocacy	Advocate for public infrastructure improvements including a South Perth train station and ferry services

## CITY OF SOUTH PERTH LOCAL PLANNING STRATEGY

The City of South Perth (the City) Local Planning Strategy sets out the strategic direction for planning and development in the City over the next 10 to 15 years. As well as being an integral document in the local planning framework, the Local Planning Strategy plays a key role in delivering the community's vision as set out in the City's Strategic Community Plan 2017-2027.

The Local Planning Strategy is based on the identification and analysis of issues identified through the broad policy framework, collection of census data and community consultation. It provides the strategic basis for the preparation, implementation and amendments to the City's local planning scheme. The scheme is the primary mechanism to implement the Local Planning Strategy, through various provisions and subsidiary plans like activity centre plans and local planning policies.

The key strategy relevant to this ACP is:

### Strategy 4.2.1

*Ensure each of the City's activity centres achieve an appropriate mix of activity, employment, recreational, civic and cultural, and entertainment uses as well as increased levels of residential population to support the ongoing viability and function of each centre. The planning framework is to ensure sufficient non-residential floor space, to meet forecast demand, can be provided in each centre.*

## 2.3.2 Prior Planning

A complex history of planning studies and strategies, scheme amendments and planning decisions have influenced the development of the ACP area over more than ten years to 2018. This history was considered in detail in developing the ACP, which refines and builds upon the established planning framework.

Key aspects of prior and current planning initiatives that have informed development of the ACP are outlined as follows and in Figure 5.

### PROPOSAL OF SOUTH PERTH TRAIN STATION, 2005

During construction of the Mandurah rail line, allowance was made for the location of a future South Perth train station within the Kwinana Freeway reserve near the end of Richardson Street. The station was not constructed with the new rail line, but the allowance for a future station highlighted the emerging role of South Perth as a central city destination.

The allowance for a future station provided impetus to amend the City's planning scheme to allow for transit oriented development and facilitate investment in the area as an attractive and accessible location on the fringe of the CBD.

### SOUTH PERTH STATION PRECINCT PLAN ADOPTED, 2011

The South Perth Station Precinct Plan was prepared by the City of South Perth and WAPC as a framework to guide development in the precinct surrounding the planned South Perth train station. The vision of the plan was to create a vibrant, attractive business location featuring a rich choice of employment, public transport options, pedestrian friendly tree-lined streets, with reminders of South Perth's heritage.

The plan focused on promoting commercial and other non-residential land uses in order to promote of the planned train station as a "destination station", rather than a commuter station designed to facilitate "park and ride" usage.

## PART TWO EXPLANATION

### SCHEME AMENDMENT NO. 25 ADOPTED, 2013

The South Perth Station Precinct Plan was implemented via Amendment No. 25 to the City of South Perth Town Planning Scheme No. 6. The amendment introduced a Special Control Area, and development controls generally consistent with the South Perth Station Precinct Plan.

Amendment No. 25 allowed for more intensive commercial and multiple residential development, including:

- Land use controls, including preferred ground floor uses to encourage non-residential and mixed use development;
- Plot ratio requirements for non-residential development;
- Podium and building height limits of up to 41 metres;
- Street, side and rear setback requirements;
- Parking requirements;
- Other detailed design requirements; and
- Performance criteria for variations from the development requirements for specified properties.

### SCHEME AMENDMENT NO. 46 INITIATED AND ADVERTISED, 2015

The intent of Amendment No. 46 was to correct anomalies, clarify ambiguities and strengthen performance criteria for building height variations in the South Perth Station Precinct.

The amendment included additional performance criteria for development seeking variations from the development requirements (including additional building height), caps on the amount of car parking provided in developments seeking additional building height, greater setbacks to certain streets in order to protect existing street trees, and reduced minimum non-residential plot ratio requirements.

### SPECIAL ELECTORS MEETING, MAY 2015

The purpose of this meeting was to discuss development issues in the South Perth Station Precinct, including the extent of the precinct, the preparation of a planning strategy for the peninsula area as well as the station precinct, and community concerns with development proposed in the area.

Following the meeting Council resolved to conduct an independent review of the relevant town planning scheme provisions and the geographic extent of the station precinct, separate to the Amendment No. 46 process.

### SCHEME AMENDMENT NO. 46 MODIFIED FOLLOWING ADVERTISING, 2016

Amendment No. 46 attracted substantial community interest and Council resolved in October 2015 to make significant modifications. These included limits to the allowable building height throughout the precinct and exclusion of the properties north of Judd Street from the area subject to additional building height.

The modified amendment was advertised for public comment in late 2015 and early 2016 and a large number of submissions were again received.

### REVIEW OF RELEVANT TOWN PLANNING SCHEME PROVISIONS AND EXTENT OF THE SOUTH PERTH STATION PRECINCT, 2016

Following Council's resolution of May 2015, the City engaged consultants to undertake a review of a range of issues including:

- Geographic extent of the precinct;
- Whether there should be building height limit;
- Whether building bulk should be controlled through plot ratio;
- Whether there should be discretion in relation to podium height;
- Whether nil setbacks are appropriate for all streets;
- Whether street setbacks above podium height are sufficient to ensure a comfortable pedestrian environment, especially in relation to scale and sunlight penetration;
- Whether side and rear setbacks are sufficient;
- Overshadowing;
- What community benefits would be appropriate;
- How to ensure buildings are of high design quality;
- Whether and if so which Green Star rating tool/s are appropriate to ensure high quality sustainable design;
- Appropriateness of the application assessment process; and
- Advice on a Development Contributions Scheme.

The review included research into how other planning jurisdictions address similar issues, and utilised a simple 3D model to illustrate potential development outcomes of the existing scheme provisions via massing models. The recommendations informed the Place and Design Project in 2017 and subsequent preparation of this ACP.



### CONSIDERATION OF AMENDMENT NO. 46 BY THE MINISTER, 2017

Following Council consideration and public consultation, the Minister for Planning considered Amendment No. 46, including all modifications, and resolved to reject proposed changes to the extent of the Special Design Area (the area subject to additional building height), and to also reject limits on additional discretionary height within the Special Design Area. However, the additional performance criteria for development seeking variations from the development requirements, and greater setbacks in certain streets, were included in the amendment when it was gazetted (and therefore given legal effect) in February 2017.

### PLACE AND DESIGN WORKSHOPS AND REPORT, 2017

Following the preparation of Amendment No. 46, and the review of scheme provisions in 2016, the City undertook an extensive community engagement exercise to review the existing vision (developed in 2011 with the Western Australian Planning Commission as part of the South Perth Station Precinct Plan) against the community's current aspirations for the area. The project centred on a week-long Planning Design Forum involving community members, land owners and developers, local business owners, State Government stakeholders, City staff and a team of consultants including urban planners and designers, architects and landscape architects, transport planners and economists. The Planning Design Forum included a site tour and workshop sessions on a range of issues including built form and architecture, traffic, transport and parking, development feasibility and the public realm.

The final report from the project outlines the key findings and presents a revised vision for the area along with goals, ideas and recommended actions for consideration by the City. The Place and Design Report provides the background for this ACP and accompanying amendment to the scheme.

### SOUTH PERTH STATION PRECINCT REFERENCE GROUP, 2017

Following the Place and Design Project the City established a reference group to provide the City and key stakeholders with an additional reference point for planning, development and place initiatives and activities in the South Perth Station Precinct and surrounding area. The group includes 17 members representing a diverse range of stakeholders with interests in the area.

The reference group met six times during the preparation of the draft ACP and provided direct feedback to the City on a number of components of the draft plan.

Figure 5: Planning Timeline

# PLANNING TO DATE

<p><b>2005</b></p> <p><b>SOUTH PERTH STATION PROPOSED</b></p> <p><b>PURPOSE:</b> To plan for the future provision of the South Perth Train Station following its removal from the Mandurah Railway Plan in order to reduce travel times from the southern suburbs.</p>	<p><b>2011</b></p> <p><b>SOUTH PERTH STATION PRECINCT PLAN ADOPTED</b></p> <p><b>PURPOSE:</b> To establish a vision and strategic framework for the future development of the area, focused on substantially increasing office and commercial land uses in order to support the development of a train station adjacent to Richardson Park.</p>	<p><b>2013</b></p> <p><b>AMENDMENT 25 ADVERTISED + GAZETTED</b></p> <p><b>PURPOSE:</b> To implement the recommendations of the South Perth Station Precinct Plan, including creation of a Special Control Area over the South Perth Station Precinct, development requirements and a framework for developer contributions.</p>
<p><b>2015</b></p> <p><b>AMENDMENT 46 INITIATED + ADVERTISED</b></p> <p><b>PURPOSE:</b> To rectify anomalies relating to development provisions and strengthen performance criteria for building height variations within the South Perth Station Precinct.</p>	<p><b>SPECIAL ELECTORS MEETING</b></p> <p><b>PURPOSE:</b> To discuss the station precinct, its extent, strategic planning and concerns over development.</p>	<p><b>2016</b></p> <p><b>AMENDMENT 46 ALTERED AFTER PUBLIC ADVERTISING</b></p> <p><b>PURPOSE:</b> To limit allowable building height and reduce the extent of the Precinct area, in response to stakeholder and community feedback and outcomes of the Special Electors Meeting.</p>
<p><b>2017</b></p> <p><b>AMENDMENT 46 GAZETTED FOLLOWING CHANGES BY MINISTER</b></p> <p><b>PURPOSE:</b> To incorporate changes requested by the Minister for Planning, as legally required. Now in effect following publication in the Government Gazette on Tuesday 21 February, 2017.</p>	<p><b>PLACE AND DESIGN WORKSHOPS + REPORT</b></p> <p><b>PURPOSE:</b> To review the existing vision against stakeholder aspirations for the area.</p>	<p><b>ESTABLISHMENT OF REFERENCE GROUP</b></p> <p><b>PURPOSE:</b> To provide an additional reference point for the City for the future of the precinct, including a range of stakeholders.</p>

## 3.0 PROCESS

### 3.1 DEVELOPING THE PLAN

The review of the planning framework for the ACP area began in 2015 and culminated in the 2017 South Perth Peninsula Place and Design Project, which reviewed the vision articulated in the South Perth Station Precinct Plan (2011) and outlined approaches for managing the area's growth in a way that captures the most benefit for the Peninsula's residents, workers and visitors.

Following completion of the Place and Design Project in May 2017 the City prepared a project plan and scope of works to prepare an Activity Centre Plan to bring the Place and Design Report to life, and provide a means of implementation. Consultants were engaged based on this scope of works in September 2017.

A reference group was also established in August 2017 to provide the City with an additional opportunity to consult with stakeholders through planning, development and place initiatives and activities in the ACP area. The group includes 17 members representing a diverse range of stakeholders with interests in the area including community and sporting groups, local residents and business owners, and developers.

Key stages of the ACP development process are outlined below:

**Table 4:** Stages of the ACP Development Process

PROJECT STAGE	DESCRIPTION
<b>Project preparation and inception</b>	Preparation of a scope of works, engagement of consultants, and preparation of an outline of the ACP structure and contents.
<b>Background Analysis, Literature Review and Technical Studies</b>	Preparation of: <ul style="list-style-type: none"> <li>Background report</li> <li>Draft economic and demographic assessment</li> <li>Draft movement network report</li> </ul>
<b>Preparation of Stakeholder Engagement Plan</b>	Preparation of a Stakeholder Engagement Plan to outline the methods to be employed during the stakeholder engagement process.
<b>Preparation of draft Activity Centre Plan</b>	Including drafting of the ACP document, incorporating background information to develop rationale for the planning controls and modelling to ensure that the forecast demand is met. Preparation of a draft amendment to the City's town planning scheme to implement the ACP.
<b>Council endorsement of draft Activity Centre Plan</b>	The draft Activity Centre Plan is required to be endorsed by the Council prior to public consultation.
<b>Public advertising of Draft Activity Centre Plan</b>	The draft ACP and town planning scheme amendment are released publicly for 60 days for the purpose of public feedback.
<b>Finalisation of draft Activity Centre Plan following public consultation</b>	Feedback received during the public comment period is reviewed and the draft ACP and town planning scheme amendment are modified as required in response to the feedback. The updated ACP and town planning scheme amendment are then endorsed by the Council for submission to the Western Australian Planning Commission.
<b>Final approval of the Activity Centre Plan and town planning scheme amendment</b>	The Western Australian Planning Commission decides whether to approve the ACP, with or without modifications, and provides a recommendation to the Minister for Planning on the town planning scheme amendment.  The Minister for Planning decides whether to approve the town planning scheme amendment, with or without modifications.

## 3.2 KEY STAKEHOLDER MESSAGES

A series of key messages emerged from stakeholders during the Place and Design project engagement process in 2017 as being important to consider in managing change in the ACP area. These key messages informed the preparation of the ACP, which aims to respond to the issues raised and implement the recommendations of the South Perth Peninsula Place and Design Report (May 2017).

**Table 5:** Key Stakeholder Messages from Place and Design Project Engagement

<b>CHARACTER AREAS</b>	Retain the area's authentic sense of place by strengthening and enhancing areas of distinct character across the wider Peninsula
<b>GREAT STREETS AND SPACES</b>	Revitalise and activate the public realm to create green, useable and enjoyable places for community interaction with a focus on people, pedestrians and cyclists
<b>KEY LOCATION</b>	Recognise the elevated status of South Perth in Perth's future as a key activity centre
<b>TOURISM DESTINATION</b>	Revitalise and coordinate South Perth's exceptional tourism assets like Perth Zoo and the foreshore, and strengthen links to Elizabeth Quay and Kings Park
<b>REAL COMMUNITY BENEFITS</b>	Ensure development contributes needed civic infrastructure and facilities to support a growing population
<b>LIFESTYLE CHOICE</b>	Provide housing, employment and activity options for people of all ages, family structures and incomes
<b>SUSTAINABLE LIVING</b>	Ensure environmentally friendly outcomes through sustainable development and green infrastructure
<b>DESIGN EXCELLENCE</b>	Provide exceptionally-designed development in the right places, with sensitive interface between new and old buildings
<b>EASY ACCESS</b>	Address parking and traffic congestion issues, and deliver enhanced train, bus and ferry services
<b>STRONG ECONOMY</b>	Plan land uses to support new commercial development where economically viable, whilst supporting local businesses and attracting jobs
<b>INFRASTRUCTURE TO SUPPORT GROWTH</b>	Integrate planning with upgrades to transport, education, servicing and other vital infrastructure
<b>COMMUNITY PARTICIPATION</b>	Embed stakeholders in the planning and design process to enable people to have a say in all key decisions



## 4.0 VISION

### 4.1 PLACE VISION

The South Perth Activity Centre is one of the Perth's defining urban neighbourhoods—a unique residential area, premier business location and exceptional entertainment and tourism destination at the geographic centre of the metropolitan region. It is home to some of Perth's greatest public spaces, vibrant retail and commercial venues, historic landmarks and unique cultural attractions. Minutes away from Perth CBD by road and water and closely connected to surrounding educational, cultural and commercial destinations, South Perth is a great urban neighbourhood at the centre of it all.

A vision for the ACP area was developed through the South Perth Place and Design project in 2017, and builds on the values and priorities of local stakeholders. The overarching vision statement is for the ACP area to be:

*A distinctive inner city centre, tourism destination and residential neighbourhood that is shaped by its connection to nature, unique assets, distinctive buildings, and future-forward approaches to sustainable living. Its lively centre and pedestrian friendly tree-lined streets connect locals and visitors to its diverse businesses, transport nodes and local heritage.*

### 4.2 CHARACTER AREAS

The ACP area is diverse and includes a variety of homes, businesses, tourist attractions and community facilities. The distinct characters of four adjacent and connected areas has informed all aspects of the ACP, with variations in the requirements covering built form, public realm, activity and movement provided in response to the unique qualities of each area and the vision and objectives articulated in the ACP.

This character area-based approach will ensure that the existing and desired future character will be celebrated and enhanced as the area continues to grow and evolve. The following statements articulate the future aspirations for these character areas.

The following sub-sections outline key features of each character area, which inform the character statements and objectives in Part 1 of this ACP.



## PART TWO EXPLANATION

### 4.2.1 Mends

The Mends area is the cultural and commercial heart, a place where residents and workers enjoy a wide diversity of recreational and commercial offerings, as well as incredible amenities including a new City Square, the Foreshore and Perth Zoo.

In the future, the area will leverage the opportunities these amenities present to create a truly great, world class destination where residents, visitors and businesses mix together in a vibrant environment with frequent events and activities during the day and at night.

**Mends Street** will function as the urban centre of the ACP area. A street full of energy, character and appeal, it will prioritise pedestrian activity and be active day and night. Its unique retail and dining destinations will spill out into the street and extend through connecting laneways and arcades. From the water, Mends Street will proudly announce arrival in South Perth.

**Windsor Park** will form the cultural heart of the ACP area, with the Old Mill Theatre, Heritage House Cultural Centre, Windsor Park and the south-western portion of Mends Street activated and enhanced through public space upgrades and the addition of modern community facilities, complementing the entry to the ACP area via the ferry and Mends Street Jetty.

**Perth Zoo** will strengthen its status as one of Perth's premier tourism destinations, with a renewed vision for its long-term growth and improved connections to the surrounding area with active edges fronting surrounding streets and Windsor Park.

**South Perth Foreshore** will provide an attractive landscaped entry to the ACP area and will host a wide range of events and activities throughout the year. South Perth Esplanade will be designed as a low speed boulevard with pedestrians and cyclists prioritised.

**The Landmark Site** bounded by Labouchere Road, Mill Point Road and Mends Street is the most prominent development site in the ACP area. It is uniquely positioned between three major roads at the centre of the ACP area, is triangular in shape and is highly visible from key vantages throughout and beyond the ACP area. The site sits along the key 'activity link' identified in the 2017 Place + Design Report and contains two significant heritage places. The establishment of a landmark building on this site is therefore important and encouraged by controls and guidance in the ACP and Scheme.

#### ACTIVITY

- Emphasis on convenience shopping and experiential cafés and restaurants for residents, workers and visitors
- Residential and commercial uses to deliver transit-oriented development close to Mends Street Jetty

#### MOVEMENT

- Enhanced ferry services with potential for second berth
- Pedestrian priority and traffic calming to create a vibrant people place
- Strengthened connections to regional bike and walking paths

#### BUILT FORM

- Landmark development on key sites, while preserving lower scale development along the South Perth Esplanade to preserve views
- More intensity will frame Mends Street while preserving main street character

#### PUBLIC REALM

- Significant upgrades to Mends Street and the Esplanade to create a distinctive destination
- A renewed Windsor Park which strengthens connections to the Zoo and accommodates all user groups



**Figure 6:** Mends Character Area: Vision for 2041





### 4.2.2 Richardson

The Richardson area is a diverse and varied area with an eclectic mix of building styles and uses. The establishment of a train station at Richardson Street will establish the area as a vibrant gateway to Perth Zoo and the wider Peninsula. Future development will recognise and enhance the diversity of the area, building upon the intricacy of its urban fabric with varied lot sizes and building heights, retained heritage cottages and new green pedestrian links.

Lyall Street will build upon its direct connection to Mends Street, ultimately providing an extension of commercial activity but with a change of character to leafy urban realm with residential development.

Labouchere Road will be a major activity corridor linking Mends Street to Perth Zoo and the future train station, supported by future improvements to the pedestrian realm including traffic calming, footpath widening and tree planting.

South Perth Station will be a major transit-oriented node, with a focus on Richardson Street as a new, additional entry point to the ACP area. This may include commercial uses such as short stay accommodation, and offices with a range of floorplate sizes and configurations to attract both large organisations and small businesses.

#### ACTIVITY

- Varied and eclectic activity, with an emphasis on office and commercial uses
- Ground floor retail uses limited to Lyall Street, Richardson Street and Labouchere Road

#### MOVEMENT

- Delivery of the South Perth Train Station
- Controlled access to local streets to improve walkability and manage traffic
- New local and regional cycling connections

#### BUILT FORM

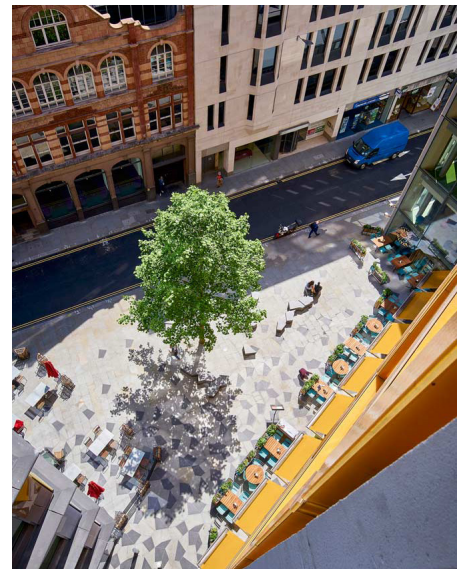
- High quality, intensive development near a future transit node
- A variety of building heights and uses
- Podiums and building setbacks designed to add amenity and interest
- Retained heritage cottages

#### PUBLIC REALM

- Landscaped streets with narrowed carriageways and community amenities
- Potential mid-block pedestrian connections between streets
- New pocket parks and plazas provided by new development in key locations



**Figure 7:** Richardson Character Area: Vision for 2041





## PART TWO EXPLANATION

### 4.2.3 Mill Point

Mill Point is a predominantly residential area characterised by green, leafy streets and buildings set back from the street. This significant amenity is complemented by its proximity to the South Perth foreshore and northern views to the Perth CBD.

In the future, this prevailing character will be strengthened and enhanced through upgrades to the public realm and new development which responds to and enhances the special amenities that make the area a great place to live.

Scott Street and areas to the south will define the focus of new development within the character area, with new residential development and complementary commercial development carefully integrated into the area to respect and strengthen its passive, quiet character.

Stirling Street and its surrounds will accommodate incremental development over time that is in keeping with existing development. Connectivity to the Swan River will be strengthened through upgrades to the South Perth foreshore and connecting streets.

The Old Mill is a significant cultural asset that will be enhanced and upgraded through public realm upgrades, the addition of cultural and community facilities surrounding The Old Mill, and the potential addition of cafés and water sport facilities to the west of the Narrows Bridge.

South Perth Foreshore will provide a range of attractive landscaped public open spaces and will host a wide range of events and activities throughout the year. South Perth Esplanade will be designed as a low speed boulevard with pedestrians and cyclists prioritised.

#### ACTIVITY

- Mainly residential development, reflecting the area's quieter character
- Some small shops and cafés to service local residents

#### MOVEMENT

- Managed access to Kwinana freeway from Mill Point Road
- Improved walking and connections at major intersections
- Better controlled on-street parking

#### BUILT FORM

- Similar scale to existing development with certainty of building height
- Slim towers which preserve views and solar access
- Towers to the ground, with landscaped setbacks respecting existing character

#### PUBLIC REALM

- Mature street trees protected as a priority and added to where possible
- Community amenities
- Garden streets complemented by green, landscaped setbacks



**Figure 8:** Mill Point Character Area: Vision for 2041





## PART TWO EXPLANATION

### 4.2.4 Hillside

Hillside is an elevated area with a diverse range of wide variety of building styles and dwelling typologies overlooking the Swan River. Despite its close relationship to the Mends Street area, it maintains a quiet residential character.

In the future, incremental infill development will complement and supplement existing residential towers, providing additional community benefit through the creation of small green spaces and new public connections to the South Perth Foreshore.

Darley Street will mark a transition from bustling Mends Street, with Ray Street and Darley Street accommodating a mix of uses with a quieter street character. Significant development sites in the area should provide new connections to Mends Street and the Foreshore.

Parker Street and areas further east will reflect a quieter, more residential character acknowledging the separation from the core of the ACP area. Accessibility to the Foreshore is desired and new pedestrian connections to the Foreshore should be provided where new development allows.

South Perth Foreshore will provide a range of attractive landscaped public open spaces and will host a wide range of events and activities throughout the year. South Perth Esplanade will be designed as a low speed boulevard with pedestrians and cyclists prioritised.

#### ACTIVITY

- Mainly residential development, reflecting the area's quiet character
- Some small shops and cafés to service local residents

#### MOVEMENT

- Managed access to Kwinana freeway from Mill Point Road
- Improved walking and cycling conditions, and connections at major intersections
- Better controlled on-street parking

#### BUILT FORM

- Similar scale to existing development
- Slim towers that preserve views and daylight
- No street podiums, with landscaped setbacks respecting existing character

#### PUBLIC REALM

- Mature street trees protected as a priority, and added to where possible
- Community amenities
- Small green spaces and pedestrian connections to the foreshore



**Figure 9:** Hillside Character Area: Vision for 2041





## 5.0 PLAN COMPONENTS

The following sections set out the background research and information, key issues identified through engagement with stakeholders, and communicate how the ACP responds to and addresses these issues in line with the Vision.

The intent of this ACP is to bring the principles and ideas from the Place and Design Report to life. To this end, the contents of this plan (including development controls and strategic guidance) address the vision and the goals summarised in Figure 10. Each point generally relates to an “idea” under that goal in the Place and Design Report; and examples of where these principles are addressed within the ACP are included in brackets.

### FROM PLACE AND DESIGN REPORT TO ACTIVITY CENTRE PLAN: PUTTING THE VISION AND IDEAS INTO PRACTICE

#### VISION:

A distinctive inner city centre, tourism destination and residential neighbourhood that is shaped by its connection to nature, unique assets, distinctive buildings, and future-forward approaches to sustainable living. Its lively centre and pedestrian friendly treelined streets connect locals and visitors to its diverse businesses, transport nodes and local heritage.



**Figure 10:** Delivering the Vision

**PLACE AND DESIGN  
REPORT GOAL 1  
DELIVER  
A ROBUST  
PLANNING  
FRAMEWORK**

- The ACP was developed with input from community members and stakeholders, both during the Place and Design process and in development of the ACP and scheme amendment (see for example Part 2 Section 3.2)
- The planning framework provided by the ACP and town planning scheme is cohesive, logical, based on evidence and sound planning rationale, and in keeping with the vision (in addition to this section, see Part 1 Section 1 and Part 2 Section 6.2)
- A community benefit contribution system is in place to enable development to contribute towards investment in public amenities and infrastructure to support South Perth as a great place for residents, workers and visitors (see for example Part 1 Section 7 and Part 2 Section 7.3.3 and associated In Depth section)

**PLACE AND DESIGN  
REPORT GOAL 2  
IMPROVE  
MOVEMENT  
AND  
CONNECTIVITY**

- Regional traffic congestion is managed through the ACP and ongoing dialogue with the state government (see for example Part 1 Section 5 and Part 2 Section 8.3.4)
- The development requirements - and focus on reducing traffic and achieving modal shift towards public transport, walking and cycling - provide rationale for an integrated public transport network (see for example Part 1 Section 5 and Part 2 Section 8.3.1)
- Car parking has been radically dealt with in the ACP, including caps on parking in new development and inclusion of parking in plot ratio calculations (see for example Part 1 Section 4.3.8 and Part 2 Section 8.3.5)
- The intensity of development proposed, and in particular its distribution, focus on building a case for the South Perth train station to be built (see for example Part 1 Section 5.2 and Part 2 Section 8.3.3)

**PLACE AND DESIGN  
REPORT GOAL 3  
ENHANCE  
STREETS  
AND GREEN  
SPACES**

- The public realm (including streets and open spaces under local and state government control) are considered as a whole, providing benefit to the ACP area (see for example Part 1 Section 6 and Part 2 Section 9.0)
- Opportunities are identified to ensure streets are improved, particularly to become more pedestrian-friendly (see for example Part 1 Section 6.2 and Part 2 Section 8.3.2)
- Guidance is provided on the future role and improvements to parks in the ACP area (see for example Part 1 Section 6.1 and Part 2 Section 9.2.1)
- Incentives for additional green space on private land are provided through this ACP (see for example Part 1 Section 6.3 and Part 2 Section 9.2.2.1)

**PLACE AND DESIGN  
REPORT GOAL 4  
ENCOURAGE  
RESPONSIVE  
DEVELOPMENT**

- The desired urban form is articulated in detail in the document, and linked to evidence of future demand in the ACP area (see for example Part 1 Section 2.3 and Part 2 Sections 4.2 and 6.2)
- The built form proposed is reflective of existing character (including within individual character areas) (see for example Part 1 Sections 2 and 4 and Part 2 Section 7.3.4 and associated In Depth section)
- Development requirements are designed to manage the amenity of neighbouring buildings and open spaces (see for example Part 1 Section 4.3.3 and Part 2 Section 7.3.1)
- Sustainability and adaptability are incorporated into development requirements for future development, and in public realm guidance (see for example Part 1 Section 4.3.4 and Part 2 Section 7.3.5)

**PLACE AND DESIGN  
REPORT GOAL 5  
CREATE  
PLACES FOR  
PEOPLE**

- Local identity and character is recognised for the ACP area as a whole and for individual character areas, with built form and public realm guidance reinforcing existing and desired future character (see for example Part 1 Section 2 and Part 2 Section 4.2)
- Heritage assets (buildings and spaces) are recognised and celebrated in the ACP (see for example Part 1 Section 4.3.2 and Part 2 Section 7.1.2)
- The ACP provides strategic context for activation and place management, to generate social and economic benefit (see for example Part 1 Section 2.3 and Part 2 Section 10.2)



## 6.0 ACTIVITY

The growth and development of the ACP area to the year 2041 and beyond will require building upon the current characteristics and strengths of the centre, while remaining nimble to adapt to change. This section is based on the South Perth Activity Centre Economic Assessment Report in Appendix 1, and explores the characteristics and trends of the area's land use and activity, with a focus on the drivers of economic performance and capacity for growth.

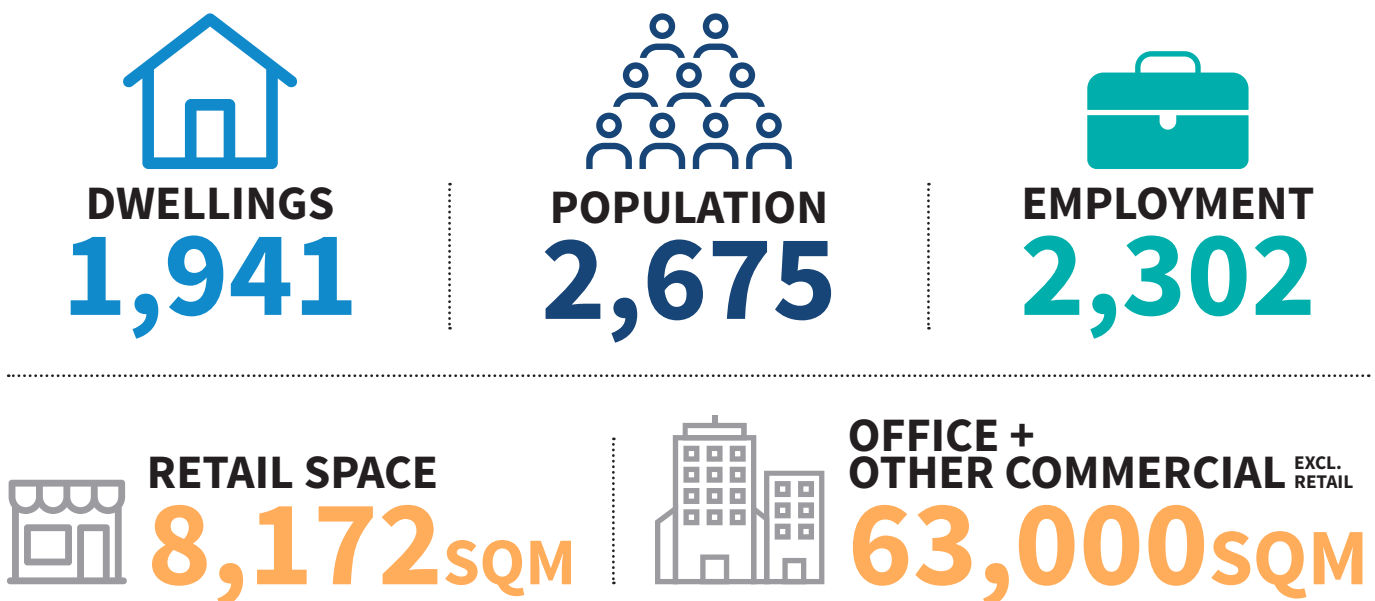
### 6.1 EXISTING ACTIVITY

The ACP area is a significant activity hub within Perth, with local and regionally significant amenities and economic assets, and provides residents and business alike with access to opportunities in the wider region through major road and public transport access and proximity to central Perth. However, in the decade to 2018 the area has seen only low levels of growth in commercial land uses. For example, recent declines in office occupancy indicate that the ACP area is not currently fulfilling its full economic potential and has capacity for growth.

The residential population of the ACP area is also important and supports local businesses as well as providing opportunities to live in a highly sought-after location close to the central business district. The presence of natural amenities (including Perth Water and the foreshore), and the central location and transport access mentioned above, will continue to make the area attractive for residential development. Despite this, the population has not grown significantly in the decade to the 2016 Census and the area contains higher shares of detached and lower density housing than expected for an inner-city river-front location. As is discussed in Appendix 1, growth and demand is projected to be sufficient to enhance and intensify the urban form of the ACP area while growing the residential population to support local businesses and services. However, managing this growth and demand will require a strong focus on urban regeneration and revitalisation, not only appropriately increasing the density of development but doing so in a way that enhances a high amenity environment for new and existing residents, workers, businesses and tourists to the area.

Appropriately managed, increased density can be accompanied by substantial community benefit – for both existing and future residents and visitors. These benefits include a range of community facilities and improved services, better public transport connections, improved streets, a greater range of local retail and businesses, and a more appealing place for local residents.

Figure 11: Existing Activity



### 6.1.1 Land Uses and Clusters

The predominant land use within the ACP area is residential, which is distributed throughout the area and provided a population of 2,675 residents as of 2016. This is complemented by approximately 71,000sqm of commercial floorspace, with the largest commercial uses being Office (52%), Retail (12%) and Entertainment, Recreation and Culture (9%). The remaining 27% of non-residential floorspace is made up of relatively small amounts of a range of land uses including manufacturing, storage, health and utilities. Commercial office floorspace is concentrated in the Mends and Richardson character areas, with the majority of existing retail, entertainment and recreation uses clustered around Mends Street.

Further detail regarding the land uses within the ACP area is provided in Appendix 1.

### 6.1.2 Attractions and Destination Anchors

The presence of natural amenities including Perth Water and the foreshore, coupled with major attractors, namely Perth Zoo and Mends Street, function as major destination anchors that support considerable tourism visitation.

Tourism is a key driver of growth in the area, with consistently growing visitation numbers to the Perth Zoo, as well as large increases in the number of ferry boardings from Mends Street Jetty. Overall, the tourist visitation to South Perth has grown strongly in recent years, increasing from 63,000 visitors in 2007 to 119,000 visitors in 2017.

### 6.1.3 Retail Offering

There is approximately 8,271sqm of retail within the ACP area, concentrated within the Mends Street boutique retail, café and restaurant ACP area.

This amount of floorspace is less than half that stipulated in targets under SPP 4.2, reflecting static population growth and a failure to translate increases in tourism visitation to increases in activation and vibrancy within the centre.

It is estimated that the total retail expenditure pool in the ACP area from resident, worker and tourist expenditure is valued at \$51.7m in 2017, with residents comprising the largest share of that expenditure at \$34.8m.

### 6.1.4 Employment and Commercial Floorspace Trends

The ACP area is a recognised boutique inner-city employment hub, with approximately 2,300 jobs in the ACP area as of 2015. There is a significant amount of office floorspace in the centre, accommodating approximately 1,695 office-based jobs or 73% of total employment in the centre as of 2015.

However, the number of jobs in the centre declined between 2007 and 2015. This is likely due to the impacts of the Global Financial Crisis followed by the end of the mining boom and also issues relating to employment diversity and public transport access, which have made South Perth less desirable compared to other activity centres such as East Perth, Northbridge and Subiaco.

There is approximately 63,000sqm of employment related floorspace currently in the ACP area (excluding retail floorspace). While the area experienced moderate growth in the total amount of floorspace over the decade to 2017, the amount of occupied office floorspace decreased as the amount of local employment declined. This has led to an increase in the amount of vacant office and retail floorspace. In 2015, South Perth had an office floorspace vacancy rate of approximately 13%.

### 6.1.5 Population Characteristics

The population in the activity centre has not grown significantly over the 15 year period from 2001 to 2016. A resident population of 2,675 residents in 2016 represents an average increase over this period of 1.8% per annum. This level of growth is significantly lower than the growth in many other major centres elsewhere in Perth, and is likely due to a lack of infill development and declining household sizes during this period.

As detailed in Section 2.2.2, the population is characterised by a mix of younger workers, mature families and retirees, with a high proportion of people born overseas. The diversity of the ACP area population is an attribute that should be supported and encouraged as the area develops.

### 6.1.6 Dwelling Characteristics

As of 2016, there were 1,941 dwellings within the ACP area. The area's housing stock is more diverse than the State average with higher shares of flats and units, as would be expected in a fringe-CBD location (44% in the ACP area compared to 8% in Greater Perth). However, conversely the share of detached and lower density housing stock is higher than would be expected for an inner-city river front location.

Much of the ACP area's housing stock is two or three bedroom dwellings, with low proportions of one bedroom dwellings and four or more bedroom dwellings. It is recommended that a range of dwelling sizes be delivered through future residential developments to support a variety of household types.

The proportion of homes rented in the ACP area was similar to Greater Perth at the time of the 2016 Census (24.2% in South Perth ACP compared to 23.4% in Greater Perth). Home ownership in the area is supported by the older age profile and high proportion of professionals and managers who can purchase their dwelling, while higher density dwellings such as flats or units often appeal to investors and renters.

### 6.1.7 Development Activity

Substantial development activity has taken place within the ACP area following revisions to the planning framework in 2013. Overall, twelve developments have been approved and progressed to construction as of May 2018. Cumulatively, this development provides for approximately 86,000 square metres of additional residential and commercial floorspace, including 400 apartments. This recently constructed and under construction (as of May 2018) development is expected to drive population growth in the ACP area in the short term.

## 6.2 FORECAST ACTIVITY

A comprehensive analysis was undertaken to determine the potential future growth of the ACP area, including assessment of independent projections for population, employment, floor space, visitor and retail expenditure scenario testing. This determined the most likely growth trajectory for the area over the 35 years from 2016 to 2041 (refer to Parts 5 and 6 of Appendix 1 for further detail).

This scenario testing and modelling is unconstrained, meaning that issues such as local land availability, infrastructure capacity, local market expectations and servicing capacity have not been considered. This approach is critical to ensure that the assessment recognises and examines the full potential of the ACP area. This evidence base informs planning for new infrastructure and the development of controls on land use and built form that manage and shape the expected growth and demand. These controls, as well as the infrastructure and services that are developed then become constraints on development that shape the actual growth of the area over the life of the Activity Centre Plan.

The potential future growth of the ACP area has been modelled to the year 2041, which is 25 years from the latest Census conducted in 2016. This longer timeframe is consistent with State Government strategic planning including Perth and Peel @3.5 Million, which plans for a Greater Perth population of 3.5 million by the year 2051. Long-term population forecasts are important to provide a sound evidence base in support of the long-term vision provided in the ACP, as well as to:

- ensure sufficient capacity is provided for in the long-term where fragmented land ownership limits capacity for redevelopment and impacts the scale and timing of development, which can increase the risk of underdevelopment;
- align long-term strategic planning with long-term infrastructure commitments and needs (public transport, schools and the like). Plans considering short-term planning horizons (i.e. 5 years) are insufficient for proper infrastructure planning in infill settings; and
- recognise that places evolve over time to respond to changing demographic profiles, technology, social trends and market conditions, including economic cycles.

If future demand and growth is not well understood and reflected in the planning framework, there is a high risk that responses to actual demand and growth will not fit within the established vision, particularly if demand is underestimated at the strategic planning stage, which results in poor planning outcomes.

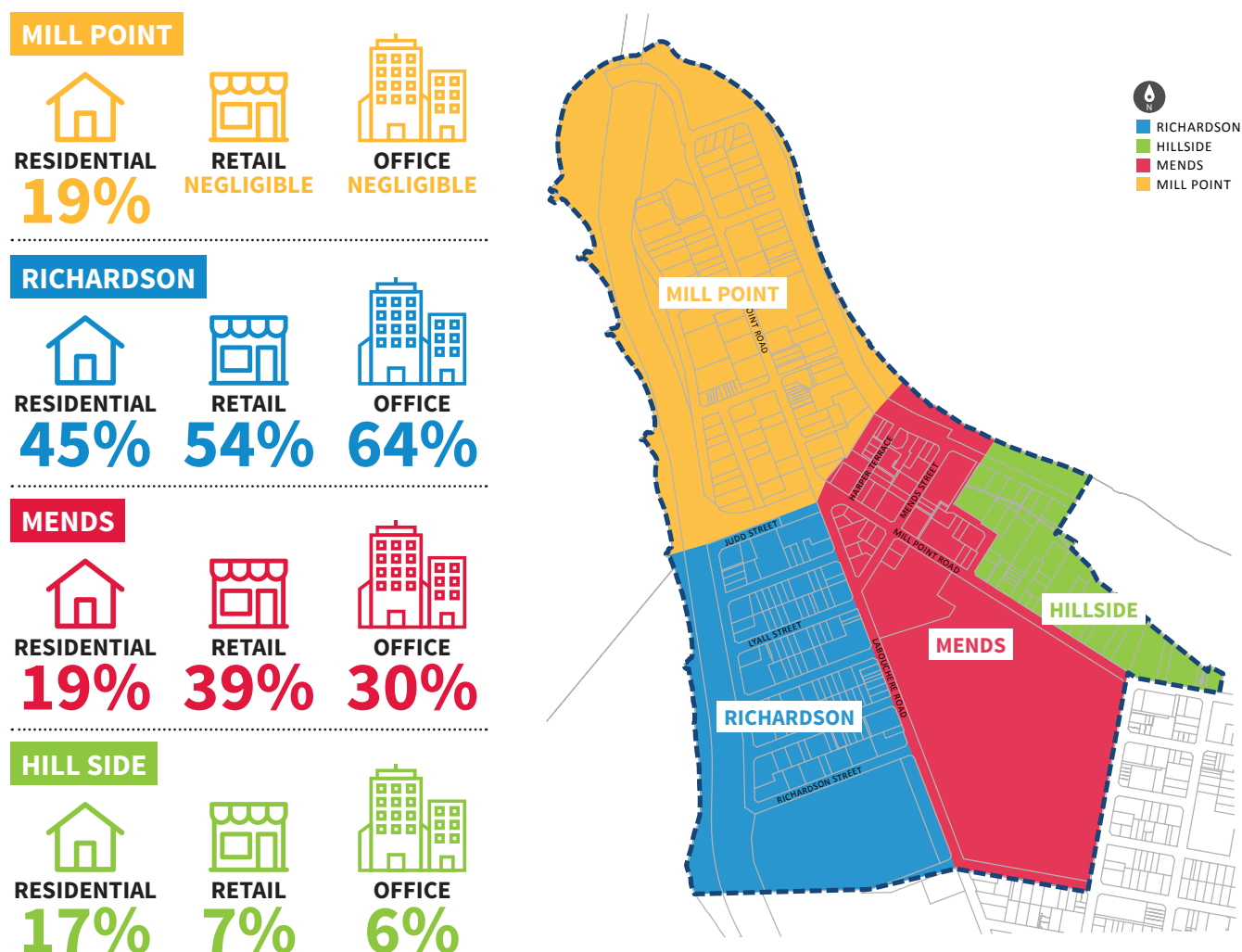
Further detail on the analysis underpinning the forecasts presented in this section can be found in the South Perth Activity Centre Economic and Demographic Assessment Report in Appendix 1.

The following size, scale and mix of activity reflects the outcomes of the modelling and represents the expected demand to the year 2041, to be managed and directed by the ACP:

**Table 6:** Forecast Growth in the ACP Area

INDICATOR	CURRENT	2031	2041	GROWTH BY 2041
Population	2,675	4,750	7,500	4,825
Dwellings	1,941	2,750	4,250	2,309
Employment	2,302	3,400	4,600	2,298
Employment-Related Floor Space (sqm – excl Retail)	63,000	92,500	110,000	47,000
Retail Floor Space (sqm)	8,172	13,860	20,356	12,184
Tourists/Visitors per annum	119,017	177,200	236,800	117,783

**Figure 12:** Split of Growth by Character Area





### 6.2.1 Population and Dwelling Growth

Several factors will influence population growth in the ACP area to 2041, both specific to South Perth, as well as more general trends that will affect the area.

Experience from other Australian cities has shown that when cities reach a population of 2-3 million, a second major, intensively-developed business and mixed use district arises, often with a riverine setting and high accessibility to the CBD. South Brisbane and Southbank in Melbourne are both examples of this, and South Perth is considered likely to experience a similar transition in density as Greater Perth grows.

There is strong impetus in policy and practice from the State Government to focus and direct infill development (dwelling growth) within activity centres and along urban corridors. This is reflected in the spatial plan for the Perth and Peel regions set out in Perth and Peel @3.5 Million, a focus on planning policies affecting infill development (for example apartment design, Activity Centre area planning, and transit oriented development), and a renewed focus on investment in public transport. These policies help to encourage prospective residents to choose apartment living. When considering the overarching state policy expectation to focus dwelling growth within activity centres, it is expected that a greater proportion of the suburb growth of South Perth will be located within the Activity Centre.

As Perth grows spatially (as of 2018, Greater Perth spreads over 6,400 square kilometres along 130km of coastline between Two Rocks and Mandurah), commuting time and convenience become greater considerations for many households. The inner-city location of South Perth is attractive for people looking to avoid long commutes from the outer suburbs, and the associated social and economic costs. This trend also underpins demand for well-located apartments. More specifically to the ACP area, several factors provide appeal that readily translates into demand for living in the area, including:

- The proximity of the area to the Perth CBD;
- The established pattern of apartments within the precinct in medium and higher density development form;
- The natural amenity and setting of South Perth, with substantial opportunity for views to water, foreshores, parks and gardens;
- The distinctiveness of the area as a place, with an endearing public realm and opportunities for unique activities;
- As a destination for visitors the area has substantial potential to provide a range of uses and amenities, which in turn make the place appealing for prospective residents;
- The central location with separation from the CBD provides a convenient location for an Australian experience, which is of interest to prospective residents from overseas.

In addition to these attractors to South Perth as a location, the appeal of (and demand for) apartment living will be an important factor attracting people to South Perth.

There is a trend in Australian cities toward a greater range of household types, with smaller households in particular becoming more common, and a corresponding trend towards demand for smaller dwellings, including apartments. In the ACP area lone person households make up over 40% of all households, with family households making up almost 50%. More than half of these family households are couples without children (two person households). The high proportion of both lone person and couple households in the ACP area is likely related to the high proportion of older residents, many of whom may have down-sized from a suburban home to buy into the convenience of apartment living.

There is also growing evidence of a broader market appeal for apartments, including among families with children. Where apartments are appropriately designed and located there is no reason why families with children cannot choose this option and the issues raised above often impact similarly, if not even more substantially, on them.

With increased appeal for apartments, demand will inevitably be attracted to those places that have existing amenities for apartment living and provide high quality apartment complexes. The ACP area is considered to be an appealing area due to the existing high quality apartment buildings, inner-city location and accessibility to the CBD, the amenity provided by the river frontage and an exemplar public realm, and views to prominent landmarks.

Based on state policy expectations, and the key drivers relating to inner city living in general and the ACP area in particular, the growth scenario for residential development within the area is considered most likely to be between the medium and high modelled scenarios outlined in Section 5.2.5 of Appendix 1. This scenario represents a greater proportion of the overall suburb growth of South Perth being located within the ACP area. Currently, one in five new residents of South Perth move to within the ACP area. Under the modelled scenario, this proportion is forecast to double to two in five new residents by 2051.

As of 2016, there were 1,941 dwellings within the ACP area and a population of 2,675 people. The growth described above will result in a total population of approximately 4,750 residents in the ACP area by 2031, rising to 7,500 by 2041. This forecast growth will generate demand for a total of approximately 2,750 dwellings in the ACP area in 2031 (809 additional), rising to approximately 4,250 dwellings by 2041 (2,309 additional). The number of dwellings is based on 1.7 people per dwelling, which is the 2016 occupancy rate and is expected to be maintained over the forecast period as the composition of the population remains relatively stable.

## 6.2.2 Tourism Growth

Overall, the tourist visitation to the South Perth has grown strongly in recent years, increasing from 63,000 visitors in 2007 to around 119,000 visitors in 2017. These visitors together stayed for over 400,000 days/nights in 2007 and this increased only marginally to 417,000 days/nights in 2017; however, in 2016 the area recorded a total of over 819,000 visitor days/nights. This reflects a sharp decline in the average length of stay of international visitors in 2017 and also shows the volatility of annual visitation numbers.

The total value of sales associated with tourism and hospitality in the City of South Perth was estimated at over \$250 million per year in 2018 with a local gross value added of almost \$109 million. This supports over 1,100 direct and indirect jobs in the City of South Perth, and overall tourism and hospitality accounts for almost 5% of the City of South Perth economy.

Notwithstanding the volatility mentioned above, the overall trend for tourism is positive and the number of visitors to South Perth is forecast to increase to 177,200 visitors per annum in 2031, and 236,800 by 2041. This growth is expected to be fastest among international visitors, though domestic day trip visitors are expected to account for the largest share of visitors in 2041 at 54%.

This tourist visitation will generate demand for a range of different services and facilities, including the expansion and diversification of tourist activities and businesses including food and beverage providers, greater amounts of both formal and informal tourist accommodation and improved and enhanced transport accessibility.

## 6.2.3 Employment and Commercial Floorspace Growth

Modelling indicates that the ACP area has significant employment and commercial floorspace growth potential for both population- and visitor-servicing sectors and niche commercial office-based businesses (see Appendix 1).

In 2017, there was a total of 2,302 jobs in the ACP area. Growth is forecast to result in a total of 3,400 jobs by 2031, increasing to 4,600 jobs by 2041. This will result in a corresponding increase in commercial and employment floorspace, reaching an expected total of 110,000sqm by 2041 (excluding retail floorspace).

This outcome represents a low-medium growth scenario, which reflects South Perth's recognised status as a boutique office market in Perth, with locations such as West Perth, East Perth and increasingly Northbridge playing the primary roles as CBD expansion/overflow of long-term office demand.

## 6.2.4 Retail Needs Assessment

Analysis has been undertaken on the employment and demand modelling scenarios for the "Shop Retail" land uses in the ACP area. That assessment was based on the potential role and function of the area in meeting the wider regional retail needs.

The retail sector has and will continue to be impacted by a diverse range of generational, fiscal, technological and feasibility factors that have the potential to fundamentally alter the level of retail floor space demand in the ACP area. The Economic and Demographic Assessment at Appendix 1 outlines a number of these trends including the impact of online retail, demographic and generational change (including an increasing share of the population aged over 65 years), and changes to household expenditure and debt patterns.

The total retail expenditure pool in the ACP area from residents, workers and visitors was estimated at \$51.7 million in 2017, with residents comprising the largest share at \$34.8 million. It is forecast that the total retail expenditure pool in the ACP area from residents, workers and visitors – all of whom will spend money in the area and therefore contribute to retail vitality – will increase to \$95.4 million in 2031 and \$127.2 million in 2041 (all values are in 2016 dollars).

There was demand for approximately 8,172 square metres of retail floorspace as of 2017. By 2031, demand could support approximately 13,860 square metres of shop retail floorspace in the area, growing to 20,356 square metres by 2041.

## 6.3 ACTIVITY KEY ISSUES

### 6.3.1 Key Issue: Site Availability and Development Capacity

Within the ACP area, as with most established urban areas, development site availability is highly constrained. In practice, most opportunities to cater to demand through new development occur through redevelopment of aged buildings, including demolition and renewal. This can be limited by many factors, including the planning framework and the presence of heritage buildings, established infrastructure and the size, layout and ownership of existing properties.

In South Perth, opportunities for growth are constrained by existing levels of high density, strata-titled development. At present, strata titled properties require consent from 100% of landowners prior to redevelopment and it can take many years for this to be achieved. For this reason, strata titled properties tend to redevelop slowly and it has been assumed that, accordingly, a lower proportion of strata subdivided properties within the ACP area will redevelop in the short to medium term. An industry accepted figure for undertaking modelling and forecasting is that 25% of strata subdivided buildings would develop between 2016 and 2051, corresponding proportionally to about 18.5% for the period covered by the ACP projections (2016-2041).

Many of the properties within the ACP area that are not strata titled are relatively small sites, which limits their potential for large-scale redevelopment. In order to assemble a large enough site, more than one adjoining property would need to be purchased and this process can also take a number of years. Alternatively, individual lots could develop well below the density possible under the ACP, effectively not utilising the full capacity and development potential permissible under the ACP development controls.

If Schedule 9A of the City of South Perth Town Planning Scheme No. 6 continued to apply, a “Special Design Area” would apply to part of the ACP area, which would allow for unlimited building height. Outside of the Special Design Area, a building height limit would apply that would not be able to be varied. The very large amount of flexibility in the Special Design Area would act as an incentive to maximise the size of buildings in this area, while sites outside of the area would be highly constrained and could only maximise their development potential by minimising setbacks as much as possible, which results in relatively short, bulky buildings that do not permit visual permeability.

Under Schedule 9A of Town Planning Scheme No. 6, growth would be likely to be accommodated through significant height variation within the ‘Special Design Area’, including buildings greater than 20 storeys in height, and bulky buildings that cover close to 100% of the site and therefore would leave minimal space for landscaping, design features and setbacks to adjoining buildings, and there would be limited opportunity for meaningful public benefit to be provided. This form of growth has been criticised by stakeholders, including during the Place and Design project in 2017, as detracting from the character of the area, impacting negatively on existing buildings, lacking a logic in the approach to permitted development (for example encouraging tall buildings on the edges of street blocks where they block views) and compromising the vision for South Perth’s future.

The capacity of the ACP area to accommodate development has been reviewed and revised through the preparation of this activity centre plan in light of the forecast demand for growth outlined above and in Appendix 1. It is important that planning controls account for anticipated demand, but manage expected growth in a way that is consistent with the vision set out in the activity centre plan, rather than as “ad-hoc” or individually-planned proposals that respond to a specific market need but are not designed with the character of the surrounding area in mind.

#### 6.3.1.1 Plan Response

- **Replacement of Special Design Area controls:** The ACP and associated town planning scheme amendment replace the ‘Special Design Area’ with a logically distributed set of height and development controls and a consistent approach to approval of additional height. This framework focuses development in areas that meet recognised planning criteria including proximity to major transport, access to services and opportunity for comprehensive redevelopment.
- **Alignment of development intensity with capacity:** Height and density limits established in the ACP have been developed with reference to analysis of site availability and development capacity, including assessment of: strata titled, or likely strata titled, buildings; sites of local and State heritage significance; small lots; and the likelihood of redevelopment of any individual site by 2041.

### 6.3.2 Key Issue: Directing Forecast Population Growth

The Economic and Demographic Assessment at Appendix 1 forecasts growth in the ACP area over the 25 years from 2016 to 2041. Understanding the demand that is on the horizon puts the City of South Perth at an advantage; enabling planning controls to be implemented to manage growth in support of a vision and set of objectives.

The ACP is based on a sound evidence base, including data from the most recent Census in 2016, and consideration of the overarching State policy direction for growth in activity centres. This provides a realistic forecast of the growth and resulting demand for development in the ACP area. This also provides the basis for planning controls that manage the expected growth in support of the ACP vision and objectives. The estimate of future growth and demand informs the rationale set out in this document to justify the limits placed on development. Without an evidence base there is a high risk that planning requirements will not be appropriate to manage demand, and this may lead to ad-hoc proposals that do not support the broader vision for the area set out in the ACP.

The forecasts in Appendix 1 anticipate that the ACP area's population will reach 4,750 people by 2031 and 7,500 by 2041 (from a population of 2,675 people in 2016). This forecast shows that there is high demand for housing in the area and that this will continue into the future. Through this ACP the City of South Perth sets out the requirements for development in the area, which will shape how demand is accommodated. These requirements include limits to the size of buildings, minimum setbacks to streets and adjacent properties, which land uses may be developed across the area and other detailed design criteria.

The WAPC's policy Directions 2031 and Beyond and subsequent planning including Perth and Peel @3.5 Million have provided additional dwelling targets for each local government area. Perth and Peel @3.5 Million sets a target of at least 8,300 additional dwellings to be accommodated within the City of South Perth by the time Greater Perth's population grows to 3.5 million people (population in 2016 was approximately 2 million). The document also provides a spatial framework for the location of this dwelling growth (in the case of the City of South Perth, within activity centres and along urban corridors).

It is important to recognise that this is a target, and not a forecast of future growth. It is set by the State Government to provide guidance for how the development of the metropolitan area should be distributed to meet strategic objectives related to infrastructure provision, servicing, environmental protection and other State planning goals. More detailed planning is required to align this overarching framework with forecast growth projections and determine how the targets will be met at a local government and local area level. The ACP provides this for the South Perth Activity Centre. The State policy framework expects that a greater proportion of the suburb growth of South Perth, and the City of South Perth, be directed towards the South Perth Activity Centre.

Under the generic requirements for a district centre in State Planning Policy 4.2, the ACP area is expected to increase its residential density from an existing density of approximately 20 dwellings per gross hectare to a desirable density of 30 dwellings per hectare. To achieve this target an additional 1,059 dwellings is required, to bring the total number of dwellings in the ACP area to 3,000. However, similar to other high-level targets provided by the State Government, this target is not based on a forecast of future growth nor detailed local planning that considers the locational context or unique function and capacity of individual centres. The Economic and Demographic Assessment at Appendix 1 indicates that there is demand and a strong strategic planning rationale for the ACP area to ensure that substantially more than the desirable State Government target dwellings are accounted for. It is important to consider the growth pattern of the centre beyond 2031 to ensure that the Centre can continue to evolve over time with the Perth Metropolitan region as a whole and respond to changing circumstances and needs (such as demographic, economic, and the overarching state policy framework).



### 6.3.2.1 Plan Response

- **Development Controls Aligned to Population Growth:**

The ACP sets building height and plot ratio limits based on the number of dwellings required to accommodate forecast population growth to the year 2041. Setting planning controls based on a growth forecast ensures that sufficient capacity is provided to meet expected future population growth.

- **Weighted Residential Growth:** The ACP varies building height and density controls across the four character areas in order to reflect their differing character and suitability for additional growth and development. Controls have been carefully calibrated to meet the overall growth forecasts weighted by character area, so less development is permitted in some areas and more in others. In practice, this results in less height and density in the Mill Point area and more in Richardson and Mends areas. The Hillside area is expected to have limited growth; however, this area is already home to high-rise development and a similar scale will be allowed for in the ACP.

- **Housing Diversity:** To ensure that forecast population growth supports the growth of a healthy community with demographic diversity, the ACP requires that new development provide a mix of dwellings to accommodate different household types.

- **Community Benefit Contributions to Support Growth:** The ACP incentivises the provision of community benefit contributions in exchange for additional height and/or plot ratio above the primary limit, in addition to other planning considerations such as amenity and design quality. These community benefit contributions may be used to fund improvements including community facilities (such as community centres and libraries), streetscape and public realm upgrades (more trees planted and safer streets for cyclists and pedestrians), upgrades to public open space (more amenities and features in parks, better suited to those using it) and infrastructure upgrades. Existing and new members of the community alike benefit from improvements funded by community benefit contributions.

### 6.3.3 Key Issue: Increasing Commercial Activity and Local Employment

Development activity in the South Perth Station ACP area between 2013 and 2018 has comprised predominantly of mixed use development with a high proportion of residential floorspace, despite the South Perth Station Precinct Plan (2011) being focused on development of mostly commercial and office-based uses. This reflects the complexity of the commercial market and challenges in realising significant commercial development given the area's appeal as a residential precinct and significant competition with fringe CBD office and employment nodes such as East Perth, West Perth, Northbridge and Subiaco.

Economic analysis (see Appendix 1) suggests that delivery of the rail station would substantially boost the viability of major office development, which would enable the ACP area to develop into a more significant fringe CBD office location enjoying convenient rail access like Northbridge, Subiaco, East Perth and West Perth. A train station would improve the accessibility of the activity centre via public transport and reinforce its status as a central destination outside the main Perth CBD. In the meantime, boutique office commercial uses, entertainment and retail activities present greater potential for employment generation in the short term.

In this context, it is important that commercial floorspace be anticipated and incentivised by the planning framework to ensure that long-term employment potential is not compromised by short-term market cycles, while at the same time allowing flexibility in commercial floorspace provision.

#### 6.3.3.1 Plan Response

- **Land Use Permissibility:** The ACP sets the permissibility of various land uses to control the type and extent of commercial development within the ACP area, informed by the Character Area objectives. This provides discretionary control of particular commercial uses within the area, ensuring the commercial development objectives are realised.
- **Targeted Commercial Growth:** The ACP varies land use permissibility across the four Character Areas in order to reflect their differing character and suitability for commercial activity. Land use controls have been calibrated to concentrate commercial uses in locations with good access to public transport (bus, ferry and future train station), and to focus activity and energy in the existing centre around Mends Street. Commercial activity in peripheral, predominantly residential areas is generally expected to be modest, and this is reflected in the land use controls. Accordingly, the ACP provides for the majority of commercial development to occur in the Richardson and Mends areas.

### 6.3.4 Key Issue: Retail Needs and Viability

As a significant inner city destination, shops and retail within the ACP area do not just serve local residents; visitors (day-trippers, or overseas and interstate tourists) and the local workforce contribute substantially to the viability of local retail activity.

Schedule 9A of the City of South Perth Town Planning Scheme No. 6 includes requirements for the minimum amount of non-residential floorspace that is to be included in developments within some parts of the South Perth Station ACP area. Retail development should not be required or encouraged in peripheral areas that are not conducive to trade, as this dilutes the impact of retail areas and can cause leasing difficulties and inactive non-retail commercial uses to occupy space that was intended for retail. This results in blank building frontages that do not contribute to street activity.

A targeted approach to retail development is needed to realise the ACP area's full retail growth potential, based on increasing the intensity and consolidating retail uses within the core Mends Street trade area, with extension of ground floor retailing areas in the remainder of the ACP area limited to key areas that support viable retail trade.

#### 6.3.4.1 Plan Response

- **Development Controls Aligned to Retail Need:** The ACP sets retail floorspace requirements based on the Retail Needs Assessment forecasts in the South Perth Activity Centre Economic and Demographic Assessment (Appendix 1). Setting planning controls based on the expected demand ensures that sufficient capacity is provided to realise the ACP area's potential as a retail destination while also ensuring that the positive impact of retail is not weakened or made non-viable by over-provision of retail floorspace.
- **Retail frontage requirements:** The ACP establishes building frontage typologies for certain areas, with two typologies supporting retail use. The 'Active Street' typology requires ground floor retail space to be created along important pedestrian and vehicle thoroughfares to support the vitality of the activity centre. The 'Mixed Street' typology will deliver flexible floorspace capable of retail or other uses. All forecast retail demand can be accommodated in these areas.

**Figure 13:** Ground Floor Retail Area Extent 2041



### **6.3.5 Key Issue: Tourism Visitation and Centre Positioning**

Tourism is a key driver of visitation to the ACP area, with visitation numbers almost doubling from 63,000 visitors in 2007 to around 119,000 visitors in 2017. Visitation is expected to reach 236,800 by 2041, driven primarily by Perth Zoo and the Swan River Foreshore areas, which attract visitors for leisure, sightseeing, health and wellness activities, and major events.

Despite the appeal of local attractions and high visitor numbers, there is a relatively low level of tourism-related commercial or cultural development within the ACP area as of 2018. Recent increases in Zoo visitation and ferry patronage have not corresponded with significantly greater activation and vibrancy within the activity centre.

Limitations to diversification of visitor types and capturing visitor expenditure include a lack of business conference and event space, a lack of diversity in short-stay accommodation options, poor public amenity between existing attractions and transport nodes, and a limited range of supporting activities, attractions and events.

#### **6.3.5.1 Plan Response**

- **Supporting Tourism Growth:** The ACP seeks to proactively address the demand for a range of different services and facilities in the ACP area resulting from tourism growth. Firstly, it supports the expansion and diversification of tourist activities by planning for additional retail and entertainment uses and enhanced streets and public spaces. Secondly, it incentivises the addition of formal and informal tourist accommodation and business facilities to support longer visitation and greater expenditure. Finally, it seeks to increase visitation through improved and enhanced transport accessibility including by ferry, a unique means of traversing the Swan River with particular appeal for tourists.
- **Inclusion of Perth Zoo in the ACP area:** The ACP recognises the tourism value of the Perth Zoo, which is included in the ACP area boundary. This allows the Zoo to be considered as part of the area's broader development and land use changes. Development and land use controls, including building height and overshadowing requirements, have been developed to ensure the Zoo's long-term needs are accommodated.

**Figure 14:** Modelling Growth: How forecast growth is managed in keeping with the vision and principles of the Place and Design Report



### PROJECTED DEMAND

The starting point in the modelling process is to understand the projected demand and growth for the area that needs to be managed. If this is not appropriately managed, development can be uncoordinated and at variance to the established vision for the area. The projected demand and growth to the year 2041 is described in section 6.2 of Part 2 of this ACP, summarised in Table 6, and discussed in detail in Appendix 1.



### PROJECTED FLOORSPACE

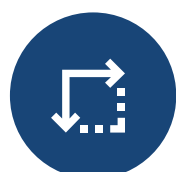
The three elements of the projections for land use are retail, other commercial, and residential. The dwelling projections in Appendix 1 are converted into floorspace area. The total floorspace for each land use is then adjusted to account for building inefficiencies (i.e. floorspace not included in NLA or dwellings) and car parking. For the purposes of the conversion of dwelling numbers to floorspace the forecast average dwelling size is 85m<sup>2</sup> rather than the typical Perth metropolitan size of 70-75m<sup>2</sup>.

The above is based on accepted industry standards, experience from comparable projects, and expert advice. The resultant amount of floorspace is the overall amount of development that needs to be managed through the ACP.



### SHAPE OF OVERALL PRECINCT

Now this total floorspace needs to be shaped across the precinct into an overall form. Based on the outcomes of the Place and Design Report, we have an indication of higher and lower intensity areas, and which areas are more likely to be active streets. This informs the distribution of land use and intensity of development (built form typologies) across the ACP area. The detailed controls (building envelope and plot ratio) are established at a later stage of the modelling process.



### APPLYING APPROPRIATE DEVELOPMENT PARAMETERS

To ensure development controls are pragmatic and enable desired outcomes, various development parameters are applied. These include items like vacancy rates, likely parking levels, and understanding likely minimum building floorplate sizes (thereby identifying lots that would be too small to feature very intense development). These parameters are based on industry standards, experience from comparable projects, and expert advice.



### SITE SPECIFIC CONSIDERATIONS

Not all sites are equally likely to be redeveloped. The model accounts for an individual sites' likelihood of redevelopment based on benchmarks previously endorsed by WAPC (e.g. heritage sites, strata schemes in buildings, smaller lots, known development sites). It also considers the existing development intensity on each site to ensure that the net growth potential of each site is accounted for and understood. The output of this step is:

- An understanding of the likelihood of redevelopment for each site; and
- An understanding of the net development potential of each site based on lot size and existing land use intensity.

Understanding these factors means that development controls can be appropriately calibrated to ensure that the projected growth can be accommodated by the ACP





### **BUILDING ENVELOPES**

The detailed design principles from the Place and Design Report are then applied in developing a potential building envelope for each site. This includes considering the street type and frontage for each lot, podium height based on character area and land use mix, front setbacks based on character area, and tower size and setbacks based on height typology.



### **PLOT RATIO**

Plot ratio, rather than the building envelope, will dictate the amount of development permitted on a site. Plot ratio limits are correlated to height typology but care is taken to ensure maximum plot ratio will not fill a building envelope completely. Space is set aside to encourage interesting design, to respond to site conditions and to retain assets on site (like trees).



### **COMMUNITY BENEFIT CONTROLS**

The building envelope and plot ratio processes are repeated for Tier 1 and Tier 2 controls, providing incentive to contribute to the community benefits framework but also ensuring that tower floorplates are more slender when bonuses are sought.



### **REVIEW, TEST, CALIBRATE**

As a consequence of this process it can be determined whether or not development controls are calibrated to manage projected demand and growth. Proposed controls are reviewed, tested and modified as necessary to ensure that projected demand and growth is responsibly managed in keeping with the principles of the Place and Design Report and objectives of the Activity Centre Plan.

## 7.0 BUILT FORM

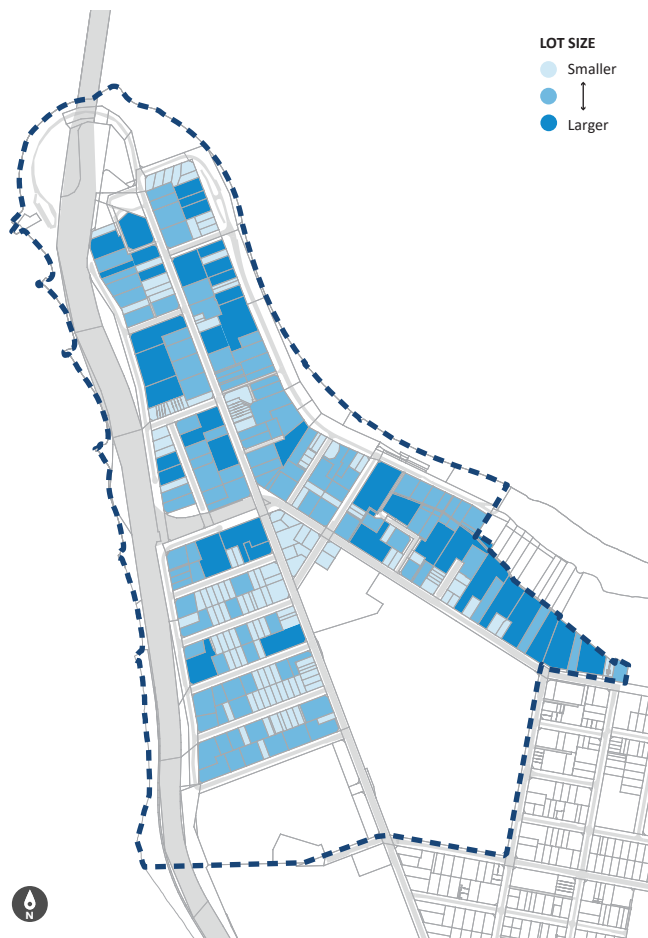
### 7.1 EXISTING BUILT FORM

The ACP area is defined by the collective impact of its buildings and spaces. For buildings, this includes their scale, age and relationship to the street. These qualities and local variations influence how parts of the area are perceived and used, contributing to the definition of distinct character areas within the ACP area.

#### 7.1.1 Urban Grain

The urban grain of the ACP area is defined by its diversity of lot sizes and widths. As shown by Figure 15, the area north of Judd Street is characterised by large lots with long wide street blocks running in a north-south direction. West of Labouchere Road, five narrower street blocks run east-west, with a diversity of lot sizes including a high proportion of smaller lots. The eastern and north-eastern portion of the ACP area lacks a defined pattern of street blocks and is characterised by more large lots that directly interface with the foreshore.

**Figure 15:** Pattern of Lot Size





## PART TWO EXPLANATION

### 7.1.2 Age and Heritage

The ACP area has a long history of growth, with continual redevelopment for progressively higher density residential use resulting in a diversity of building ages. Strata schemes in buildings, which subdivide ownership into individual apartments, have made consolidation and subsequent redevelopment difficult, and have thereby resulted in older building stock remaining in place in many areas. Figure 16 highlights that most buildings within the ACP area are between 30 and 50 years old, with comparatively little development within the decade to 2018.

The ACP area also contains some heritage places of state and local significance that reflect the historical development and character within the City of South Perth.

**Figure 16:** Building Age





### 7.1.3 Height and Scale

Tall buildings are a longstanding and prominent feature of the ACP area, visible across Perth and Melville waters. This prominence arises from a history of high rise residential development through the second half of the 20th century, which has contributed to the development of an identifiable and evolving skyline form.

As highlighted by Figure 17, existing building heights generally increase from low scale development in the north of the ACP area to buildings more than 20 storeys to the south and east. The area north of Judd Street is characterised by bulky mid-rise development of around 8-10 storeys, often with relatively small side setbacks relative to the height of the building. West of Labouchere Road, a variety of buildings exist including single storey buildings, office complexes of different scales, 6-8 storey residential development and new development more than 20 storeys. These buildings range in scale and bulk and frequently feature small side setbacks. In the Hillside area, apartment buildings constructed in the 1960s and 1970s are up to 20 storeys in height but have relatively large setbacks between buildings.

**Figure 17:** Building Height



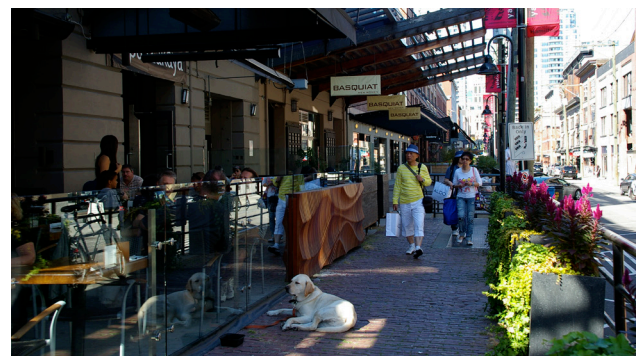
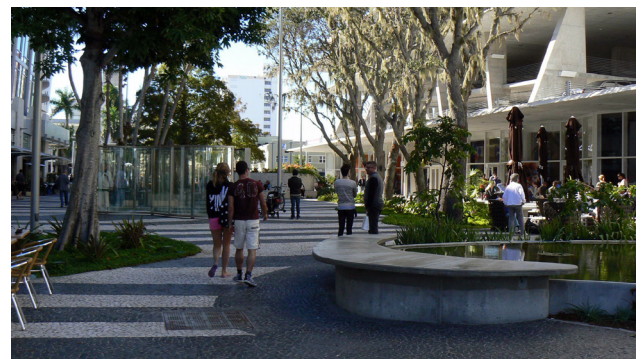


## PART TWO EXPLANATION

### 7.1.4 Street Interface

Buildings relate to the street differently throughout the ACP area. Figure 18 shows that buildings north of Judd Street are defined by a landscaped setback generally between 6-10 metres, which highlights a shift in character from mixed use development to predominantly mid-rise residential. Buildings fronting Mends Street generally have a nil setback to the street, appropriate for retail activity and creating a vibrant main street environment. Other development along Mill Point Road differs substantially, with large landscaped setbacks from 6m to as much as 40m in some instances. West of Labouchere Road, a range of setbacks are provided ranging from nil to 4 metres and vary from small gardens to paved forecourts, contributing to a diverse urban character.

**Figure 18:** Street Setbacks





## 7.2 BUILDING TYPOLOGIES

Grain, age, scale and street interface reflect distinct building typologies featured throughout the ACP area. These building typologies collectively contribute to character and sense of place.

Residential development in the ACP area includes buildings of a variety of heights, sometimes set back from the street but often bulky. Retail areas contain low scale attached buildings, and commercial or office buildings are often low- to mid-rise, and vary in bulkiness. Notably, recent residential and commercial developments are more likely to include towers set above large podiums that are built to all property boundaries. These typologies are summarised below.

**Table 7:** Building Typologies

TPOLOGY	DESCRIPTION	LOCATIONS
<b>Tower in Open Space</b>	Large residential towers set back from the street and side boundaries with surrounding landscaping.	East of Darley Street,
<b>Larger Format Mid Rise</b>	Bulkier medium scale residential apartment buildings	North of Judd Street
<b>Main Street Commercial</b>	Low scale attached commercial buildings with nil setbacks to boundaries and limited tower elements	Mends Street
<b>Tower on Podium</b>	Large residential towers set above three storey podiums built to property boundaries, accommodating a mix of uses	On Labouchere Road and near the corner of Mill Point Road and Mends Street
<b>Cottages</b>	Remnant cottages, mostly of limited heritage value and often converted for commercial uses	West of Labouchere Road

### EXISTING BUILDING TYPOLOGIES



#### **7.2.4.1 Built Form Response to Planning Controls in Schedule 9A of Town Planning Scheme No. 6**

Schedule 9A is the section of the City of South Perth Town Planning Scheme No. 6 that applies to the South Perth Station Precinct at the time of preparation of this ACP. The Station Precinct is a smaller area than the ACP area, being the area North of Richardson Street, South of Scott Street and Frasers Lane, and West of Darley Street.

Substantial development activity has taken place within the ACP area following the introduction of Schedule 9 to Town Planning Scheme No. 6 in 2013 (replaced by Schedule 9A in 2017).

Approved, under construction and completed development as of February 2019 is summarised in Table 8. Overall, 17 developments had been approved, with 12 progressing to construction as of February 2019.

The largest buildings within the ACP area under Schedule 9A are possible within the designated Special Design Area (SDA), where there is discretion over building height. For land within the SDA, it is possible for height in excess of the building height limit to be approved, with no maximum height or size of development prescribed in the Schedule. In contrast, land outside of the SDA is subject to fixed maximum building height limits.

As of February 2019, approved development within the South Perth Station Precinct has achieved an average height of 13 storeys and a plot ratio of 5.5:1. 70% of the approved developments are located within the SDA and these developments have delivered an average height of 16 storeys at a plot ratio of 6.5:1. The eight approved developments outside of the SDA have averaged a height of less than seven storeys and plot ratio of 3.2:1.

In line with current planning controls, development generally includes three storey podiums built to a nil setback to all boundaries, with towers generally set back a minimum of four metres from adjacent properties. In some cases, greater tower and podium setbacks have been proposed in response to local context.

**Table 8:** Development Activity as at February 2019

ADDRESS	SPECIAL DESIGN AREA	STATUS (FEBRUARY 2019)	PLOT RATIO	BUILDING HEIGHT (STOREYS)	HEIGHT VARIATION (STOREYS)
96 Mill Point Road / 1 Harper Terrace	Yes	Completed	14.57	21	8 (61%)
1-3 Richardson St	Yes	Under Construction	7.40	13	N/A
39 Mends Street	Yes	Under Construction	4.55	9	N/A
Civic Heart (1 <sup>st</sup> DA)	Partially	Approval Lapsed	5.53	37	24 (185%)
19 Labouchere Rd	Yes	Approval Lapsed	5.04	11	2 (22%)
30-34 Charles St / 53 Labouchere Road	Partially	Completed	4.36	20	11 (122%)
2-4 Harper Terrace	Yes	Completed	3.30	6	N/A
7 Lyall Street	Yes	Completed	1.12	3	N/A
6 Lyall Street	Yes	Completed	1.19	3	N/A
21-23 Mends St	Partially	Completed	1.92	7	N/A
1 Stone St	No	Completed	1.65	5	N/A
20 Harper Tce	No	Under Construction	1.65	4	N/A
14-18 Hardy St	No	Approval Lapsed	3.14	8	N/A
12-16 Charles St	No	Approval Lapsed	7.74	9	N/A
26-28A Charles St	No	Under Construction	3.39	9	N/A
5-7 Harper Terrace	Partially	Completed	3.02	9	N/A
13 Stone St	No	Approval Lapsed	1.72	5	N/A



## 7.3 BUILT FORM KEY ISSUES

### 7.3.1 Key Issue: Impact of New Development on Local Amenity

Current and historic planning controls have enabled the following development outcomes, which negatively impact on the private and public realm:

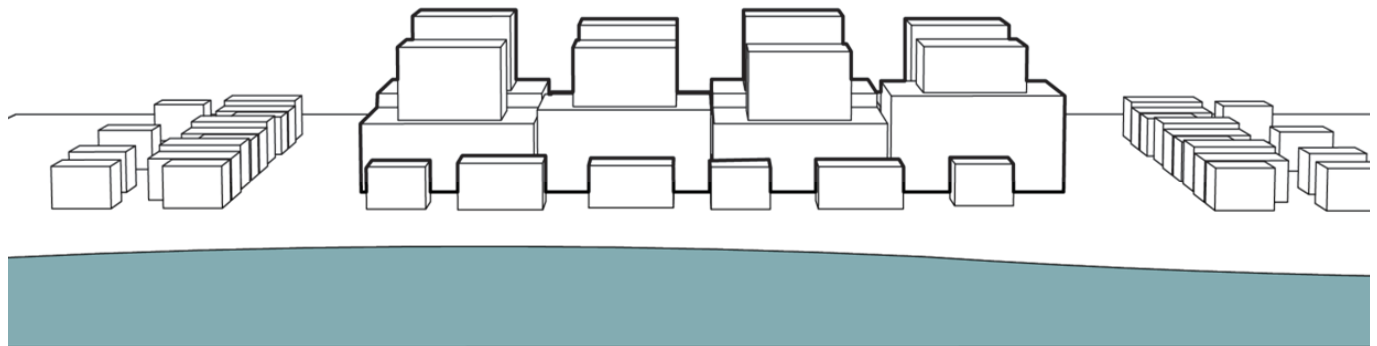
- Buildings can be close together, resulting in limited solar access, reduced privacy, the cumulative effect of apparent bulk on the streetscape, lack of visual permeability, and exacerbated wind impacts at street level.
- Podiums with nil setbacks to all lot boundaries, which can have a high impact on smaller neighbouring properties, and reduce or completely remove areas of landscaping from the site at ground level.
- Bulky tower floorplates, which restrict views from surrounding development, encourage large blank tower façades and limit the amenity and development potential of adjoining lots.
- Poor quality street level environments, resulting from intrusive parking and servicing areas, poorly designed and detailed commercial frontages and inconsistent awning and setback design in new development.
- Building designs that do not reflect and build on the distinct character of the ACP area or achieve design excellence.

The abovementioned issues can be combined in individual buildings, which can compound impacts on local amenity. When replicated in new buildings in close proximity to each other the overall amenity and appeal of the ACP area is negatively affected.

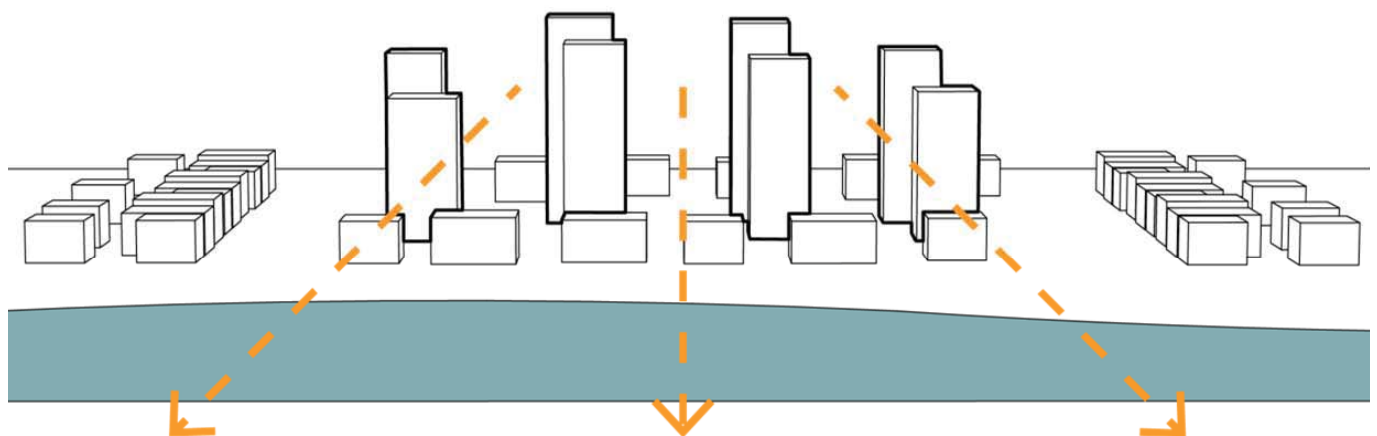
#### 7.3.1.1 Plan Response

- **Separation Distance:** The plan establishes greater separation distances between buildings and from property boundaries through setbacks and floorplate size limits (see below), thereby lessening perceived building bulk and preserving the amenity of existing development.
- **Floorplate Size Limits:** The ACP establishes base tower footprint limitations to ensure that new development provides visual permeability and views between buildings. Through bonus development provisions, the ACP implements the principle that, if a building is taller, it must be more slender relative to the size of the site, and have more space around it. This maintains opportunities for views between buildings, enhancing privacy, minimising overshadowing, and mitigating wind impacts.
- **Podium Design:** The ACP regulates podium design based on local character, with controls specifying podium height, site coverage and boundary interface to ensure development relates to its local context and interfaces appropriately with existing development. Across the Mill Point and Hillside character areas, podiums are reduced to permit detached towers consistent with established use and character. In the Mends and Richardson character areas podiums are to be designed according to the type and character of the street, including streets designed to support retail and mixed retail/commercial/residential uses. Flexibility is also provided throughout the ACP area to allow podium variations that enhance streetscape quality and respond to individual site characteristics.
- **Architectural Quality:** The ACP seeks to improve architectural outcomes by including guidance and requirements for specific design components including façade materials and the design of roofs, services, vehicle entries and awnings. Overall design quality is proposed to be monitored by the City of South Perth Design Review Panel. Importantly, design excellence is also mandated as a prerequisite to all development.

**Figure 19:** 3D Built Form Comparison Highlighting Change in Controls



#### IMPACT OF BULKY TOWER DEVELOPMENT ON SIGHT LINES



#### IMPACT OF SLIM TOWER DEVELOPMENT ON SIGHT LINES

## PART TWO EXPLANATION

### IN DEPTH: HOW DO FLOORPLATE SIZE CONTROLS WORK?

Floorplate size is the gross area of one floor of the building, expressed as a percentage of the total lot area. Controlling floorplate size limits the width and depth of a building relative to the size of the lot. This ensures that space is provided around a building.

Floorplate size controls are imposed in the ACP in addition to building setback requirements for both podium and tower elements. Combined with a building height limit, this creates a three dimensional building envelope within which a building can be designed.

Floorplate size limits provide benefits in:

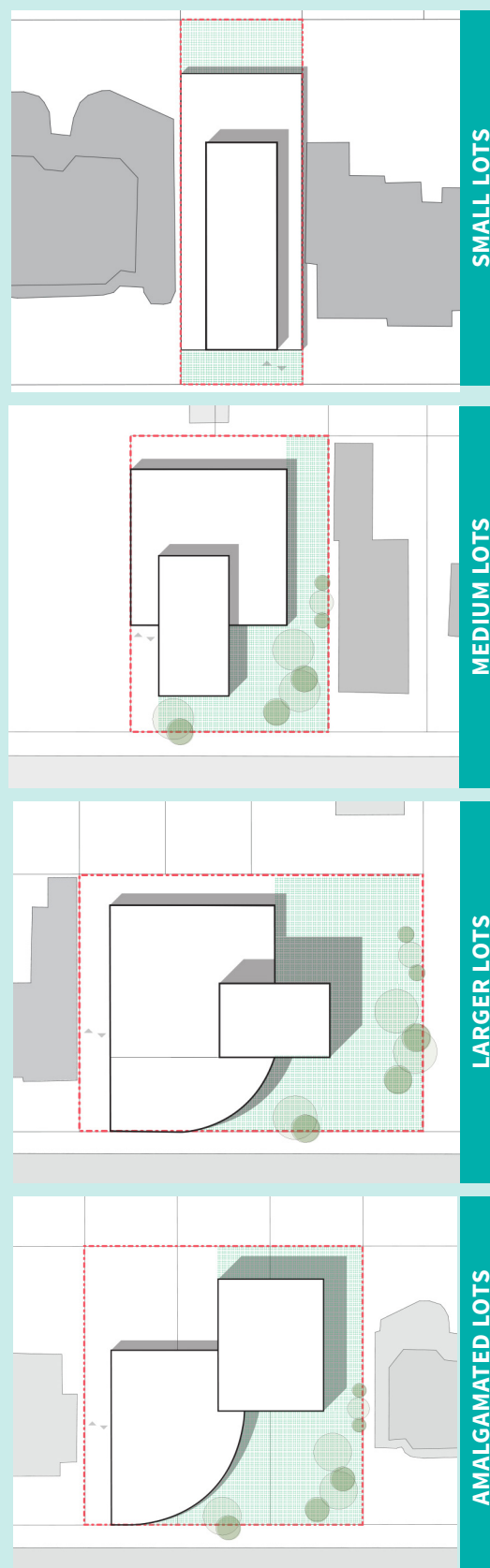
- reducing the cumulative effects of wind and the creation of wind tunnels by ensuring that there is space around buildings;
- reducing the impact of overshadowing, as shadows cast by slender towers pass by faster and there is less chance that shadows from adjacent buildings will overlap to provide a large solid shadow; and
- opening up view corridors to provide views for neighbouring residents at all floors, not just those in upper floors that can look over surrounding development.

The ACP sets a base requirement for tower floorplates to be no greater than 50% of the lot area. This figure was based on consideration of the abovementioned issues and a review of landholdings within the ACP area to ensure that most lots would be able to develop with a commercially viable floorplate size. In order to achieve this within the specified limit some properties will require a specific design response and/or land assembly to create larger lots, and this will in turn encourage variety and interest through building design.

A fundamental principle is that **if a building is taller, it must be more slender** relative to the size of the site, and have more space around it. This is reflected in the development controls, as taller towers must have smaller floorplates relative to the size of the site (the floorplate occupies a lesser percentage of the lot area).

Each diagram in Figure 20 represents progressively taller buildings on larger lots. Note that the tower takes up less of the lot as it gets taller, leaving more space between buildings.

**Figure 20:** Floorplate Size Control Explanation



### 7.3.2 Key Issue: Management of Development Density

Schedule 9A of Town Planning Scheme No. 6 relies on height and setback provisions as the primary means of regulating development and there is no maximum plot ratio. However, in the Special Design Area, there is effectively no building height limit and therefore there is no control over building size or density. This can result in inconsistent and unpredictable outcomes, with no control over the amount of additional floorspace that can be developed. This presents challenges, including:

- A disconnect between the scale of development envisaged in the planning framework (as expressed through building height limits) and actual development outcomes once discretion has been applied to allow additional building height above the limit.
- A differential between development potential within the Special Design Area and outside, where building height limits do apply.
- Difficulty in forecasting potential long-term population growth and land use intensification, as no maximum limits apply. This makes it difficult to plan for improvements to the transport network, public infrastructure and community services.
- A lack of transparency relating to development potential, as there is limited guidance for the approval of additional building height. Development bonuses do not correlate with performance criteria, resulting in uncertainty for developer, community and government stakeholders and decision makers.

#### 7.3.2.1 Plan Response

- **Plot Ratio limits:** The ACP uses plot ratio as a control over building bulk and land use density, by establishing limits on the amount of development permitted on a site. Plot ratio limits provide certainty as to the maximum potential bulk and scale of development, and density of land use. The primary plot ratio limit reflects the maximum “as of right” plot ratio permitted for a site, which cannot be exceeded unless community benefit contributions are provided, and prerequisite conditions are met. Bonus plot ratio is only permitted to an ultimate maximum amount, which provides a high degree of certainty as to the maximum potential scale and bulk of development.
- **Building Height Limits:** In addition to limits on plot ratio, the ACP includes height limits for Primary, Tier 1 and Tier 2. These height limits provide certainty regarding maximum building height on all sites and have been calibrated with plot ratio limits to provide scope for and encourage innovative design, as well as interesting built form and skyline development for the area, consistent with the principles established in the Place and Design Report.
- **Distribution of Development Density:** The ACP establishes plot ratio limits for all sites based on the desired future character of each of the four character areas. The distribution of plot ratio controls has been informed by the local condition, current and future land uses, established planning principles, stakeholder feedback, and design principles articulated in the Place and Design Report. In this way, additional development is controlled across the ACP area in support of the vision set out in the ACP and calibrated to the forecast growth.



## PART TWO EXPLANATION

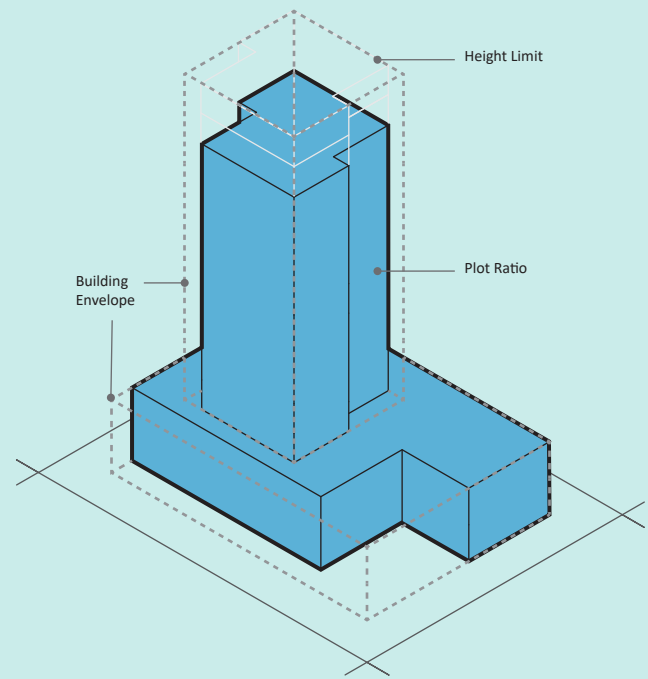
### IN DEPTH: HOW DOES PLOT RATIO WORK?

Plot ratio is the net floor area of the building as a proportion of the total lot area.

Controlling the amount of plot ratio provides certainty over the maximum potential amount of growth and provides a means of forecasting growth to help plan for service delivery, infrastructure provision and character area objectives.

The plot ratio limit is less than would completely fill the building envelope (defined by setbacks, floorplate size limits and height limits), leaving room for development to provide character and uniqueness in form and appearance, or to respond to site-specific issues and constraints without being “penalised” with less development. If building size is only controlled by a building envelope, the developer has an incentive to fill the entire volume of that envelope, which when repeated on neighbouring buildings provides a very repetitive built form. However, when a plot ratio limit is added that limits the volume of the building, the developer must consider how to design the building to make the most of that volume and this encourages variety in the built form and creativity in building design.

**Figure 21:** Plot Ratio Explanation



### 7.3.3 Key Issue: Control of Building Height and Discretion

Under the Schedule 9A of Town Planning Scheme No. 6, buildings within the Special Design Area can be approved with variations above the building height limit, where performance criteria are met. There is no upper limit to the amount of variation that can be approved and building heights can significantly exceed the primary building heights established for the area. Buildings outside of the Special Design Area are not eligible for any variation to the building height limit.

The amount of height variation permitted in the Special Design Area is not directly linked to the quality or value of community benefit provided, nor do any upper limits or caps apply to the amount of variation. The current planning framework requires that all elements of a Performance Criteria schedule be achieved to realise any amount of height variation, so a minor variation must satisfy the same criteria as a large one.

Consequently, under Schedule 9A:

- Unlimited height is permitted for all sites within the Special Design Area irrespective of their likelihood or suitability for redevelopment. Sites outside the Special Design Area are highly constrained by fixed height limits.
- There is no guidance for the amount of variation above the building height limit that is considered acceptable in the South Perth context, resulting in applications for development approval that are significantly taller than surrounding development. In many cases, this development does not conform to an overall urban design rationale or take into account important considerations such as overall skyline form.
- Performance criteria items listed in Schedule 9A vary in their specificity and value to the community, resulting in significant building height bonuses being permitted for items of unclear or low community benefit.
- The Special Design Area concentrates additional building height on major arterial roads, which have low pedestrian amenity and may present traffic management and access issues.
- No distinction is made between minor and major variation to the height limits. All performance criteria must be met, effectively encouraging significant variations (to account for the added cost of meeting all criteria) over minor variations.

#### 7.3.3.1 Plan Response

- **Limited Building Size Variation:** The ACP establishes clear primary (as of right) building height and plot ratio limits and the maximum amount of additional development potential is also defined across the ACP area. By setting firm upper limits on building height and plot ratio, which define how much variation is appropriate, the maximum potential size of the built form is controlled consistent with the desired scale for the ACP area.
- **Additional development potential, limited by height, plot ratio and tower floorplate size:** Additional height and plot ratio is permitted above the primary limits within the ACP area. The extent of the additional development potential is controlled by height limits, plot ratio limits, tower floorplate size limits, design quality criteria, and requirements for community benefit contributions.
- **Community Benefit Contributions linked to additional height and plot ratio:** The ACP establishes a new Community Benefit Contributions framework that ensures additional development potential can only be approved when prerequisite amenity and design criteria are met, and community benefit contributions are provided to the City. Where additional development is allowed, the town planning scheme provides a methodology to calculate a community benefit contribution based on a percentage of the development's contract sum and the amount of additional plot ratio and/or building height being sought above the Primary Limits. This must be paid to the local government, or provided on site in lieu of a monetary contribution, as a condition of development approval.

## IN DEPTH: HOW WERE BUILDING HEIGHTS SET?

The ACP establishes building height limits for the ACP area. These limits represent the outcomes of four separate exercises: the development of an urban design rationale for the ACP area, consultation with local stakeholders, growth forecasts and architectural testing.

All sites have the possibility to achieve at least some additional height above the primary (as of right) building height limit in order to encourage variety in the built form. Greater potential for additional height is possible in areas near or within the Special Design Area set in Schedule 9A, in areas with existing tall buildings and areas that are highly accessible by public transport (including areas accessible to the planned South Perth train station).

Heights are calibrated so that forecast demand can be met if a high proportion of sites develop to the primary (as of right) building height limits. This is important for two reasons:

- On principle, demand should be able to be met without development seeking additional height
- In practice, not all development will build to the maximum primary (as of right) building height limit. In particular, lower scale development is likely on smaller lots. The ability for some sites to use bonuses to balance other sites not developing to their maximum primary (as of right) potential is important as it ensures demand can still be met

Finally, additional development potential acts as a buffer should forecast growth be underestimated, enabling further development to be contemplated where it is in keeping with the vision for the ACP area.

## IN DEPTH: HOW DO THE COMMUNITY BENEFITS CONTRIBUTIONS WORK?

It is important that the limits of discretion are clearly defined, so that there is certainty for stakeholders and guidance for decision makers. Similarly, the benefits obtained by the community from additional development need to be clearly understood and considered as a reasonable balance between public and private benefits.

To this end, the ACP establishes a new Community Benefit Contributions framework that ensures additional development potential can only be approved when prerequisite amenity and design criteria are met, and community benefit contributions are provided to the City. The amount of additional floorspace that may be approved is directly related to the value of the community benefit contribution provided.

For each site in the ACP area, there are thresholds identified for additional development potential: a “Tier 1” and, for some areas, a “Tier 2”. Additional development potential is limited in location, generally to those areas near or within the previous special design area, those areas with substantial taller buildings already, and those areas which will be particularly accessible by public transport.

To be eligible to achieve the additional development potential, criteria must be met including reduced floorplate size, consideration of amenity impacts and excellent building design. A development then needs to provide a Community Benefit Contribution proportional to the amount of additional plot ratio and/or building height proposed. For example, a development with a plot ratio of 10.0 that is proposed on a site with primary plot ratio limit of 8.0 would need to provide a contribution calculated using a formula provided in the City’s town planning scheme to allow the additional plot ratio of 2.0 (i.e. 10.0 less 8.0).

A transparent and understandable system for approving additional height and/or plot ratio that provides meaningful community benefit, combined with detailed development controls that provide improved amenity for the community, ensure that the growth of the ACP area is managed for the benefit of all stakeholders in the future of South Perth.

### 7.3.4 Key Issue: Response to Existing Development and Local Character

The urban character of the ACP area is defined by distinct character areas with differing built form characteristics, land uses and streetscapes. The ground plane element and how a building presents to the street is the most important factor in establishing a desired local character.

The requirements of Schedule 9A of Town Planning Scheme No. 6 promote a tower-on-podium form that is quite uniform across the ACP area and does not reflect local character at the ground level. This results in the following outcomes:

- A lack of consideration for the impact of new development on existing buildings, with new development having minimal setbacks and presenting poor-quality interfaces to abutting lots
- Nil-setback podium development that is out of scale with existing built form context and streetscape character
- Development at different scales in close proximity with no consideration of transition in height and setbacks
- Poor design of ground floors and street setback areas which do not reflect local streetscape character

Additionally, in formulating design guidance, it is prudent to build on the existing regional assets with a balanced and appropriate design response (as identified in section 2.1.3 of Part 2 of this report).

#### 7.3.4.1 Plan Response

- **Frontage Design:** The ACP establishes three street-level design categories that new development must conform to based on location. These categories, 'Active', 'Mixed' and 'Passive', set differing design requirements based on the intended function of the public space they address, ensuring that street level conditions are enhanced through complementary new development. Refer Part 1, Section 4.3.1
- **Establishment of Character Areas:** The ACP creates four distinct character areas, which have informed the preparation of built form controls, particularly for elements that affect the ground plane. Podium design, boundary setbacks and frontage design vary between each character area to ensure that new buildings fit with existing and desired future character as appropriate. Height controls are also varied across the character areas. Refer Part 1, Section 2.2.
- **Responsive Design for Regional Assets:** The following approaches have been proposed to ensure a sensitive approach that ensures these assets continue to be valued:
  - **South Perth Foreshore:** Additional setbacks have been proposed for most properties in South Perth Esplanade, with the exception of the active Mends Street vicinity, to extend the sense of greenness and openness from the South Perth Foreshore Reserve. Outside of the Mends

Street vicinity, building heights are generally "Low", to develop a sense of depth in the skyline, as viewed from the Perth CBD.

- **Mends Street Jetty:** Along the adjacent portion of the South Perth Esplanade, setbacks are reduced, anticipating more pedestrian activity, especially from visitors to the area. The "sense of depth" in the skyline is also retained near the jetty, but with taller buildings reflective of the more intensive activity in this location
- **Kwinana Freeway:** Buildings along Melville Parade (abutting the freeway reserve) will be required to comply with state policy relating to noise management. Connection across the freeway will be encouraged by active street frontages on relevant streets (such as Richardson Street), and would be strengthened by the provision of a future rail station.
- **Perth Zoo:** Height controls near Perth Zoo, particularly on the south-western portion of Labouchere Road, have been established to balance projected growth and proximity to the heart of the ACP, with avoiding undue overshadowing or visual intrusion. For example, no buildings taller than the existing Pinnacles development can be built on this part of Labouchere Road.
- **Mends Street Precinct:** Mends Street is expected to attract substantial public investment, including through the Connect South improvements. Guidance is in place to ensure the place retains appeal for visitors to drive local economic dynamism. Promoting pedestrian amenity and retaining street trees are important elements to achieve this outcome, and a destination development strategy, proposed as part of the ACP, would reinforce and make the most of these efforts.





## IN DEPTH: HOW DOES BUILT FORM CHANGE BETWEEN CHARACTER AREAS?

The ACP development controls seek to deliver built form outcomes that relate to areas of local character and contribute to the desired future character of those areas. The general approach to each design element by character area is summarised as follows:

**Table 9:** General Approach to Design Elements by Character Area

DESIGN ELEMENT	MILL POINT	MENDS	HILLSIDE	RICHARDSON
GROUND FLOOR LAND USES	Residential, Small Local Shop	Mainly Retail and Commercial	Residential, Some Commercial	Commercial, Retail and Residential
FRONTAGES	Generally Passive	Generally Active	Generally Passive	Mix of Active and Passive
STREET SETBACKS	Larger	Smaller or Nil	Larger	Mixed
STREET SETBACK DESIGN	Greenery	Urban	Greenery	Mixed
PODIUMS	Generally behind tower	Close to street	Setback or not present	Mixed
SIDE SETBACKS	Encouraged	Generally Nil	Encouraged	Encouraged
PUBLIC REALM	Greenery	Provide for Activity	Greenery	Mixed

### 7.3.5 Key Issue: Environmentally Sustainable Development

Good design of buildings can contribute to social and environmental sustainability, while poorly designed development can create large environmental impacts, such as by increasing private parking provision and vehicle use, contributing to the urban heat island effect, and reducing tree canopy coverage and deep soil zones. Environmentally sustainable development reduces demand for raw materials and minimises energy and water usage. Socially sustainable development fosters social interaction and creates inclusive, cohesive and resilient communities by accommodating a diverse range of people and household types.

The City's planning policy P350.01 Environmentally Sustainable Building Design also applies to the ACP area, and sets out environmentally sustainable building design requirements for new developments.

#### 7.3.5.1 Plan Response

- **Sustainability Certification:** The ACP sets high sustainability standards for all development within the ACP area. By requiring all residential and commercial development to meet sustainability standards, the plan ensures that new development will reduce energy consumption, water use and waste generation.
- **Landscaping:** The ACP requires that all development provide landscaping and deep soil in accordance with Volume 2 of the R-Codes. By mandating landscaping in new development, the ACP promotes an overall increase in urban greenery to support biodiversity, provide an attractive urban environment, and mitigate the urban heat island effect. By requiring deep soil zones, the ACP supports mature tree retention and accommodates new planting to expand the local tree canopy and support biodiversity. The quality of buildings and building design is of paramount importance. As a premier location in an exemplary setting, the ACP area should set high standards for quality design of the built form.





## PART TWO EXPLANATION

### 7.3.6 Key Issue: Ensuring Design Quality

The quality of buildings and building design is of paramount importance. As a premier location in an exemplary setting, the ACP area should set high standards for quality design of the built form.

Design quality is by definition qualitative. It cannot be completely quantified and attempts to regulate higher density development using only quantitative controls will result in unexpected consequences: both exceptional design being refused, and mediocre design being approved.

Design quality standards are under substantial focus for higher density urban development, as reflected in the State Government's DesignWA, a suite of documents that provide strong direction on the importance of design quality and that are considered world-leading.

Assessing the quality of design is difficult. It relies on both careful construction of design quality requirements, and skilled ongoing administration and assessment of proposals as they are submitted for consideration. The approach taken for each of these components is discussed in the following sections.

#### Design Quality Requirements

Design quality requirements for the ACP area become increasingly stringent as buildings get taller or larger.

For development up to the primary height and plot ratio limits, design quality must meet all of the relevant requirements of DesignWA and any other relevant state or local government policy or guidelines, be demonstrably in keeping with the vision and character statements for the precinct and character area, be responsive to its context, and acceptably manage impacts on amenity of surrounding properties and the public realm.

Within the DesignWA guidance, ten elements of design quality are described. These are:

- i. Context and Character
- ii. Landscape Quality
- iii. Built form and scale
- iv. Functionality and build quality
- v. Sustainability
- vi. Amenity
- vii. Legibility
- viii. Safety
- ix. Community, and
- x. Aesthetics



1. Central Park, Sydney, designed by Jean Nouvel and built by Frasers Property, is considered an exemplar design. It has won multiple global architectural awards, and has catalysed further high quality development nearby, including projects by Frank Gehry and Norman Foster. (Sourced by WITH Architects)
2. One Hyde Park, London, designed by Richard Rogers, is a 13-storey exemplary design worthy of its prestigious location and stunning setting. (Sourced by WITH Architects)

As set out in Schedule 9B, all developments seeking height and/or plot ratio above the primary limits, must achieve design excellence demonstrably exceeding the relevant requirements of any policy and guidelines of the Western Australian Planning Commission relating to good design outcomes.

Design Excellence is a requirement or expectation of a standard of design quality that is 'above and beyond' the minimum expectations set out in SPP 7.0 and other relevant State planning policies. In exceeding the requirements of these policies, a project is recognised to have surpassed typical industry practice and market standards. It results in outcomes that are innovative, distinctive and memorable.

The Office of the Government Architect has prepared Design Guidelines to outline the more exacting standard of design outcome required for proposals seeking to achieve Design Excellence. These enhanced requirements can be used to inform the design, review and decision-making processes for projects seeking excellence to meet the requirements contained within Schedule 9B associated with approval for additional development potential.

Tier 1 and 2 design requirements are specifically intended to deliver iconic development, making a unique contribution to the area, its skyline, and to architecture within Australia. As an example, the Central Park development in Sydney, recognised and awarded internationally and adding significantly to its context, would be considered exemplary development worthy of Tier 1 and 2 concessions.

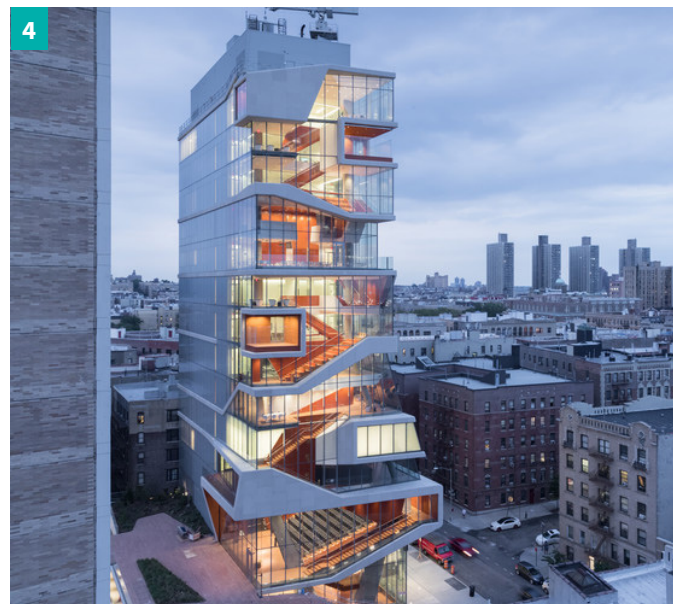
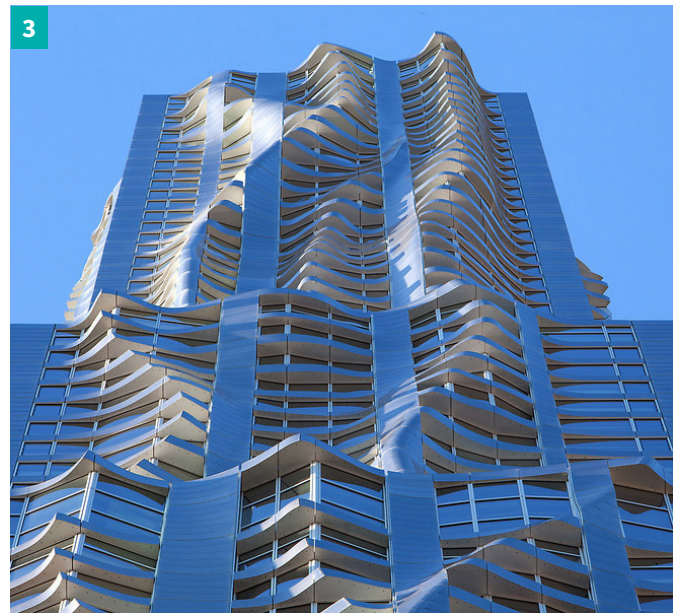
### Implementing Design Quality

The second element of design quality is implementation, shifting from development requirements to assessment of individual proposals.

As rigorous as requirements may be, they are only as effective as their implementation. The following guidance reflects

best practice in the administration and assessment of design quality to ensure development outcomes are reflective of the outstanding natural setting offered by the ACP area.

All development within the ACP area is subject to a rigorous design review process prior to lodgement of a development application. For the ACP area, the best practice process would consist of a minimum four presentations to and assessments from the City's Design Review Panel (DRP) or South Perth Activity Centre Design Review Panel (SPACDRP). This is greater than the standard three recommended stages as design quality requirements are embedded in the ACP.



3. Beekman Tower, designed by Frank Gehry, won global architecture awards. Its undulating façade captures attention. (Sourced by WITH Architects)
4. Vagelos Education Center is part of Columbia University's Medical Centre in New York. Its form externalises the shape of internal spaces, such as auditoria, to contribute to the street and skyline. (Sourced by WITH Architects)



## PART TWO EXPLANATION

The four stages of design review should be undertaken as the design develops. Proponents are strongly encouraged to commence this process early, to avoid the risk of investing in development of building designs that will not meet expectations.

The four points at which the DRP review a proposal at the minimum are:

- Early engagement (including concept design response, massing and scale, orientation, parking approach, servicing, and context and site analysis);
- Development concept (including architectural form and character, internal planning, landscape plan and species, schedules, details of parking, concessions and bonuses being sought)
- Final pre-lodgement (including detailed planning of site and building, integrated services, traffic and parking, elevations and stations, accurate renders and models, final schedules, and final concessions and bonuses)
- During the development application assessment process (refinement of the final pre-lodgement)

This process gains effectiveness with two important elements to the process.

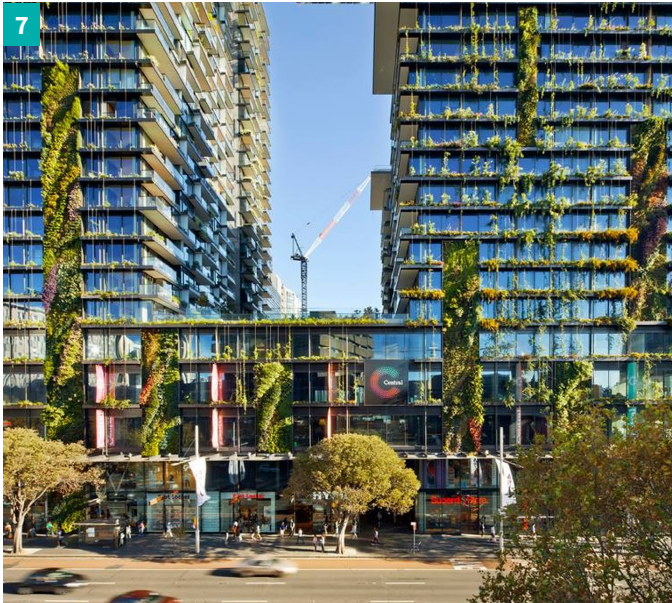
Firstly, it is important that there is expectation that once a matter is dealt with in a DRP presentation and subsequent advice, the position offered by the DRP is final and will not be reversed in subsequent meetings. This provides proponents with certainty and confidence that the design can progress, and ensures careful consideration by the DRP at every stage in the process.

Secondly, the advice provided by the DRP must be given weight and effect, by being required to be afforded due regard in any planning assessment and determination of a subsequent development application. This ensures that the advice received is given a standard reflective of a qualitative assessment undertaken by experienced professionals.



5. The Bottleyard, Palmerston Street, Perth, was subject to extensive design review, and provides visual interest and contribution to the street. (Sourced by WITH Architects)
6. The Bottleyard, Palmerston Street, Perth, was subject to extensive design review, and provides visual interest and contribution to the street. (Sourced by WITH Architects)





7. Podium and ground plane of Central Park, Sydney, creates an appealing pedestrian experience. (Sourced by WITH Architects)
8. Perth Plus, Elizabeth Quay, was the subject of a design competition process, fitting for an iconic proposal in a landmark location. (Sourced by WITH Architects)
9. Omnia, Potts Point, Sydney, considered “Excellent” design, transformed an existing building with a distinctive shape (particularly as viewed as an entry statement), creating an iconic landmark. (Sourced by WITH Architects)

## 8.0 MOVEMENT

A robust transportation network will be required to support growth of the ACP area to 2041 and beyond. Great urban neighbourhoods are built upon networks that support transport choice, providing quick and convenient access to jobs, services, and amenities. As the ACP area grows, improvements to the levels of access and connectivity into and through the area will be necessary to ensure it remains an accessible and functional place.

This section is based on the South Perth Activity Centre Movement Network Report in Appendix 2, and explores the characteristics and trends of the area's transport and parking, with recommendations for the movement system to be implemented through the ACP.

### 8.1 EXISTING MOVEMENT

As a location across the river from Perth's CBD and at the centre of the metropolitan area, the ACP area's movement network is not that of a typical district centre in a suburban context. In addition to its close proximity to significant locations and institutions, the area is highly accessible via major transport infrastructure that makes it a focal point on the movement network. In addition, its status as a significant tourism destination and employment centre brings large numbers of people to the centre as visitors, customers, workers, and residents and generates high levels of travel demand with implications for the local movement network.

Analysis of trip duration and convenience, summarised in this section and set out in detail in Appendix 2, highlights that private vehicle trips are currently the fastest means of transport for the ACP area, with bus travel times generally the slowest. This contributes to cars being the most popular transport mode for residents and visitors to the area, especially for journeys to work, with bus, bicycle and walking accounting for much lower proportions of all trips.

#### 8.1.1 Regional Accessibility

With its unique location at the centre of the metropolitan region, there are a number of points of arrival to the ACP area. The most notable and identifiable of these is Mends Street Jetty, where Perth's only commuter ferry service runs to and from Elizabeth Quay. Kwinana Freeway, which carries well over 180,000 vehicles per day as of 2018, serves as a point of arrival for regional car traffic, and also as a barrier limiting points of access from the west, particularly from the principal shared path for cyclists and pedestrians that runs between the freeway and the river. From the south and east, main points of access are from Labouchere Road and Mill Point Road respectively.

There are a number of key sites that influence the movement network within the ACP area. These include:

- major attractors of trips such as the Perth Zoo and Mends Street;
- significant transport infrastructure including the potential future South Perth Train Station, Kwinana Freeway on/off ramps and Mends Street Ferry terminal; and
- sites with potential for major new development including the Landmark Site bound by Mends Street, Mill Point Road and Labouchere Road.

The combination of central location, key sites and entry points to major transport infrastructure makes the ACP area a focal point on the movement network that is accessible via a range of transport modes. As a result, South Perth had fewer car trips and more bus, bicycle and walking trips than Greater Perth in 2016. However, Census data for journeys to work indicates that private cars account for well over 60% of journeys to work as of 2016. Cars are the dominant mode of transport in the metropolitan area more generally and the on-ramp to the freeway attracts a substantial portion of regional traffic travelling through the ACP area without stopping. This adds to local inconvenience, especially for pedestrians and local traffic at peak times.

Census data indicates that many people commute to the ACP area from the Cities of Melville, Gosnells and Canning, while many residents of the ACP area commute to the CBD, or elsewhere in the City of Perth, and to Curtin University.

In order to better understand the transport mode preferences shown in the Census data, travel times from the ACP area to common local destinations via car, public transport and bicycle were analysed and compared (see Appendix 2). Five locations were examined – South Perth, Canning Bridge, Curtin University, the Causeway and Perth – and the modes of Car, Bus, Bike and Ferry were all examined, including some multiple options. The travel time comparison showed some obvious patterns, which help explain overall peak hour travel patterns, including:

- Travel times for car trips are fastest.
- Bus travel times are generally highest, reflecting impact of stops, winding suburban based routes and lack of priority.
- Bicycle trips are competitive in travel times with cars although that is qualified by lack of attractive infrastructure along routes such as Canning Highway.
- Where there were fast, direct and frequent bus services (such as those along Canning Highway), buses were very competitive in travel times during the morning peak.
- The Ferry and Walk trip between Mends Street and Central Perth is highly competitive compared with car trips.

Cars are the dominant mode of transport in the ACP area, as they are for the greater Perth region. The area's position on the road network, especially the freeway on ramp, and its central location mean that it is affected by regional, as well as local traffic. However, the presence of public transport and cycling infrastructure and the proximity to major destinations provide potential for non-car transport to grow in mode share, especially if a train station is constructed.

### 8.1.2 Local Road Network

The local road network in the South Perth Activity Centre is mainly comprised of access streets, controlled by the City of South Perth. The ACP area also contains three higher order roads, being Kwinana Freeway and its access ramps, Mill Point Road and Labouchere Road. These higher order streets carry traffic to and from outside the ACP area and are the only points of vehicular access to the ACP area (refer Figure 3).

### 8.1.3 Pedestrian Movement

Pedestrian movement within the ACP area reflects important desire lines related to leisure and tourist activity. Most pedestrian desire lines include either the Perth Zoo or the Recreational Shared Path that runs along the foreshore, reinforcing these places as major attractors within the area. Pedestrian movement is also prominent along Mends Street in the core entertainment and retail area.

Pedestrian accessibility within the ACP area is somewhat compromised by the barriers caused by heavy and higher speed traffic along Mill Point Road and Labouchere Road. However, many local streets have high levels of pedestrian amenity.

Even with excellent infrastructure and generally good environments for walking, the lack of local destinations contributes to relatively low walk scores for an inner city area. Just 1-5% of residents walked to work in 2016, which is significantly lower than comparable inner city areas and has remained stagnant or decreased over the decade to 2016.

### 8.1.4 Cyclist Movement

Two major routes carry cyclists along the edges of the ACP area, particularly recreational cyclists and commuters to Perth CBD. These routes, running along Melville Water west of the Kwinana Freeway and north-east along the South Perth Foreshore, are significant regional routes rather than solely serving the activity centre itself. Access to the centre from these routes is limited, particularly the western route which is on the opposite side of the Kwinana Freeway.

Between 2011 and 2015 the number of cycling trips has been growing along both the regional paths. Peak times for cyclists are in morning and afternoon on weekdays (which reflects commuting patterns) and in the morning on the weekend (which reflects recreational cycling).

Local streets and connections within the ACP area tend to lack dedicated space for cyclists, particularly key routes such as Labouchere Road, Mill Point Road, Mends Street and Richardson Street. These streets carry high volumes of car traffic, which makes them difficult cycling environments.

Cycling accounted for 3.5% of trips in South Perth in 2016, which is higher than in Greater Perth but less than the comparable inner-city area of Subiaco. This reflects that South Perth is located within cycling distance of major destinations, including workplaces, which makes cycling to work possible. However, there are gaps in the cycling network that discourage cycling as an everyday mode of transport for many people.



### 8.1.5 Public Transit

Overall use of public transport within the ACP area is low, with 13% of journeys to walk by bus or ferry in 2016. Analysis of ridership indicates that bus patronage in the Activity Centre has fallen between 2011 and 2017 on a like-for-like basis, including patronage at the busiest bus stops within the activity centre. Overall use of buses in the ACP area remains very low, particularly for a fringe-CBD site. This may reflect circuitous, suburban nature of current bus routes, and the relatively poor amenity of bus stops in the ACP area.

Ferry patronage has increased substantially with the opening of Elizabeth Quay (albeit off a low base). Average patronage for both weekdays and weekends at least doubled between 2015 and 2017, which may indicate an increase in use by visitors and commuters.

The future development of South Perth train station has long been incorporated into strategic and land use planning within the South Perth Activity Centre. The development of a station as an addition to the movement network would improve the accessibility of the centre by public transport and support higher urban densities within the ACP area.

### 8.1.6 Vehicle Movement

Vehicle movement within the ACP area is subject to delays and congestion in important areas, primarily related to high levels of regional traffic on approach to the Kwinana Freeway. The intersection of Labouchere Road, Mill Point Road and the Freeway ramps is a congested intersection and will continue to be so in the future. The corridor along Labouchere Road and the Freeway is the highest volume traffic corridor and carries the highest volumes in peak hour and throughout the day.

Recorded traffic volumes on Mill Point Road, Labouchere Road and the Kwinana Freeway ramps indicate that annual growth in vehicle movements equated to around 2.63% between 2010 and 2015. Movement on Labouchere Road is asymmetrical, with daily northbound traffic (presumably accessing the freeway) approximately double southbound traffic.

Although traffic attracts attention at these major intersections, the vast majority of the network is comprised of local streets that experience minimal traffic congestion or delay issues in the peaks. Outside of peak periods, the network does not sustain any congestion of note, although special events (such as Australia Day fireworks) and school holidays result in higher levels of traffic, parking occupancy and congestion.

### 8.1.7 Parking

Analysis of available on-street parking within the ACP area undertaken in 2016 identified that there is available parking capacity within a reasonable walking distance of the key parking generators within the ACP area. However, existing parking management is inconsistent and inefficient, with conflicting management strategies between on-street and off-street, public and private, as well as between adjacent parking zones.

The provision of off-street private parking bays has contributed to a net increase in car ownership within the ACP area over the last 15 years, as evidenced by census data. This increase in car dependence is supported by high ratios of bays to parking provided for dwellings in new development, which tend to generate private vehicle trips rather than use of transport alternatives.

## 8.2 MOVEMENT FORECASTS

### 8.2.1 Network Capacity

A substantial amount of traffic modelling has been completed for the Activity Centre, which has highlighted that increased regional traffic in combination with further local development will contribute to increased traffic volumes in the Activity Centre, resulting in a need to examine the capacity and configuration of some intersections.

Outputs from the traffic models were reviewed and inputs interrogated to ensure that the models themselves reflected the impacts of the Activity Centre Plan. Overall, the street network in the ACP area performs well under forecast growth scenarios and its configuration supports existing and future development as well as use by all transport modes.

Analysis of Labouchere Road and Mill Point Road, the key routes subject to peak hour congestion, indicates that there is sufficient midblock capacity available for the forecast traffic volumes to be within accepted boundaries from a strategic level.

None of the links within the Activity Centre network approach a practical capacity of at least 85%. However, traffic forecasts show that the majority of road links in the ACP area in 2031 would be operating at or over capacity during peak hours, considering forecast traffic volumes and assumptions about levels of private car use.

In practice, this assumed car use is unlikely to materialise, as inconvenience for drivers will translate into other modes of travel (such as walking, cycling and public transport) becoming more appealing, mitigating increases in traffic.

The pressure on the local road network will continue within the forecast period, however the wholesale widening and increase in capacity of the road network through the Activity Centre would result in attracting more vehicle trips from further afield rather than ringfence vehicle capacity for local development sites. Construction of substantial regional links in the area has been canvassed with Main Roads WA and rejected.

Main Roads WA and the City of South Perth have taken the approach of managing vehicle capacity within intersections and the overall network with improvements in operational function of the network – signal timings, priority at intersections and targeted changes to intersection configurations. This approach has seen success over the past few years and will likely continue through the forecast period in order to accommodate additional vehicle trips generated through the development of land uses within the Activity Centre.

Furthermore, improvements to streets in the ACP area, and better convenience for other modes of travel, should be an explicit aim of public investment in the ACP area to ensure other transport modes are appealing and to reduce traffic impacts. Controls and measures in the ACP itself are aimed at hastening a shift away from car use and towards walking, cycling and public transport use.

### 8.2.2 Train Station Demand

The development of South Perth Train Station has been incorporated into strategic and land use planning for the ACP area since the construction of the Perth to Mandurah line in 2007. Longer term development within the ACP area will support the addition of this station to the overall network.

It is estimated that a baseline daily boarding in 2026 of between 4,365 to 5,447 could be expected for the South Perth station. If the higher end projections were to come to fruition, it would be 30% higher than the boardings expected at the Redcliffe Station in 2031 (which has been included in the under-construction airport line) and be similar in boarding levels to Rockingham, Midland, Leederville and Subiaco. With the progression of planning for the Cockburn to Thornlie Line link, the addition of South Perth Station need not result in impacts to overall operations of the network.

A decision by the State Government on a future South Perth station has not been made yet, however there would appear to be a strong business case justification for the station to be established.

## PART TWO EXPLANATION

### DELIVER GROWTH WITH TRANSPORT OPTIONS + ALTERNATIVES



## 8.3 MOVEMENT KEY ISSUES

### 8.3.1 Key Issue: New Development and Trip Demand Generation

A substantial amount of traffic modelling has been completed for the Activity Centre, all of which highlights a number of key issues for vehicle movements:

- The intersection of Labouchere Road, Mill Point Road and the Freeway ramps is a congested intersection, drawing both local and regional traffic, and will continue to be so in the future.
- The corridor along Labouchere Road and the Freeway is the highest volume traffic corridor and carries the highest volumes in peak hour and throughout the day.
- Local development will contribute to traffic volumes in the Activity Centre in the future, resulting in the requirement to examine the capacity and configuration of some intersections.
- Further information relating to trip generation and growth to be provided.

#### 8.3.1.1 Plan Response

- **Integrated Land Use And Transport Planning:** distribution of development potential has been set with reference to transport modelling, which demonstrates that planned growth can be sustained by the local transport network if improvements are made to encourage walking, cycling and public transport use. Refer Part 1, Section 5 and Schedule 9B of the Scheme.
- **Distribution of Growth Linked to Transport:** The ACP facilitates transport oriented development, including current (ferry, bus) and future (train) transport nodes. This is applicable both for residential development (trip origins), and commercial and tourist (trip destination) development. Refer Part 1, Section 5 and Schedule 9B of the Scheme.
- **Encouraging Less Car Dependence:** Whilst most vehicle traffic in the ACP area is regional in origin, the ACP establishes a number of incentives for transport alternatives and disincentives for car use, including creating an appealing walking environment, providing for more services and destinations locally, including car parking in plot ratio calculations, providing maxima on car parking and encouraging cash-in-lieu of parking, to be used to improve all modes of transport. Refer Part 1, Section 4.3.8.



### 8.3.2 Key Issue: Barriers to Walking and Cycling

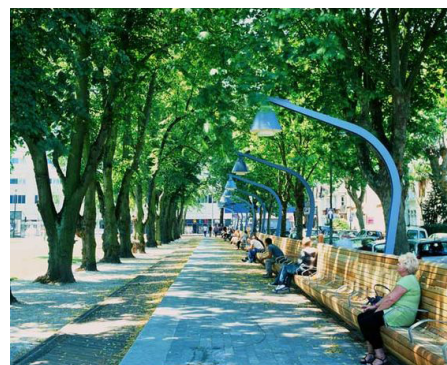
As population increases, increasing walking and cycling for local movement is essential to maintaining transport network efficiency and supporting the creation of a connected and vibrant urban neighbourhood, by reducing the need for cars on the road.

Despite the ACP area's proximity to major regional walking and cycling infrastructure, walking in the ACP area (to travel to work) remains low. This lack of uptake in active transportation is influenced by:

- A lack of dedicated cycle paths and facilities within the ACP area, particularly east to west connections between regional shared paths, which makes local movement difficult and unsafe for cyclists
- Poor quality pedestrian crossings on major roads including the Judd Street freeway on-ramp
- Limited footpath capacity on Mill Point Road and Labouchere Road, exacerbated by recent nil-setback development, which hinders pedestrian movement throughout the area
- A lack of multi-modal integration with public transport, including limited cyclist facilities and poor pedestrian connectivity to Mends Street Ferry.

#### 8.3.2.1 Plan Response

- **Enhanced Cycling Infrastructure:** The ACP identifies a range of cycle network enhancements to significantly improve access to cycle infrastructure and enhance its convenience and safety as a mode of transport. This will encourage more cycling, and reduce the number of people using private cars. The proposed enhancements include the addition of new shared paths, on-street cycling infrastructure and cross-peninsula links to make cycling safe and easy.
- **Increased Pedestrian Amenity:** The ACP sets out recommended actions for improving pedestrian connectivity, safety and comfort in order to improve the walkability of the area. It identifies additional footpath crossings and recommends footpath widening to prioritise pedestrians over vehicle traffic and reduce barriers to movement, particularly Labouchere Road and Mill Point Road. These actions are supported by a recommended reduction in vehicle speeds within the ACP area to 40 kilometres per hour, increasing safety and reducing traffic barriers.
- **Streetscape Enhancements:** The ACP identifies opportunities to enhance the design quality of public streets and sets out principles for improvements including increasing street trees, providing amenities such as seating and lighting and enhancing local character. By creating enjoyable and engaging street environments, the ACP seeks to make walking and cycling more attractive. To realise this aspiration, the ACP incentivises developers to upgrade the public realm and provide awnings where appropriate as part of redevelopment.





### 8.3.3 Key Issue: Public Transport Availability and Usage

Public transport patronage in the ACP area is reduced between the 2011 and 2016 Censuses, highlighting a disconnect between actual travel behaviour and the ACP area's status as an inner-city activity centre with significant public transport infrastructure. This reflects the fact that while public transport is available, it offers poor connections to other activity centres and is not competitive with private vehicles in terms of time and convenience. Specific barriers to use of the public transport network include:

- Lack of a train connection, despite an identified location for the South Perth Station
- Bus services are limited in their frequency and routes are indirect and do not compete with private vehicle travel
- Major peak hour delays to city-bound bus services accessing the Judd Street freeway on-ramp due to a lack of bus priority
- Bus and ferry stops have poor levels of amenity and lack real-time information.

#### 8.3.3.1 Plan Response

- **Bus Priority Measures:** The ACP seeks to improve the attractiveness and of local bus services by improving travel times through the ACP area. To achieve this, the plan recommends the construction of a dedicated peak hour bus lane on Labouchere Road northbound between Judd Street and Lyall Street which will allow buses accessing the freeway to leapfrog private vehicle congestion. Analysis of traffic flows on Labouchere Road has identified underuse of southbound lanes, allowing for one southbound lane to be replaced by a northbound bus lane.
- **Improved Bus and Ferry Service:** The ACP identifies material improvements to regional bus routes which currently service the ACP area, which in consultation with Transperth could achieve higher frequency and better connectivity to key regional centres. The ACP also supports the long term sustainability of the ferry, identifying opportunities to expand this iconic transport option with additional services facilitated by the addition of a second berth at Mends Street.
- **South Perth Train Station:** The ACP supports the delivery of the planned South Perth train station at Richardson Street. Although it is not the objective of this ACP to justify construction of the train station, both the quantum and distribution of forecast demand enabled by the ACP has the potential to satisfy the minimum patronage requirements to justify the station. Delivery of the South Perth station will establish "destination station" servicing local residents, businesses, and key tourism attractions with expected boardings far in excess of other recently delivered stations.

### 8.3.4 Key Issue: Traffic Congestion

The ACP area experiences significant traffic congestion on major streets during peak hours, which is in part due to high levels of regional traffic entering the ACP area to access the Kwinana Freeway at Judd Street. Local residents also contribute to (and are particularly impacted by) this congestion if they choose to drive during peak times.

In order to maintain acceptable levels of service at the major intersections within the ACP area, it will be important to develop high quality transport alternatives and manage parking effectively to support sustainable transport initiatives.

#### 8.3.4.1 Plan Response

- **Traffic Speeds:** A key recommendation of the plan is a reduction in travel speeds from 60km and 50km per hour to a uniform 40km, excepting the freeway ramps. In addition to providing a safer environment for pedestrians and cyclists, this can make the route less appealing for regional traffic.
- **Traffic Management through Design:** The plan proposes a range of design modifications to the local network aimed at improving vehicle management and addressing congestion. It identifies additional opportunities for traffic signals to better manage traffic and reduce wait times. It also nominates the partial restriction in access to 'left-in, left-out' for streets intersecting with Labouchere Road to reduce intersection conflicts.
- **Design for Emerging Technology:** The ACP has been prepared with regard to foreseeable innovations in transport technology which may impact on private vehicle use and congestion. The plan supports the continued operation and future potential expansion of the RAC Intellibus service, recognises the growing status of 'mobility as service' operators such as Uber and incentivises the use of car sharing. There is opportunity to regularly update this through the three-yearly review of the parking strategy for South Perth.

**Figure 22:** Recommended Traffic Speed



## PART TWO EXPLANATION

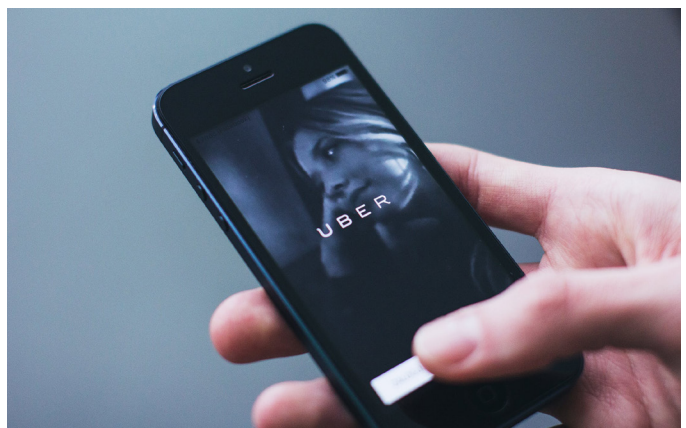
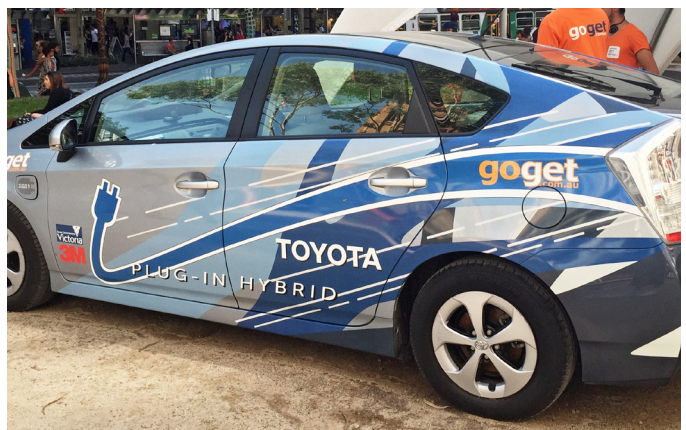
### 8.3.5 Key Issue: Private Car Parking

A critical determinant of the decision to own a car, or to drive to a destination, is the availability and cost of parking. As the number of people living, working and visiting the ACP area grows so can the number of cars and demand for parking, if not properly managed. With finite road space and congestion already being experienced, it is important that parking be carefully controlled to accommodate the trips that need to be made by motor vehicles while encouraging a shift toward more efficient modes of transport.

Current development within the ACP area is providing significant private parking allocations, based on the identified preferences of targeted buyers. If allowed to continue, short term over-allocation of private parking may compromise the long-term strategic objective of high active and public transport usage.

#### 8.3.5.1 Plan Response

- **Car Parking Maxima:** The ACP prescribes maximum parking bays for new development, ensuring that parking is not oversupplied and encouraging residents to make use of alternative types of transport, including walking and cycling, public transport and car sharing schemes.
- **Plot Ratio Controls:** Car parking and manoeuvring space within buildings at or above ground level is included in plot ratio calculations, and plot ratio limits have been calibrated accordingly. This provides proponents, architects and designers with an incentive to forego car parking space in favour other uses in the design of buildings. Each additional parking bay provided results in less space within the building that is available for other uses and proponents must therefore consider the optimal amount of parking in each development.
- **Less private car ownership:** The ACP encourages the use of car sharing by allowing parking requirements for residential development to be reduced where a car share scheme is in place. It also permits the decoupling of parking bays from units, allowing them to be traded individually where desired by occupants. Cash in lieu provisions are also established, allowing a monetary contribution in lieu of parking bays to support investment in all modes of transport. By encouraging less private ownership, the plan seeks to reduce the number of additional cars in the Activity Centre.



## 9.0 PUBLIC REALM

High quality streets and public spaces support public health and social connections, maintain urban ecology, provide connections with nature, help cool the urban environment, and foster a shared sense of community. As the ACP area grows over the coming decades, its parks, open spaces, and public places will become increasingly important and need to be maintained and enhanced to continue to meet the needs of the area's visitors, workers and residents.

### 9.1 EXISTING PUBLIC SPACE

Public space is a defining feature of the ACP area, with its unique riverfront setting and expansive foreshore reserve contributing to a unique riparian character. Away from the foreshore, the ACP area's network of local parks and streets form an interconnected network that provides the foundation for public life and activity.

Public spaces including parks, streets and other publicly accessible spaces make up almost half of the ACP area. These public spaces help define the experience of residents, workers and visitors and create a resilient urban fabric. Additionally, trees

and landscaping within public spaces can enhance ecological health, climate resilience, urban water management, and minimise the urban heat island effect.

#### 9.1.1 Parks and Open Spaces

Open spaces include parks, squares and other publicly accessible areas. These spaces range from significant Regional Open Space along the South Perth Foreshore to residual green spaces that provide local amenity.

As per Table 10 below, the existing provision of public open space in the ACP area exceeds 10% of the ACP's gross subdivisible area. The diversity and functionality of public open spaces will need to respond as population density increases within the ACP area. Consideration will be given to funding public open space improvements through public open space contributions as part of a future review of the City's Public Open Space Strategy. In the interim, upgrades and improvements will be delivered through the City's capital works program and through the Community Benefit Contribution Framework.

**Table 10:** Open Space Schedule

CALCULATION OF REQUIRED PUBLIC OPEN SPACE		
Total ACP Area (excluding Primary Regional Road Reserve)		102.46 ha
Deductions		
• Restricted Regional Open Space	• Perth Zoo	19.05ha
• Foreshore Reserve	• South Perth Esplanade	5.28ha
	• West of Kwinana Freeway	5.53ha
• Other	• Civic and Cultural Reserve	0.1848ha
Total Deductions		30.04ha
Gross Subdivisible Area (GSA)		72.42ha
Required Public Open Space Contribution (10% of GSA)		7.24ha
PUBLIC OPEN SPACE PROVISION		
Unrestricted Regional Open Space	• Richardson Park	7.58ha
	• Windsor Park (exc. Bowling lease area)	1.65ha
	• Melville Parade Reserve	1.06ha
Local Open Space	• Stone Street Reserve	0.1329ha
Total Open Space Provision		10.4229ha
Total Open Space Provision (as % of GSA)		14.39%



## PART TWO EXPLANATION

**Table 11:** Existing Open Space Typologies

TYPOLOGY	DESCRIPTION	LOCATION
<b>Managed Foreshore</b>	Regionally significant open space with regional walking and cycling facilities and accommodates significant public events	Eastern foreshore including Sir James Mitchell Park, Millers Pool and South Perth Esplanade
<b>Natural Foreshore</b>	Riparian areas with strong environmental value, conservation status and limited activity	West of Kwinana Freeway including Milyu Reserve
<b>Urban Park</b>	Local community spaces that provide opportunities for organised sport, community events, leisure and serve as important relief to the urban environment.	Richardson Park and Windsor Park
<b>Pocket Park</b>	Small parks that serve nearby residences as informal spaces	Residual road reserve areas including Judd Street, Stone Street and Melville Parade
<b>Zoo Reserve</b>	Special Use Reserve and regional tourism destination home to 1258 animals and an extensive botanical collection.	Perth Zoo

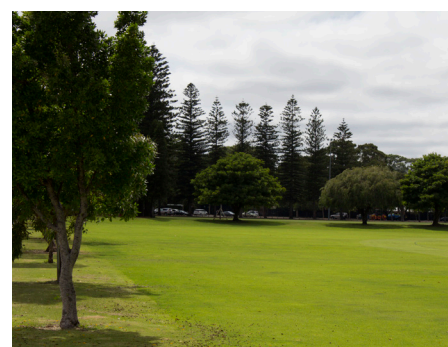


Figure 23: Public Open Space Map





### 9.1.1.1 Open space descriptions

The existing provision of public open space in the ACP area exceeds 10% of the ACP's gross subdivisible area and meets current and future need.

#### 1. Perth Zoo

While serving a distinct purpose, the 19ha Perth Zoo also functions as an open space within the ACP area, particularly as passive open space.

#### 2. South Perth Esplanade (incl Millers Pool)

The South Perth Foreshore is a regionally significant open space with walking and cycling facilities, a range of amenities and strong environmental and cultural value due to its riverside location. The foreshore also accommodates a range of public events, including the Australia Day fireworks.

The South Perth Esplanade stretches south-east from the Narrows Bridge to the edge of Sir James Mitchell Park. Whilst the land is situated in low lying foreshore areas, the majority of open space has been filled and landscaped with irrigated turf, mostly maintained to a quality suitable for recreational use.

The South Perth Esplanade acts as a component of a regional transport route for both recreational and commuting purposes, as well as a significant recreational node linking Mends Street with the South Perth Ferry service. This reserve has excellent access for nearby residents, with only South Perth Esplanade (road) separating the open space from adjacent properties.

#### 3. West of Kwinana Freeway (including Milyu Reserve & Millpoint Reserve)

The foreshore reserve on the western side of the Kwinana Freeway within the ACP area provides a wide variety of on and off-shore recreational activities for the local community and commuters. One of the main activities is cycling along the principle shared path. The Mill Point Road Jet Ski ramp towards the northern end of the ACP area also generates significant activity. In addition to those activities the area is used for walking, nature observation, fishing, crabbing, picnicking and nature based play. These activities are supported by a variety of facilities and amenities. The northern end of the foreshore is accessible to vehicles and pedestrian via Mill Point Road. A pedestrian bridge provides access at the southern end of the ACP at Hardy Street.

#### 4. Richardson Park

Richardson Park is located immediately East of the Kwinana Freeway, West of the Perth Zoo and North of the Royal Perth Golf Club. It is bordered by Labouchere Road, Richardson Street and Amherst Street. Richardson Park performs important functions for organised sport, especially cricket and hockey. There are opportunities to broaden the use of this park to improve its utility to other segments of the community

#### 5. Windsor Park

Fronting onto Mill Point Road, Windsor Park is surrounded by the zoo and the buildings of Mends Street and Labouchere Road.

Windsor Park is an important space for a number of reasons. It forms the approach to the Zoo from the north, including from Mends Street and the ferry, and is therefore an important confluence of activity. It is also flanked by important civic and historic buildings, which add character and definition to the space. Finally, it is located in the geographic centre of the ACP area and is easily accessible.

#### 6. Melville Parade Rserve

Melville Parade Road Reserve is located between Melville Parade and the Freeway and is most commonly used for food trucks and overflow parking.

#### 7. Stone Street Reserve

Stone street reserve is a highly vegetated, small landscaped open space.

#### 8. Sir James Mitchell Park

Sir James Mitchell Park is an extensive area of open space that stretches from the edge of South Perth Esplanade East to Macallum Park bordering the Town of Victoria Park. It is comprised entirely of the Swan River Foreshore. Its current landform is defined by expansive areas of flat drained turf with pockets of remanent wetland and damp-land environments.

The most cosistent built features of the Reserve are pedestrian and cyclist paths. Providing a commuter route from adjacent suburbs into Perth City and popular recreation circuit encompassing South Perth, Perth and Victoria Park foreshores, the Reserve is heavily used for a variety of physical activities.

#### 9. Royal Perth Golf Club

Although restricted in the, the Royal Perth Golf Club provides recreation opportunitites for residents within the ACP area.

### 9.1.1.2 Demand & Distribution

#### Population Growth

The Department of Local Government, Sport and Cultural Industries (DLGSC) suggests that between 16-19.5sqm of public open space, for active recreation and/or sports use should be provided per resident for metropolitan local government areas. In the State Governments Draft Liveable Neighbourhoods (2015), it is also recommended that all residential dwellings be located within 300 metres of public open space of some form.

The forecasted population of the ACP area is approximately 7,500 people by 2041. This equates to the provision of 12ha-14.6ha of public open space for use by the ACP residents by 2041, based on DLGSC estimates. The existing provision of open space within and in proximity to the ACP area meets this demand driven by anticipated population growth. The cumulative area of accessible and useable open space including Richardson Park, Windsor Park, South Perth Esplanade, Stone Street Reserve and areas of Sir James Mitchell Reserve within a 300m walkable catchment of the ACP area exceed 14.6ha. A 300m walkable catchment from these open spaces is illustrated within Figure 24. As shown by Figure 24, the majority of the ACP area is within a 300m walkable catchment with all properties being within 400m of some form of POS.

**Figure 24:** 300m Walkable catchment





## PART TWO EXPLANATION

### 9.1.2 Streets

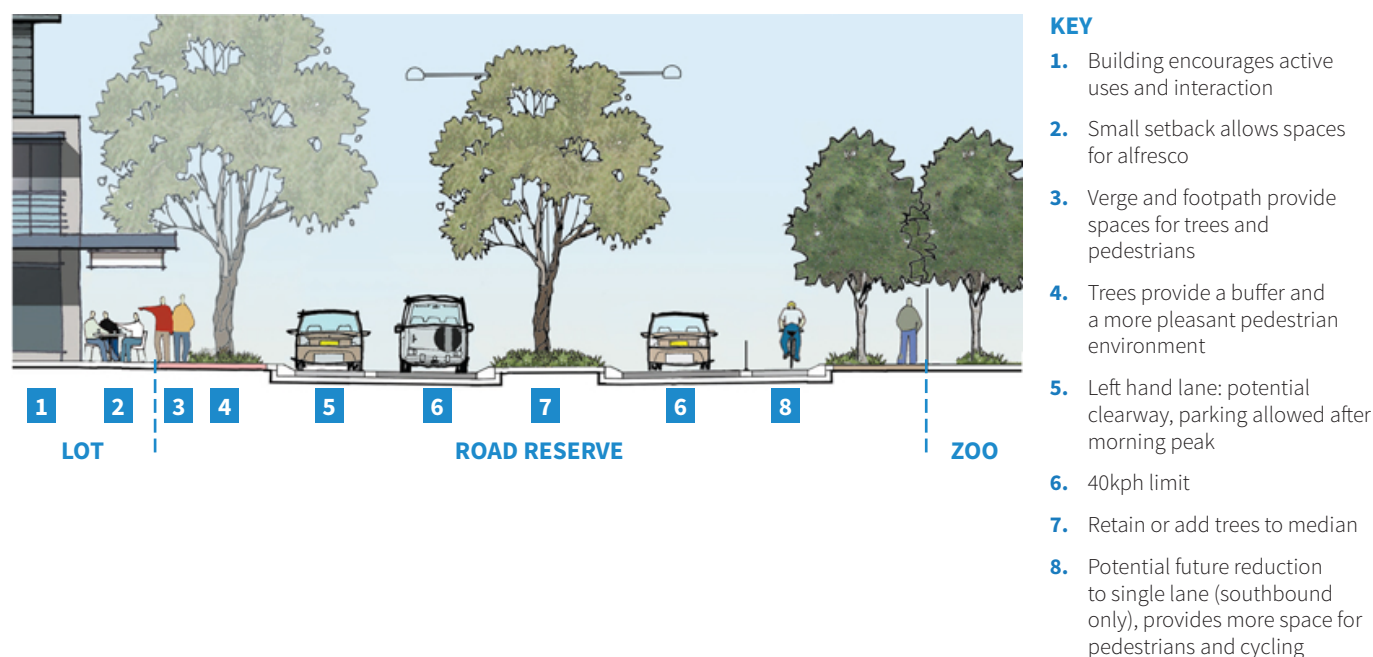
The ACP area has a unique street pattern arising from its geographic location on a narrow peninsula, resulting in longer street blocks than are often seen in other inner-city locations. In addition to accommodating vehicle movement and servicing, the ACP area's street network plays a significant role as the single largest public space within the ACP area. The 26 streets within the ACP area, excluding the Freeway Reserve, total approximately 22.7 hectares or 20% of the ACP area.

These streets range from major regional thoroughfares to local access streets, as summarised in Table 12.

**Table 12:** Existing Street Typologies

TYPOLGY	DESCRIPTION	LOCATION
<b>Freeway and On-/Off-Ramps</b>	Primary north-south route for regional vehicle and cyclist movement with limited local access	Kwinana Freeway, Mill Point Road North
<b>Regional Thoroughfare</b>	Highly frequented dual carriageway streets servicing regional traffic, with narrow pedestrian paths and limited street tree planting.	Labouchere Road, Mill Point Road South
<b>Active Street</b>	High-quality streetscapes with commercial emphasis, substantial pedestrian amenity and mature street tree canopy	Mends Street, Mill Point Road South
<b>Inactive Street</b>	Streets with mixed residential and commercial character and an emphasis on vehicle movement	Labouchere Road, Melville Parade, Bowman Street, Lyall Street, Hardy Street, Charles Street, Stirling Street, Harper Terrace, Ray Street
<b>Green Street</b>	Calm streets with high residential amenity and usually mature street tree canopy and/or parkland interface	Mill Point Road North, Stone Street, South Perth Esplanade, Parker Street, Ferry Street, Scott Street, Queen Street, Judd Street, Richardson Street, Mill Point Close

**Figure 25:** Labouchere Road Indicative Cross Section



### 9.1.3 Public Space Quality

In the Place and Design Report (2017), a comprehensive assessment of the place quality of each street and public space within the ACP area was undertaken. Each street was individually assessed against five place assessment criteria, being attractive, welcoming, accessible, dynamic and loved. The results of this assessment were combined to produce overall place scores out of a possible 100 to assess the value and function of each space and inform the definition and prioritisation of areas for improvement. The results of this assessment are summarised in Figure 26.

**Figure 26:** Place Audit



## PART TWO EXPLANATION



## 9.2 KEY ISSUES

### 9.2.1 Key Issue: Use and Function of Open Space

The South Perth Activity Centre Plan is well-supplied with open spaces suitable for walking, cycling, play spaces, picnicking and dog exercise. These spaces cater to both a local and regional catchment. Increased use of public space will require improvements to design and function to ensure that all residents and visitors continue to have access to suitable exercise, recreation and social spaces.

Currently the ACP area's open spaces are characterised by a grassed parkland character and many are not accompanied by programming of events. Other specific challenges to meeting future demand include:

- There is a heavy reliance on existing provision at Sir James Mitchell Park, Richardson Park and Windsor Park to meet the needs of current and future residents. In order to satisfy future resident requirements, it will be essential to improve accessibility to these areas and increase the quality and diversity of activity on the available open spaces.
- There is currently a lack of smaller public spaces such as plazas and pocket parks, which support small-scale events and interaction in high density environments.
- While the foreshore is a significant regional attraction, a lack of local social, retail and community facilities mean that much of the foreshore is relatively vacant and utilised only by a limited segment of the community.
- While Richardson and Windsor Park are significant public spaces, their utilisation is limited due to their limited programming, monofunctional design and lack of infrastructure attractions including play, exercise, seating and other common infrastructure.

#### 9.2.1.1 Plan Response

- **Open Space Principles:** The ACP establishes public space principles to guide the long-term improvement of the activity centre's open spaces, and the response of adjacent development. Principles for different open space typologies provide high level direction for enhancing the amenity and utility of public space through design quality, community infrastructure and amenities as well as programming and activation. By planning for long term enhancements to the centre's public spaces, the ACP recognises the important contribution the public realm makes to quality of life for residents, workers and visitors.
- **Privately Owned Public Open Spaces:** The ACP responds to an identified lack of hard-landscaped urban spaces generally associated with higher density urban environments, including pocket parks, plazas, squares and forecourts by creating a framework for the delivery of these valuable spaces through private development. The ACP sets development parameters and general locations to guide development of these privately owned public spaces to a standard that will enhance local character and create visually distinctive points of interest within the urban environment. Provision of the spaces may be considered as a community benefit contribution that qualifies development for additional height/plot ratio above the primary standard. Provision of pocket parks and urban plazas is discussed further under Appendix 7 Community Benefit Contribution Framework.
- **Plan for a Central Public Space:** The ACP seeks to strengthen the identity of the centre of the ACP area and the connection from the ferry to the Zoo by promoting investment in Windsor Park. The space and location lend themselves to a range of activities and uses that bring the community together.



## PRECEDENTS FOR GREAT STREETS



- **Better Use of Existing Spaces:** There is no need for additional open space as the area is well served by existing provision. Investment in POS upgrades will be required to enhance connectivity and provide social gathering and meeting places (providing for local and pocket park open space needs). In addition to Windsor Park (as mentioned above), encouraging investment in Richardson Park is identified as important, particularly in finding ways to make the park appealing for more of the community, while recognising its role for local sport and community development.

## 9.2.2 Key Issue: Street Design and Functionality

In a high density urban environment, streets function as both transport routes (that cater for pedestrians, cyclists and vehicular traffic) and as public spaces. It is essential that streets are designed to provide a high degree of amenity and walkability for the wellbeing of residents, workers and visitors. Some streets do not balance these functions, and are designed primarily to convey vehicular traffic at the expense of functionality for cyclists and pedestrians.

Presently, many streets suffer from a lack of activation through human activity, and a prevailing focus on accommodating vehicle movements at the expense of pedestrians. Although there are other examples of good streets in the ACP area, most streets are missing opportunities to serve modes of transport other than private car use better aligned to the function of the ACP area as an inner-city mixed use activity centre.

Streetscape upgrades currently being provided as part of new private development often respond to immediate need but, in the absence of a guiding framework, miss opportunities for comprehensive and cohesive management.

### 9.2.2.1 Plan Response

- **Public Street Principles:** The ACP establishes public street principles to guide the long-term enhancement of the activity centre's streets. Different strategies are recommended for different street typologies, with a focus on strengthening existing landscape quality and character. The ACP's principles support improving passive, residential streets with greater street tree planting and landscaping, whilst also seeking to create activity and vitality on main streets through design improvements, street furniture and other amenities.
- **Streetscape Community Benefit Contributions:** The ACP formalises the potential for streetscapes to be enhanced by developers as part of project works by including streetscape enhancements as a potential item that community benefit contributions may be allocated to. Streetscape principles included in the ACP provide direction for developers and the City of South Perth in considering proposals for privately-funded streetscape upgrades. This is intended to be further supported by a Public Realm Plan for the ACP area that provides specific guidance on function, design and materials.
- **Mid-Block Links:** The ACP seeks to complement and strengthen the existing street hierarchy by identifying potential mid-block links to improve connectivity for pedestrians. The provision of these links will support pedestrian use of the ACP area's streets, providing highly landscaped, easily accessible and comfortably surveilled connections.



## PART TWO EXPLANATION

### 9.2.3 Key Issue: Ecology and Climate Resilience

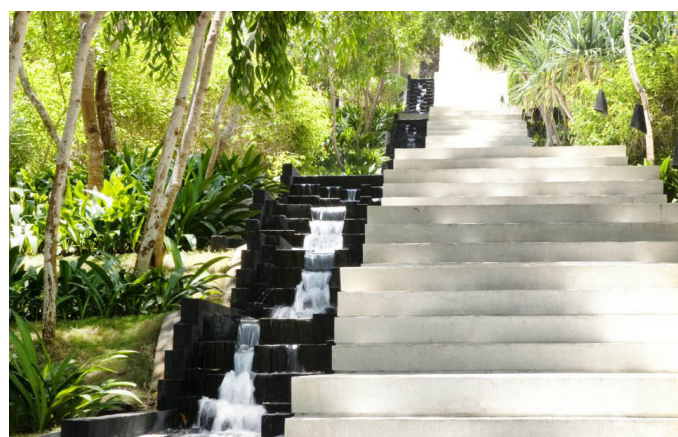
Ecological health and wellbeing of the ACP area's landscape and adjacent waterways is fundamental to a high quality public realm. The ACP area has a high degree of biodiversity along its river foreshore areas, which provide important ecosystem services and amenity. The health of these areas is vitally important to the City of South Perth's environment now and into the future. Critical to maintaining and enhancing biodiversity in urban areas is ensuring a network of connected natural areas and open spaces anchored by major natural systems.

Currently, the ACP area's streets and open spaces do not support and enhance the environmental quality of the area, with limited planting of endemic species and a lack of water sensitive urban design principles in their design.

The loss of significant trees on private and public land due to site clearing, changes in groundwater level and root damage because of development has resulted in a loss of tree canopy cover, which plays a significant role in supporting local biodiversity and mitigating impacts of climate change such as the urban heat island effect.

#### 9.2.3.1 Plan Response

- **Sustainability Principles:** The ACP embeds sustainability principles into its public realm guidance, encouraging the inclusion of water sensitive urban design measures wherever possible and identifying the inclusion of additional street trees and landscaping as a high priority. Public realm sustainability is to be further supported by a Public Realm Plan for the activity centre that provides specific guidance on design and materials.
- **Protection of Mature Street Trees:** The ACP incorporates specific controls and incentives intended to ensure that street trees are not damaged by new development, particularly basement and podium construction. In doing so, the Plan recognises that trees in road reserves are an essential part of the streetscape providing aesthetic appeal and environmental benefits.
- **Planting More Trees in the Streetscape:** A variety of measures are proposed in the ACP to increase planting of trees that contribute to the streetscape, whether on public or private land. Selection of species should balance the urban character of the area, existing species' contribution to character, intended function of trees (for example shade or impact on water table) and preference for endemic species.



## 10.0 SERVICING

A Civil Servicing Report was prepared by GHD to support the ACP (refer Appendix 4). Investigations were based on population and dwelling growth forecasts to 2041, being an additional 4,825 people and 2,309 additional dwellings. The following sections provide a summary of the investigations.

### 10.1 SEWERAGE RETICULATION

Water Corporation advice indicates that the existing pipe sizes within the ACP area will need to be increased to cater for increased flows from expected development. In particular, several gravity sewer upgrades have been identified in the vicinity of the Bowman Street WWPC and the Mill Point Road WWPS. All future works must be confirmed by the Water Corporation and completed by the relevant developer as part of development. Developers are encouraged to confirm the extent of any upgrades required by Water Corporation prior to submission of a development application.

In addition to the above, the Water Corporation have also highlighted Major Asset upgrades including pump station, waste water pressure mains and large gravity sewer upgrades to support development in the future. Construction of these upgrades and assets will be completed (and funded) by the Water Corporation when required in future, noting there are no projects in the area on the Water Corporation's current 5-year capital investment program.

### 10.2 WATER RETICULATION

The Water Corporation has recently completed works to replace aging pipes within the South Perth area, as part of the funded 'Pipes for Perth' project. There are no further replacement or upgrades works proposed within the ACP area.

Future water infrastructure will be in the form of Major Works funded by the Water Corporation or Minor Works funded by the developer.

Smaller reticulation sized water pipes will be funded and constructed by the developer. Replacement of existing mains will be required by the Water Corporation where an aging asset is deemed unlikely to support the development in future.

Developers are encouraged to confirm the extent of any upgrades required by Water Corporation prior to submission of a development application.

### 10.3 GAS SUPPLY

ATCO Gas has provided advice that the existing network should be able to cope relatively well with the anticipated increase in demand, the exception being the area around Harper Terrace, which will require upgrades to meet anticipated demands.

### 10.4 ELECTRICAL SUPPLY

As per the Western Power Annual Report 2020, the Clarence Street Zone Substation has 43MVA of spare capacity with a utilization of 51% in 2019 and a forecast utilization of 56% by 2025. Based on previous assessment of this area, the load demand is estimated to be in the order of 20MVA to 25MVA.

It is anticipated that each lot will be developed by private developers who will submit applications to Western Power for new supplies or supply upgrades as required. Due to the long-term nature of redevelopment, this load increase is expected to be gradual and is likely to be considered as natural load growth by Western Power.

There is sufficient capacity at the Clarence Street Z/S to service the expected future development. However as demand triggers larger loads more HV feeders will be required to effectively service all lots.

### 10.5 TELECOMMUNICATIONS

Telecommunications assets in the ACP area are owned by Telstra, nbn, Optus and Vocus. Several telecommunications service providers also operate within the area. All areas within the ACP are within an existing nbn fixed line service area and it is therefore anticipated they are serviced by nbn Fibre to the Node (FTTN) or Fibre to the Premises (FTTP) technology.

As all areas within the ACP are well established and within several extensive telecommunications networks with fibre cables, it is anticipated that the existing pit and pipe network will be able to support the telecommunications demand for future population.

### 10.6 DRAINAGE

Stormwater management within the ACP is managed via local City of South Perth drainage infrastructure. Recognising the existing constraints on the local drainage network and developed nature of the ACP, stormwater management should identify opportunities to maintain or reduce existing stormwater discharge rates to the downstream drainage network.

During redevelopment, opportunities will arise to retrofit existing drainage infrastructure, and incorporate water sensitive urban design elements at both the lot and streetscape scale. The LWMS contained within Appendix 5 sets out suggested best practice water sensitive urban design stormwater management options within the street network and private development.

## 11.0 ENVIRONMENT

### 11.1 ENVIRONMENTAL ASSESSMENT REPORT

A Desktop Environmental Assessment Report (EAR) was prepared by GHD to support the ACP (refer Appendix 3). Key findings from the EAR are summarised below.

#### 11.1.1 Threatened Ecological Communities

Sir James Mitchell Park is mapped as containing Banksia Dominated Woodlands of the Swan Coastal Plain Interim Biogeographic Regionalisation for Australia (IBRA) Region. This community is considered to be a Priority 3 threatened ecological community (TEC) under the State listing, however, is a nationally protected ecological community, listed as endangered under the Environment Protection and Biodiversity Conservation Act, 1999. The ACP does not propose any land use changes where the TEC is located.

#### 11.1.2 Acid Sulfate Soils

The ACP area is mapped by the Department of Water and Environment Regulation (DWER) as 'moderate to low risk of acid sulfate soils (ASS) occurring within 3m of natural soil surface but high to moderate risk of ASS beyond 3m of natural soil surface'. Acid Sulfate Management Plans are required where development or construction activities will disturb ASS in accordance with DWER guidelines.

#### 11.1.3 Groundwater

Depth to groundwater across the ACP area fluctuates:

- Mill Point – Depth to groundwater: 0.0 -1.0 metres
- Richardson – Depth to groundwater: 0.0-2.0 metres
- Mends – Depth to groundwater: 0.0-3.0 metres
- Hillside – Depth to groundwater 0.0-19.0 metres

(Perth Groundwater Map, accessed 19th July 2021)

#### 11.1.4 Local Water Management Plan

A Local Water Management Plan (LWMS) was prepared by GHD to support the ACP (refer Appendix 5). The LWMS identifies water management principles, development requirements and strategies to achieve total water cycle management for redevelopment and revitalisation of the South Perth ACP area.

The LWMS sets out water conservation, stormwater management and water sensitive urban design measures for buildings, landscaped areas and public open spaces.

An important component of the LWMS is the management of groundwater. Groundwater is shallow across the majority of the ACP area and therefore should be a key consideration during the development application phase, construction phase and post-construction phase of redevelopment.

The LWMS sets out specific monitoring, technical investigations and management plans which may be required to support development design, planning approval and construction management. These requirements have been incorporated into Part one of the ACP.

The LWMS seeks to ensure the design and development of buildings within the ACP area, specifically below ground infrastructure, minimise groundwater drawdown during construction and avoid the need for ongoing dewatering of buildings post construction.

All development applications shall provide justification and rationale outlining why a development type and construction approach has been selected, having regard to the preferred design and construction approach outlined in the LWMS and objective to minimise groundwater drawdown, construction dewatering and ongoing dewatering.

Where dewatering is required, the LWMS sets out preferred dewater disposal options, acknowledging existing infrastructure constraints and State government agency requirements. Conditions will be applied to development approvals requiring supporting site investigations and management plans to detail the dewatering method and disposal option selected, including justification and rationale.



## 11.2 SEA LEVEL RISE SUMMARY ASSESSMENT

### 11.2.1 Floodplain Mapping

Climate change and sea level rise are issues that will affect the State in the coming century and for coastal planning purposes an allowance for sea level rise of 0.9m over the next 100 years has been adopted.

Properties within the South Perth ACP area are particularly sensitive to sea level changes. A Sea Level Rise Summary Assessment was prepared by BMT based on the Swan and Helena River Flood Study recently undertaken for the Eastern Metropolitan Regional Council (EMRC) and City of South Perth (refer Appendix 6).

Due to future climate change, peak flood levels at the South Perth Esplanade Reserve is expected to rise from 1.43m AHD to 2.28m AHD in the future (year 2110). Water levels in the Swan River along the western boundary of the ACP is expected to increase from 1.35m AHD to 2.22m AHD (year 2110). The risk of flooding is likely to be further increased due to other climate change impacts such as altered weather patterns and storm events.

In response to current flood risk and increased risk predicted in the future, the Sea Level Rise Summary Assessment outlined a number of adaptive planning actions, of which key actions for current and future development within the ACP include:

- Review/ verify actual floor levels to verify building inundation risk for existing properties (short term < 6 months)
- Raise Flood Awareness regarding building inundation, rare events (short term < 6 months)
- Flood planning LGA (short term < 6 months)
- Adapt to climate change (long term > 2 years)
- Improve Flood Warning and Flood Awareness building inundation, frequent events (long term > 2 years)

Development controls have also been incorporated within Part One to address minimum habitable building floor levels above the 1 in 100 (1%) Annual Exceedance Probability (AEP) flood event, inclusive of forecasted sea level rise.



## 12.0 NEXT STEPS FOR SOUTH PERTH

### 12.1 IMPLEMENTATION

#### 12.1.1 Statutory Operation

The ACP functions as a guide to development and a strategic document to influence public realm and street improvements. Decision makers considering proposals for private development in the ACP area are to have “due regard” to the ACP, in addition to the requirements of the City’s town planning scheme.

Some elements of this ACP are set out in the City of South Perth TPS6, as they are considered “non-negotiables” in controlling development within the ACP area. The ACP has been drafted with the following matters being incorporated into the scheme:

- zoning, residential density coding and land uses;
- building height;
- podium setbacks, height and site cover;
- tower setbacks and separation;
- tower maximum gross floorplate area;
- plot ratio; and
- approval for additional development potential (height and plot ratio).

The existing scheme provisions applicable in the ACP area will be replaced by a new schedule to the scheme that implements the ACP through private development.

#### 12.1.2 Amendment and Review

The ACP has been prepared with the aid of extensive stakeholder and technical input to establish a strong and realistic vision for the growth of the ACP area to 2041 and beyond. Approval of the ACP is technically valid for ten years; however, it will take longer for the vision for South Perth to fully emerge. The ACP has been designed so that a review towards the end of this period is a “check in”, and that controls, principles, guidance and (most importantly) the vision need change as little as possible to remain an effective tool for directing growth in the ACP area and meeting the needs of the community.

An interim 5-year review is also recommended to assess the plan’s short-term performance and identify any necessary refinements that might be required to ensure that the articulated vision for the ACP Area is realised. This should be supported by ongoing monitoring and tracking of plan performance and the centre as a whole through the use of Key Performance Indicators.

#### 12.1.3 Key Performance Indicators

The Key Performance Indicators at Part 1 Section 9 provide the means of monitoring and assessing the effectiveness of ACP provisions in delivering the vision and desired outcomes for the ACP area. City of South Perth planning processes support frequent and comprehensive collection of planning and development data as required to monitor these indicators.

### 12.2 FURTHER ACTIONS

Engagement and consultation with local stakeholders has identified a range of further initiatives and actions considered necessary to support the ACP Area’s growth, which cannot be directly addressed through an Activity Centre Plan. A high-level overview of these further actions is provided to guide the City in the planning and management of the centre.

#### 12.2.1 Community Development Strategy

A Community Development Strategy should be prepared to strengthen the area’s sense of community and engage new residents. Stakeholders have identified that the combination of extensive multi-storey development with limited communal space and a high number of short-term renters presents challenges to fostering a shared sense of community and vibrant public life. A Community Development Strategy will provide direction and focus to ensure residents remain engaged and a strong sense of community is maintained, in the context of a dense urban environment.

#### 12.2.2 Richardson Park Station Development Plan

Further work should be undertaken to build the business case for the train station. Specific actions would depend on outstanding issues as identified by the State Government, and could include:

- More detailed costing of provision of the station, and associated infrastructure and improvements
- Identifying a preferred funding strategy
- Determining sites potentially available for sale or redevelopment, including any parts of Richardson Park (particularly near the station), over the station itself, and other local government assets that could be better deployed elsewhere.

### 12.2.3 Public Realm Framework

A comprehensive Public Realm Framework should be prepared for the ACP Area, expanding upon the high-level direction included within the Activity Centre Plan to detail the following key design parameters:

- Place identity and design interpretation;
- Types of public space
- Preferred plant species including street trees;
- Landscaping, hardscaping and furnishing palettes;
- Lighting Strategy;
- Public Art;
- Wayfinding systems;
- Stormwater management;
- Technical standards including soil cells, street widths, curb radii and exclusion zones for infrastructure;
- Implementation and Staging; and
- Unit price construction estimates

The Framework should also incorporate Connect South project outcomes and progress the revitalisation of other key public spaces with a focus on the following:

- Reinvent Windsor Park as the green heart of the Peninsula with a central City Square on Mends Street;
- Enhance Richardson Park as a multi-purpose open space integrated with potential future station development;
- Renew and upgrade the South Perth Esplanade as a key tourism attraction; and
- Integrate and activate connections to Perth Zoo including provision of a pedestrian connection and active edge to Windsor Park.

### 12.2.4 Economic Development Strategy

An Economic Development Strategy is recommended to identify priority projects and implementation strategies to attract employment, support economic activity and demonstrate a return on investment.

The economic development strategy should build on the findings of the South Perth Activity Centre Economic and Demographic Assessment report (Appendix 1), which has identified the centre's unique locational and economic advantages compared to other centres. The strategy should establish goals and actions to attract new investment, encourage innovation and support the growth of the business and tourism sector to increase job opportunities and centre performance.

### 12.2.5 Tourism and Destination Development Strategy

A Destination Development Strategy should be prepared to provide a strategic view on how the ACP area's significant tourism assets and destination anchors can collectively contribute to establishing the area as a destination of choice. The strategy should deliver a planned approach for developing the following:

- Place branding, advertising and positioning;
- Place activation and events management;
- Place management and governance;
- Community and industry partnerships; and
- Funding and resourcing

It is recommended that key stakeholders be approached to provide input and potentially collaborate in preparation of the strategy, including Tourism WA, Perth Zoo, Transperth and local businesses. Specific focus should be provided to Mends Street and the continuation of partnerships with local businesses to revitalise and activate the area during and following the Connect South project.

### 12.2.6 Public Open Space Strategy

As part of a future review of the City's Public Open Space Strategy, consideration should be given to funding public open space improvements through public open space contributions. Investigations should also include potential conditions to be applied to built strata subdivisions.

PART TWO  
EXPLANATION

# APPENDIX 1

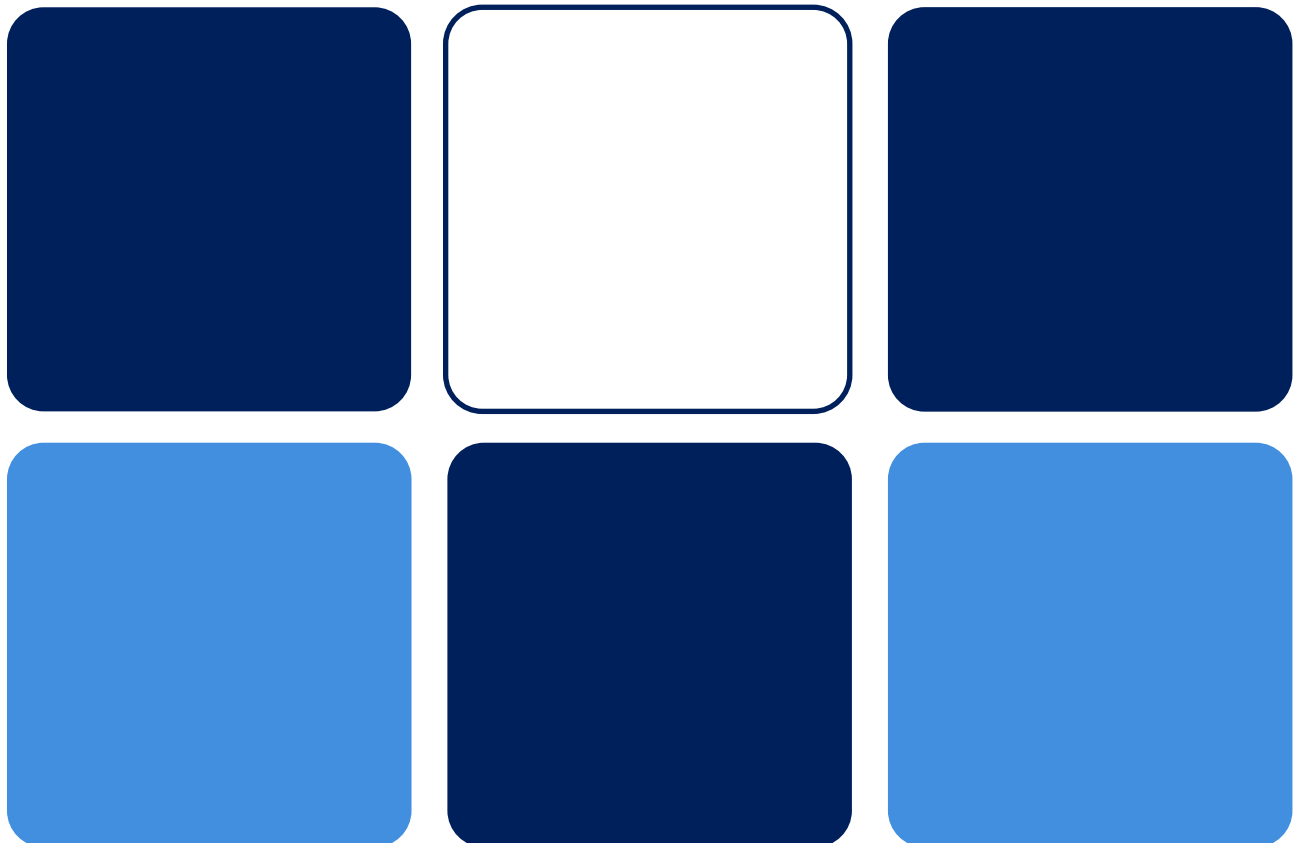
## ECONOMIC + DEMOGRAPHIC ASSESSMENT



RPS

# South Perth Activity Centre Plan

## Economic & Demographic Assessment



Prepared by:

Prepared for:

**RPS AUSTRALIA EAST PTY LTD****ROBERTS DAY**

Suite 18  
455 Brunswick Street  
Fortitude Valley, Qld, 4006

Level 2, 442 Murray Street  
Perth, WA, 6000

T: 07 3237 8899  
E: mark.wallace@rpsgroup.com.au

T: 08 9213 7300  
E: ross.duckham@robertsday.com.au  
W: www.robertsday.com.au

Client Manager: Mark Wallace  
Report Number: PR137338-1  
Version / Date: Final

**IMPORTANT NOTE**

Apart from fair dealing for the purposes of private study, research, criticism, or review as permitted under the Copyright Act, no part of this report, its attachments or appendices may be reproduced by any process without the written consent of RPS Australia East Pty Ltd. All enquiries should be directed to RPS Australia East Pty Ltd.

We have prepared this report for the sole purposes of Roberts Day ("**Client**") for the specific purpose of only for which it is supplied ("**Purpose**"). This report is strictly limited to the purpose and the facts and matters stated in it and does not apply directly or indirectly and will not be used for any other application, purpose, use or matter.

In preparing this report we have made certain assumptions. We have assumed that all information and documents provided to us by the Client or as a result of a specific request or enquiry were complete, accurate and up-to-date. Where we have obtained information from a government register or database, we have assumed that the information is accurate. Where an assumption has been made, we have not made any independent investigations with respect to the matters the subject of that assumption. We are not aware of any reason why any of the assumptions are incorrect.

This report is presented without the assumption of a duty of care to any other person (other than the Client) ("**Third Party**"). The report may not contain sufficient information for the purposes of a Third Party or for other uses. Without the prior written consent of RPS Australia East Pty Ltd:

- (a) this report may not be relied on by a Third Party; and
- (b) RPS Australia East Pty Ltd will not be liable to a Third Party for any loss, damage, liability or claim arising out of or incidental to a Third Party publishing, using or relying on the facts, content, opinions or subject matter contained in this report.

If a Third Party uses or relies on the facts, content, opinions or subject matter contained in this report with or without the consent of RPS Australia East Pty Ltd, RPS Australia East Pty Ltd disclaims all risk and the Third Party assumes all risk and releases and indemnifies and agrees to keep indemnified RPS Australia East Pty Ltd from any loss, damage, claim or liability arising directly or indirectly from the use of or reliance on this report.

In this note, a reference to loss and damage includes past and prospective economic loss, loss of profits, damage to property, injury to any person (including death) costs and expenses incurred in taking measures to prevent, mitigate or rectify any harm, loss of opportunity, legal costs, compensation, interest and any other direct, indirect, consequential or financial or other loss.

Document Status

Version	Purpose of Document	Orig	Review	Review Date
Draft v1.0	First Full Draft for Review by Roberts Day	DC	MW	21/12/2017
Draft v2.0	Updated Draft incorporating	MW	AL	05/02/2018
Draft v3.0	Client comments incorporated	AL	MW	26/02/2018
Final v1.0	Final draft including all comments	MW	AL	16/03/2018
Final v2.0	Final incorporating updated modelling results	AL	MW	10/08/2018
Final v3.0	Final incorporating additional amendments	MW	AL	22/08/2018
Final v3.1	Final incorporating minor amendments	MW	AL	27/08/2018

Approval for Issue

Name	Signature	Date
Mark Wallace		27/08/2018

# Contents

<b>SUMMARY .....</b>	<b>1</b>
<b>1.0 INTRODUCTION .....</b>	<b>4</b>
1.1 Background and Purpose .....	4
1.2 South Perth Peninsula Place + Design Report .....	4
1.3 Assessment Structure .....	5
1.4 Reference Documents .....	5
1.5 Glossary and Abbreviations .....	6
1.6 Geographical Scope .....	6
<b>2.0 REGIONAL CONTEXT .....</b>	<b>8</b>
2.1 Greater Perth in Context.....	8
2.1.1 Perth's Growth Profile.....	8
2.1.2 The End of the Mining Boom and the "New Normal" .....	10
2.1.3 Perth's Future Growth and Ageing .....	10
2.2 Implications for the SPAC .....	12
<b>3.0 PROFILE OF SOUTH PERTH ACTIVITY CENTRE.....</b>	<b>13</b>
3.1 The Suburb of South Perth – An Inner-City Riverfront Destination.....	13
3.1.1 Key Demographics of the Suburb of South Perth.....	14
3.1.2 South Perth Business Activity.....	15
3.2 South Perth Activity Centre Profile .....	16
3.2.1 Centre Population .....	16
3.2.2 Demographic Characteristics.....	17
3.2.3 Socio-Economic Characteristics .....	18
3.2.4 Housing Stock.....	20
3.2.5 Employment Trends and Attributes .....	22
3.2.6 Commercial Office Overview .....	23
3.3 Key Attributes and Drivers of SPAC .....	24
<b>4.0 CAPACITY FOR GROWTH .....</b>	<b>25</b>
4.1 Assessing the Capacity for Growth .....	25
4.2 4Cs Assessment Results .....	25
4.3 Implications for SPAC .....	26
<b>5.0 GROWTH SCENARIOS.....</b>	<b>28</b>
5.1 Role and Function Scenarios.....	28
5.2 Population Scenarios .....	29
5.2.1 Approach and Assumptions.....	29
5.2.2 Population Results .....	30
5.2.3 Age Profiles.....	31
5.2.4 Dwelling Requirements.....	31



5.2.5	Key Findings .....	32
<b>5.3</b>	<b>Employment and Floor Space.....</b>	<b>34</b>
5.3.1	Approach and Assumptions.....	34
5.3.2	Employment Results.....	34
5.3.3	Floor Space.....	35
5.3.4	Key Findings .....	36
<b>6.0</b>	<b>TOURISM PROJECTIONS .....</b>	<b>37</b>
<b>6.1</b>	<b>Tourism Projections .....</b>	<b>37</b>
6.1.1	Tourist Projections Approach.....	37
<b>6.2</b>	<b>Recent Performance .....</b>	<b>37</b>
<b>6.3</b>	<b>Projection Results.....</b>	<b>38</b>
<b>6.4</b>	<b>Key Implications for SPAC.....</b>	<b>38</b>
<b>7.0</b>	<b>RETAIL NEED ASSESSMENT.....</b>	<b>39</b>
<b>7.1</b>	<b>Trends in Retail .....</b>	<b>39</b>
7.1.1	Online Retail and the Changing Role of Shops.....	39
7.1.2	Demographic and Generational Change .....	40
7.1.3	Household Expenditure and Credit Card Debt .....	41
<b>7.2</b>	<b>Role of South Perth in the Metropolitan Retail Network .....</b>	<b>43</b>
<b>7.3</b>	<b>Value of Retail Sources and Assumptions.....</b>	<b>43</b>
7.3.1	Residential Expenditure Assumptions .....	44
7.3.2	Worker Expenditure Assumptions .....	44
7.3.3	Tourist Expenditure Assumptions .....	44
<b>7.4</b>	<b>Retail Need Results.....</b>	<b>44</b>
<b>7.5</b>	<b>Implications for SPAC Area .....</b>	<b>46</b>
<b>8.0</b>	<b>ECONOMIC DEVELOPMENT AND IMPLEMENTATION ADVICE .....</b>	<b>47</b>
<b>8.1</b>	<b>Summary of Key Findings.....</b>	<b>47</b>
<b>8.2</b>	<b>Economic Vision, Role and Function.....</b>	<b>48</b>
<b>8.3</b>	<b>Strategic Themes .....</b>	<b>49</b>
<b>8.4</b>	<b>Role of Character Areas .....</b>	<b>50</b>
<b>8.5</b>	<b>Key Economic Opportunities.....</b>	<b>51</b>
<b>8.6</b>	<b>Incentivising the “Right” Development .....</b>	<b>52</b>
8.6.1	The Role of Local Government in Attracting Development .....	53
8.6.2	Potential Incentives for South Perth .....	53

## Tables

Table 1 Recommended Indicators of SPAC Growth .....	3
Table 2 Age Profile, Suburb of South Perth, 2016, 2031 and 2041 .....	14
Table 3 Business Levels, South Perth - Kensington, 2012-2016 .....	15
Table 4 Business Entries and Exits, South Perth - Kensington, 2012-2016 .....	16
Table 5 Share of Dwellings by Type, SPAC and Greater Perth, 2016 .....	21
Table 6 Share of Bedrooms by Dwelling Type, SPAC, 2016 .....	21
Table 7 Key Developments, South Perth .....	22
Table 8 Land Use and Employment, South Perth Activity Centre, 2015.....	22
Table 9 Land Use and Employment, SPAC, 2007-2015 .....	23
Table 10 Workspace Ratios, SPAC, 2015-17 .....	23
Table 11 Four Cs Assessment Summary .....	25
Table 12 SPAC Population Scenarios, 2016 to 2041 .....	30
Table 13 Age Group Share of Population, SPAC, Base Scenario, 2016 to 2041 .....	31
Table 14 Population, by Age Group, SPAC, Base Scenario, 2016 to 2041 .....	31
Table 15 Employment, SPAC, 2017 to 2041, by Scenario.....	35
Table 16 Employment, SPAC, by PLUC, 2041 .....	35
Table 17 Total Non-Residential Floor Space (sqm), SPAC, by PLUC, 2041 .....	35
Table 18 Share of Retail Expenditure, by Sector, Australia, 2007 to 2017 .....	42
Table 19 Proposed Strategic Themes .....	49
Table 20 Key Economic Development Opportunities .....	51
Table 21 Development Incentives .....	53

## Figures

Figure 1 South Perth Activity Centre .....	7
Figure 2 Historical Population, Greater Perth, 1992-2016 .....	8
Figure 3 Unemployment Rate, Western Australia, 2004 to 2017 .....	9
Figure 4 Commercial Office Vacancy Rates, Perth CBD, 2005 to 2017 .....	9
Figure 5 Median House Prices, Perth Metro, 2013 to 2017 .....	10
Figure 6 Forecast Population, Greater Perth, 1980-2050 .....	11
Figure 7 Population by Age Range, Western Australia, 1980-2015.....	12
Figure 8 Population Projections, South Perth Suburb, 2016 to 2041 .....	14
Figure 9 Age Group Share of Population, Suburb of South Perth and Perth Metro, 2016 .....	15
Figure 10 Industry Classifications of Businesses, South Perth - Kensington, 2012-2016 .....	16
Figure 11 Residential Population, SPAC, 2001-2016 .....	17
Figure 12 Residential Population by Age Groups, SPAC and Greater Perth, 2016.....	18
Figure 13 Household Composition, SPAC and Greater Perth, 2016 .....	19
Figure 14 Income Levels of Residents, SPAC and Greater Perth, 2016 .....	19
Figure 15 Industry of Employment of Residents, 2016 .....	20
Figure 16 Method of Travel to Work of Residents, SPAC and Greater Perth, 2016 .....	20
Figure 17 Population Forecasts, South Perth Suburb, 2016 to 2041 .....	29
Figure 18 SPAC share of Suburb Population, by Scenario, 2041 .....	29
Figure 19 Total Dwellings, SPAC, by Scenario, 2021-2041 .....	32
Figure 20 Projected Tourist Visitors, South Perth-Kensington SA2, by Type .....	38
Figure 21 Share of Population aged 65+, Australia, 2016 to 2051 .....	41
Figure 22 Wages Growth Rates, Australia, 2007-2017 .....	42
Figure 23 Credit Card Debt, Australia, 2017 .....	43
Figure 24 Share of Retail Floor Space Demand, by Source of Expenditure, SPAC, 2017 .....	45
Figure 25 Retail Floor Space Demand, SPAC, 2016 to 2041 .....	45
Figure 26 Character Areas, SPAC Area .....	50
Figure 27 South Perth Character Area Profiles .....	50

## Summary

### Introduction

- RPS was engaged by the City of South Perth to undertake an economic assessment of the South Perth Activity Centre (SPAC). This assessment is to provide evidence in support of the preparation of the Activity Centre Plan (ACP) for the Centre.
- This assessment builds upon the **Place + Design** report for the South Perth Activity Centre prepared by Roberts Day.

### Regional Context

- SPAC is a strategically located District-level activity centre located adjacent Perth Water in close proximity to the Perth CBD. As such, its development and growth will be heavily influenced by major regional trends across the Perth Metro area and Western Australia as a whole.
- Specific trends of note include:
  - » **Perth Growing Population** – despite a recent slowing in population growth, in response to softer economic conditions and moderately higher unemployment rate, long-term population projections are expected to see Perth Metro reach 3.5 million people by 2050. This growth, combined with an increased policy emphasis on inner city redevelopment and dwelling densification is expected to see locations such as SPAC experience strong and increasing demand for housing.
  - » **Population Ageing** – Not only is the population of Western Australia expected to grow, the retirement of the Baby Boomer Generation (born 1946-1964) is expected to drive the most rapid ageing of the State's population in history. The proportion of people aged 65+ is expected to increase from 13.1% in 2015 to more than 1 in every 5 residents by 2051. This will drive demand for a diverse range of housing typologies and services in Perth, as well as have wider economic implications as worker to population ratios decline and burdens on Local, State and Federal Budgets increase. Developing integrated, high amenity communities that encourage people to age in the community represents both a major challenge and opportunity for Perth over the coming decades.
  - » **Volatile Economic Conditions** – the Western Australian economy is characterised by a comparatively high level of economic volatility, owing to the impact of mining investment cycles and resource production levels on economic, employment and income growth rates and the relatively small size of the domestic economy compared to major Eastern States. Similarly, Western Australia is more susceptible to overseas economic shocks due to its outwardly focused economy. While the long-term economic potential of Perth Metro and Western Australia are significant, growth is likely to be punctuated by periods of slower and softer growth. Currently this volatility is being borne out in historical high commercial office vacancy rates, as well as higher unemployment and declining house prices. While these trends are expected to reverse, they are likely to impact the growth and development of SPAC in the short-term.

### Centre Context

- SPAC possesses a range of unique attributes and characteristics that will influence and impact its future growth and development profile over the next 25 years.
- It has strong vehicular accessibility via both the Kwinana Freeway and Canning Highway and is serviced by bus and ferry services that connect South Perth to the Perth CBD.
- Key economic and social assets of SPAC including the Perth Foreshore/Sir James Mitchell Park, the Mend Street Jetty and adjacent retail and café precinct and the Perth Zoo, which supports high quality residential, commercial and visitor amenities.



- The suburb of South Perth is home to over 12,800 people of which 2,675 live in the SPAC. While the wider suburb has experienced some growth in recent years, the population growth in SPAC has been broadly flat over the past 15 years.
- SPAC's population is characterised by high proportions of younger workers, mature families and older residents, with high proportions of people born overseas (over half).
- Income levels in SPAC are well above average, with the high amenity and accessibility of the location driving above average job choice and attracting more affluent households (through higher house prices).
- Housing stock is primarily in the form of apartments and townhouses, though the apartment share (43.9%) is less than expected for a river adjacent inner city location such as South Perth. New housing development has accelerated in recent years and is expected to drive increased population growth in the short-to-medium term.
- There were over 2,300 jobs in SPAC in 2015/16, with Office, Retail and Entertainment/Recreation accounting for the largest shares. This employment is accommodated in over 70,000sqm of commercial floor space (including about 8,000sqm of Retail floor space). Despite floor space levels increasing since 2007/08 by 4,000sqm, employment has declined by over 650 jobs. This reflects the impact of the slowing of the Perth economy, particularly on SPAC's secondary office market and is illustrated in local floor space vacancies.

### Activity

- Overall, the recent decline in population and housing in the SPAC indicates ***that the Precinct is not currently fulfilling its full economic and social potential and has capacity for growth***. The Area possesses considerable local and regionally significant amenities and economic assets, providing residents and business alike with access to opportunities in the wider region through major road and public transport access. The presence of natural amenities (including Perth Water and the foreshore), coupled with a major attractor (namely Perth Zoo) also supports considerable tourism visitation.
- Similarly, the SPAC also possesses higher shares of detached and lower density housing than expected for an inner-city river front location. ***Public transport usage, while above average, is ultimately constrained by the lack of access to passenger rail.***
- Opportunities exist to enhance and intensify the urban form of the SPAC. Doing so will require a strong focus on urban regeneration and revitalisation, not only increasing the density of development ***but doing so in a way that enhances and sustains a high quality of life for new and existing residents, workers, businesses and tourists to the area.***
- RPS has undertaken a series of assessments to determine the potential future growth profile of SPAC. This has included population, employment/floor space, tourist/visitor and retail expenditure scenario testing for SPAC, to determine the optimal growth trajectory of the Centre over the next 25 years.
- Key growth scenarios assessed include:
  - » **Base** – continuation of current role and function of SPAC within the wider region.
  - » **Low** – marginal increase in the role and function of the Centre, resulting in minor increases in shares of regional activity.
  - » **Medium** – moderate increase in the role and function of the Centre, resulting in notable increases in shares of regional activity.
  - » **High** – large increase in the role and function of the Centre, resulting in significant increases in shares of regional activity.
- This scenario testing and modelling is ***unconstrained*** meaning it has not taken into consideration existing land supplies, planning and infrastructure capacity. Instead it outlines the social and economic potential of the Centre that will need to be supported and facilitated by investments in new infrastructure, floor space and housing.

- The following size, scale and mix of activity is recommended as the basis of land use and structure planning for SPAC as part of the ACP.
- RPS recommends that a population and dwelling growth profile between the Medium and High Scenarios should be adopted. This reflects the amenity and accessibility of SPAC, prevailing Government policy relating to infill development and complementary nature of residential and tourism development and investment.

Table 1 Recommended Indicators of SPAC Growth

Indicator	Current	2031	2041	Scenario (if Relevant)	Growth by 2041
Population	2,675	4,750	7,500	Medium-High	4,825
Dwellings	1,941	2,750	4,250	Medium-High	2,309
Employment	2,302	3,400	4,600	Low-Medium	2,298
Employment-Related Floor Space (sqm – excl Retail)	63,000	92,500	110,000	Low-Medium	47,000
Shop Retail Floor Space (sqm)	8,172	13,860	20,356	NA	12,184
Tourists/Visitors per annum	119,017	177,200	236,800	NA	117,783

- RPS also recommends that an Employment and Commercial Floor Space growth profile between the Low and Medium Scenarios should be adopted. This reflects the strengths of the local economy in population and tourism servicing, the current commercial office market environment in Perth and the need for improved, rail-based transport accessibility to intensify white collar employment.
- These indicators represent a SPAC in 2041 that is ***a high amenity aspirational residential and visitation location of choice that leverages its inner city, river front amenities to support increased density in a way that significantly enhances pedestrian amenity, service delivery and transport accessibility within and throughout the precinct.***
- SPAC's greatest potential is in supporting a higher density inner city residential community and tourist destination, with expenditure from both sources, along with workers, supporting a higher standard and scale of services, than which can be supported by the population alone.
- This will be complemented in the medium and long-term by increased commercial activity, particularly boutique and bespoke commercial office developments with a focus on research, creative and professional services sectors that seek to locate in SPAC to help attract and retain knowledge workers of the future.

## 1.0 Introduction

### 1.1 Background and Purpose

The State Planning Policy 4.2 states four key requirements for activity centre development for the Greater Perth region:

1. Diversity and intensity of activity - the centre should promote an equitable distribution of services, facilities and employment, in a high-density manner to reduce the need for transport.
2. Optimal residential density for the activity centres - buildings should be scaled appropriately, and higher density developments should be built close to key activity centres.
3. Employment provision - employment opportunities should be enhanced to contribute to sub-regional targets.
4. Major office developments should be located in the Perth CBD, or in strategic or specialised centres; offices in district centres should complement the function of the centre.

The *Directions 2031 Spatial Framework for Perth Peel* has a target distribution of 47% of all new dwellings to be in existing urban areas within the Perth and Peel regions. The central sub-region is ideally located to satisfy this development level, and the targets for the central sub-region are significant compared to outer regions of Greater Perth. The central sub-region is expected to see the population grow by 29% from 2011 to 2031, which equates to a demand of 121,000 new dwellings and the creation of 147,000 jobs.

South Perth is a centrally located local government area that is set to see a significant amount of development that will contribute to the targets set by *Direction 2031*. South Perth is close to the Perth CBD, and other major employment and specialised centres such as the Curtin research precinct, which results in short commuting times for residents. South Perth also sees a high level of amenity due to being bounded by the Swan River, making it a desirable location to live and work.

To support the future growth and development of South Perth, an Activity Centre Plan (ACP) is being prepared by the City of South Perth for the South Perth Activity Centre (SPAC).

This assessment represents the economic input and evidence supporting the development of the ACP.

### 1.2 South Perth Peninsula Place + Design Report

Informing the development of the ACP is the *South Perth Peninsula Place + Design* Report, prepared by Roberts Day. The report presents a draft of a renewed stakeholder-led vision that articulates future aspirations and goals for the South Perth Activity Centre (SPAC) and immediate surrounding area, together with goals, ideas and recommended actions for the continuing planning and development of the South Perth Peninsula.

Recommended goals outlined in the report are:

- **Deliver a robust planning framework** - Reshape current processes to establish a comprehensive framework which better responds to stakeholder expectations around liveability and integrated place, design and planning outcomes.
- **Improve movement and connectivity** - Improve movement and access within the Peninsula through a comprehensive approach to traffic and parking management which encourages a modal shift towards

walking, cycling and public transit.

- **Enhance street and green spaces** - Improve the Peninsula's network of streets and parks to strengthen its unique spaces and amenities, maximise usability and recreational opportunities and support ecological sustainability.
- **Encourage responsive development** - Ensure that new development better relates to its context, complements local character and minimises impacts on existing buildings.
- **Creating places for people** - Reposition the Peninsula as a destination of choice by enhancing local identity, delivering community amenities and reinvigorating key assets and destinations.

The report also includes an implementation schedule outlining short, medium and long-term priorities for specific actions required to deliver on the goals and ideas collectively developed with stakeholders.

The development of the ACP was a central recommendation of the *South Perth Peninsula Place + Design* report. The purpose of the ACP is to comprehensively address built form, public realm, place management, economic, traffic and infrastructure issues.

This assessment represents the economic input and evidence supporting the development of the ACP.

### 1.3 Assessment Structure

This Economic Assessment of the SPAC is comprised of the following key sections:

- **Regional Context:** Profiling of Greater Perth, including historic and projected indicators, identifying the implications of Greater Perth on the SPAC.
- **Profile of SPAC:** An overview of the activity centre, including key socio-demographic indicators, dwelling profile and an overview of employment trends and commercial office supply.
- **Capacity for Growth:** Qualitative assessment of the capacity of the SPAC to grow, based on the key drivers of capacity.
- **Growth Scenarios:** Through RPS modelling, growth scenarios are presented for both population and employment through to 2051.
- **Tourism Projections:** assessment of tourism projections for South Perth to 2051, including day trip and domestic and international overnight visitors.
- **Retail Need Assessment:** assessment of demand for shop retail floor space in the SPAC, including a multi-source retail needs assessment factoring in residential, worker and visitor expenditure sources.
- **Economic and Development and Implementation Advice:** advice on the economic vision, role and function of the SPAC in the future, associated strategic themes and economic opportunities and recommendations on incentives and strategies that can be implemented to facilitate sustainable growth and development.

### 1.4 Reference Documents

This Assessment draws upon information and analysis from a range of existing literature, policies and strategies. Key documents and reports reviewed include:

- South Perth Peninsula Place + Design Report, Roberts Day (2017)
- South Perth Economic Development Strategy 2013-2016 (2013)
- Central Sub-Regional Planning Framework (2015)
- South Perth Station Precinct Plan and Vision (2011)



- Draft South Perth Local Housing Strategy (2011)
- South Perth Local Commercial Strategy (2004)
- Directions 2031 and Beyond (2010)
- Draft Perth and Peel @ 3.5 million (2015)

## 1.5 Glossary and Abbreviations

ACP	Activity Centre Plan
CBD	Central Business District
DAP	Development Application Panels
GFA	Gross Floor Area
GFC	Global Financial Crisis
GLA	Gross Lettable Area
ha	Hectare
PLUC	Planning Land Use Category
SA2	Statistical Area Level 2
SA3	Statistical Area Level 3
SOHO	Small Office, Home Office
SPAC	South Perth Activity Centre
SQM	Square Metres
UWA	University of Western Australia
WA	Western Australia
WAPC	Western Australian Planning Commission

## 1.6 Geographical Scope

This Assessment focuses principally on the SPAC, as defined in the *South Perth Peninsula Place + Design* report by Roberts Day. The SPAC is defined as the northern portion of the South Perth City Centre, focused primarily on the South Perth Peninsula.

The SPAC encompasses the area bounded by:

- the Kwinana Freeway to the west;
- Angelo Street to the south and the southern boundary of Perth Zoo;
- Onslow street to the east, and
- the South Perth foreshore to the east.



Figure 1 South Perth Activity Centre

## 2.0 Regional Context

Rapid population growth has transformed Perth into a global city which is home to more than two million people and globally-recognised organisations and attractions. It has been consistently rated within the top ten most liveable cities in the world and has benefited from a wave of migration because of the lifestyle and employment opportunities it presents<sup>i</sup>. However, with this growth has come challenges of congestion, affordability and economic potential.

This section summarises the key drivers and trends of the growth in Metropolitan Perth and Western Australia and the implications for the City of South Perth and the SPAC.

### 2.1 Greater Perth in Context

#### 2.1.1 Perth's Growth Profile

Prior to 1900, Perth was a small town which grew only with the Western Australian gold rush, with the discovery of gold near Kalgoorlie. Most of the city grew post World War II and, consequently does not have a dense Victorian core similar to the CBDs of the eastern cities. Perth's population growth has historically been small, and only in 1984 did it overtake the population of Adelaide.

Despite the uncertainties with any population forecast, the Stephenson-Hepburn report in 1955 allowed for 1.4 million residents of the Perth metropolitan region in 2000, a target which proved surprisingly accurate. However, since this time, Perth and Western Australia have decoupled from this long-term trend, with economic and interstate and international migration lifting Perth past two million residents (or 38.9% growth over the past 15 years)<sup>ii</sup>.

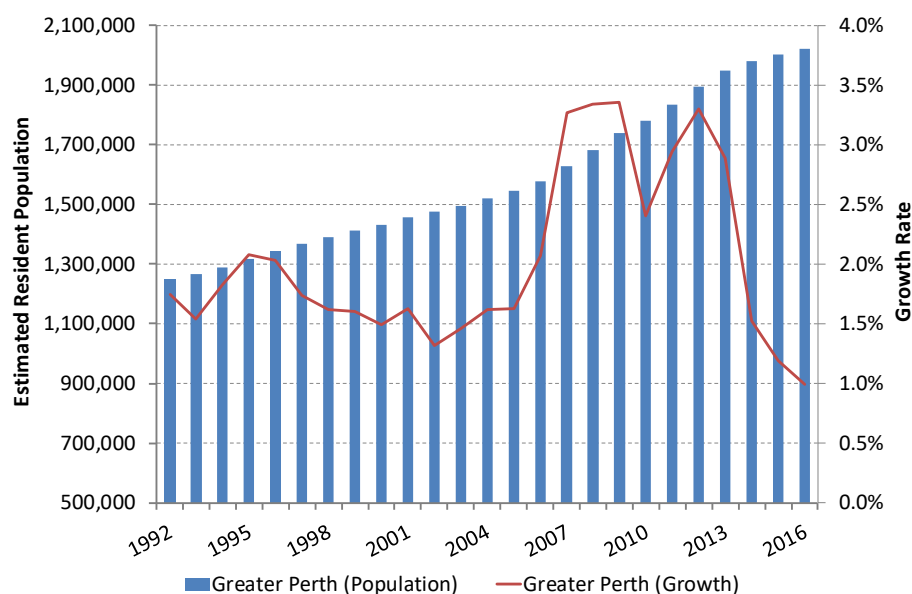


Figure 2 Historical Population, Greater Perth, 1992-2016<sup>iii</sup>

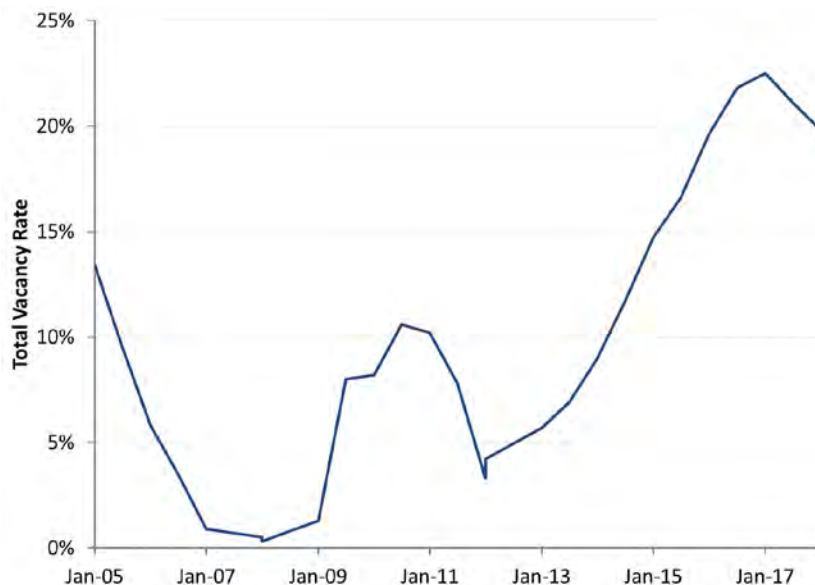
Recent population growth has been driven principally by a super cycle of investment and construction in the resources sector between 2008 and 2013, which in turn supported historically high wage growth and historically low unemployment rates in the State (they reached a low of 2.7% in 2007 and 3.6% again in 2012).



**Figure 3 Unemployment Rate, Western Australia, 2004 to 2017<sup>iv</sup>**

The tightening of the labour market underpinned strong interstate migration which countered long-term emigration patterns from Perth to locations like Brisbane and Melbourne and instead attracted tens of thousands of workers, along with their families to call Perth and Western Australia home. At the height of the cycle in 2011-2013, population growth reached over 66,000 people per year, equivalent to the growth of Sydney at the same time, despite Sydney being 250% larger than Perth.

Perth property markets were significantly impacted by the combination of rapid population and income growth by workers as well as improved business profitability and activity. Commercial office vacancy rates in the Perth CBD fell to effectively 0% in 2008/09 and returned to below 5% in 2012 after the GFC and the addition of new stock.



**Figure 4 Commercial Office Vacancy Rates, Perth CBD, 2005 to 2017<sup>v</sup>**



Median house prices also increased substantially, reaching \$580,000 in the Perth Metro area in 2014/15<sup>vi</sup>. While this has led to a substantial increase in equity and wealth for existing households, these price levels have rendered Perth one of the least affordable cities in the world<sup>vii</sup>.

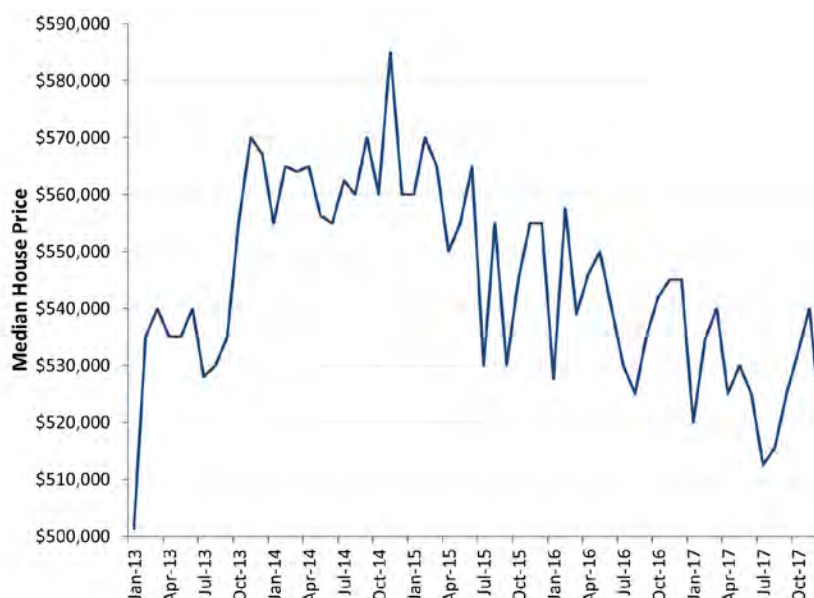


Figure 5 Median House Prices, Perth Metro, 2013 to 2017<sup>viii</sup>

### 2.1.2 The End of the Mining Boom and the “New Normal”

However, the more recent slowing of the WA economy, and the unwinding of once-in-a-generation levels of business investment have seen some of the pressures on housing, commercial property and labour markets soften. Since 2014, median house prices have trended downwards by approximately 8% over the past three years. This steady correction was largely due to the decline in interstate migration to WA, with population growth falling to 1% per annum in 2016.

Unemployment has also increased, albeit from exceptional lows, returning to levels similar to pre-2004 and 2009, at below 6%. Finally, commercial office floor vacancy rates have increased substantially, reaching above 20% for the first time in over a year in January 2018.

Despite the scale of the decrease in investment in the resource sector in the State and the corresponding flow on effect to commercial office demand, the transition of the Western Australian economy to the “new normal” in the past 18 months has broadly been soft and smooth.

Moreover, median house prices have not fallen as sharply and dramatically as some early expectations. The State has continued to produce jobs, with residential construction, tourism and health sectors helping offset much of the downsizing of the resources sector and associated supply chain labour forces.

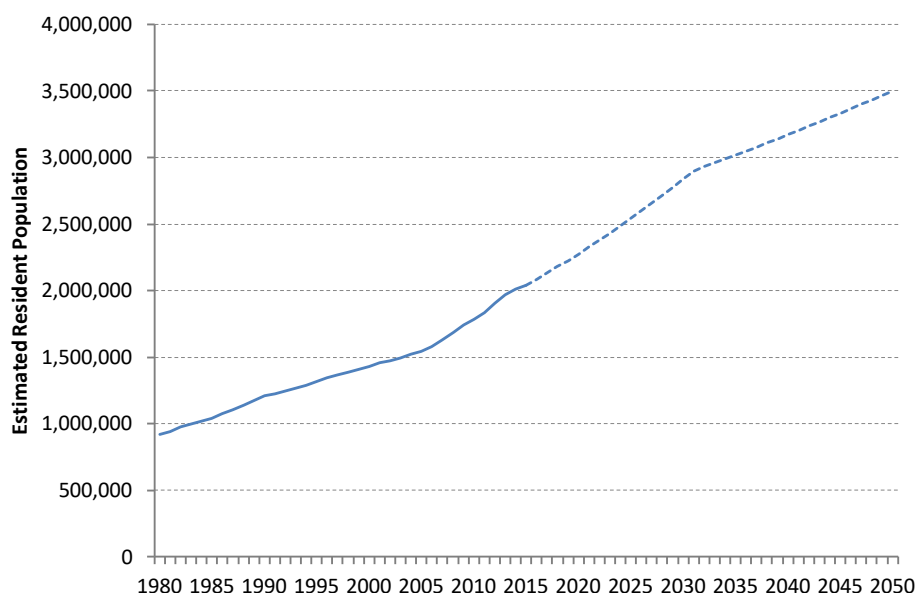
### 2.1.3 Perth’s Future Growth and Ageing

Despite the volatility of Perth’s economic and population growth over the past 15 years, expectations are that Greater Perth will continue to grow and evolve into a global city of more than three and a half million residents by 2050.

This future is envisaged in *Perth and Peel @ 3.5 million* and the associated suite of strategic land use documents. The growth scenario represents an average annual increase of 1.6% or approximately 41,700 persons per annum. This growth is lower than levels experienced over the previous decade (2.8% per

annum) and the previous 35 years (2.3% per annum), reflecting the larger critical mass of Perth's urban area and the subsequent slowing in growth rates associated with a larger population base.

Similarly, the sustainability of the recent rate of urban expansion in Greater Perth is increasingly questionable, with planning policies at the State Government levels instead promoting substantial transformation of the city's inner urban areas over the coming decades<sup>ix</sup>.



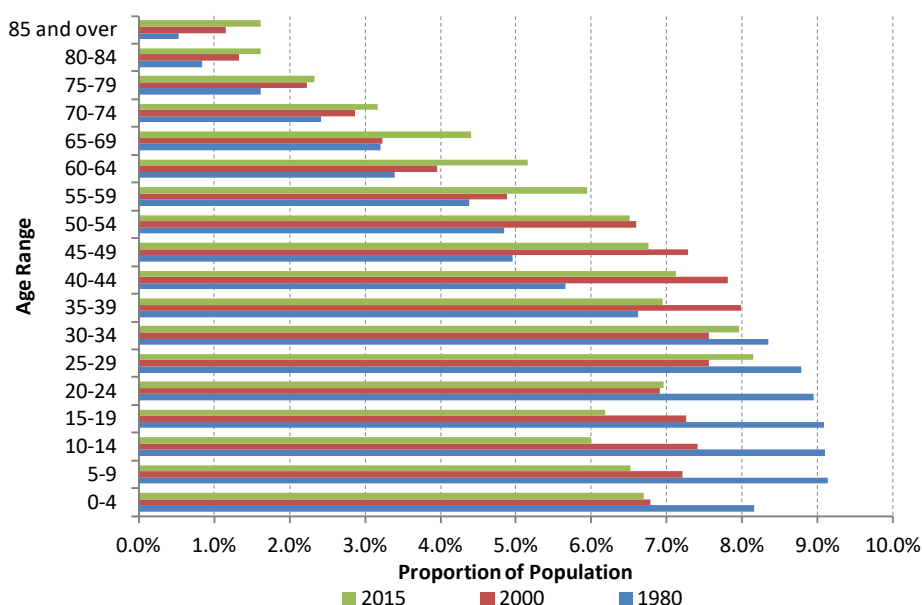
**Figure 6 Forecast Population, Greater Perth, 1980-2050<sup>x</sup>**

#### ***Towards a city of 5.4 million residents***

*Whilst this study reflects the State Government 3.5-million-person target, the Australian Bureau of Statistics' latest long-term forecasts for Greater Perth demonstrate that the city could grow to between 3.9 million and 5.4 million residents by 2050 because of high levels of migration, especially from overseas, and greater levels of natural population growth<sup>xi</sup>. For all three scenarios developed, Perth is expected to overtake Brisbane's population by 2032.*

Perth's future growth will be underpinned by a combination of natural growth and migration. This is important to recognise as natural growth through population ageing, fertility patterns and employment migration, have different drivers and needs which will impact on the potential growth of South Perth.

One of the more significant trends expected to transform Perth over the coming decades is the ageing of the population. The proportion of residents aged 65 and over is expected to increase from 13.1% as of 2015 to more than one in five residents (20.7%) by 2051<sup>xii</sup>. This trend is already having implications on health and aged service needs and will drive future expansions in aged accommodation and community service organisations.



**Figure 7 Population by Age Range, Western Australia, 1980-2015<sup>xiii</sup>**

In the long-term, Perth is expected to continue to experience significant numbers of inbound overseas migrants. Perth already has the highest level of overseas-born residents of all Australia's capital cities (40.4% as of 2011), with one in five residents speaking a language other than English at home<sup>xiv</sup>. Migration and diversity have given Perth a competitive edge in a more globalised world, with a widely cited 2013 study showing a positive correlation between cultural diversity and productivity<sup>xv</sup>.

Nevertheless, this recent population growth in Perth has resulted in many challenges and concerns. Congestion and the capacity of urban infrastructure to effectively meet the corresponding increase in demand have become prominent in public debate, with public infrastructure built to accommodate a city of 1.5 million having to accommodate a population of more than 2 million in the next ten years. The cost of commuting to the Perth CBD is a focus, given morning peak travel times for the growing northern suburbs have increased to approximately one hour<sup>xvi</sup>.

## 2.2 Implications for the SPAC

The key question raised by an assessment of the Regional Context of the South Perth Activity Centre is what role the Precinct and the wider South Perth suburb and Council areas play in the future of Greater Perth. Previous cycles of strong growth have manifested in South Perth in the form of increased residential development, tourist visitation, infrastructure draw down (including congestion and parking) as well as higher land and house prices.

Conversely, the more recent volatility in the regional economy has raised implications on the long-term role and function of the South Perth commercial office market and what differentiates it from other inner Perth markets like West Perth, East Perth and Northbridge.

Finally, the future structural growth and ageing of the Perth population will likely have implications for South Perth. As a high amenity, aspirational residential and lifestyle destination in inner Perth, owing to its natural environment and strong accessibility characteristics, South Perth is likely to continue to be a target for increased population growth, particularly among older residents, for the next 15-20 years.

### 3.0 Profile of South Perth Activity Centre

The story of the SPAC is also the story the wider South Perth suburb and Council Area. The SPAC represents both an opportunity for the potential of South Perth to be realised for the benefit of residents and businesses and for the Local Government to play a more central role in meeting the future growth of Greater Perth.

#### 3.1 The Suburb of South Perth – An Inner-City Riverfront Destination

The suburb of South Perth is an iconic lifestyle and tourist destination in inner Perth. Strategically located on the Swan River directly opposite the Perth CBD, South Perth has long been an aspirational location for residents and visitors alike, with the location being regarded as a tranquil residential suburb and cross-river tourist destination as early as the 1880s.

South Perth possess a range of local and regionally significant assets and features that have underpinned its growth and prosperity:

- **Sir James Mitchell Park** – this expansive foreshore reserve park originally provided market gardens and other agricultural products for the early colony. Since the 1970s, investment by State and Local Government has transformed Sir James Mitchell Park into one of Perth's most popular and utilised parks. Extending from the Mend Street Jetty to south of Harrison Island, the Park provides open space and facilities for local and regional residents, including families and individuals for barbeques, sport and exercise (running, walking and cycling). The Park is also a common venue for both City and community organised events.
- **Mends Street Jetty** – One of two major jetties on Perth Water, the Mends Street Jetty is the second stop in the Elizabeth Quay-Mend Street ferry route operated by Transperth. Originally formalised and expanded in response to the establishment of the Perth Zoo in the late 1890s, the Jetty provides residents with access to both ferry and charter vessel transport. Recently, the Jetty has become increasingly popular among tourists, following the development of Elizabeth Quay and associated tourist access to Perth Zoo, Sir James Mitchell park and the Mend Street Café and Retail Strip.
- **Mends Street Café and Restaurant Precinct** – Located directly south of the Mends Street Jetty, Mends Street is an established café, retail shop and restaurant precinct. Anchored by the Windsor Hotel on the corner of Mends Street and Mill Point Road, Mends Street offers a diverse range of convenience shopping, local takeaway and café food and beverage and boutique and high-end restaurant offering.
- **Kwinana and Canning Highways** – South Perth is serviced by both major north-south and East-West highways in the form of the Kwinana Freeway and Canning Highways. The Kwinana Freeway is the main North South Highway in Metropolitan Perth, extending from the Perth CBD to Mandurah. As such, it is often heavily congested where it crosses the Swan River from Mill Point, particularly during weekday peak times. The Canning Highway crosses South Perth from the north east to the south west. One of the primary arterial connectors west to Fremantle and the western suburbs of Perth, the Canning Highway also forms into the Great Eastern Highway at the Causeway, providing direct access to Perth Domestic and International Airport Terminals.
- **Perth Zoo** – Established in 1898, Perth Zoo has been a regionally significant tourist destination in inner Perth for 120 years. The establishment of the Zoo on the current 17ha site between Mill Point and Labouchere Roads was fundamental to the establishment of the suburb of South Perth and its formal connections to the Perth CBD in the late 19<sup>th</sup> century. In 2016/17, the Zoo attracted over 657,00 visitors and provides natural and high amenity habitats for over 1,400 animals across 169 species.

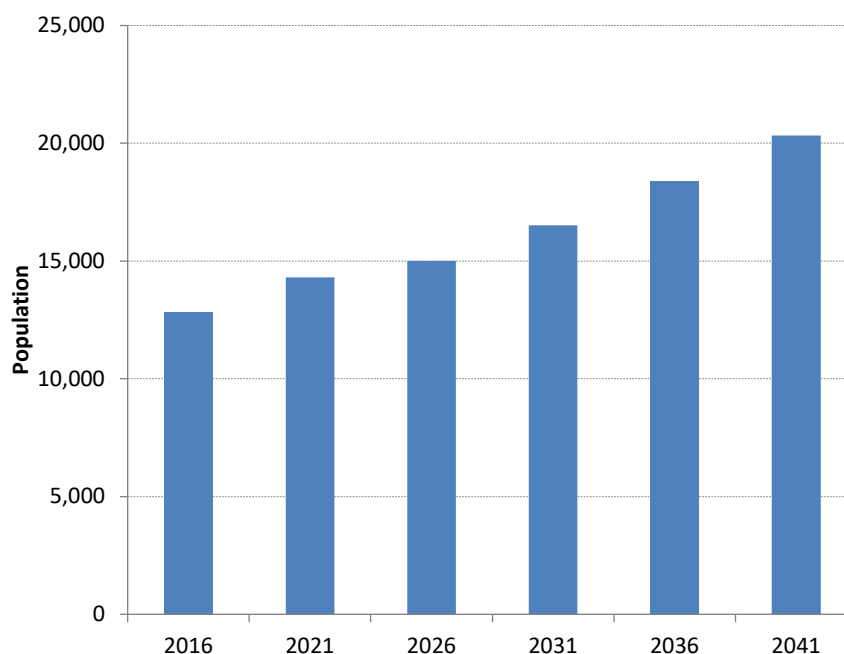
Together, these spatial assets provide ready access for residents to the employment and economic opportunities of the Perth CBD and wider metropolitan area and allows tourists and visitors to take advantage of the some of the location's natural and manmade attractions and amenities.



All these spatial attributes (except for Canning Highway) are located with the South Perth Activity Centre.

### 3.1.1 Key Demographics of the Suburb of South Perth

The population of the suburb of South Perth is projected to increase from 12,858 in 2016 to 20,331 in 2041, an increase of approximately 7,500 people<sup>xvii</sup>.



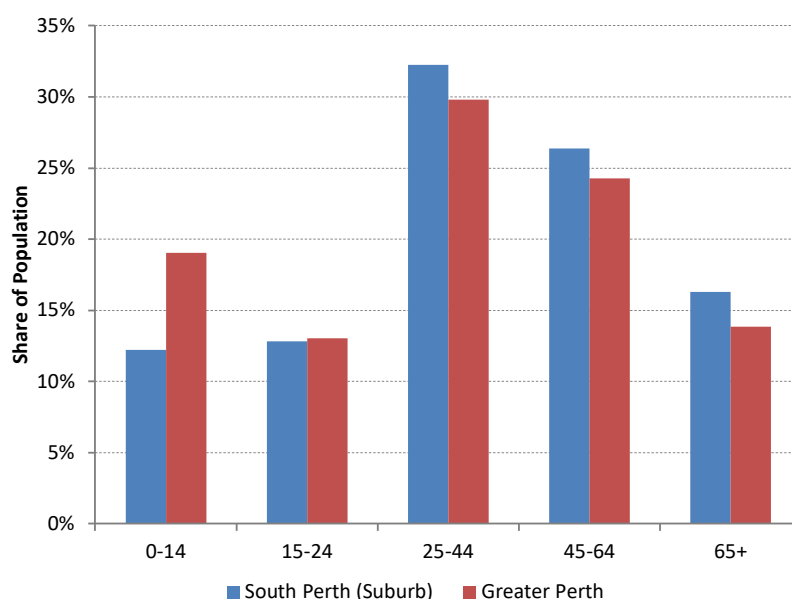
**Figure 8 Population Projections, South Perth Suburb, 2016 to 2041**

This growth is expected to be driven by a combination of young adults (including students and workers) and older residents (aged 65 years and over). Both age groups will see their share of the total population of the South Perth suburb increase in over the next 15 years, principally at the expense of mature workers (aged 45-64). This demographic trend is expected to moderate over the following 10 years to 2041, as the impact of the Baby Boomers on the demographic profile of South Perth moderates and a more “normal” age profile returns.

**Table 2 Age Profile, Suburb of South Perth, 2016, 2031 and 2041<sup>xviii</sup>**

Age Group	2016	2031	2041
0-14	12.2%	13.0%	12.9%
15-24	12.8%	14.8%	14.7%
25-44	32.2%	32.0%	31.6%
45-64	26.4%	22.8%	23.6%
65+	16.3%	17.5%	17.3%

Overall, the current age profile of the suburb is older than that of Metropolitan Perth, with significantly lower shares of children (0-14) and more older residents. Interestingly, the suburb has similar shares of people aged 15-24, and higher working age residents suggesting a high proportion of both younger working couples without children and more mature families (with children aged 15 and over).



**Figure 9 Age Group Share of Population, Suburb of South Perth and Perth Metro, 2016<sup>xix</sup>**

### 3.1.2 South Perth Business Activity

With changing economic structures impacting current and future growth sectors, there is an impetus to ensure the SPAC is an attractive destination for businesses, especially given increased competition from across Perth, the nation and globally.

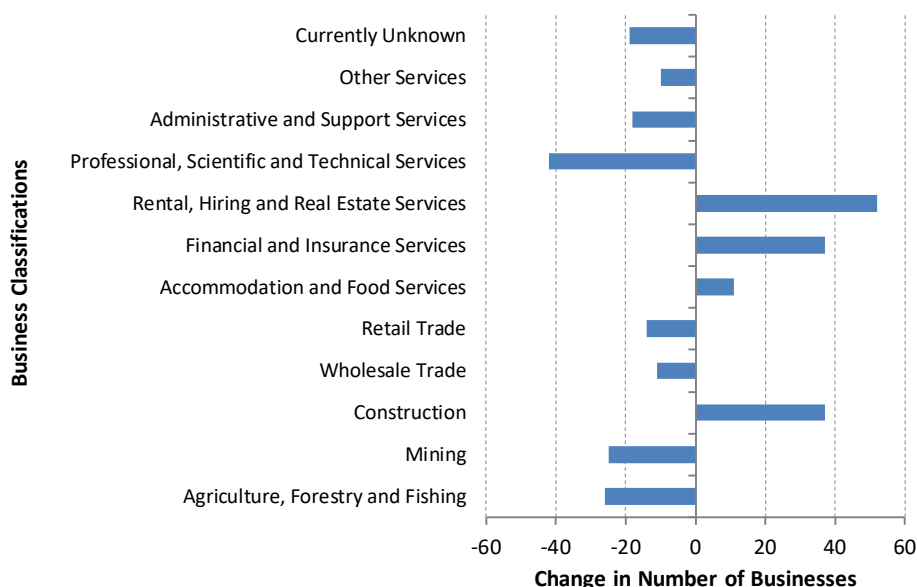
Analysis of business data for the South Perth-Kensington SA2 (which includes the suburb of South Perth and the SPAC) reveals that South Perth has seen a marginal decline in local businesses. Between 2012 and 2016, the number of registered businesses fell from 2,776 to 2,767.

However, during this time the number of larger businesses (employing over 20 people) increased from 65 to 75, and the number of non-employing businesses stayed consistent. Non-employing businesses comprised the largest share of businesses in the South Perth – Kensington area. While it is not unusual for non-employing businesses to comprise the majority of locally registered businesses in an area, South Perth's share is higher than typically expected for inner city locations.

**Table 3 Business Levels, South Perth - Kensington, 2012-2016<sup>xx</sup>**

Number of Employees	2012	2013	2014	2015	2016
Non-employing	1,844	1,783	1,788	1,815	1,845
1 to 4	618	597	639	627	626
5 to 19	249	242	244	246	221
20 or more	65	70	94	81	75
<b>Total Employing Businesses</b>	<b>2,776</b>	<b>2,692</b>	<b>2,765</b>	<b>2,769</b>	<b>2,767</b>

As expected, the decline in local businesses in South Perth was primarily in the Professional Services and Mining sectors and represents the local impacts of State-wide declines in these sectors. This however has been almost entirely offset by substantial increases in the number of rental, hiring and real estate and financial services businesses.



**Figure 10 Industry Classifications of Businesses, South Perth - Kensington, 2012-2016**

In addition to above, analysis of business entries and exits in South Perth provides an insight into the recent dynamics of the local business community. Of concern is the consistent decline each year in the number of businesses with 5-19 workers. While some of these businesses potentially grew and transitioned into the larger category businesses.

**Table 4 Business Entries and Exits, South Perth - Kensington, 2012-2016<sup>xxi</sup>**

Number of Employees	2013		2014		2015		2016	
	Entries	Exits	Entries	Exits	Entries	Exits	Entries	Exits
1 to 4	69	45	84	51	88	61	78	57
5 to 19	10	14	17	18	6	12	4	9
20 or more	3	3	6	3	4	3	0	3
<b>Total Employing Businesses</b>	<b>82</b>	<b>62</b>	<b>107</b>	<b>72</b>	<b>98</b>	<b>76</b>	<b>82</b>	<b>69</b>

Facilitating the growth of non-employment and 1-4 worker businesses into larger businesses within South Perth and the SPAC must therefore be a priority in the short-to-medium term.

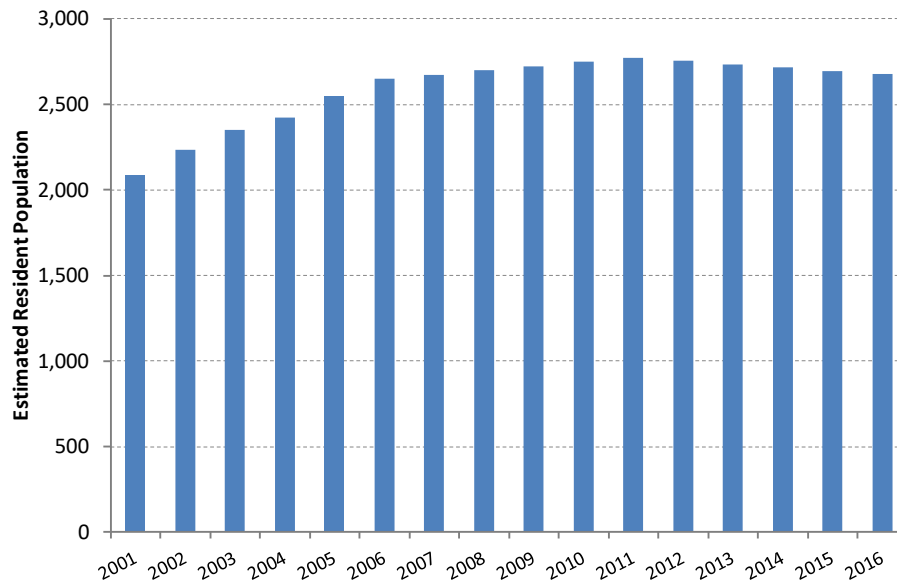
## 3.2 South Perth Activity Centre Profile

The SPAC represents the core of the South Perth suburb and encompasses many economic and business assets and activities. Areas within the South Perth suburb surrounding the SPAC are primarily established low density residential in nature, with a lower concentration and distribution of business activity.

Key characteristics of the SPAC are summarised below.

### 3.2.1 Centre Population

The population of the SPAC has not grown significantly over the past 15 years, with the residential population of increasing to 2,675 residents as of 2016 (an increase of 1.8% per annum). These residents are housed in 1,941 dwellings within the SPAC precinct in 2016.



**Figure 11 Residential Population, SPAC, 2001-2016<sup>xxii</sup>**

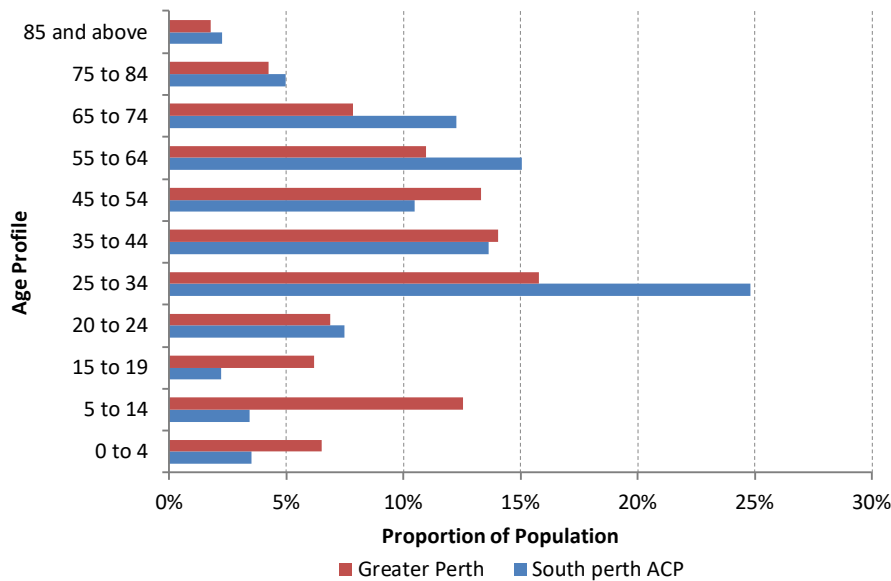
There are currently a substantial number of developments underway in the SPAC, including the development of approximately 400 apartments. This reverses the historical trend of below average development rates, with the number of dwellings falling from 2011 to 2016.

### 3.2.2 Demographic Characteristics

The resident population within the activity centre is characterised by many key attributes which have been assessed based on the 2016 Census of Population and Housing and include<sup>xxiii</sup>:

- **High young adult population**, with 32.3% of residents aged between 20 and 34 years of age compared to 22.6% across Greater Perth;
- **Higher older population**, with above average shares of people aged 55+
- **Few indigenous residents**, with no residents identifying themselves as being of Aboriginal or Torres Strait Islanders; and
- **High overseas-born population**, with 53.1% of residents born overseas compared to 38.7% across Greater Perth.





**Figure 12 Residential Population by Age Groups, SPAC and Greater Perth, 2016<sup>xxiv</sup>**

This age profile broadly aligns with the wider South Perth suburb, though the size of the 25-34 age group share is even more stark.

The cultural diversity is particularly important to recognise as overseas born clusters have important implications on the development of localities. Whilst much of this is self-evident, it is of interest to establish formal and informal networking opportunities for members of diverse ethnic networks given this can lead to a faster rate of establishing integration<sup>xxv</sup>.

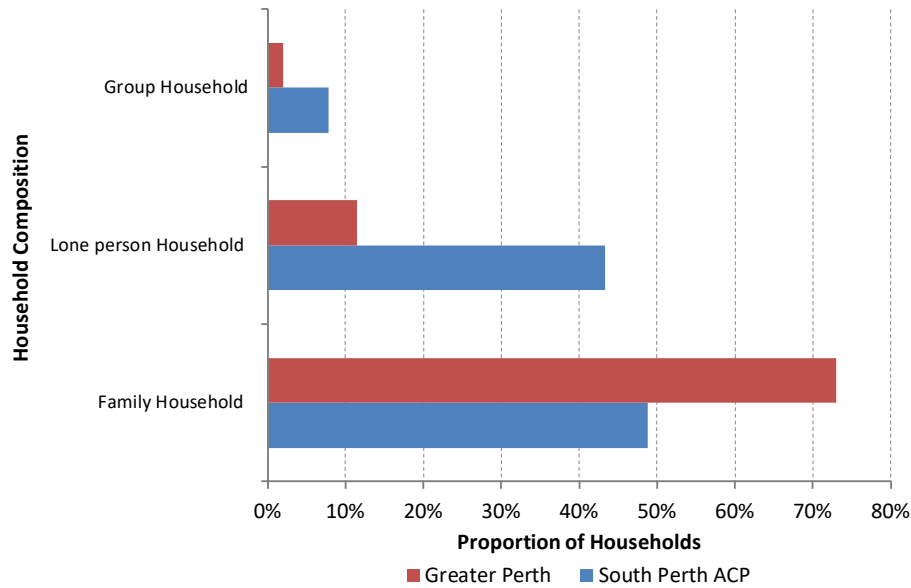
The major overseas origins for immigrants in the SPAC as of 2016 were:

- United Kingdom (16.0% of overseas-born population),
- Malaysian (7.1%),
- India (7.1%),
- New Zealand (6.0%),
- South Africa (4.6%)
- China and Hong Kong (4.5%), and
- Indonesia (4.2%).

### 3.2.3 Socio-Economic Characteristics

The socio-economic characteristics of the SPAC are diverse and help to underpin the unique drivers of the local population and economy. While similarities between the Study Area, wider suburb and Council area are expected and consistent, profiling key indicators where there are divergences helps to identify opportunities for differentiation and future growth.

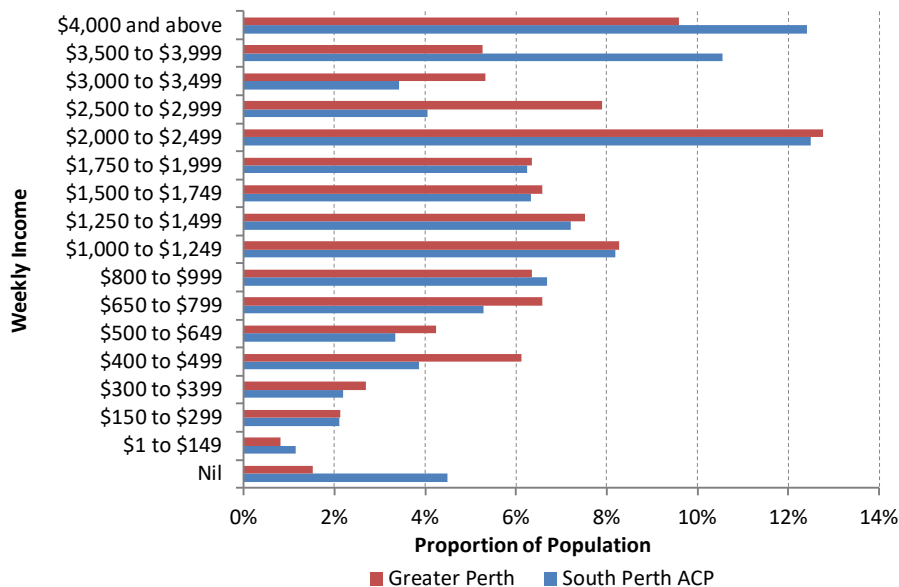
In 2016, the SPAC had about a 20% lower share of Family Households (which in this context included couples with no children living at home) as part of its overall household composition compared to Greater Perth. This is in line with a much higher proportion of lone person households which are associated with a greater proportion of aged people.



**Figure 13 Household Composition, SPAC and Greater Perth, 2016<sup>xxvi</sup>**

Note that Family Households includes both Couple Only households and Couples with Children. A review of the family composition of South Perth households indicates that over 50% of family households were without children.

Meanwhile, residents in the SPAC had relatively higher incomes than the Greater Perth average. Higher incomes are largely a reflection of the industry of employment, with many residents in high paid positions in professional services and financial services, though there is a substantial proportion of the population employed in health care and education.



**Figure 14 Income Levels of Residents, SPAC and Greater Perth, 2016<sup>xxvii</sup>**

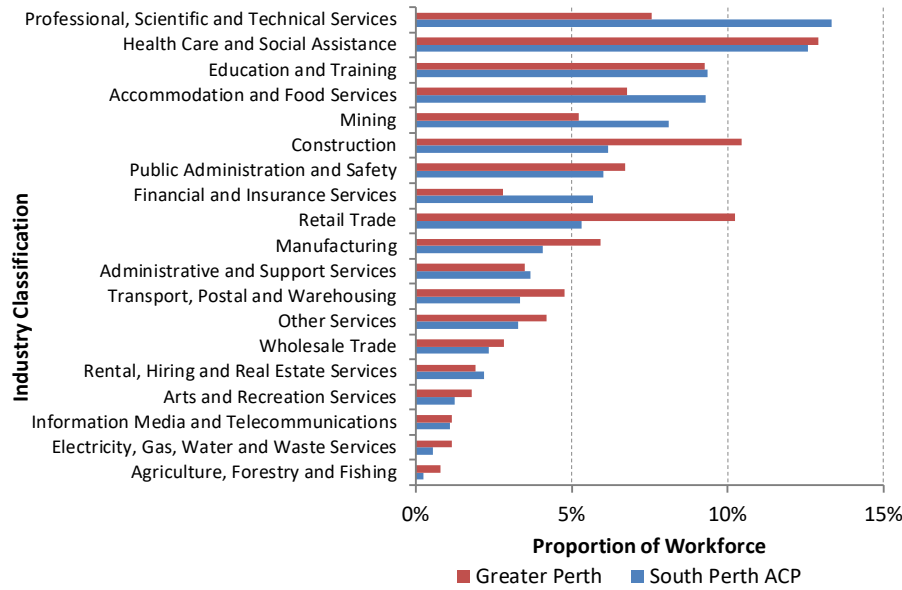


Figure 15 Industry of Employment of Residents, 2016<sup>xxviii</sup>

RPS also examined data on commuter patterns to understand the influence of key arterial routes on dwelling demand in the activity centre. The analysis revealed that 15.5% of workers took the bus to work, 59.9% travelled by car, 1.7% cycled and 1.7% took the ferry<sup>xxix</sup>.

Overall, the level of residents that took advantage of the public transport was relatively high (at close to double the Greater Perth average) and residents were less likely to drive to work, compared to the Greater Perth average. Cycling to work, while higher than the greater Perth average, was relatively low by inner-city activity centre standards.

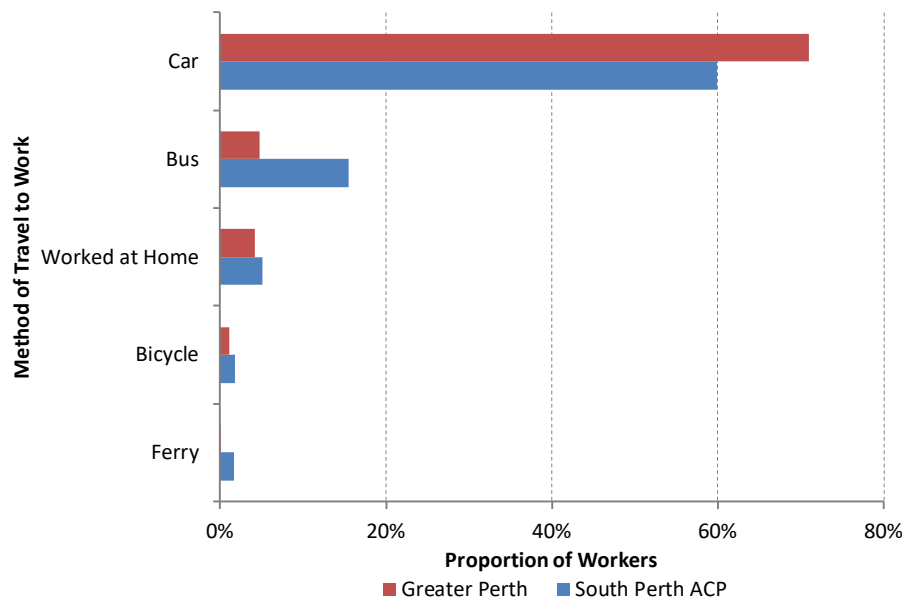


Figure 16 Method of Travel to Work of Residents, SPAC and Greater Perth, 2016<sup>xxx</sup>

### 3.2.4 Housing Stock

As of 2016, there were 1,941 dwellings within the SPAC precinct. Much of the recent development in the SPAC has been in the form of consolidating less intense residential land uses. This aligns with broader State

Government policy for inner city locations to play an enhanced role in meeting future population growth through more intensive residential built form.

As a result, detached housing in the SPAC represents a relatively low proportion of housing stock than the Greater Perth Average. However, with over 50% of the local housing stock as either detached and semi-detached, the overall level of residential density for the SPAC is significantly below key benchmarks from around Australia.

**Table 5 Share of Dwellings by Type, SPAC and Greater Perth, 2016<sup>xxxi</sup>**

Location	Detached and Semi-detached Dwellings	Flat or Unit
SPAC	56.1%	43.9%
<b>Greater Perth</b>	<b>91.9%</b>	<b>8.1%</b>

Much of the SPAC's housing stock are two or three bedrooms offerings, with a low proportion of one bedroom dwellings and even lower proportion of four or more bedrooms in the apartment and semi-detached dwelling market.

**Table 6 Share of Bedrooms by Dwelling Type, SPAC, 2016<sup>xxxii</sup>**



Dwelling Type	Bedrooms	SPAC
Detached House	Three Bedroom	33.3%
	Four Bedroom or More	66.7%
Semi-Detached Dwelling	One Bedroom	14.9%
	Two Bedroom	47.8%
	Three Bedroom	34.7%
	Four Bedroom or More	2.6%
Unit and Apartment	One Bedroom	9.7%
	Two Bedroom	54.9%
	Three Bedroom	34.8%
Total Occupied Stock	One Bedroom	12.5%
	Two Bedroom	49.9%
	Three Bedroom	34.8%
	Four Bedroom or More	2.6%

It is important to note that there was only a marginally above average proportion of homes rented in the SPAC (24.2% compared to 23.4% in Greater Perth). Given the proximity to the CBD and higher proportion of higher density housing stock, this result is unexpected. It likely reflects the higher proportion of older families in professional industries and higher incomes, translating to higher shares of home ownership.

The SPAC has not seen a significant increase in dwellings over the past five years, although there has been notable planning and construction of apartments and townhouses. Major examples include:



Table 7 Key Developments, South Perth<sup>xxxiii</sup>

Name	Sample Image	Characteristics
Pinnacle South Perth		<ul style="list-style-type: none"> <li><b>Location:</b> 30-34 Charles Street South Perth.</li> <li><b>Products:</b> One Bedroom Apartments, and two-bedroom two-bathroom apartments.</li> <li><b>Completion:</b> Completed late 2016.</li> <li><b>Target Market:</b> Investors, lone persons and older couples without children, with primarily 1-bedroom products available selling for upwards of \$500,000, and a limited number of 2-bedroom apartments selling for upwards of \$800,000.</li> </ul>
Aurelia South Perth		<ul style="list-style-type: none"> <li><b>Location:</b> 1 Harper Terrace South Perth.</li> <li><b>Products:</b> 118 apartments, 1 bed from \$455,000, 2 beds from \$725,000, 3 beds from \$990,000.</li> <li><b>Completion:</b> 2018.</li> <li><b>Target Market:</b> Investors, Young professionals, and families with children who would occupy three-bedroom products.</li> </ul>

### 3.2.5 Employment Trends and Attributes

The SPAC is a recognised boutique inner city economic hub in Greater Perth. Its strategic position opposite the Perth CBD, adjacent to Perth Water and with direct access to major arterial road and public transport options, affords the Area with significant economic advantages and potential.

In 2015, there were approximately 2,302 jobs in the SPAC<sup>xxxiv</sup>. The bulk of employment was within Office/Business, which comprised 74% of employment. The next biggest share of employment was Shop/Retail (15%), followed by Entertainment/Recreation/Culture (6%). The PLUC with the highest share of land use and was also Office/Business (53%), followed by Shop/Retail (11.4%), then Entertainment/Recreation/Culture (9%).

Table 8 Land Use and Employment, South Perth Activity Centre, 2015<sup>xxxv</sup>

Corresponding PLUC	Land Use	PLUC Code	Square Metres	Employment
Manufacturing/Processing/Fabrication	Manufacturing	MAN	150	6
Storage/Distribution	Storage	STO	5,904	5
Service Industry	Service Industry	SER	977	32
Shop/Retail	Shop	SHP	8,172	352
Other Retail	Other Retail	RET	200	17
Office/Business	Office	OFF	37,527	1,695

Corresponding PLUC	Land Use	PLUC Code	Square Metres	Employment
Health/Welfare/Community Services	Health	HEL	934	41
Entertainment/Recreation/Culture	Entertainment	ENT	6,705	138
Utilities/Communications	Utilities	UTE	5,278	16
Vacant			5,561	0
	<b>Total</b>		<b>71,408</b>	<b>2,302</b>

The SPAC experienced a decline in the level of employment between 2007 and 2015. This decline is primarily attributable to the impacts of the GFC and then the wind down of the mining sector.

**Table 9 Land Use and Employment, SPAC, 2007-2015<sup>xxxvi</sup>**

Year	Establishments	Square Metres	Employment
2007/08	1,211	67,325	2,955
2015/17	-	71,408	2,302

In terms of floor space, the amount of employment-support floor space increased from 67,325sqm in 2007/08 to 71,408sqm in 2015/17. This change, coupled with the decline in local employment, has impacted local employment-to-workspace ratios. Workspace ratios are the amount of floor space of Gross Floor Area in sqm required per worker. In 2015, the SPAC had the following workspace ratios.

**Table 10 Workspace Ratios, SPAC, 2015-17<sup>xxxvii</sup>**

Planning Land Use Category	Workspace Ratio
Entertainment/Recreation/Culture	49
Health/Welfare/Community Services	23
Manufacturing/Processing/Fabrication	25
Office/Business	22
Primary/Rural	0
Residential	0
Other Retail	0
Service Industry	31
Shop/Retail	23
Storage/Distribution	1,181
Utilities/Communications	330

### 3.2.6 Commercial Office Overview

There is approximately 37,527sqm of commercial office floorspace currently in the SPAC. While the total amount of floorspace increased from 2007 to 2015, the amount of occupied office floorspace decreased by 5,089sqm. Commercial office floorspace is dispersed across the activity centre, with the highest concentration on Judd street, to the south of Mill Point Road, and to the west of Labouchere Road.

The level of vacant floorspace within the centre also appears to have increased from 2007 to 2015, from 1,989sqm to 5,561sqm.

Much of retail provision (5,692sqm of 8,172sqm) is in the Mends Street Precinct, though this Precinct is also seeing the largest amount of vacant floor space (2,719sqm).

As highlighted earlier in this Assessment, the commercial office market more broadly across Perth is undergoing a sustained period of high vacancies in response to easing demand for floorspace, downsizing and cost cutting across the resource sector and large increases in supply in recent years.

The broader CBD market has felt the brunt of easing commercial market conditions, which has flown from the CBD to inner city secondary office markets like South Perth. In 2015, the South Perth office market was seeing a considerable level of vacancy at 13.1% in 2015.

There are currently several new developments under construction or proposed in the South Perth area, with the Richardson Centre on Richardson Street set to offer nine floors of premium floorspace (approximately 4,000sqm of office floorspace), and most new apartment developments offering office and/or retail space on the lower floors as part of mixed use provisions.

In terms of retail floorspace, the new Mends Street arcade is set to become a substantial shopping centre for specialty retail within the existing retail hub along Mends Street, offering tenancies between 52-112sqm.

### 3.3 Key Attributes and Drivers of SPAC

South Perth, including the SPAC, is strategically located to leverage the future growth potential of Greater Perth. There are several attributes and indicators that will influence the role and function of the SPAC in helping to meet this regional growth challenge sustainably for residents and businesses. These include:

- **Mixed Age Population Profile** – the SPAC is characterised by a unique mix of younger adults and workers and older workers and retirees.
- **Households** - Family households (including couples with no children) are the most prominent household types in the area, followed closely by lone person households.
- **Declining Population** – the residential population has declined marginally but steadily in recent years, peaking at 2,750 in 2011.
- **Higher Incomes** – incomes are significantly higher than the State average, with the share of individuals earning more than \$3,500 a week accounting for 1 in every 4 residents.
- **Strong Use of Public Transport** – public transport usage is notably higher than the Greater Perth average, with the share of bus and ferry usage particularly strong. Despite this, 60% of residents still use a car to travel to work, which is a very high proportion for an inner-city location and likely reflects the lack of local rail station.
- **Declining Employment** – employment over the past 8-10 years has declined by 600 jobs, reaching a low of 2,302 in 2015. The decline is primarily in the commercial office land uses, including professional services and mining sectors, reflecting the impact of the GFC and then the wind down of the mining investment cycle.
- **Increased Commercial Floor Space and Vacancies** - the floor space in the SPAC increased over the past 10 years. However, given the decline in employment during this time, property vacancies have increased.
- **Housing Stock Somewhat Diverse** – the housing stock of the SPAC is more diverse than the State average with higher shares of flats and units. However, the share of detached and lower density housing stock is higher than would be expected for an inner-city river front location.
- **New Housing Development** – almost 400 apartments are either recently constructed or under construction at present, which is expected to drive population growth in the SPAC in the short-term.

## 4.0 Capacity for Growth

This section qualitatively assesses the capacity of the SPAC to grow, based on four key drivers of capacity. This assessment investigates the prospects for the activity centre through the prism of its economic, social and physical attributes and performance within a regional context to identify the key comparative advantages and assets to leverage. This assessment is also fundamental to the identification of current and emerging opportunities and priorities.

### 4.1 Assessing the Capacity for Growth

This study has undertaken an assessment of the capacity for growth in the SPAC using the “Four Cs Assessment” approach for economic development.

The “Four Cs” approach provides the critical analysis required to identify and understand the strength and direction of an economy. The “Four Cs” are:

- **Capital** – human capital, particularly skills, education, innovation and social capital are fundamental inputs to economic activity and crucial to competitiveness, resilience and social and cultural sophistication;
- **Communities** – economically and environmentally sustainable communities and population growth;
- **Connections** – access to international, national and regional markets; and
- **Competitiveness** – business competitiveness.

### 4.2 4Cs Assessment Results

This assessment has drawn on key input from a range of stakeholders as well as targeted research. The findings have been summarised in the table below.

**Table 11 Four Cs Assessment Summary**

	Advantages	Challenges
<b>Capital</b>	<ul style="list-style-type: none"> <li>▪ <b>Skilled workers</b> – consistently high proportion of population with high education, due to being centrally located, with a focus on high density living</li> <li>▪ <b>Education and research</b> – near UWA and Curtin University, as well as educational institutions in the Perth CBD</li> <li>▪ <b>Inner-city Location</b> – Potential to become a popular alternative to Perth CBD due to proximity to city and amenity</li> <li>▪ <b>Close to research facilities</b> – With the new Pawsey Supercomputing centre complementing existing research facilities around technology park in Kensington</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Ongoing education</b> – low levels of ongoing education whilst in full-time employment</li> <li>▪ <b>High property values</b> – high property values make living in the area less viable for entrepreneurs, and increases cost of office space</li> <li>▪ <b>Lack of institutions</b> – no tertiary education institutions in the centre make the area less likely to become an education centre</li> <li>▪ <b>Lack of Rail</b> – Lack of a train station reduces accessibility for workers and students</li> </ul>
<b>Communities</b>	<ul style="list-style-type: none"> <li>▪ <b>Established community</b> – Centrally located and safe community</li> <li>▪ <b>Local visitation</b> – high rate of visitation with the zoo and foreshore attracting local and international visitors</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Slower population growth</b> – population growth rate currently low</li> <li>▪ <b>Families with children</b> – lower levels of family with children households, due to very high shares of couple with no children</li> </ul>



	Advantages	Challenges
	<ul style="list-style-type: none"> <li>▪ <b>Young adults</b> – a substantial proportion of working age young professional adults</li> <li>▪ <b>Diverse economy</b> – significant diversification of industry, with a significant amount of office space</li> <li>▪ <b>Sport and recreation</b> – sporting ovals and facilities dispersed across activity centre are attractive to residents</li> <li>▪ <b>Urban amenity and vibrancy</b> – dedicated entertainment district and retail facilities</li> <li>▪ <b>Events profile</b> – significant and appealing regional events</li> </ul>	<p>housholds.</p> <ul style="list-style-type: none"> <li>▪ <b>Elderly residents</b> – high proportion of elderly residents, with low levels of age-specific accommodation</li> <li>▪ <b>Affordability</b> – dwelling and commercial spaces do not compare favourably to areas outside of the inner city</li> <li>▪ <b>Unstable industry</b> – the number of businesses has declined recently</li> <li>▪ <b>Lack of identity</b> – difficulty in clustering common economic land uses and industries</li> </ul>
Connections	<ul style="list-style-type: none"> <li>▪ <b>Established bus and ferry transport</b> – already serviced by bus and ferry services for residents and visitors.</li> <li>▪ <b>Access to major road networks</b> – proximity to Kwinana freeway and Canning highway</li> <li>▪ <b>Strong bike infrastructure</b> – good bike infrastructure allowing access to Perth CBD, and along the Swan River</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>No train facility</b> – there is currently no train station in the SPAC, reducing connectivity</li> <li>▪ <b>Constrained road network</b> – the current road network will be under pressure from more residents and workers in the future from higher density commercial and residential dwellings</li> <li>▪ <b>Local cycling infrastructure</b> - on streets within the SPAC, including connection with regional cycling routes, is poor</li> </ul>
Competitiveness	<ul style="list-style-type: none"> <li>▪ <b>Desirable location</b> – the activity centre is centrally located and attracts visitors from across the Greater Perth Area</li> <li>▪ <b>Tourism assets</b> – prominent tourism assets such as the zoo, the foreshore, and the Mends street entertainment area</li> <li>▪ <b>Office floorplate diversity</b> – variety of different floorplates for different business needs within the centre</li> <li>▪ <b>Growing accommodation facilities</b> – increasing number of accommodation providers in the catchment for visitors</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Inflexible planning controls</b> - relatively restrictive development controls</li> <li>▪ <b>Low density</b> – relatively low residential density that will not accommodate necessary growth</li> <li>▪ <b>Competition</b> – increased competitive pressure from established and emerging employment centres, including established corporate clusters (e.g. West Perth, law and finance in the Perth CBD)</li> </ul>

### 4.3 Implications for SPAC

Overall, the recent decline in population and housing in the SPAC indicates that the Precinct is not currently fulfilling its full economic and social potential and has capacity for growth. The Area possesses considerable local and regionally significant amenities and economic assets, providing residents and business alike with access to opportunities in the wider region through major road and public transport access. The presence of natural amenities (including Perth Water and the foreshore), coupled with a major attractor (namely Perth Zoo) also supports considerable tourism visitation.

Similarly, the SPAC also possesses higher shares of detached and lower density housing than expected for an inner-city river front location. Public transport usage, while above average, is ultimately constrained by the lack of access to passenger rail.

Opportunities exist to enhance and intensify the urban form of the SPAC. Doing so will require a strong focus on urban regeneration and revitalisation, not only increasing the density of development but doing so in a

way that enhances and sustains a high quality of life for new and existing residents, workers, businesses and tourists to the area.

## 5.0 Growth Scenarios

The future growth of any location is unknown and significant uncertainty exists around the role and function the location will play in the regional economy. Moreover, factors such as technology and shocks can interrupt predictable forecasts.

To provide insights into the future growth potential of the SPAC, RPS has prepared a series of growth scenarios for both population and employment. These scenarios are based on different levels of contribution of the SPAC to the local and regional population growth and economy out to 2041.

### 5.1 Role and Function Scenarios

Both population and employment assessments examine the potential outcomes for the SPAC under four distinct scenarios:

- **Base** – continuation of current shares of population and employment and growing in line with historical contributions and future regional growth trends.
- **Low** – marginal increase in the role and function of the Centre, resulting in a minor increase in both population and employment shares of regional activity.
- **Medium** – moderate increase in the role and function of the Centre, resulting in a notable increase in both population and employment shares of regional activity.
- **High** – large increase in the role and function of the Centre, resulting in significant increases in both population and employment shares of regional activity.

The modelling undertaken for each of these scenarios is **unconstrained**, meaning issues such as local land availability, infrastructure capacity and local market expectations and servicing capacity have not been considered. This approach is critical in ensuring that the assessment examines the full economic and social potential of the Area, rather than a future profile that is capped by existing infrastructure and investments.

## 5.2 Population Scenarios

RPS has modelled age-specific population growth and composition for the SPAC across the four role and function scenarios outlined above.

### 5.2.1 Approach and Assumptions

To model local population scenarios, RPS has utilised forecasts from Forecast ID for the suburb of South Perth. Rebased through to 2041, these projections are outlined below.

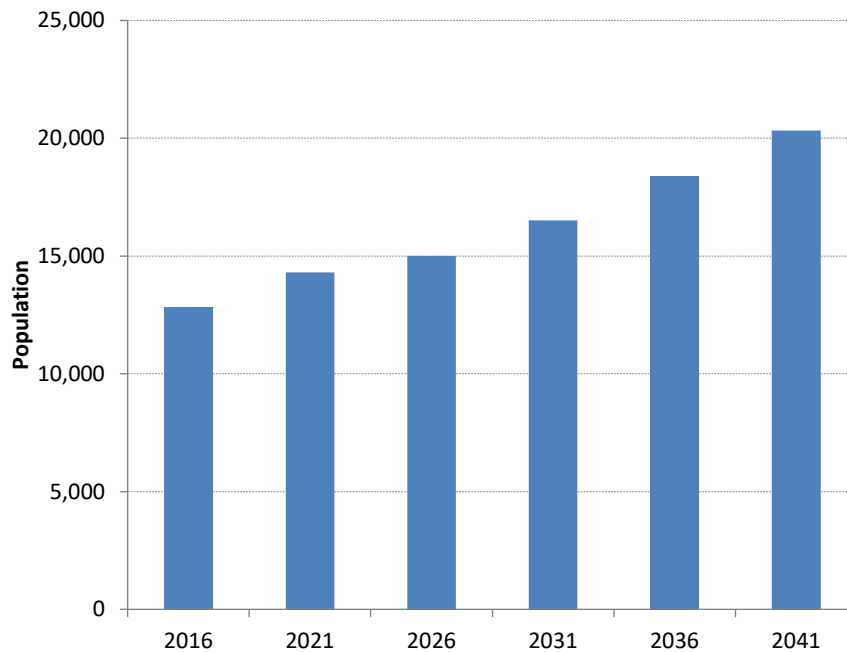


Figure 17 Population Forecasts, South Perth Suburb, 2016 to 2041<sup>xxxviii</sup>

RPS has tested the impact on local population, by varying the share of the suburb population accommodated in the SPAC by 2041. Currently, one in five residents of South Perth reside within the SPAC, which forms the Base Case for testing.

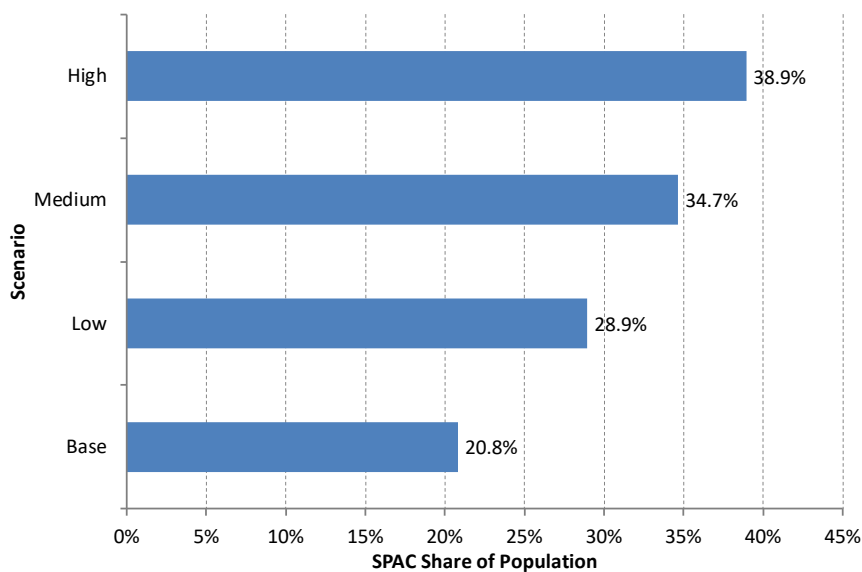


Figure 18 SPAC share of Suburb Population, by Scenario, 2041



In preparing and reviewing these scenarios, a number of factors were considered, including:

- Business as usual growth is unlikely to continue for a number of reasons (including those that follow), and consequently no scenario considering less than 20.8% should therefore be considered.
- The existing density and multi-residential style of development in the SPAC includes some supporting infrastructure and services which will in turn attract more demand for people seeking an apartment lifestyle.
- The state government, via the Western Australian Planning Commission (WAPC), provides substantial policy direction supporting well-located infill development.
- The suburban balance of South Perth is considerably fragmented, and would offer limited opportunity for apartment living, and lifted chance to comprehensively redevelop the site.
- WAPC has a preference for coordinated infill, based on precinct-wide planning surrounding a centre of activity. This is a fundamental planning principle and therefore unlikely to change significantly.
- The SPAC has considerable place appeal, due to its river setting, appealing public realm, and opportunities for unique experiences, which are unlikely to change.
- Cities growing as Perth is projected to attract significant demand for dwellings close to the city, near the river and good transport connections.
- Conversely, as the city continues to grow in population, more people will consider the distance and commute from large lots at the edge of suburbia less convenient than an apartment lifestyle, increasing demand across a range of household types.

Other key assumptions include:

- Average household sizes in line with Forecast ID estimates;
- Dwelling occupancy rate of 65% in 2016, based on current estimates for 2016 for the area, increasing to 80% by 2041, based on benchmark locations; and
- Age profile in line with Forecast ID estimates for the suburb of South Perth.

### 5.2.2 Population Results

Based on the approach and assumptions outlined above, RPS assessed the population growth for the scenarios. The results are outlined below.

**Table 12 SPAC Population Scenarios, 2016 to 2041**

Population	2016	2021	2031	2041	Change (2016-2041)
Base	2,675	2,978	3,436	4,230	1,555
Low	2,675	3,181	4,188	5,881	3,206
Medium	2,675	3,298	4,667	7,046	4,371
High	2,675	3,375	5,004	7,913	5,238

Under the Base Case scenario, the population of the SPAC will increase over the next 25 years to 2041. This is in line with population growth expectations for the wider suburb and reflects the existing structure of the SPAC continuing into the future. This base case scenario, keeping in line with the existing structure, seeks to provide context around what happens in the SPAC should all things remain constant.

If the role of the SPAC increases and shifts away from its current structure, the population of the Area will increase by 3,206 people under the Low Scenario, 4,371 under the Medium Scenario and almost 5,238 people under the High Scenario.

Given these projections, the population of the SPAC could increase by approximately 1,555 to 5,238 people between 2016 and 2041. This represents the population potential of the Area over the assessment period.

### 5.2.3 Age Profiles

RPS has examined the population age profile forecast by ForecastID for the suburb and identified the shares of the population for major age groups under the Base Case.

**Table 13 Age Group Share of Population, SPAC, Base Scenario, 2016 to 2041**

Age Group	2016	2031	2041
0-14	12.2%	13.0%	12.9%
15-24	12.8%	14.8%	14.7%
25-44	32.2%	32.0%	31.6%
45-64	26.4%	22.8%	23.6%
65+	16.3%	17.5%	17.3%

The Breakdown by age groups for the Base Case scenario is outlined in the following table.

**Table 14 Population, by Age Group, SPAC, Base Scenario, 2016 to 2041**

Age Group	2016	2031	2041
0-14	328	383	458
15-24	344	454	558
25-44	859	1121	1436
45-64	707	749	916
65+	437	729	862
<b>Total</b>	<b>2675</b>	<b>3436</b>	<b>4230</b>

### 5.2.4 Dwelling Requirements

This population will require additional housing. Based on the dwelling occupancy and household size assumptions, RPS estimates that by 2041, a total of between 2,554 and 4,778 dwellings are needed, depending on the scenario involved.

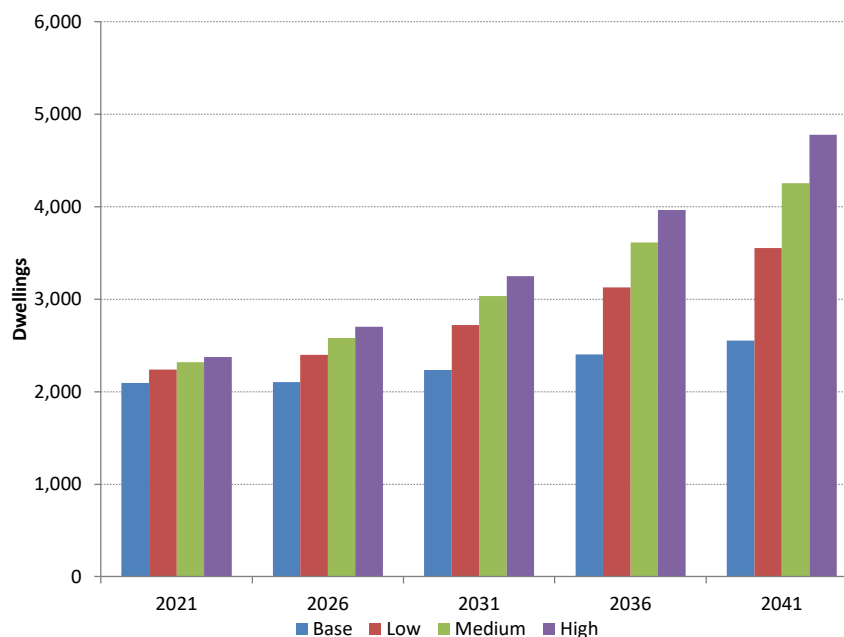


Figure 19 Total Dwellings, SPAC, by Scenario, 2021-2041

### 5.2.5 Key Findings

Overall, even under the Base Case, with no change in the role and function of the SPAC, the population and dwelling requirement for South Perth Activity Centre will need to increase over the next 25 years.

The Base Case, however, is not a realistic frame of reference for planning the future of the SPAC. Firstly, it also presumes that current approaches to population settlement and dwelling construction continue “business as usual” with limited responses by the market from increased policy incentives and drivers.

A number of factors indicate that a higher growth scenario is likely, including:

- The amenity appeal of a river location;
- The market forces increasingly reflecting demand for inner city lifestyles;
- Government policy support for infill development;
- The existing apartment lifestyle in South Perth attractive further interest from prospective residents;
- The growing broader appeal of apartments to a range of household types, further inflating demand; and
- The “place appeal” of South Perth, likely to amplify local demand, consequently leading to South Perth outperforming other inner city areas as a desirable place to live.

Underestimating demand raises the risk that any ACP will not provide sufficient capacity and flexibility to accommodate forecast demand due to emerging demographic trends and market forces. If this demand is not accommodated, and therefore “unplanned” concern is that population growth pressures in the SPAC will result in a series of perverse outcomes being realised contrary to the vision of the City of South Perth, or of key strategic decisions on the future of the precinct not being made locally. Most significant would be the continued worsening of housing affordability in the area, as housing demand outstrips supply and price pressures increase.

It will also result in more ad-hoc responses to meeting demand. This likely minimises the opportunity for development design to be optimised to limit the impact of increased density on the urban realm through incorporating increased ground floor activation and permeability.

RPS recommends ***that the ACP consider the Medium and High growth scenarios*** for the preparation of planning controls for the SPAC.

Key Assumptions should include:

- Population of approximately 5,000 residents in SPAC by 2031, rising to between 7,000 and 8,000 by 2041.
- Allowance for approximately 3,000 dwellings in SPAC in 2031, rising to between 4,250 and 4,800 dwellings by 2041.



### 5.3 Employment and Floor Space

RPS has modelled employment and floor space growth and composition for the SPAC across the four role and function scenarios outlined above.

#### 5.3.1 Approach and Assumptions

The modelling of local employment in the long term is challenging. Unlike population, where prevailing population trends and changes in migration and natural increases to an area are generally less volatile, the nature and composition of employment and how it is accommodated and facilitated can change rapidly.

The Australian Government Department of Employment projections for regional employment in Australia typically only extend 5 years into the future. However, RPS has extended the projections for the Perth-South East region to 2041 utilising historical trends in industry employment from the ABS. This industry-specific data has then been converted to align with the Planning Land Use Categories (PLUC), utilised by the WAPC and Department of Planning. This ensures that the projections can be based on current employment estimates for the SPAC derived from the Department of Planning's Land Use and Employment Survey 2015-2017.

Key assumptions in this scenario testing include:

- Scenarios are differentiated by adjusting the SPAC share of the wider Perth-South East SA3 employment estimates for 2017 across each of the land use categories.
- RPS has applied current workspace ratios for the SPAC to future employment projections under each scenario, assuming that no further changes in workspace densities occurs during the assessment period.
- RPS has assumed that the current land use category mix in the SPAC stays broadly the same, with limited to no additions of Primary Industries, large format retail, and limited storage or utilities employment.

The population scenarios assessed in this report were not inputs into the employment analysis. They were however, used to validate employment scenarios using employment-to-population ratios at select points in the assessment period. This approach ensured a degree of alignment in the scale and scope of potential development (residential and non-residential) in the scenarios, without making the employment scenarios contingent on the estimated population movements.

It should be noted that RPS has not expressly modelled the employment and floor space impact of any potential future rail station in the SPAC. While such an investment would likely have significant implications for future floor space need and employment generation, a lack of certainty regarding the timing of the station make modelling employment impacts within a scenario assessment approach impossible.

#### 5.3.2 Employment Results

As expected, the employment potential of the SPAC is significant, with the number of jobs in the area (2,302 jobs) having the potential to increase by 76.3%, as a minimum over the next 24 years. This increases marginally under the Low scenario to over 4,451 jobs (or 93.4%) by 2041, while employment has the potential to more than double under the High scenario to 5,485 jobs.

**Table 15 Employment, SPAC, 2017 to 2041, by Scenario**

Total Employment	2017	2021	2031	2041
Base	2,302	2,525	3,193	4,059
Low	2,302	2,556	3,332	4,451
Medium	2,302	2,605	3,562	4,892
High	2,302	2,655	3,806	5,485

A review of the land use breakdown of this employment confirms that Office-based employment is expected to be the largest contributor to total jobs in 2041 under each scenario, with between 3,256 and 4,345 office jobs by that date. Note, this does not necessarily mean these jobs will be in commercial office buildings, as about 75% of jobs at the Perth Zoo classified as Office in terms of underlying land use.

Notable growth is also expected in Entertainment and Shop Retail land uses.

**Table 16 Employment, SPAC, by PLUC, 2041**

PLUC	Base	Low	Medium	High
Entertainment/Recreation/Culture	236	281	315	354
Health/Welfare/Community Services	42	44	46	49
Manufacturing/Processing/Fabrication	6	6	6	6
Office/Business	3,256	3,446	3,870	4,345
Service Industry	34	38	38	41
Shop/Retail	462	612	594	667
Storage/Distribution	5	5	5	5
Utilities/Communications	18	19	18	18
TOTAL JOBS	4,059	4,451	4,892	5,485

### 5.3.3 Floor Space

Applying assumed work space ratios, RPS estimates that the SPAC has the potential to support between 97,650sqm and 127,750sqm of employment floor space by 2041, not including Shop Retail (examined separately in section 7.0). This is a significant increase from the 63,000sqm of commercial floor space (excluding Shop Retail) in the SPAC in 2015. Office land uses will likely account for the largest share of total floor space by 2041, reaching between 70,000 and 96,000 sqm Gross Floor Area (GFA) depending on the Scenario. Again, this reflects the fact that even under a Base Case scenario, with the economic importance and function of the SPAC not changing, there is likely to be sufficient demand to support a greater than 50% increase of employment floor space over the next 24 years.

**Table 17 Total Non-Residential Floor Space (sqm), SPAC, by PLUC, 2031 and 2041**

2031				
PLUC	Base	Low	Medium	High
Entertainment/Recreation/Culture	9,163	10,142	10,853	11,611
Health/Welfare/Community Services	945	967	1,002	1,037
Manufacturing/Processing/Fabrication	151	150	150	150
Office/Business	54,921	56,763	60,745	64,985
Service Industry	9,543	10,312	11,047	11,829
Storage/Distribution	5,927	5,904	5,904	5,904
Utilities/Communications	5,699	5,660	5,660	5,660
<b>TOTAL FLOOR SPACE (exc. Shop Retail)</b>	<b>86,348</b>	<b>89,898</b>	<b>95,360</b>	<b>101,176</b>

2041				
PLUC	Base	Low	Medium	High
Entertainment/Recreation/Culture	11,454	13,630	15,310	17,187
Health/Welfare/Community Services	953	992	1,053	1,117
Manufacturing/Processing/Fabrication	151	150	150	150
Office/Business	72,090	76,285	85,686	96,193
Service Industry	1,045	1,101	1,169	1,241
Storage/Distribution	5,944	5,904	5,904	5,904
Utilities/Communications	6,020	5,949	5,949	5,949
<b>TOTAL FLOOR SPACE (exc. Shop Retail)</b>	<b>97,657</b>	<b>104,011</b>	<b>115,221</b>	<b>127,741</b>

**Note that RPS has not estimated that the floor space need for the Shop/Retail land use using the employment trends outlined above. This reflects the fact this approach does not take into consideration potential changes in consumer behaviour and retail need in the wider catchment. Instead, RPS has examined retail floorspace, using an expenditure approach in section 7.0.**

### 5.3.4 Key Findings

The SPAC has a series of unique attributes that make it particularly attractive for both population and visitor servicing sectors and niche commercial office-based businesses. The amenity of the area attracts workers from outside of SPAC to seek employment in the Area. This enables the Area to deliver higher quality and a more diverse range of services than the local population alone could support.

The reliance on commercial office employment for growth of the SPAC, under the Medium and particularly the High Scenarios is difficult to justify. South Perth is recognised as a boutique office market in Greater Perth, with locations such as West Perth, East Perth and increasingly Northbridge playing the primary roles as CBD expansion/overflow of long-term office demand. It is difficult for SPAC to compete with these locations in the short-to-medium term, despite possessing a range of amenity and lifestyle advantages.

The present capacity in the commercial office market in the Perth CBD means it is difficult to justify any significant commercial office increases SPAC until there is sufficient demand to fill existing capacity. This does not preclude long-term investment and development in commercial floor space. However, such development is likely to be predominantly contingent on the delivery of the rail station, as this would help to reinforce the role of South Perth as an intervention point in northerly worker flows along the Kwinana Freeway and the rail line prior to entering the Perth CBD. It would also increase the level of accessibility of businesses to the CBD via public transport, reducing the higher than expected dependence on private motor vehicles that currently characterises the area.

Instead, focus should be afforded to maximising the Office employment generated from non-traditional floor spaces (as part of other uses) and Entertainment and Shop Retail activities. These sectors align very closely in their need for amenities and facilities with the local residential population, resulting in access by residents to higher quality and greater variety of services than currently provided.

RPS recommends **that the ACP consider the Low and Medium growth scenarios** for the preparation of planning controls for the SPAC. Note that shop retail floor space is considered separately in section 7.0.

Key Assumptions should include:

- Allowance for approximately 3,400 jobs in SPAC in 2031, increasing to 4,900 jobs by 2041.
- Allowance for approximately 110,000sqm of floor space in SPAC by 2041 (excluding Shop Retail).

## 6.0 Tourism Projections

As identified in the employment and floor space assessments above, shop retail and entertainment land uses represent major economic opportunities for the SPAC, combining demand from local residents, regional visitors and tourists alike to support local service delivery.

So far in this assessment, RPS has examined the potential of these sectors from the perspective of regional employment shares based on the possible role and function of the SPAC. In this section, specific projections have been developed for the individual sector utilising a more targeted methodology.

### 6.1 Tourism Projections

The tourist industry is a major contributor to the Western Australian and South Perth economy. Estimates from ID put the total value of sales associated with tourism and hospitality at over \$250m per year with a local gross value added of almost \$109m<sup>xxxix</sup>. This supports over 1,100 direct and indirect jobs in the South Perth Council Area. Overall tourism and hospitality accounts for almost 5% of the City of South Perth economy, double the share for Western Australia as a whole.

#### 6.1.1 Tourist Projections Approach

RPS has analysed data from Tourism Research Australia's National and International Visitor Surveys for the South Perth-Kensington SA2. This data includes historical estimates of daytrip, domestic overnight and international visitation to the SA2, which includes the SPAC.

Additionally, RPS has analysed tourist projections for the Experience Perth tourism region. This data includes 10 year projections of tourist visitor nights (number of visitors by the average length of their stay).

RPS has derived the visitor-type specific growth rates for Experience Perth and applied these to the actual visitation rates to South Perth-Kensington SA2. Post 2027, a consistent growth rate has then been applied (based on the 2026/27 annual rate) out to 2041.

The advantage of this approach is that it allows for the compositional change in tourists between daytrip, domestic overnight and international overnight to be considered and for the mix to evolve over time.

Note, visitors that travel less than 20km to South Perth do not constitute tourists for the purpose of this assessment. These visitors are regarded as within the local catchment of a tourist destination and their expenditure and activity are generally accounted for in local expenditure data sets.

Finally, the smallest geography at which tourist projections can be developed is the SA2 level. This geography is larger than the SPAC, though RPS considers it likely that the SPAC would account for the vast majority of expenditure-related visitation to the SA2, as the principal tourist servicing centre and as home to major attractions like Mend Street, the foreshore and Perth Zoo.

### 6.2 Recent Performance

Overall, the tourist visitation to South Perth has grown strongly in recent years, increasing from 63,000 visitors in 2007 to 119,000 visitors in 2017. These visitors in turn stayed for over 400,000 days/nights in 2007, though visitor nights in subsequent years have been highly volatile due to changes in average lengths of stay – ranging from over 700,000 visitors nights in 2012 to 345,000 in the year to June 2017. In 2016, a combination of seasonal attractions at Perth Zoo and a more traditional length of stay for international tourists saw total visitor nights/days increase to over 697,000. This underlines the inherent volatility of annual



visitation numbers. However, overall the trend has been positive and growing strongly across both number of visitors and visitor nights<sup>xl</sup>.

### 6.3 Projection Results

Based on the approach outlined above, RPS estimates that the number of visitors to South Perth will increase to 135,000 in 2021, and 238,000 by 2041. This growth is expected to be fastest among international visitors (off a smaller base), though domestic day trip visitors are expected to account for the largest share of visitors in 2041 at 57%.

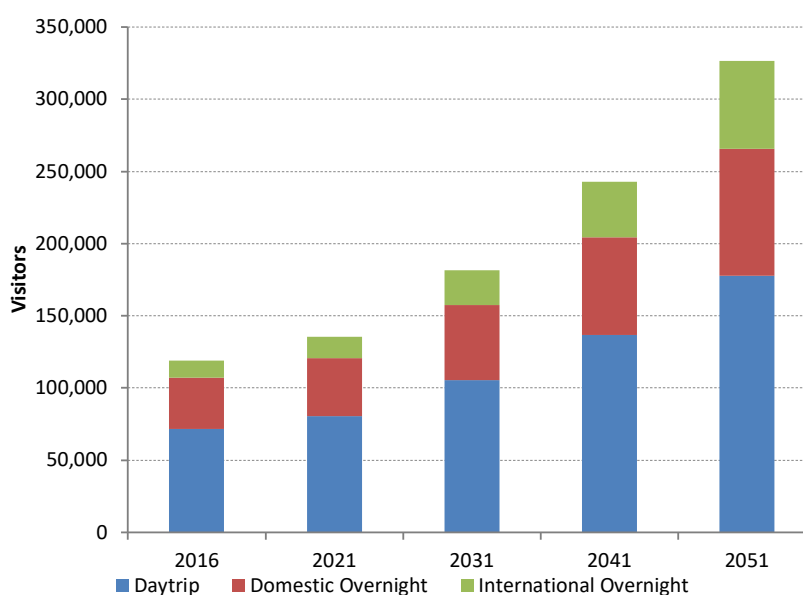


Figure 20 Projected Tourist Visitors, South Perth-Kensington SA2, by Type

### 6.4 Key Implications for SPAC

The scale and mix of tourist visitation to the wider South Perth SA2 area are expected to change over time. Total visitor numbers are expected to almost triple over the period to 2051, with international overnight visitors expected to play an even greater role in future visitation.

Despite this, SPAC and South Perth generally will continue to primarily be a day trip market. This is primarily due to the area's proximity to the Perth CBD with its concentration of hotel and short-stay accommodation, and the popularity of attractions such as the Zoo and foreshore with residents across Greater Perth.

This tourist visitation will generate demand for a range of different services and facilities in SPAC, including the expansion and diversification and tourist activities, greater shares of both formal and informal tourist accommodation and improved and enhanced transport accessibility.

## 7.0 Retail Need Assessment

Analysis has been undertaken in this report on the employment scenarios for the **Shop Retail land uses** in the SPAC. That assessment was based on the potential role and function of South Perth in meeting the wider regional shop retail needs. As such, it is expected that this employment figure, and associated floor space, will be closely linked to population growth in the wider region.

Traditional retail needs assessments, including those required under SPP 4.2 and prepared by Local Governments around the State, have generally been prepared as part of Local Commercial Strategies. Alternatively, retail need assessments are undertaken by proponents of major retail developments for consideration by Councils or DAPs and rely almost entirely on the demand generated by the residential population in the catchment.

However shop retail demand, in locations such as South Perth, can be generated from a range of non-residential sources. Two common types include:

- Tourists and visitors; and
- Non-resident workers (workers who have travelled from outside of the retail catchment to the site for work). This can include permanent and transitory workers.

Each of these types of non-residential sources of retail expenditure must be analysed separately and collated with residential demand to determine total demand for retail floor space in the SPAC.

### 7.1 Trends in Retail

Long-term projections and assessment of retail expenditure and floor space are challenging. The retail sector has and will continue to be impacted by a diverse range of generational, fiscal, technological and feasibility factors that have the potential to fundamentally alter the level of retail floor space demand in SPAC.

A number of critical trends have been summarised below.

#### 7.1.1 Online Retail and the Changing Role of Shops

The retail shopping environment now encapsulates both physical retail stores and a parallel online retail offering.

Significant growth in online retail sales over the past decade (averaging 2% per month since November 2014<sup>xli</sup>) has corresponded with a significant slowing in the growth of expenditure at traditional stores (slowing to an average growth of only 0.25% per month or half the rate of growth in mid 2000s<sup>xlii</sup>).

However, this trend has varied significantly across retail categories, with online retail and wider economic conditions impacting individual retail categories differently. The impact of online retail on traditional physical stores therefore depends greatly on the range of products stocked in different stores and shops.

One approach that has been increasingly adopted by physical retail outlets is to better integrate retail offering with existing and new online retail models. This has included:

- **Virtual Shop Front:** establishing their own virtual retail portal or shop front that provides the customers with access to the same products as physical stores; and
- **Online Portal Participation:** participating in an existing independent (i.e. not owned or operated by the retailer) portal such as eBay, GroceryRun.com and Amazon.

Similarly, there is a large diversity of how the goods and products purchased online are delivered to the final customer. This reflects the online retail model involved, the nature and characteristics of the product and the preferences of the customer themselves.

Some delivery models have limited to no involvement by traditional shops (i.e. delivery of the product from a warehouse directly to the customer's place of residence or work), while other delivery models see physical retailers playing a more active role. Examples of the role that physical shops can play in online retail transactions and product delivery:

- **Collection Node** – the customer collects the product purchased online from a physical retail shop;
- **Distribution Node** – the physical shop fills the customer's online order and then dispatches the order via small courier or post;
- **Delivery Hub** – the physical shop fills the customer's online order then facilitates delivery by truck; or
- **Showroom** – the physical shop provides the opportunity for customers to "try" the product before they purchase online.

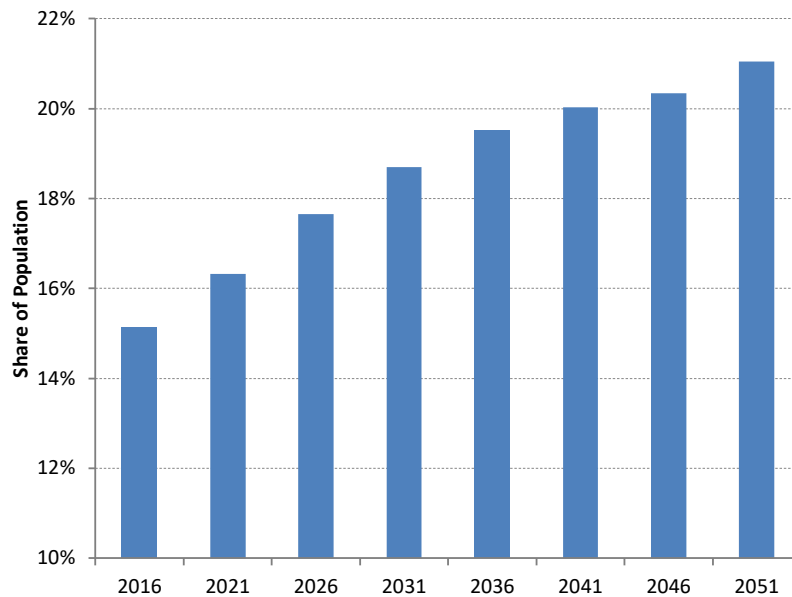
To adapt to this trend and maintain relevance within an increasingly online retail environment, physical retailers are making changes to play one or more roles. Examples include:

- Supermarkets are increasingly offering grocery deliveries to the customers within the "catchments" of its physical shops, using small delivery trucks owned and operated by the retailer. This currently accounts for approximately 2% of all supermarket sales in Australia, which is expected to double to 4% or \$5.8b by 2020.
- Retailers such as Nespresso are rolling out new stores with significant reduced shelf capacity to accommodate in store product training and "taste-testing" for customers, reflecting the fact that 80% of the retailer's sales are now online.

### 7.1.2 Demographic and Generational Change

Australia's population is undergoing a demographic and generational transformation that has implications with a diverse range of sectors of the economy, including retail.

In the past, Australia was a relatively youthful country. However, recent Intergenerational Reports have revealed that the combination of 20 years of sub-replacement level fertility rates and the "population bubble" caused by the flow of the Baby Boomers, will result in the proportion of the population aged over 65 years double to over 21% per cent by 2051<sup>xliii</sup>.



**Figure 21 Share of Population aged 65+, Australia, 2016 to 2051**

At the same time, growth in the population of traditional workforce age is expected to slow to almost zero. This is a permanent change. Barring an unprecedented change in fertility rates, the age structure of the population is likely to stabilise with a far higher proportion of older Australians.

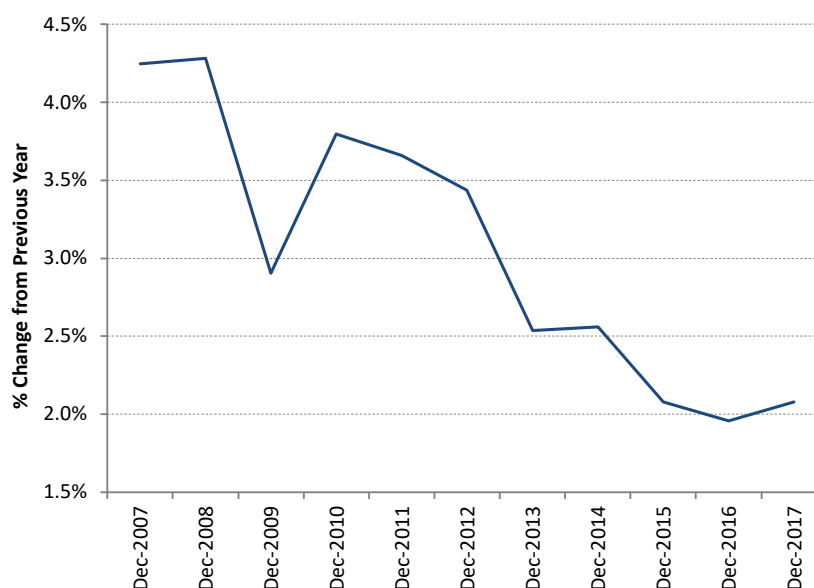
While these overall demographic considerations will drive national outcomes, there will be differences between regions. For example, some areas attract retirees and will experience a more rapid ageing of their populations. In others there is migration of many young adults from rural and regional areas to metropolitan areas for both employment and educational opportunities. The combination of these migration trends will heavily influence the demographic changes and growth of inner urban areas across Australia, including SPAC.

### 7.1.3 Household Expenditure and Credit Card Debt

Household expenditure profiles have transformed since the GFC, due to a combination of slowing wage growth, rising costs of living, changing consumer preference and reduced credit card debt levels.

Wage growth has declined rapidly in recent years, as latent capacity in the labour market (both unemployment and underemployment), the rise of the “gig economy” and the broader casualisation of the economy have placed downward pressure on wage growth. Wage growth in Australia has averaged 3% plus for the past 20 years. However, over the past 5 years, growth rates have fallen a full 1% to, on occasion, less than 2% per annum. Given the rising costs of living, this wage growth means that workers are receiving minimal real increases in their income at present. The RBA considers it likely that this environment will continue for the foreseeable future.





**Figure 22 Wages Growth Rates, Australia, 2007-2017<sup>xliv</sup>**

Costs of living have also been increasing significantly in recent years. While headline inflation rates have remained subdued, the cost of living for many households, particularly families with children and older households have been rising sharply. This reflects the fact that the largest growth in costs have been in sectors such as housing, health, education and core essentials such as groceries, electricity and other utilities – items that are most relevant for family households<sup>xlv</sup>. This rising cost of living has resulted in a lower proportion of household income being available as disposable income for discretionary expenditure in the shop retail sector.

This shift in the disposable income of households, coupled with generational change, has seen the spending patterns of households shift in recent years. Over the past decade, rises in café and restaurant and groceries shares of retail trade have offset falls in the shares of clothing, department store and household goods retailing. This shift to food expenditure in part reflects a shift in consumer spending patterns away from goods retailing to experiential and service retailing, reflecting the different preferences of emerging generations and households.

**Table 18 Share of Retail Expenditure, by Sector, Australia, 2007 to 2017<sup>xlvi</sup>**

Year	Food	Household goods	Clothing, footwear and personal accessory	Department stores	Other	Cafes, restaurants and takeaway food services
Jun-2007	38.5%	19.2%	8.4%	8.3%	13.1%	12.4%
Jun-2012	40.2%	16.6%	7.8%	7.5%	14.5%	13.4%
Jun-2017	40.1%	17.7%	7.8%	6.0%	14.3%	14.2%

A driver of this shift in expenditure patterns has been a change in consumer debt levels in Australia. Despite Australians owing over \$51b on credit cards in 2017, the average amount of debt per credit cards has fallen dramatically in recent years and is now as low as October 2005 levels. Consumers and households have been decreasing credit card levels in response to both decreased disposable incomes, higher risk post GFC and a desire among households to gain greater control over their finances.

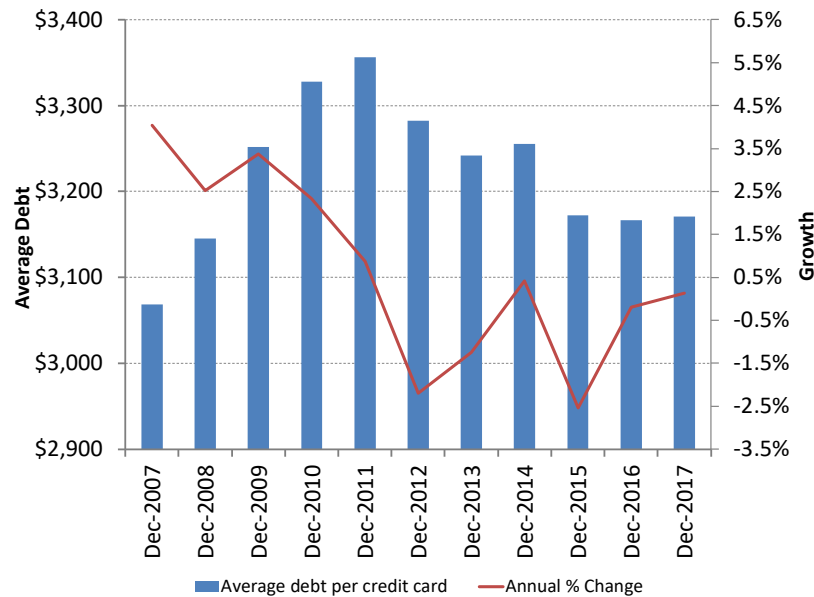


Figure 23 Credit Card Debt, Australia, 2017<sup>xlvi</sup>

## 7.2 Role of South Perth in the Metropolitan Retail Network

South Perth is identified as a District Centre under State Planning Policy 4.2, which defines the role and function of District Centres as:

- Greater focus on servicing the daily and weekly needs of residents
- Catchment of 20,000 to 50,000 people
- Includes discount department stores, supermarkets, convenience retail, small scale specialty and personal services;
- Up to 20,000sqm Net Lettable Area of GFA permissible before a structure plan is required.
- Collocated with district level office and local professional services<sup>xlvi</sup>.

South Perth is not a “normal” district centre. South Perth is a boutique, niche retail destination with a focus on local convenience retail, experiential café and restaurant and tourist and visitor servicing. The addition of non-residential expenditure within the catchment means that South Perth could have the capacity to support a higher proportion of retail floor space than a traditional district centre.

Currently, SPAC accommodates over 8,000sqm of Shop Retail floor space, which is less than half that permitted under SPP 4.2. South Perth therefore has significant capacity for growth if it is to fulfil its role and function in the wider catchment.

## 7.3 Value of Retail Sources and Assumptions

RPS has assessed all three main sources of retail expenditure for the SPAC. This is comprised of:

- Expenditure from the population living within the ACP (i.e. local convenience retail);
- Expenditure from day trip, domestic and international overnight visitors; and
- Expenditure from workers.

Each of these sources of retail expenditure require a different assessment approach and unique expenditure values and assumptions.

### 7.3.1 Residential Expenditure Assumptions

In terms of residential retail expenditure, RPS has applied a standard per person retail expenditure rate (\$13,000 per person per year<sup>xlix</sup>) to **the medium scenario population** projections for the SPAC. This results in the total expenditure pool for the SPAC being estimated.

Dividing this local expenditure pool by an average Retail Turnover Density (retail expenditure per sqm of Gross Lettable Area – Retail) of \$6,250<sup>l</sup>, RPS is able to estimate the total retail floor space required in the area to support the local residential population.

This approach and key assumptions made align with the requirements of SPP 4.2 for calculating residential retail expenditure.

### 7.3.2 Worker Expenditure Assumptions

This residential population calculation is then complemented with estimates of non-residential expenditure from workers. To calculate the worker contribution, RPS applied an average \$15 per day (based on 280 work days per year) for all workers under the **Low employment scenario** outlined in this Assessment.

All this expenditure is captured locally and is converted into floor space using the same Retail Turnover Density and residential retail consumers.

### 7.3.3 Tourist Expenditure Assumptions

Finally, RPS estimated retail expenditure from visitors by allocated standard per visitor expenditure rates to the projections of each of the tourist types outlined in section 6.1.

The first step is to isolate the proportion of expenditure that is associated with retail land uses. The most recent national data from Tourism Research Australia and validated by the National Retailers Association is that 39.1% of tourist expenditure is on shop retail uses.

Additionally, RPS applied the following assumptions:

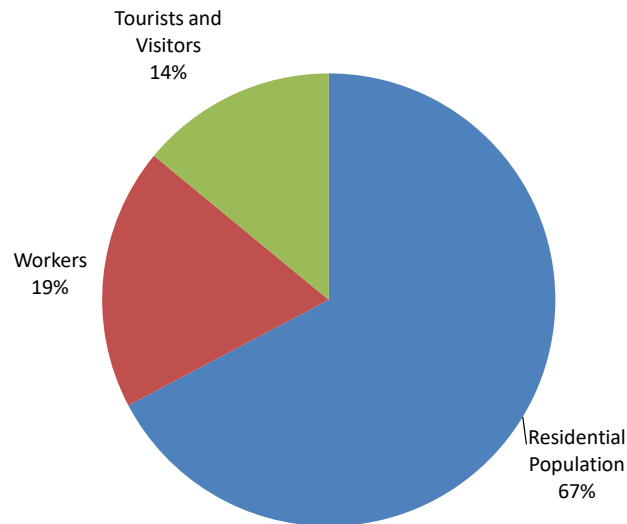
- Daytrip expenditure - \$110 per visitor 100% local capture;
- Domestic Overnight - \$150 per visitor, 50% local capture; and
- International Overnight - \$2,400 per visitor, 27.5% local capture.

Again, the results of this expenditure are converted into retail floor space to estimate the total retail floorspace need in the SPAC.

## 7.4 Retail Need Results

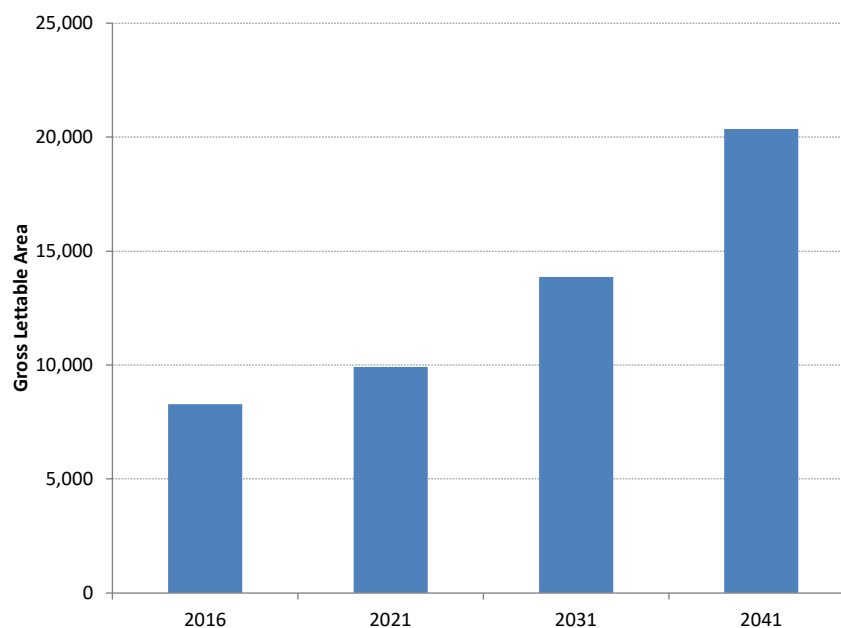
In total, RPS estimates that the total retail expenditure pool in the SPAC from all three sources was valued at \$51.7m in 2017 with residents comprising the largest share at \$34.8m. This is expected to grow, reaching \$95.4m in 2031 and \$127.2m in 2041. All values are in \$2016.

To meet this expenditure, RPS estimates that there is currently a need for approximately 8,271 sqm in 2017. This is comprised of the following sources of demand.



**Figure 24 Share of Retail Floor Space Demand, by Source of Expenditure, SPAC, 2017**

By 2031, these sources of demand could support approximately 13,860sqm of shop retail floorspace in the Area, growing to 20,356sqm by 2041.



**Figure 25 Retail Floor Space Demand, SPAC, 2016 to 2041**

This analysis reveals a significant difference between the amount of retail floor space required under each of the employment scenarios and the level needed to meet residential and non-residential demand. Part of the reason for this difference is that retail expenditure, particularly in the non-residential tourist space is expected to grow at a significantly faster rate than regional residential expenditure.

It also highlights the fact that the retail potential of the SPAC is significantly greater than the broader economic drivers would suggest.



RPS recommends that allowance be made for a greater proportion of shop retail floor space (up to 20,000sqm in the short-to-medium term) to be accommodated in the planning controls of the SPAC, to help meet the retail needs of residents, workers and tourists.

It should be noted that this represents the retail floor space potential of the SPAC. While the analysis suggests significant local retail floor space will be needed in the future to meet resident and tourist needs, ***not all of this demand must be met within the Area.***

Other centres and retail nodes in South Perth (outside of the SPAC) could also play a role. Similarly, it is also possible for the local share of the total expenditure pool to decline over time, resulting in greater levels of expenditure leaving the SPAC.

## 7.5 Implications for SPAC Area

Continued growth and development of tourist visitation to the SPAC in the future has the potential to underpin local employment and economic activity. It also presents an opportunity to provide residents with greater access to retail and services, subsidised by tourist expenditure, than they could otherwise support themselves. This enhanced service and retail offering, coupled with improved pedestrian permeability of the SPAC and ground floor activation, can help ensure the sustainability of increased residential and non-residential density in the SPAC.

To support growing residential, worker and tourist expenditure directed at the SPAC, allowance should be made in the planning controls of the ACP for up to 20,000sqm of shop retail floor space within the SPAC by 2041. The amount of floorspace required ultimately depends on long-term expenditure patterns and behaviours among population and workers in the area.

## 8.0 Economic Development and Implementation Advice

The Activity Centre Plan for the SPAC represents an opportunity to establish the framework for the precinct to sustainably grow its role and function within the wider Perth Metro area and establish and maintain the Area as a high amenity destination of choice for residents, workers, businesses and visitors alike.

This section provides advice and recommendations on key economic development and implementation opportunities and drivers for incorporation into the Plan. It includes defining the economic vision for the SPAC, based on this assessment, key strategic themes for consideration, recommendations on the role and function of character areas within the Area and advice on the potential impact of the proposed rail station on local and regional economic development.

### 8.1 Summary of Key Findings

The SPAC Area has significant economic and residential potential. It is supported by a diverse range of strategic advantages including:

- High amenity location proximate to Perth Water and the South Perth foreshore.
- High levels of accessibility include direct highway access and bus and ferry-based public transport.
- Major tourist asset in the Perth Zoo.
- An affluent mature population base with a diverse mix of ages and household types.
- An established boutique retail, café and restaurant precinct, collocated with the major ferry terminal.
- Strong local cultural heritage.

Recently, South Perth has experienced a marginal decline across a number of indicators including:

- Falling population;
- Limited new residential development (pre-2016);
- Declining local employment opportunities;
- The housing stock has a disproportionately high share of low density dwellings despite the strategic river front location of the Area; and
- Public transport usage is below levels that would be expected for a strategic riverfront location like South Perth, likely due to a lack of passenger rail options.

The results of this Assessment indicate that the SPAC Area is not currently functioning at its full potential and opportunity exists to sustainably increase and enhance its residential, social and economic character. This will not only improve the long-term commercial and social sustainability of the Area, by strategically and proactively managing impending growth pressures, but will ensure the Area contributes to meeting the needs of a growing population in Greater Perth.

RPS recommends that initial focus should be afforded in the short-to-medium term on increasing residential densities across the Area to help the area reach a critical mass to support services and encourage development that activates the ground floor. This should be coupled with increased development in Entertainment and Shop Retail land uses, in response to growing tourism activity forecast for the area and the wider South Perth suburb, which will also help to improve the quality and depth of service offering for local residents.

Commercial office represents a long-term opportunity for the SPAC. The high amenity, high accessibility nature of the location helps to underpin the attractiveness of the Area for boutique knowledge intensive

businesses seeking a unique location. SPAC Area is also attractive for workers and increased commercial office employment in the SPAC presents an opportunity for the northward flow of workers to the CBD to be “captured” before Narrows Bridge and providing a southern alternative to the CBD.

This growth in commercial office investment must recognise that South Perth is unlikely to compete as a general secondary office market with other locations such as West and East Perth and emerging opportunities at Northbridge with the sinking of the rail line. Any commercial office development must therefore be more targeted in its tenant base, leveraging the natural and lifestyle amenities of the SPAC to attract and retain boutique and bespoke office-based businesses, particularly in sectors such as community health services, architecture and design, legal, research and development, secondary finance, financial and investment advisory, professional consulting and associated services and creative arts.

However, the growth of commercial office in the SPAC is likely contingent on the delivery of the rail station. The creation of a transit-oriented development in the ACP presents an opportunity for travel behaviours of workers travelling north past the SPAC to the CBD and inner city to be changed, shifting more people from the Freeway to passenger rail and encouraging passengers to disembark at South Perth rather than the CBD.

It will also increase the accessibility options of local residents and businesses to the CBD and other inner city economic nodes, reducing transaction and travel costs. Finally, rail provides further accessibility options to the SPAC for tourists and visitors, helping to underpin the long-term expansion of tourist activity to the SPAC and leveraging existing natural and manmade tourist assets in South Perth.

## 8.2 Economic Vision, Role and Function

The ACP is to include the development of a strategic vision for the SPAC. RPS recommends that the following economic factors be considered in the preparation of the vision:

- High amenity aspirational river front precinct.
- A destination of choice for residents, businesses, workers and visitors.
- Premier boutique tourist destination and an integral part of any visitor's itinerary to Perth.
- A café and restaurant “hot spot” in Perth with a dynamic local culture.
- A hub of high quality regionally significant services in health, education, and retail, supporting residents and visitors alike.
- A boutique and bespoke knowledge intensive commercial business cluster leveraging natural amenities, high quality services and strong accessibility, including passenger rail.
- A leading hub of entrepreneurship and innovation, fostering micro and small businesses.

SPAC can fulfil several roles and functions in the City of South Perth and the regional economy and community. These include:

- Major cluster of higher density residential dwelling, reflecting the underlying development potential and value of the land.
- The Southern “gateway” to the Perth CBD.
- A major point of “intervention” in the northward flows of workers to the CBD, providing a southern inner-city employment alternative.
- A major regionally significant and diverse tourist destination for domestic and international visitors.

### 8.3 Strategic Themes

These strategic themes are based on consideration of economic characteristics and attributes within the context of current and emerging issues and trends. Many of these priority areas are shared with other parts of Perth and Australia, though all are particularly relevant to the SPAC's current and future social and economic development.

Strategic themes have been allocated to one of three pillars. Pillars represent broad areas of focus for city-building.

**Table 19 Proposed Strategic Themes**

Pillar	Strategic Theme	Description
Activity	A Smart Precinct	Establish a recognised identity as a "Smart Precinct" that is attractive for knowledge-based and research-intensive businesses and that leverages latest technologies in public realm (such as public Wi-Fi and smart grids) to enhance resident, worker and visitor experiences.
	A Vibrant Precinct	Improve activation and attractiveness of the Precinct as a place to live, work and visit including events, public art and an outdoor dining and lifestyle culture.
Movement	An Integrated Precinct	All forms and modes of transport are integrated within the Precinct with clear pedestrian and cycle routes between road, rail and other public transport nodes and major travel destinations.
	A '5 Minute' Precinct	All aspects of the Precinct are accessible to residents, visitors and workers alike within a 5-min travel, regardless of mode or time of day. Movement throughout and within the Precinct should be seamless at all times of year and provide pedestrian with a sense of "journey".
Character	A River Precinct	Celebrate the connection of the Precinct to Perth Water, both in terms of the public realm and integration of the built form. Continue to leverage the foreshore for public events and other activation while encouraging greater levels of ground floor activation on river front locations.
	A Beautiful Precinct	Enable high quality design outcomes in developments and public realm, including activated and permeable ground floors and attractive pedestrian amenities that encourage the movement and flow of people.



## 8.4 Role of Character Areas

The Plan + Design report by Roberts Day identified and defined four key sub-precincts or “character areas” within the SPAC. These are illustrated below.

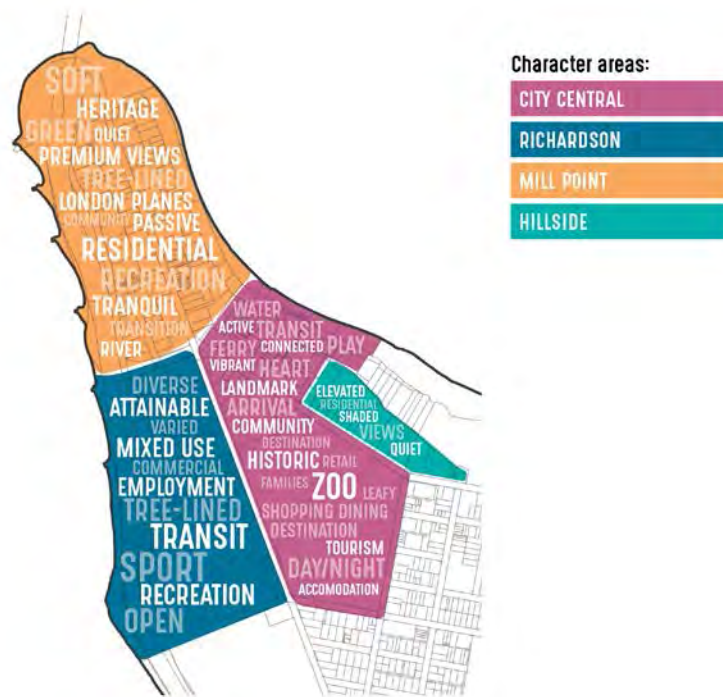


Figure 26 Character Areas, SPAC Area<sup>li</sup>

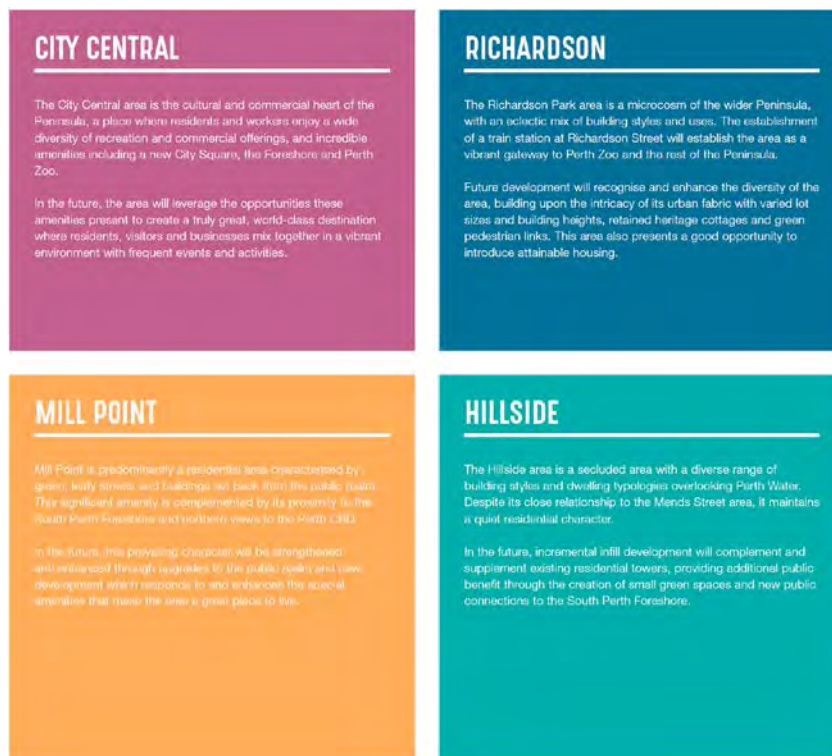


Figure 27 South Perth Character Area Profiles

Based on the economic vision elements outlined above and the dwelling and land use floor space scenarios in this Assessment, RPS recommends the following roles for the Character Areas:

- **City Central** – Most important precinct from an economic perspective. Principal retail, café and restaurant hub of the Precinct supported by high density residential and bespoke commercial office developments. Strong emphasis on lifestyle and café culture, fostering residential and visitor attraction and promoting local entrepreneurship and small business coworking in the Precinct. Seamless pedestrian and transport movements through the Character Area, leveraging establishment movement corridors from the Mends Street Ferry to Perth Zoo. Activation of this corridor, both community and development are critical.
- **Richardson** – high amenity and diverse residential area with a mix of small lot detached, medium density and apartment living. Integration of bespoke and boutique offices and employment accommodation with the whole Area oriented towards the River (for vistas) and Richardson Park.
- **Mill Point** – major residential intensification and growth opportunity. Current low density development represents an underutilisation of high value land and high levels of amenity make the precinct an aspirational residential destination of choice.
- **Hillside** – opportunity to leverage proximity to Central, local amenity and accessibility to the foreshore to promote intensification of residential development. Existing built form includes high rise short-stay and residential apartments and further intensification of development in this area would represent highest and best use.

## 8.5 Key Economic Opportunities

The subsequent assessments have identified a range of economic opportunities of relevance to the current and future development of the SPAC. These current and emerging opportunities have been summarised below. They are not an exhaustive list of opportunities, though they represent key areas of opportunity identified through analysis of the activity centre's attributes and regional drivers.

**Table 20 Key Economic Development Opportunities**

Key Opportunity	Description
Research and Knowledge-Based Office Sector	<p>The SPAC, and wider region, has some of Perth's most gentrified and highest skilled workforces. This gentrification has however not been accommodated by commensurate growth in <i>knowledge</i> sectors – those directly based on the production, distribution and use of knowledge and information.</p> <p>The SPAC has historically accommodated a high share of office-based employment and businesses, including those in Australia's fastest growing sectors of Professional Services, Financial and Insurance and Real Estate.</p> <p>These sectors have however, experienced more challenging times in recent years, with CBD vacancy rates remaining high and incentives offered to potential tenants very strong. This has a flow on effect to secondary office markets such as South Perth.</p> <p>This is reflected in the fact that Professional Service business numbers in South Perth have declined in recent years, in response to wider economic conditions.</p> <p>To reduce the volatility of local demand for office floor space, consideration should be given to opportunities to attract activities with strong knowledge-based services. This should include attraction of research and development intensive activities.</p> <p>Opportunities include:</p> <ul style="list-style-type: none"> <li>▪ Health and medical research commercialisation space;</li> <li>▪ Community and Primary Health initiatives;</li> <li>▪ Small business hub and co-working spaces;</li> <li>▪ Flexible project-based spaces for major projects and multi-disciplinary teams; and</li> </ul>

Key Opportunity	Description
	<ul style="list-style-type: none"> <li>Public WIFI (particularly along foreshore areas).</li> </ul> <p>These opportunities will help to de-risk the South Perth office market by making it a more unique office destination for businesses and investment and less dependent on wider economic trends.</p>
Diverse Tourist Mix	<p>Visitation has a direct influence on place activation and local expenditure which supports an array of retail, hospitality, tourism service and population service sectors. Visitation allows a region to benefit from growth outside the local area.</p> <p>The inclusion of the Perth Zoo in the Precinct underpins non-local visitation to South Perth. This is supported by the Swan River and foreshore areas of South Perth that attract local and regional visitors alike for health and wellness activities, lifestyle activities or for vistas of the Perth CBD.</p> <p>Tourism can however be a highly volatile sector and efforts should be made to reduce this volatility through a combination of diversifying visitor types and maximising local expenditure capture.</p> <p>Potential opportunities include:</p> <ul style="list-style-type: none"> <li>Secondary business conference spaces;</li> <li>Diverse mix of short-stay accommodation options, including emerging product types;</li> <li>Clear signage through the Precinct to key tourist attractions;</li> <li>High amenity and permeable pedestrian movement corridors, particularly between attractions and public transport nodes; and</li> <li>Ongoing and regular calendar of events.</li> </ul> <p>Many of these attributes and opportunities already exist in South Perth. Continued improvement to formal and promote these attributes, complementing them with new developments, must be the focus.</p>
High Density Living	<p>Apartments in Perth were the fastest growing dwelling type over the 2001 to 2011 period, growing three times faster than detached houses, with much of this attributable to housing affordability and social preferences. Whilst broader preferences continue to favour detached housing, trends towards living affordably closer to amenity in low maintenance homes have supported increased higher density living across capital cities in Australia.</p> <p>Moreover, the State Government has progressively identified a need for greater levels of infill and recent planning frameworks have highlighted the importance of state and local government policy frameworks to encourage for medium and high density development. A centrepiece of Perth and Peel @ 3.5 Million is the creation of a more harmonious balance between infill and greenfield development through the identification of local government targets and an overall Perth target of 47% infill by 2050 (from 28% in 2014).</p> <p>The Precinct's diverse population already supports higher density living and as a result has been the focus of recent residential development and investment. Continued support of higher density living, with associated ground floor and pedestrian amenity and facilities, is therefore required to realise the residential potential of the area and meet the needs of the local and wider community.</p> <p>This could include the development of new housing product in the area including products targeted a young working couples, students, mature families, SOHO and entrepreneurs, retirees.</p> <p>Consideration should also be given to changes in the short-stay accommodation sector in recent years and the increased take up of home stays and the "sharing economy" like AirBNB.</p>

## 8.6 Incentivising the "Right" Development

Realising the economic and development potential of the Precinct may require some form of incentivisation from Council and/or the State Government. Development and investment incentives have become an increasingly common aspect of Local Government development policies, with Councils playing a critical role in encouraging and facilitating economic activity.

## 8.6.1 The Role of Local Government in Attracting Development

The approach taken by local governments in attracting development to a region or specific area needs to be multi-faceted and undertaken in conjunction with state and possibly federal counterparts and industry themselves. The facets that need consideration in attracting development to a region have been noted above and they additionally include<sup>iii</sup>:

- Current economic conditions, including access to finance;
- Assist existing businesses in the development of growth opportunities, rather than attempting to immediately attract new business;
- Development plans for an area and their attractiveness to investors;
- Willingness of local governments to assist with the development process i.e. through incentives and bonuses;
- A proactive, rather than reactive approach to development that promotes development incentives in return for public and environmental benefits;
- Understanding the competitive advantages of your region, or locality;
- Access to transport and infrastructure; and
- Supply of labour.

Intangible factors include the attractiveness of a location, access to education facilities, cultural and recreational facilities, shopping and housing affordability including rental costs. In developing the SPAC and wider South Perth suburb, it is important to understand the impact of the wider economy on attracting development to the city, the built environment and the amenity of the city as part of the city's appeal.

## 8.6.2 Potential Incentives for South Perth

Based on the best practice examples from around Australia, RPS has collated a range of potential development incentives options for consideration for the Precinct.

**Table 21 Development Incentives**

Incentive Category	Incentive Type	Relevant Land Uses	Description
Built Form Allowances	Floor Space Bonuses	Residential, Commercial, Retail	<p>Allowance for an increase in the floor space of a subject site, above that generally approved. This allowance is usually provided in circumstances where the development has provided some form of public amenity/good including:</p> <ol style="list-style-type: none"> <li>1. Public toilets and infant change rooms;</li> <li>2. Corner site streetscapes;</li> <li>3. Affordable housing (owner occupier or rental);</li> <li>4. For retirement village and aged care developments;</li> <li>5. Site Amalgamations;</li> <li>6. Public art;</li> <li>7. Heritage protection; and</li> <li>8. Urban Design or Architectural Merit (above that legislatively required)</li> </ol> <p>Similarly, floor space bonuses can be given to developments of a specific type to enhance their viability. For example, the Western Australian Planning Commission and the City of Wanneroo proved a substantial increase in the Westfield Whitford City Shopping Centre contingent on the delivery of affordable apartments on the site<sup>iii</sup>.</p>
Car Parking	Reduced Bay	Residential,	Reduction in locations of strategic transport and accessibility

Incentive Category	Incentive Type	Relevant Land Uses	Description
	Requirements	Commercial	value of car parking requirements. Typically includes a halving of traditional requirements and the application of further bonuses in strategic locations (i.e. CBD centres and directly adjacent major public transport infrastructure). This can save up to \$50,000 per car bay, enhancing development viability. Other examples include reductions in car parking requirements for developments that provide space for car sharing facilities (i.e. bays).
Development Applications	Reduced or Waived Fees	All	Reduction or waiving of sundry fees (Operational works, Miscellaneous infrastructure, Hydraulic services or Water and meter service connections).
	Code Accessibility	All	Making select development types within identified locations code assessable (to the extent possible).
	Timeframe Certainty	All	Providing certainty to proponents of the timing of application approvals through either fixed or maximum terms. Typically facilitated by establishing a requirement for pre-lodgment, mid-lodgment and post-lodgment meetings.
	Development Advocate	All	Allocating a Council officer or team to act as a "Development Advocate" for developments on a subject site (this could be for more than one site). The Advocate is responsible within Council for streamlining the development application and approvals processes, advocating for the development internally and acting as a coordinating point of contact for the development.
Infrastructure Charges	Charges Discount	All	Discounting of infrastructure charges (typically 33-50%) for developments meeting set conditions (located in a CBD) or providing certain benefits (long-term employment or economic contributions, affordable housing or aged accommodation <sup>lii</sup> ).
	Charges Moratorium	All	Waiving of up to 100% of applicable infrastructure charges for a set period (typically 3-5 years) for developments that commence and/or complete during this period. Used by Queensland Government in promoting short-stay/tourist accommodation in Brisbane.
Rates Holidays	Waiving of Rates	Commercial, Retail, Community	A moratorium (1-3 years) on general rates on new floor space. Covers both new developments and expansions to existing developments and applies to the new floor space <sup>lv</sup> . Effective in the first full year of the development upon completion and valuation. Generally, only applicable for non-residential developments.
	Rates Discount	Commercial, Residential, Community	Discount of general rates on the subject site for developments providing long-term employment and economic benefits. Discounts vary but are typically linked to the number of workers or the turnover of the business, rather than the size of the development.
Tenancy/Occupation Decisions	Council Tenancy	Commercial	Local or State Government helps to stimulate commercial office development by acting as an anchor tenant in a private owned office building for an extended lease. Examples include Joondalup City Centre and Brisbane Square <sup>lvi</sup> .
Amenity Investments	Streetscape Improvements	All	Investment in enhancing streetscapes and pedestrian amenity in locations of potential development. Can be undertaken independently or by the developer as a charges offset <sup>lvii</sup> .



# References

- <sup>i</sup> EIU (2015) Liveability Ranking, Economist Intelligence Unit, London
- <sup>ii</sup> ABS (2016) Regional Population Growth, 2014-15, Cat No. 3218.0, Australian Bureau of Statistics, Canberra
- <sup>iii</sup> Ibid.
- <sup>iv</sup> ABS (2018) Labour Force Australia, Cat No. 6202.0, Australian Bureau of Statistics
- <sup>v</sup> Ibid.
- <sup>vi</sup> Landgate (2017) House Price Statistics, Western Australian Government, Perth
- <sup>vii</sup> Demographia (2018) International Study of Housing Affordability, Demographia
- <sup>viii</sup> Ibid.
- <sup>x</sup> Ibid.
- <sup>xi</sup> ABS (2013) Population Projections, Australia, 2012 (Base) to 2101, Cat No. 3222.0, Australian Bureau of Statistics, Canberra
- <sup>xii</sup> ABS (2013) Population Projections, Australia, 2012 (Base) to 2101, Cat No. 3222.0, Australian Bureau of Statistics, Canberra
- <sup>xiii</sup> ABS (2014) Australian Historical Population Statistics, 2014, Cat No. 3105.0, Australian Bureau of Statistics, Canberra & ABS (2016) Australian Demographic Statistics, Sep 2015, Cat No. 3101.0, Australian Bureau of Statistics, Canberra
- <sup>xiv</sup> ABS (2012) Census of Population and Housing, 2011, Australian Bureau of Statistics, Canberra
- <sup>xv</sup> Bellini et al. (2013) Cultural Diversity and Economic Performance: Evidence from European Regions (in *Geography, Institutions and Regional Economic Performance*), Advances in Spatial Science
- <sup>xvi</sup> RAC (2013) Travel Time Surveys, 2012, RAC Western Australia, Perth
- <sup>xvii</sup> Forecast ID (2018), Forecast ID, City of South Perth, Population Projections, access at <https://forecast.id.com.au/south-perth>
- <sup>xviii</sup> Forecast ID (2018), Forecast ID, City of South Perth, Population Projections, access at <https://forecast.id.com.au/south-perth>. 2051 estimate derived by RPS based on ID and ABS data sets.
- <sup>xix</sup> ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
- <sup>xx</sup> ABS (2016) Counts of Australian Businesses, including Entries and Exits, Jun 2012 to Jun 2016, Cat No. 8165.0, Australian Bureau of Statistics, Canberra
- <sup>xxi</sup> ABS.Stat (2016) *Regional Statistics* <accessed October 1 2016>, Australian Bureau of Statistics, Canberra
- <sup>xxii</sup> ABS (2016) Small Area Residential Population Estimates (unpublished), Australian Bureau of Statistics, Canberra
- <sup>xxiii</sup> ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
- <sup>xxiv</sup> ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
- <sup>xxv</sup> Chan, C. (2007) Social Capital in the Chinese Community in Chatswood, Planning and Urban Development Program, The University of New South Wales, Sydney
- <sup>xxvi</sup> ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
- <sup>xxvii</sup> ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
- <sup>xxviii</sup> Ibid.
- <sup>xxix</sup> ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
- <sup>xxx</sup> ABS (2012) Census of Population and Housing, 2011, Australian Bureau of Statistics, Canberra
- \* Excludes workers which did not go to work or did not state method of travel
- <sup>xxxi</sup> ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
- <sup>xxxii</sup> ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
- <sup>xxxiii</sup> ABS (2017) Census of Population and Housing, 2016, Australian Bureau of Statistics, Canberra
- <sup>xxxiv</sup> Department of Planning (2015), 2015 land use and employment survey, Perth
- <sup>xxxv</sup> Estimates by RPS Group, derived from the 2008 land use survey (Department of Planning) and development application data
- <sup>xxxvi</sup> Department of Planning (2015), 2015 land use and employment survey, Perth
- <sup>xxxvii</sup> Department of Planning (2015), 2015 land use and employment survey, Perth
- <sup>xxxviii</sup> Forecast ID (2018), Forecast ID, City of South Perth, Population Projections, access at <https://forecast.id.com.au/south-perth>. 2051 estimate derived by RPS based on ID and ABS data sets.
- <sup>xxxix</sup> ID (2018) Tourism and Hospitality Data, ID Community, Melbourne
- <sup>xl</sup> TRA (2018) National Visitor Survey and International Visitor Survey, Tourism Research Australia, Canberra. Analysis by RPS.
- <sup>xli</sup> NAB (2017) NAB Online Retail Sales Index, December 2017, National Australia Bank, Melbourne
- <sup>xlii</sup> ABS (2018) Retail Trade, Australia Cat. No. 8501.0, Australian Bureau of Statistics, Canberra
- <sup>xliii</sup> ABS (2016), Population Projections, Cat No. 3222.0, Australian Bureau of Statistics, Canberra
- <sup>xliv</sup> ABS (2018) Wage Price Index, Australia, Cat No 6345.0, Australian Bureau of Statistics, Canberra
- <sup>xliv</sup> ABS (2017) Household Expenditure Survey, 2015/16, Australian Bureau of Statistics, Canberra
- <sup>xlvi</sup> ABS (2017) Retail Trade, Australia, Cat No. 8501.0, Australian Bureau of Statistics, Canberra
- <sup>xlvii</sup> RBA (2017) Credit Card Debt Statistics, Reserve Bank of Australia, Melbourne
- <sup>xlviii</sup> WAPC, State Planning Policy 4.2, Activity Centres for Perth and Peel, Department of Planning, Perth
- <sup>xlix</sup> MarketDataSystems (2017) Western Australia Retail Expenditure Per Person Average, Market Info 2016, Market Data Systems, Eagle Farm, Queensland
- <sup>l</sup> Urbis (2016) Shopping Centre Benchmarks, WA, Urbis, Sydney
- <sup>li</sup> Roberts Day (2017) Place + Design: South Perth Station Precinct, City of South Perth, South Perth
- <sup>lii</sup> McKinsey, (1994), Lead Local, Compete Global: unlocking the growth potential of Australia's Regions, Regional Development,

Canberra: Australian Government

<sup>liii</sup> BusinessNews WA (2015) 739 Apartments in Whitford City Expansion accessed at <https://www.businessnews.com.au/article/739-apartments-in-Whitford-City-expansion>

<sup>liv</sup> BCC (2016) Retirement and Aged Care accessed at <https://www.brisbane.qld.gov.au/community-safety/community-support/seniors/retirement-aged-care>

<sup>lv</sup> City of Clarence (2016) Rates Holiday, accessed at <http://www.ccc.tas.gov.au/page.aspx?u=990>

<sup>lvi</sup> WA State Government (2016) New Public Sector Offices for Joondalup accessed at <https://www.mediastatements.wa.gov.au/Pages/Barnett/2016/07/New-public-sector-offices-for-Joondalup.aspx>

<sup>lvii</sup> City of Melbourne (2016) Streetscape Improvement Program accessed at <http://participate.melbourne.vic.gov.au/streetscapes>



# APPENDIX 2

## TRANSPORT + MOVEMENT ANALYSIS



## South Perth Activity Centre Plan

### MOVEMENT NETWORK REPORT



PROJECT	81113-290 South Perth Activity Centre Plan			
Revision	Description	Originator	Review	Date
0	Draft for CoSP Review	CAS	MDR	14/03/18
1	Issued	CAS	MDR	06/07/18

## Contents

1. Introduction .....	1	7.2 On Street Parking – PCA1 .....	27
1.1 Movement Network Report.....	1	7.3 Parking – PCA1 .....	28
1.2 State Planning Policy 4.2 (SPP 4.2) .....	1	7.4 Development Site Parking – SCA1 .....	28
2. Regional Perspective .....	2	8. Movement Network Plan – Activity Centre .....	31
2.1 Regional Location .....	2	8.1 Movement .....	31
2.2 Regional Perspective – Road Hierarchy .....	3	8.2 Movement – Modal Split .....	31
2.3 Regional Perspective – Road Speed Zones.....	3	8.3 Public Transport.....	33
2.4 Regional Perspective – Points of Arrival.....	3	8.4 Pedestrian Movement and Amenity .....	34
2.5 Regional Perspective – Key Sites.....	5	8.5 Cycling.....	35
2.6 Regional Perspective – Travel Context.....	5	8.6 Traffic and Freight .....	36
2.7 Regional Perspective – Travel Context.....	6	8.7 Parking – On-Street.....	37
3. Public Transport.....	11	8.8 Parking – Off-Street.....	38
3.1 Public Transport Network.....	11	8.9 Other Measures.....	40
4. Pedestrian Movement and Amenity .....	15	8.10 Indicator Measurements .....	40
4.1 Pedestrian Movement .....	15	8.10.1 Indicator measures – Public Transport.....	41
5. Cycling .....	17	8.10.2 Indicator measures – Walking and Cycling.....	42
5.1 Cycle Network .....	17	8.10.3 Indicator measures – Traffic Assessment.....	44
6. Vehicular Movement and Access.....	19	8.10.4 Indicator measures – Centre Parking Policy.....	45
6.1 Vehicular Movement and Access .....	19		
6.2 Travel Context .....	21		
6.3 Vehicular Movement and Access – ROM24.....	21		
6.4 Peak Hours .....	24		
6.5 Commentary - Modelling .....	25		
7. Parking .....	26		
7.1 South Perth Parking Strategy .....	26		

## Figures

Figure 1 Process for Activity Centre Plan.....	1
Figure 2 Location of Activity Centre .....	2
Figure 3 Road hierarchy.....	3
Figure 4 Speed zones.....	4
Figure 5 Points of arrival.....	4
Figure 6 Key sites .....	5



Figure 7 Mode split journey to work (2016 Census) .....	6	Figure 35 ROM24 2031 AM peak period forecast vehicle movements .....	24
Figure 8 Journey to work trends - 2011 to 2016 .....	6	Figure 36 ROM24 2031 PM peak period forecast vehicle movements.....	25
Figure 9 Residents place of work - journey to work.....	7	Figure 37 ROM24 2031 peak period forecast volume over capacity outputs .....	25
Figure 10 Workers place of residence - journey to work .....	7	Figure 38 City of South Perth Parking Strategy precinct plan.....	26
Figure 11 Mode split by trip type RAC 2014 survey.....	8	Figure 39 Parking Management Action Plan for the Precinct (PCA1) .....	27
Figure 12 Example use of measurement tool in Google Maps .....	8	Figure 40 Parking distribution - South Perth Activity Centre.....	28
Figure 13 Ranking of travel time measurement results .....	9	Figure 41 Parking bay usage October 2016.....	28
Figure 14 Car ownership percentage - South Perth between 2001 and 2016 .....	9	Figure 42 Parking Control Area 1 (PCA1) proposed on-street controls within Activity Centre .....	29
Figure 15 Transperth network map - Activity Centre area.....	11	Figure 43 Special Control Area SCA1 sub-precincts.....	29
Figure 16 Bus stop patronage in Activity Centre - 2015 and 2017 .....	12	Figure 44 Subiaco 2016 population profile and economic profile .....	32
Figure 17 Bus boarding and alighting - 2011 and 2017 .....	12	Figure 45 South Perth 2016 population profile and economic profile .....	32
Figure 18 STEM model outputs 2031.....	13	Figure 46 Existing local bus routes through Activity Centre.....	33
Figure 19 Ferry patronage - 2015 and 2017 .....	13	Figure 47 Future high frequency bus routes connecting South Perth Activity Centre to major activity areas.....	33
Figure 20 Weekly average public transport patronage comparison.....	13	Figure 48 General concept layout – bus priority along Labouchere Road.....	34
Figure 21 Public transport usage for Activity Centre 2017 .....	14	Figure 49 Pedestrian based measures within the South Perth Activity Centre.....	35
Figure 22 Public transport use by mode 2017 .....	14	Figure 50 City of South Perth Bike Plan recommendations .....	36
Figure 23 Desire lines - Activity Centre .....	15	Figure 51 Overall traffic network proposals - Activity Centre .....	37
Figure 24 Strava heatmapping for run activities - Activity Centre (source: Strava).....	16	Figure 52 Parking Control Area 1 (PCA1) proposed on-street controls within Activity Centre .....	38
Figure 25 Walkscore bandings - Activity Centre.....	16	Figure 53 Transport measures within South Perth Activity Centre.....	40
Figure 26 Cycle counts Sir James Mitchell Park 2015.....	17		
Figure 27 Cycle counts Sir James Mitchell Park 2015 - hourly profile.....	17		
Figure 28 Department of Transport cycle map - Activity Centre.....	18		
Figure 29 Strava heatmapping for cycling activities - Activity Centre (source: Strava).....	18		
Figure 30 Average weekday traffic volumes .....	19		
Figure 31 Mid-block capacity analysis 2016 South Perth Station Precinct Transport and Access Study.....	20		
Figure 32 Microsimulation traffic model boundaries.....	20		
Figure 33 Model link delay outputs - AM and PM peak movements .....	21		
Figure 34 ROM24 forecast all day model outputs for 2031.....	21		

## Tables

Table 1 Mode splits on journey to work.....	10
Table 2 Future midblock capacity analysis South Perth Station Precinct Transport and Access Strategy .....	22
Table 3 Forecast traffic volume analysis for Activity Centre .....	23
Table 4 Peak hour proportions from SCATS volumes in 2017 .....	24
Table 5 Schedule 9A parking controls.....	30
Table 6 Performance indicators.....	31
Table 7 Projection of 2016 journey to work mode split proportions to 2031 population.....	31
Table 8 Application of Subiaco journey to work mode split proportions to South Perth 2031 population.....	33



Table 9 Parking provisions Activity Centre.....39

## 1. INTRODUCTION

### 1.1 Movement Network Report

The Movement Network Report has been compiled in support of the completion of the South Perth Activity Centre Plan. The purpose of this report is to inform the development of the plan and provide information that is required within State Planning Policy 4.2 (SPP 4.2) relating the functioning of the transport network.

The title of the report reflects the stage of the process that this document informs (Milestone 3 as shown in Figure 1). This report sets out the context of the transport network and is designed to assist the project team, City of South Perth and stakeholder engagement processes. It will be finalised upon completion of the overall planning and engagement process associated with the Activity Centre.

Statutory and strategic planning or infrastructure decisions have informed many outcomes that are apparent in the Activity Centre area. From a transport perspective, much of this has centred around the potential for a new Station along the Mandurah Urban Rail Line.

There has also been substantial technical transport work undertaken within this location over the past five years. Much of the technical work has focussed on modal elements (such as a Parking Strategy) or has examined issue-specific areas of interest (such as intersection modelling). The Movement Network Report does not seek to replicate this work, nor superseded it in many instances. References to previous technical work are contained throughout this report where appropriate..

### 1.2 State Planning Policy 4.2 (SPP 4.2)

The City of South Perth commenced the development of an Activity Centre plan as a result of a significant planning process culminating in the May 2017 South Perth Peninsula Place and Design Report (PDR). Development of Activity Centre plans are guided by State Planning Policy 4.2 (SPP 4.2) – Activity Centres for Perth and Peel. Within SPP 4.2, there is a requirement to address transport issues within the Activity Centre with a focus on a key objective that contributes to orderly planning across the Perth and Peel Region, being:

**SPP 4.2 Objective: Maximise access to activity centres by walking, cycling and public transport while reducing private car trips.**

The Movement Network Report sets out the required responses to the key areas set out in SPP 4.2. Outside of the introduction section of the Report, there are six key areas that are examined within the report:

- Regional Perspective
- Public Transport
- Pedestrian Movement and Amenity
- Cycling
- Vehicle Movement and Access
- Parking.

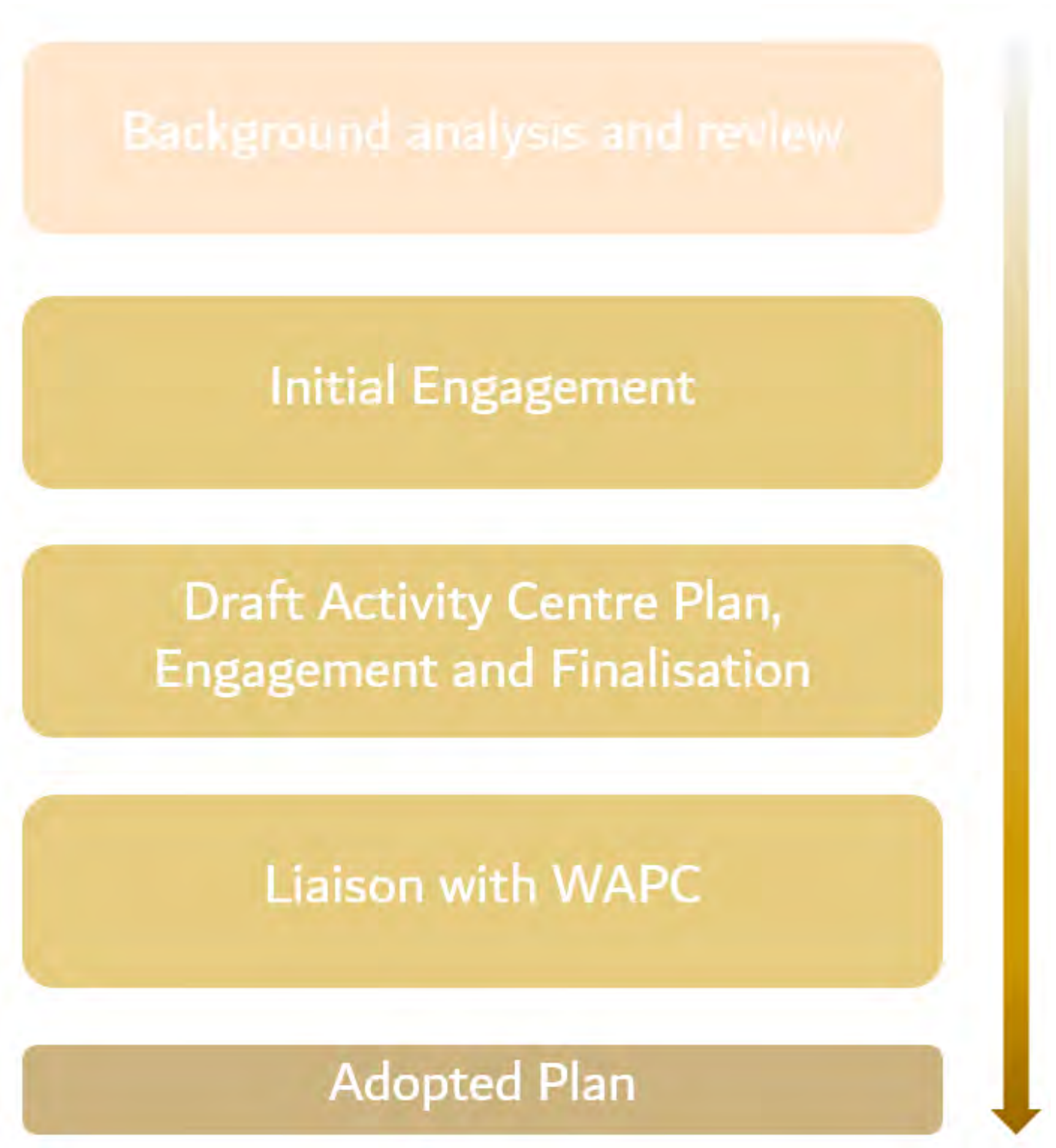


Figure 1 Process for Activity Centre Plan



## 2. REGIONAL PERSPECTIVE

### 2.1 Regional Location

The South Perth Activity Centre Plan area is located to the south of Central Perth. Geographically, it is located on a peninsula in the Swan River.

The transport network in the Activity Centre is dominated by the Kwinana Freeway reserve which extends along the western boundary of the Activity Centre. On an average weekday, the Freeway carries well over 180,000 vehicles per day and it is one of the busiest sections of the primary distributor road network throughout the Perth Metropolitan Region. The Freeway reserve also contains the Perth to Mandurah Urban Rail line.

The location of the Activity Centre in a regional perspective is shown in Figure 2. In respect of traffic travelling distances from the main intersection of Mill Point Road and Labouchere Road, the Activity Centre is approximately:

- 7km from Curtin University
- 7km from University of Western Australia
- 8km from the East Perth Train Terminal
- 19km from the North Head Ferry Terminal
- 19km from Perth International Airport.



Figure 2 Location of Activity Centre

## 2.2 Regional Perspective – Road Hierarchy

The road network in the South Perth Activity Centre is dominated by Access Streets and a street network that is maintained and controlled by the City of South Perth. The road network within the Activity Centre Boundary, setting out the Main Roads WA road hierarchy classifications, is shown in Figure 3. The main distributor level roads are:

- Ramps and Kwinana Freeway alignment – Primary Distributor
- Mill Point Road from King Edward Street to Labouchere Road – District Distributor B
- Labouchere Road from Angelo Street to Mill Point Road – District Distributor B
- Mill Point Road from Mill Point Close to Labouchere Road – Local Distributor
- Angelo Street from Onslow Street to Labouchere Road – Local Distributor

All other streets and lanes shown in Figure 3 are classified as Access Streets.

## 2.3 Regional Perspective – Road Speed Zones

The vast majority of streets and roads within the Activity Centre have a posted speed limit of 50km/h.

As shown in Figure 4, Kwinana Freeway has posted limits of between 80km/h and 100km/h with Mill Point Road, Labouchere Road and a number of on and off-ramps having a posted speed limit of 60km/h.

Where a street in the Activity Centre is not marked, the posted speed limit is 50km/h.

## 2.4 Regional Perspective – Points of Arrival

The Activity Centre has a range of unique arrival points per mode, as indicated in Figure 5.

- The Activity Centre is home to the Mends Street Ferry Terminal, the only public transport passenger ferry terminal on the Transperth network outside of Elizabeth Quay in Central Perth.
- The primary north-south Principal Shared Path (PSP) for cyclists and pedestrians runs alongside the Kwinana Freeway and provides an entry point via the Narrows Bridge (from the north) and via an overpass bridge on to Melville Parade (from the south).
- The Recreational Shared Path (RSP) that runs around the Swan River provides an entry point for pedestrians and cyclists from the east.
- The Kwinana Freeway off-ramp provides a southbound entry point for vehicles and bus passengers from Central Perth.

There are a range of other lower order, localised entry points for all modes, including via the Labouchere Road corridor from the south, Angelo Street corridor from the east and the Mill Point Road corridor from the east.

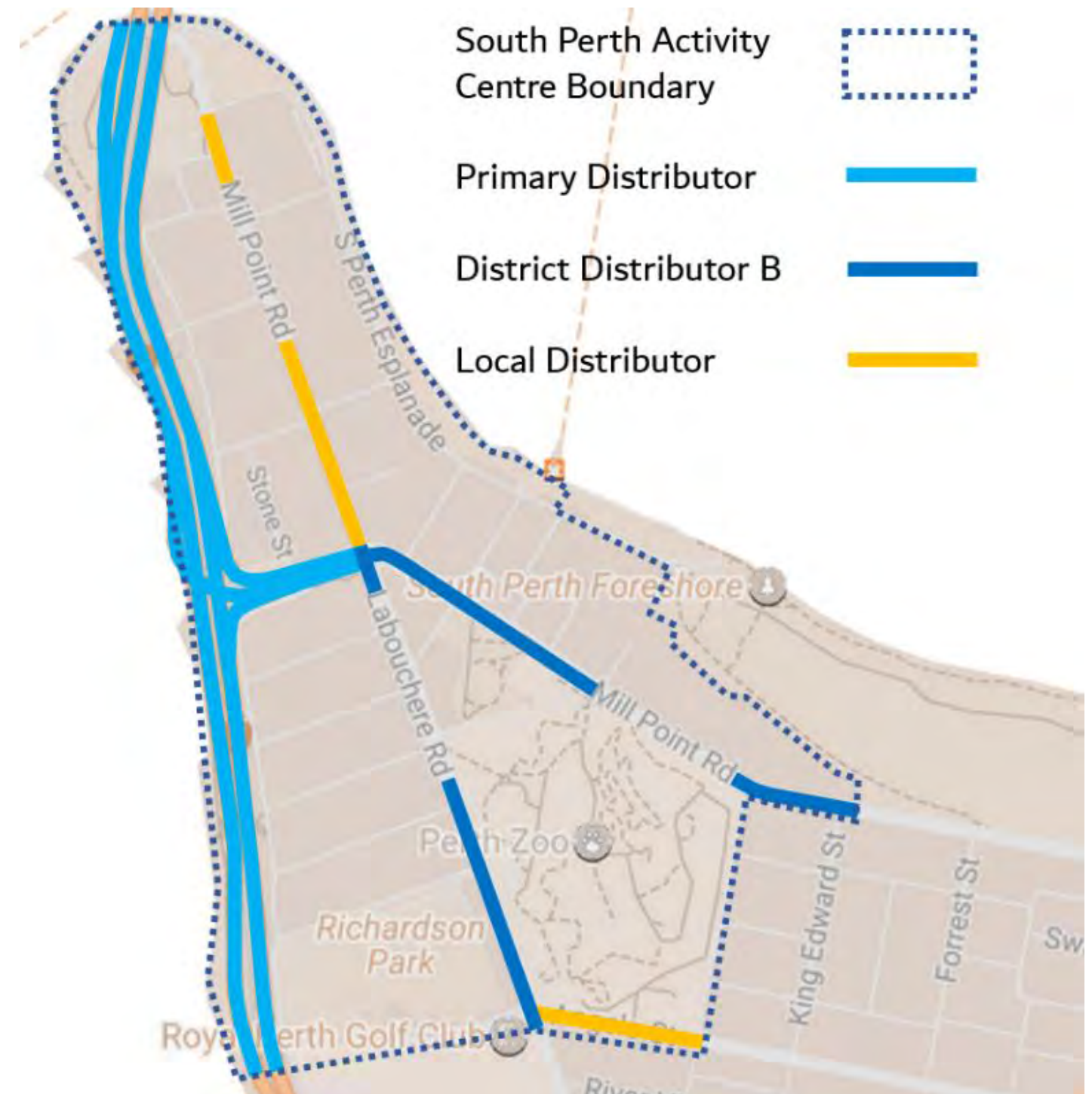


Figure 3 Road hierarchy



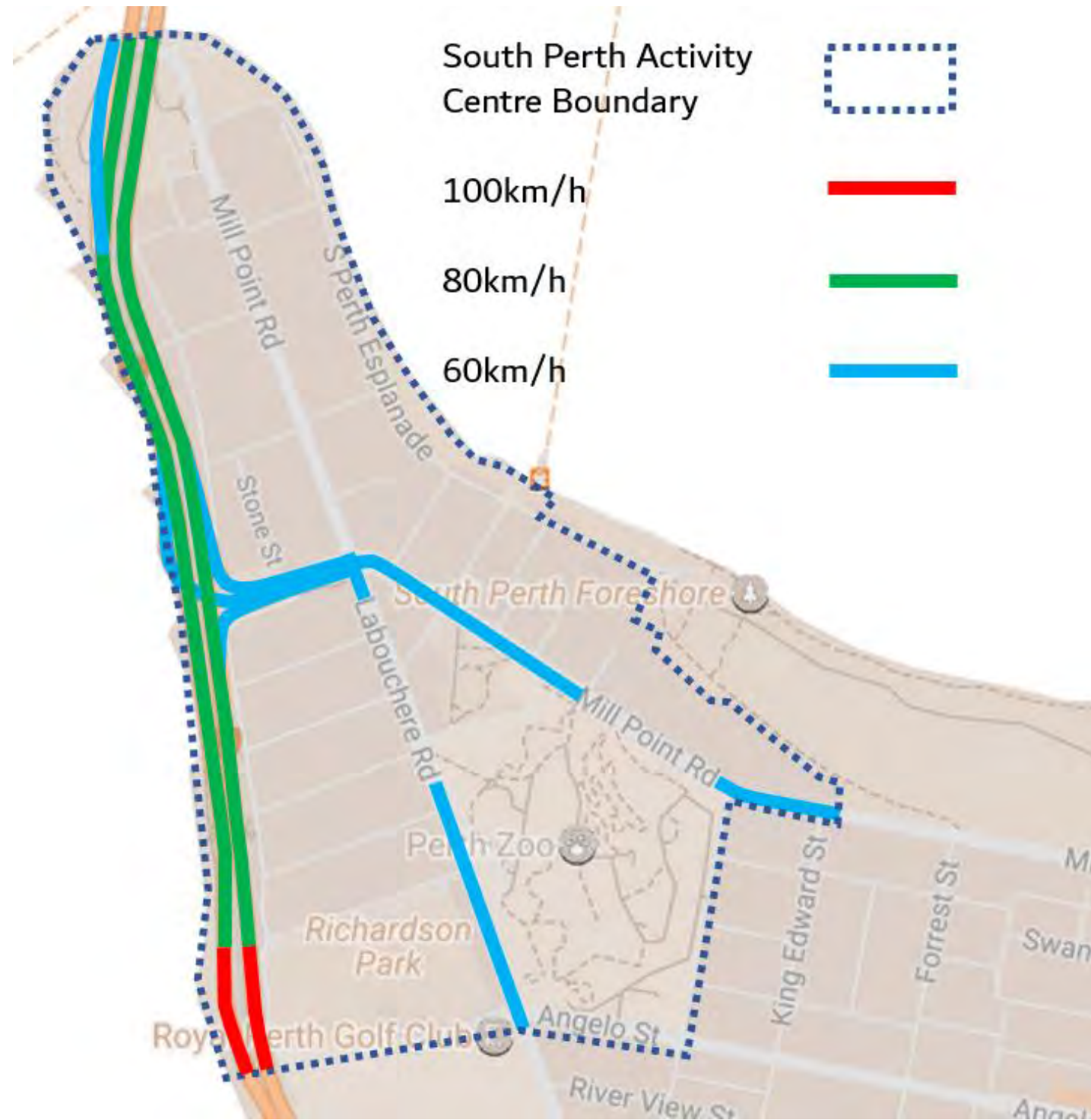


Figure 4 Speed zones

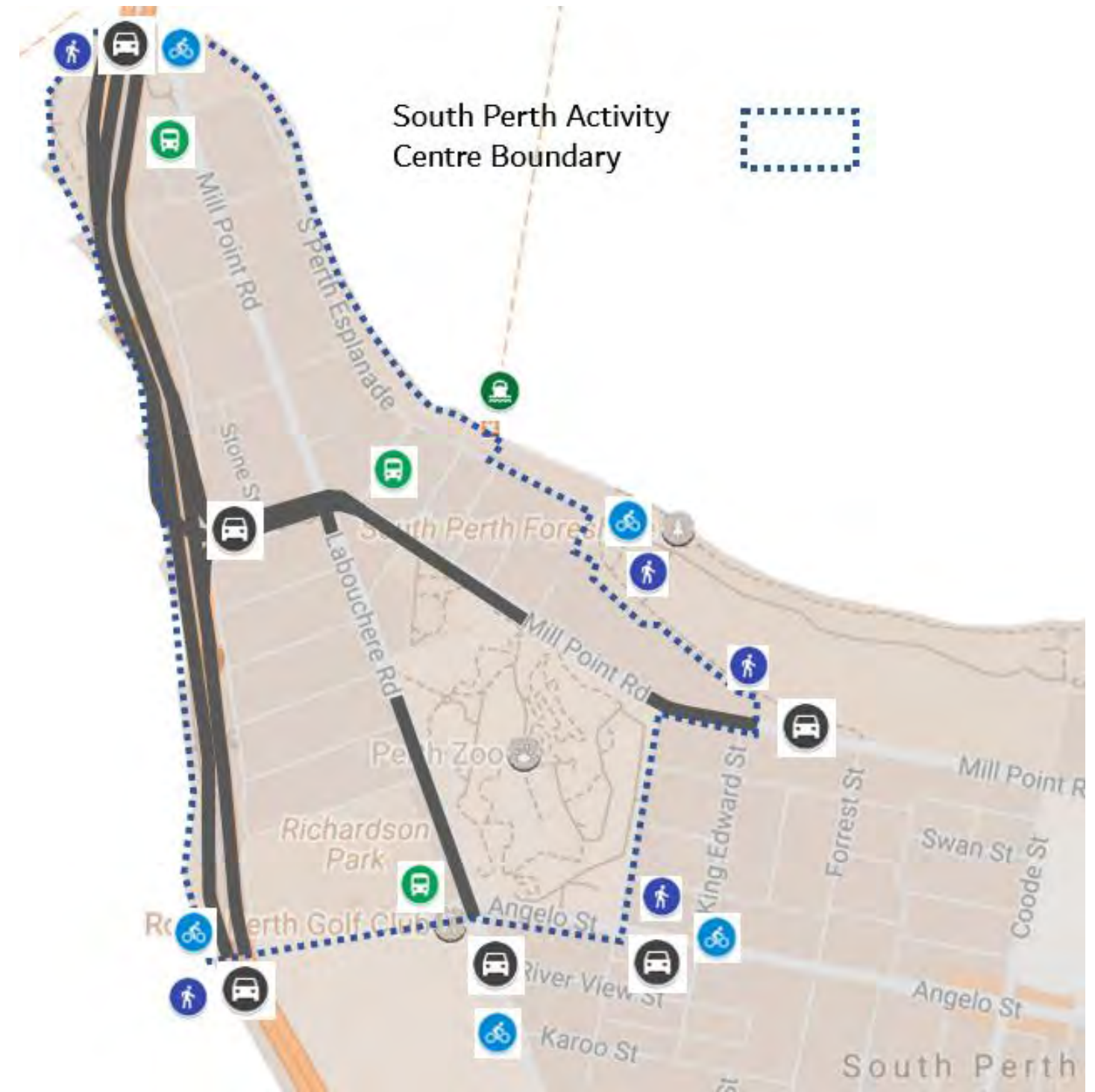


Figure 5 Points of arrival

## 2.5 Regional Perspective – Key Sites

There are a number of key sites within the Activity Centre boundaries, ranging from existing features through to sites that will impact substantially on the network in the future. The sites, as indicated on Figure 6, are:

- The site of a potential future South Perth Train Station on the Mandurah Urban Rail line. The site is located adjacent to Melville Parade near the intersection of Richardson Street. This section of the Urban Rail line has been designed to accommodate future rail platforms.
- Kwinana Freeway on and off ramps and intersection with Labouchere Road and Mill Point Road. This intersection and ramp structure dominate the transport network in the Activity Centre and have had substantial analysis undertaken over many years.
- Mends Street Ferry Terminal. The terminal is the major existing Public Transport entry point to the Activity Centre.
- Mends Street is the main commercial, entertainment and retail area within the Activity Centre, the form of which is being examined under a separate project.
- Perth Zoo. The Zoo is a major attractor of trips, including on weekends and during holiday periods. It attracts substantial numbers of public transport and vehicle trips.
- Civic Heart. The proposed development at the intersection of Mill Point Road and Labouchere Road will generate a range of impacts on the Activity Centre street network.



Figure 6 Key sites

## 2.6 Regional Perspective – Travel Context

One of the standard indicators for travel mode preferences is Journey to Work information extracted from the Census which captures the main mode of transport from a place of residence to employment. The 2016 Journey to Work information for the



locality of South Perth (removing non-working respondents) is shown in Figure 7. In general, these mode splits for work journeys are replicated in the wider City of South Perth.

In comparison to Greater Perth, South Perth had fewer car trips and higher bus trips, which is reflective of the proximity of South Perth to the main employment centres.

The release of the 2016 Census data captured high level changes in South Perth that are shown in Figure 8. The headline changes between periods are:

- A rise in the proportion of people driving to work (62% to 66%)
- A reduction in the number of people walking (4% to 1%)
- Reductions overall in public transport usage with Bus, Ferry and Train all reducing
- Higher proportion of people working from home or using other modes.

It should be noted that these figure reflect the main, single mode trips. The total responses also capture multiple mode trips. There were an additional 142 people who made trips using train or bus as one of multiple modes whilst only 56 people making trips with car and other modes. So the overall use of public transport is slightly higher than on initial interpretation.

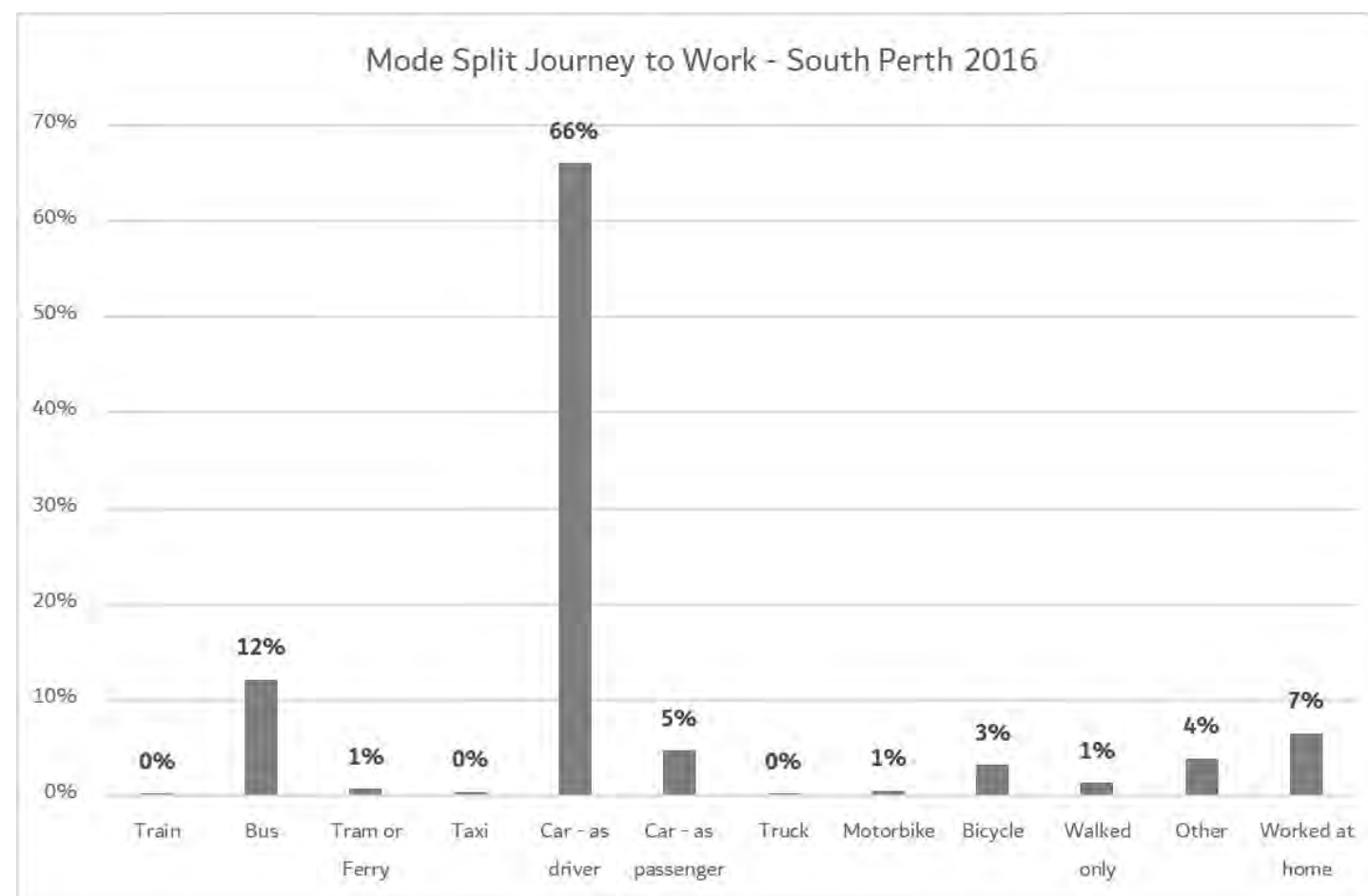


Figure 7 Mode split journey to work (2016 Census)

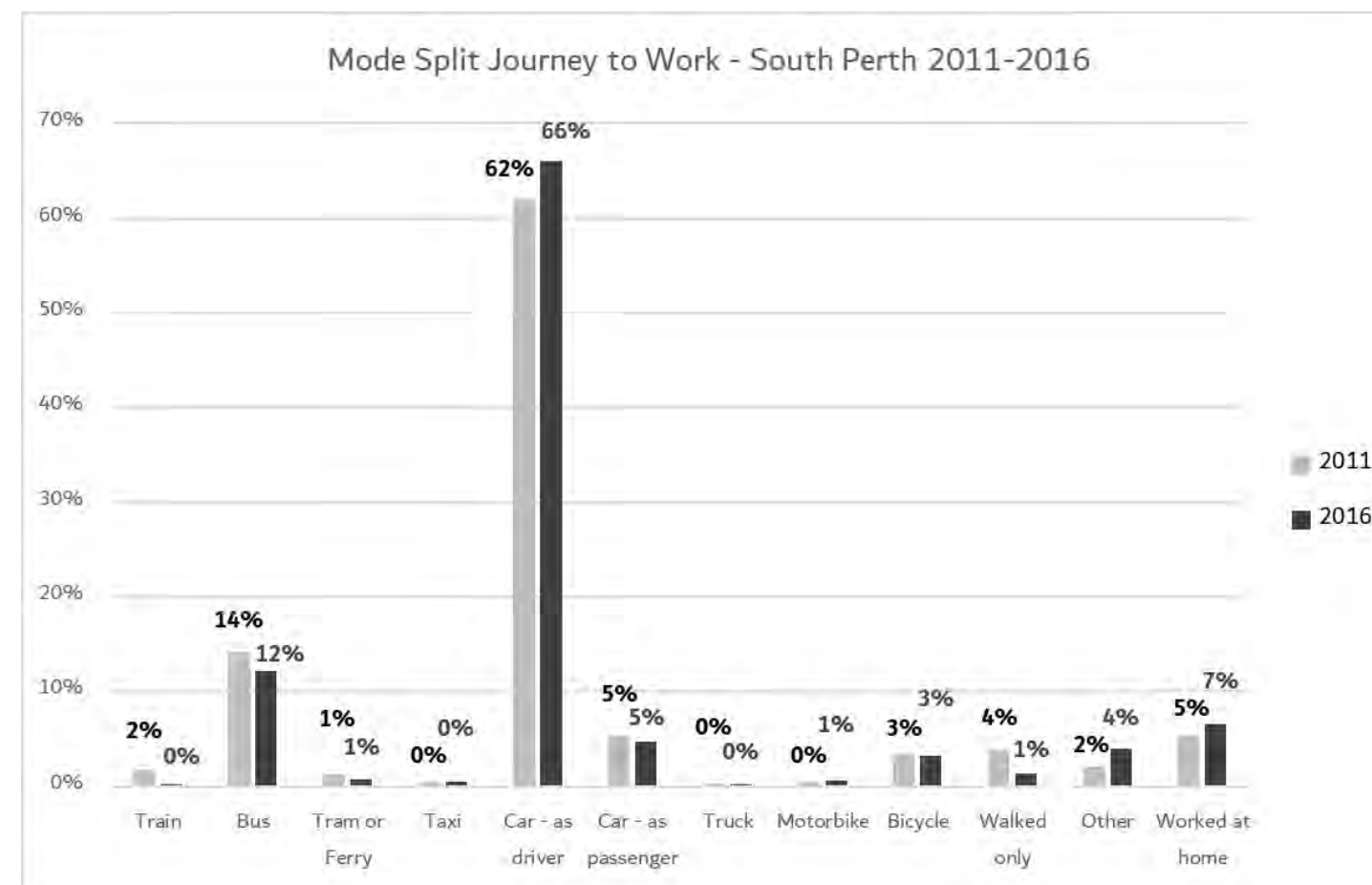


Figure 8 Journey to work trends - 2011 to 2016

## 2.7 Regional Perspective – Travel Context

The movement of people to and from South Perth for employment purposes was also examined to understand travel from a sub-regional perspective. For outbound trips, there was a significant degree of self-containment, as well as trips to Central and Inner Perth and Victoria Park.

For inbound workers, there was a high movement of people from Melville, Canning, Gosnells and Victoria Park.

This information, which was only available for the 2011 Census at the time of completing the assessment of the Activity Centre, is shown in Figure 9 and Figure 10.



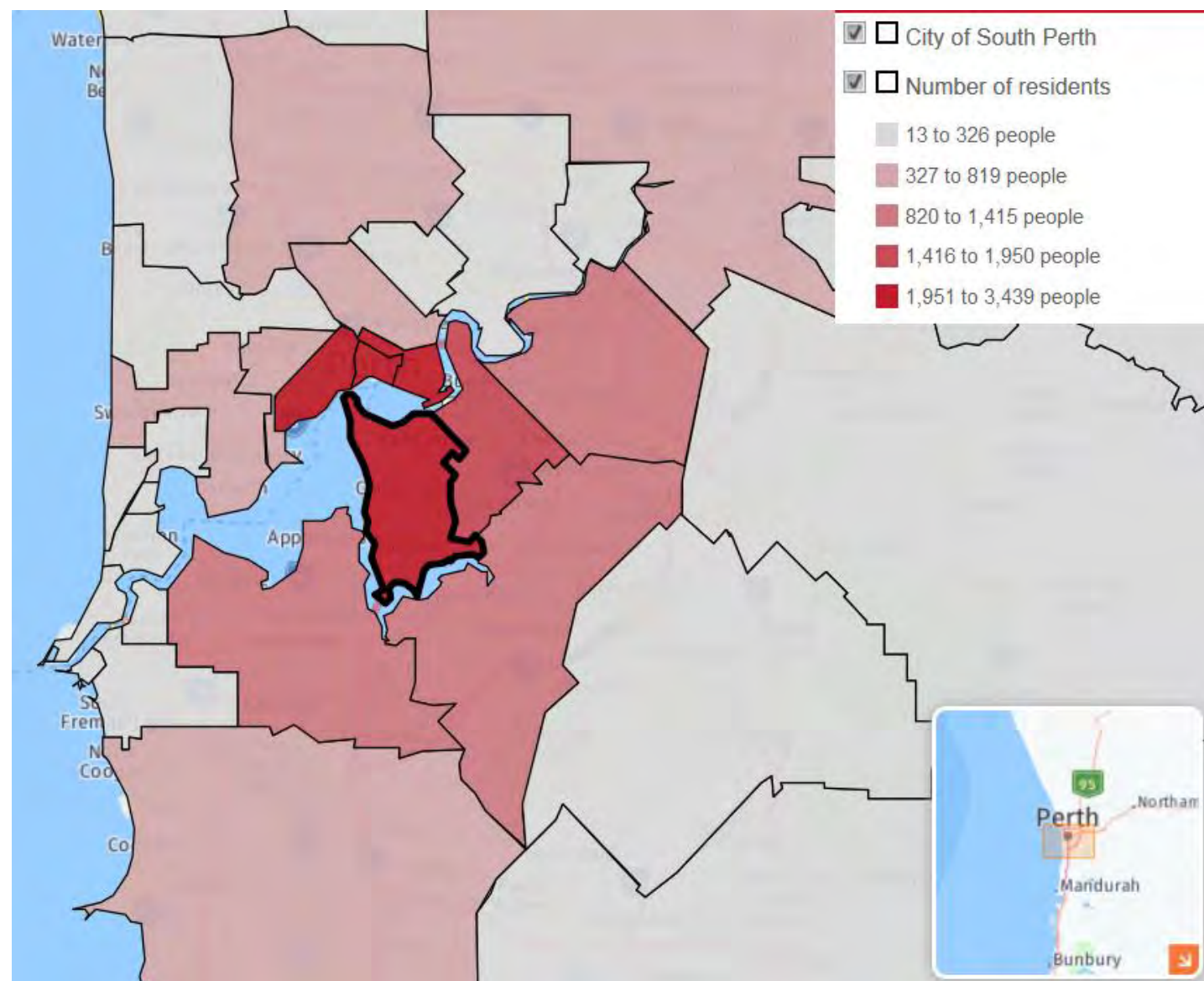


Figure 9 Residents place of work - journey to work

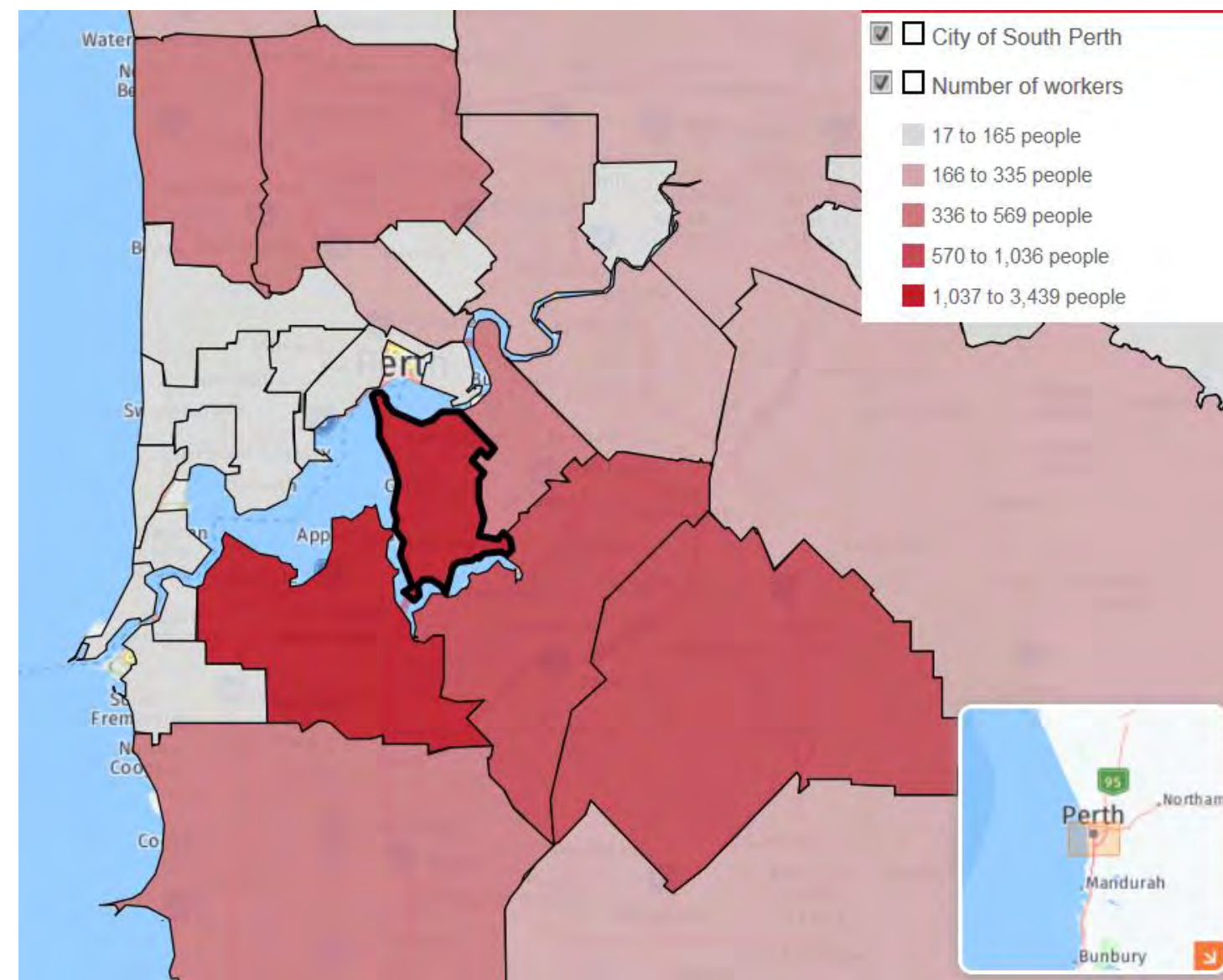


Figure 10 Workers place of residence - journey to work

The RAC undertook a survey of 800 people in 2014 to chart travel mode by trip type to inform a study about car sharing. The inner city survey area included South Perth. The results, shown in Figure 11, indicate that:

- Private vehicles are the dominant mode of transport for all trips excepting University and TAFE trips.
- The mode split for work purposes for the overall Inner City area reflects that of South Perth in the 2011 Census results.
- Public transport use for non-work or higher education trips is very low.
- Walking is a very important mode for all types of trips – a critical consideration for Activity Centres.

These movements reflect Census outputs and also provide an confirmation that private vehicles are the dominant mode of choice for travel in Inner Perth areas such as South Perth.



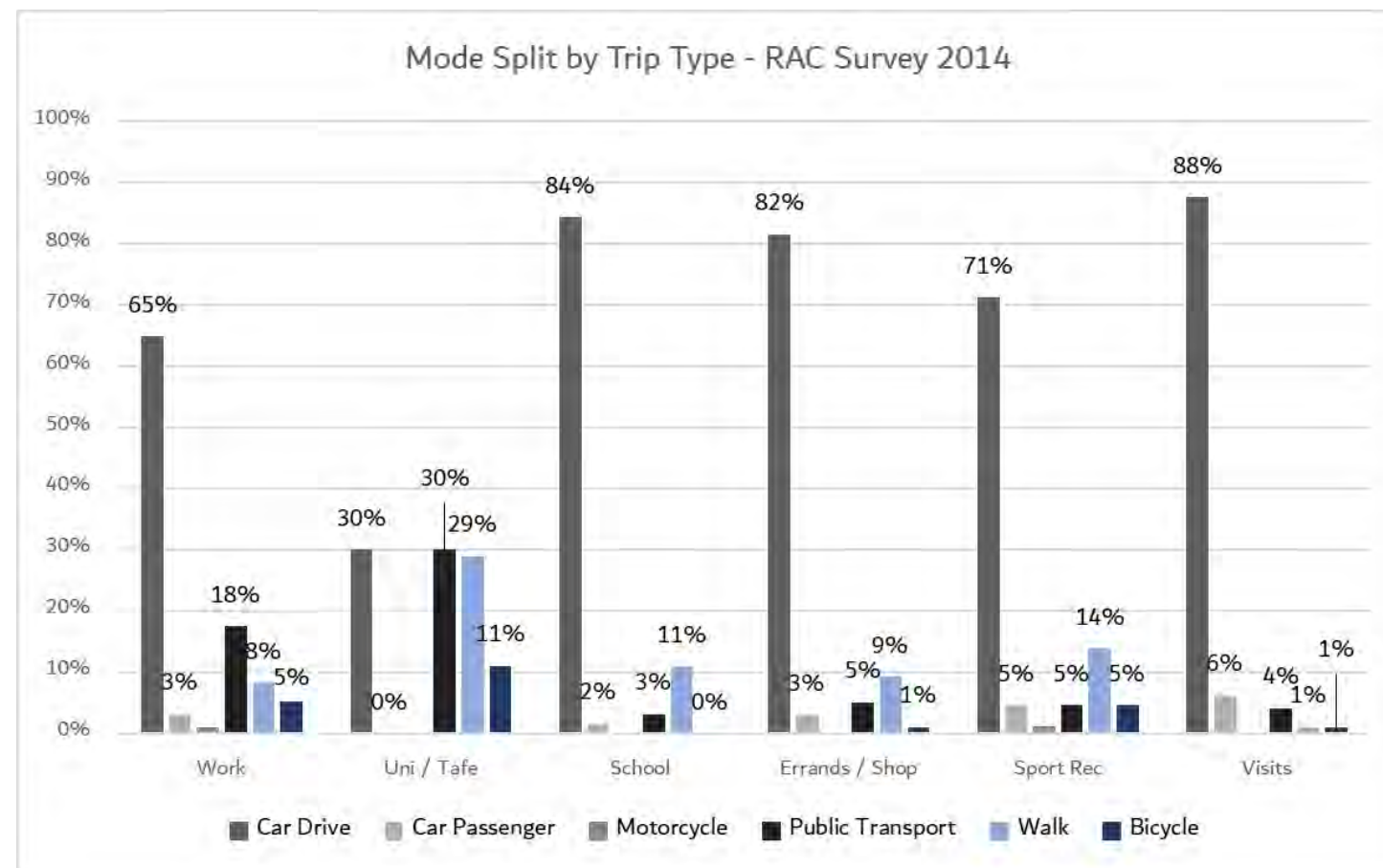


Figure 11 Mode split by trip type RAC 2014 survey

Travel times between Activity Centres and key locations around the City of South Perth were also examined to understand the context of travel choice. The exercise involved:

- Using the travel and route tool within Google Maps to gain an understanding of travel times for different modes in the AM peak period.
- Five locations were examined – South Perth, Canning Bridge, Curtin University, Causeway and Perth.
- Car, Bus, Bike and Ferry were all examined, with some multiple options reviewed.
- The time of the comparison was 8.10am on a Thursday.
- The starting point of the trips was based on a location in the South Perth Activity Centre.

Examples of the measurement tool for the individual modes are shown in Figure 12. For car trips, there was a range to reflect peak hour movements being variable and bus routes sometimes had multiple options or included a walking component.

For Perth, the end point location was 140 William Street which houses Perth Underground and the Department of Planning, Lands and Housing.

Each of the resulting times were then ranked by mode to understand an important contributor as to how people may make travel decisions between Activity Centres and key transport nodes in and around the City.

The results were overlaid on a map image to show overall results. These results are shown on Figure 13.

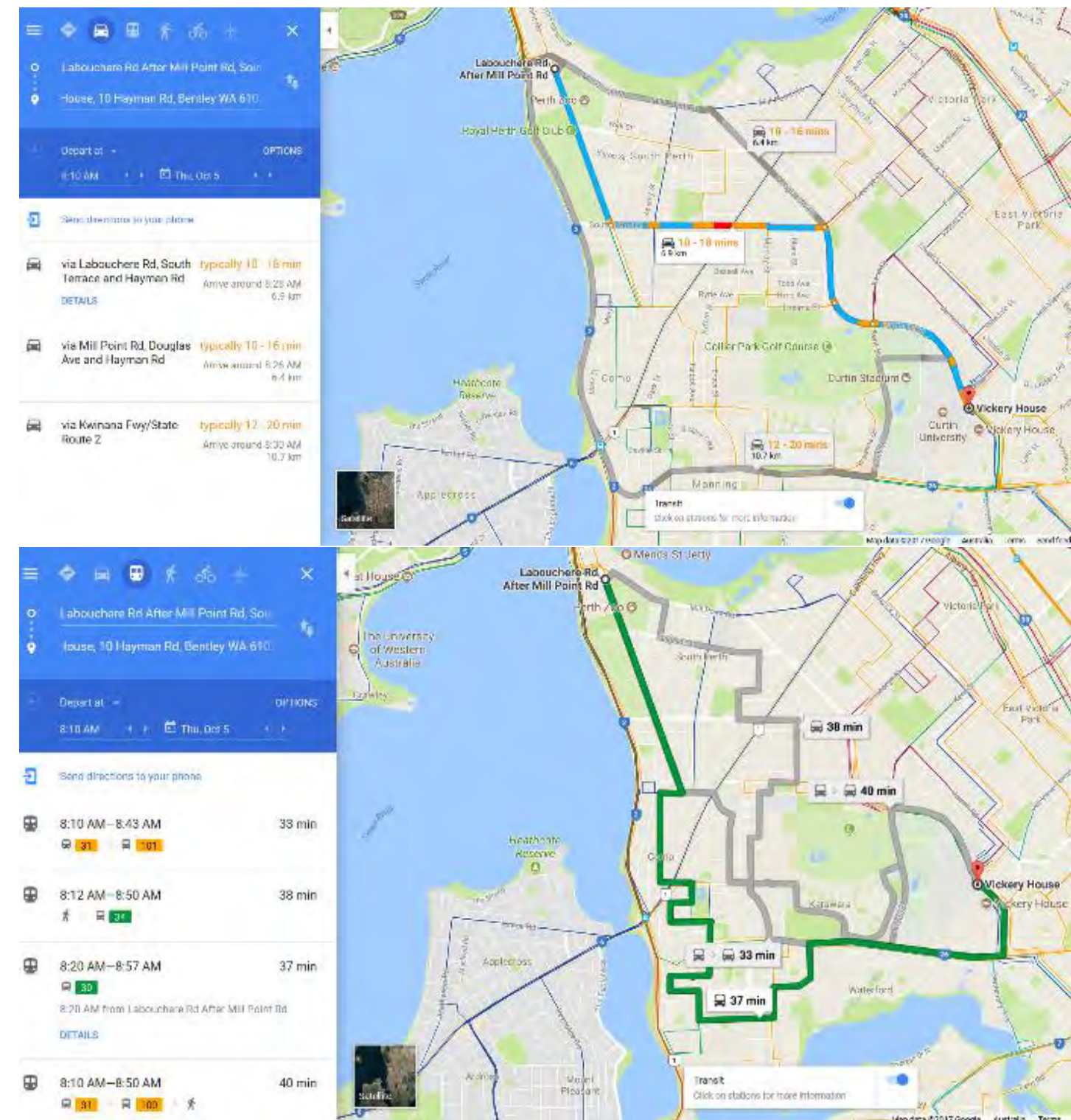


Figure 12 Example use of measurement tool in Google Maps



The travel time comparison showed some obvious patterns which have dictated overall peak hour travel patterns in the City:

- Travel times for car trips are fastest.
- Bus travel times are generally highest, reflecting impact of stops, winding suburban based routes and lack of priority.
- Bicycle trips are competitive in travel times although that is qualified by potential lack of attractive infrastructure along these routes – such as Canning Highway.
- Where there were fast, direct and frequent bus services (such as those along Canning Highway), buses were very competitive in travel times during the morning peak.
- The Ferry and Walk trip from Mends Street is highly competitive for Central Perth trips.

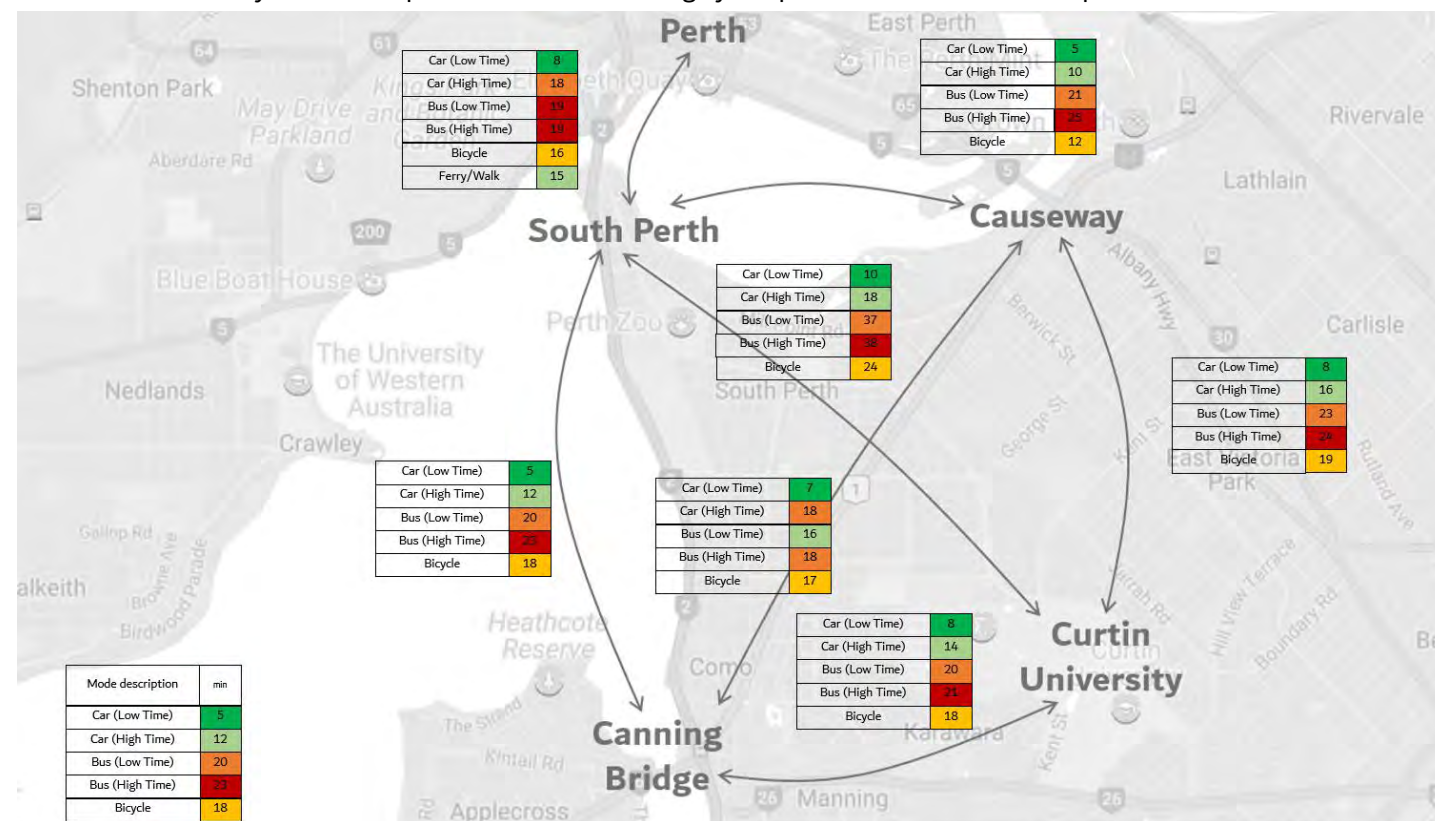


Figure 13 Ranking of travel time measurement results

Census data also provides details on car ownership by household. A review of the reported responses in the South Perth SLA between 2001 and 2016 was undertaken. The number of overall households in the South Perth SLA during this period of time grew from 5,339 to 5,629, an increase of 290 households or around 5.4% additional housing stock.

The results from the Census periods are shown in Figure 14. These outcomes, which reflect a higher proportion of households with more cars, and a lower proportion of households with no cars, demonstrates a clear disconnect between strategic land use and transport integration policies and local statutory policies during this period.

Simply put, there are substantially more vehicles (over 1,000) associated with residential dwellings in South Perth over the 15 year period. This has, in turn, contributed to existing peak hour traffic related congestion.

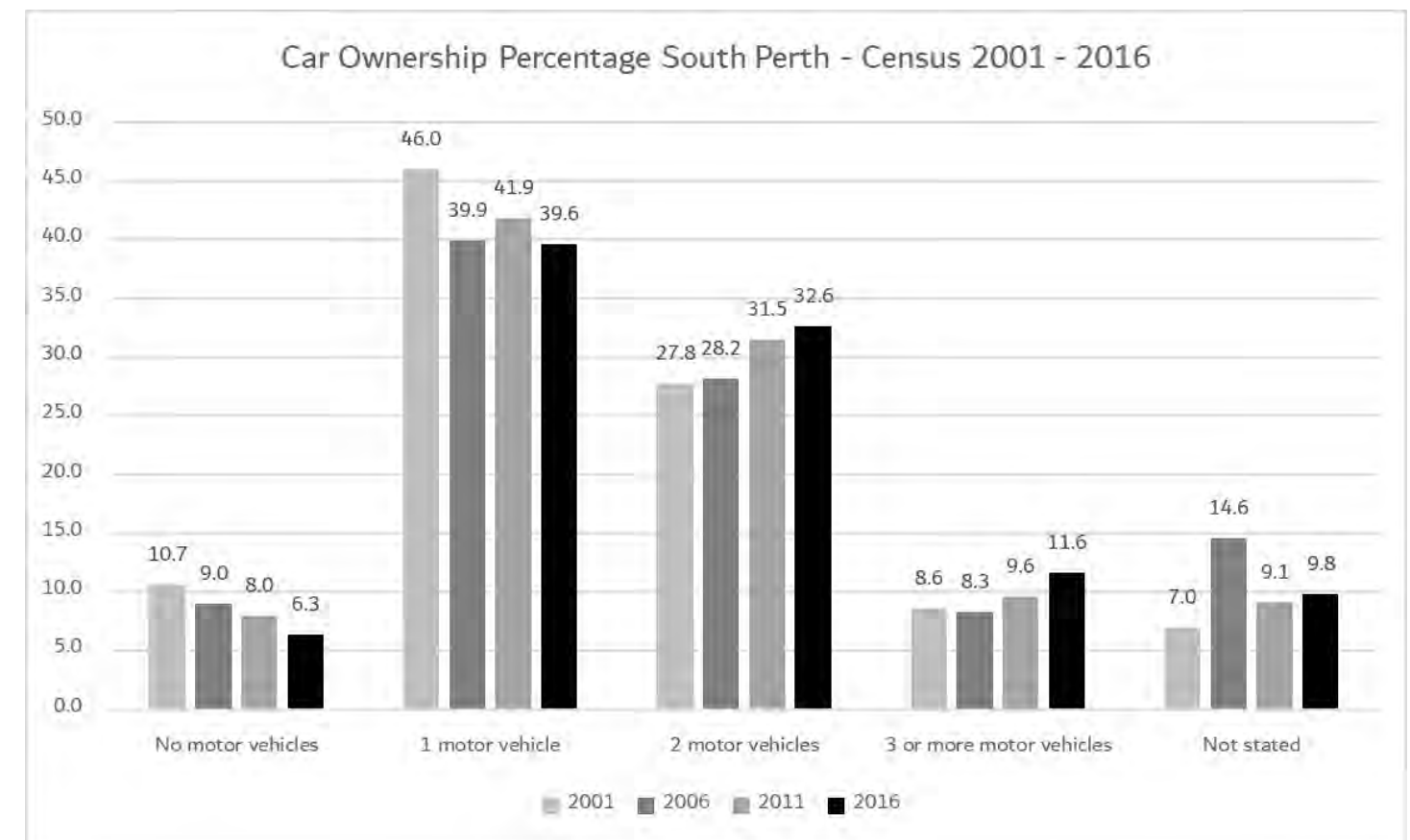


Figure 14 Car ownership percentage - South Perth between 2001 and 2016

Using available Census data and information from other Activity Centre planning exercises, a review of existing modal splits for Journey to Work activity was undertaken. This was completed to benchmark the existing travel patterns and allow for an understanding of the impacts of future travel patterns.

Information for South Perth, Subiaco and the Canning Bridge Activity Centre were reviewed, as shown in Table 1. The headline travel categories were compared to allow for general conclusions to be drawn for commuting trips.

Both Subiaco and Canning Bridge have access to the Urban Rail network which is reflected in a higher public transport mode split of 22.3% compared with Canning Bridge 15.10% and South Perth 14.2%.

South Perth has by far and away the largest proportion of car drivers and passengers (76.3%) however this is skewed by South Perth covering the lower density areas to the south of the Activity Centre. By comparison, Subiaco has 57.4% using a car as a driver or passenger and Canning Bridge has 63.7%.

Examination of the SA1 2016 Census data covering just the Activity Centre indicates that the actual split is closer to 59% using a car as a driver or passenger and 15.7% using public transport for all responses. When factored to just take into account people who worked (removing worked at home responses, not working and other), the splits are 71% using cars and 19% using public transport.

Table 1 Mode splits on journey to work

	Subiaco	South Perth	Canning Bridge
	2016	2016	2016
Train	7.8%	0.3%	15.10%
Bus	14.5%	13.1%	
LRT/Ferry	0.0%	0.8%	
Car, Driver	52.1%	71.2%	63.70%
Car, Passenger	5.2%	5.1%	
Bicycle	5.2%	3.5%	3%
Walked	12.2%	1.5%	
Other	2.9%	4.2%	18.10%
Total	100%	100%	100%

### 3. PUBLIC TRANSPORT

#### 3.1 Public Transport Network

The Transperth public transport network available within the South Perth Activity Centre (shown in Figure 15 including the four bus stops referred to in Figure 16) is comprised of four bus routes and a Ferry Terminal at Mends Street. The location of the Ferry Terminal within the Activity Centre makes South Perth a unique location in the overall public transport network as this is the only public transport ferry service in the Metropolitan region.

There are no bus terminals or station infrastructure in the Activity Centre although the 35 service has a terminus stop off Mill Point Road. There are no bus priority measures, either on road or through signal priority, on the local roads through the Activity Centre.

Bus stop utilisation information current for 2017 was obtained from Transperth to provide a comparison with the 2011 and 2015 information presented in the 2016 South Perth Station Precinct Transport and Access Study.

That study presented two separate data sets, one a weekday total bus boarding and alighting total from 2011, the other a stop specific analysis from 2015. A comparison of both has been completed.

The outcomes of the analysis are shown in Figure 16 and Figure 17. The analysis shows that:

- Like for like, bus patronage in the Activity Centre has dropped between 2011 and 2017.
- Like for like, average bus stop patronage in the busiest bus stops in the Activity Centre have dropped between 2015 and 2017.
- Overall use of buses in the Activity Centre remains very low.

Outcomes from the 2016 Census support the broad conclusion that public transport patronage in the Activity Centre is reducing, not increasing.

There was no detailed analysis or examination of Ferry patronage completed in previous studies relating to the Activity Centre. The details that were presented in the 2016 South Perth Station Precinct Transport and Access Study were based on STEM model outputs.

This indicated that around 900 weekday Ferry boardings and alightings were projected for 2016. The projections from STEM, including the split between Bus and Ferry patronage, is shown in Figure 18 with the “2016 without South Perth Station” providing a relevant comparison to 2017.

Ferry patronage details for March 2015 were provided by the PTA to provide a like for like monthly comparison and also show the impact associated with Elizabeth Quay opening. The overall results are shown in Figure 19 which shows that average patronage for all periods has at least doubled.



Figure 15 Transperth network map - Activity Centre area



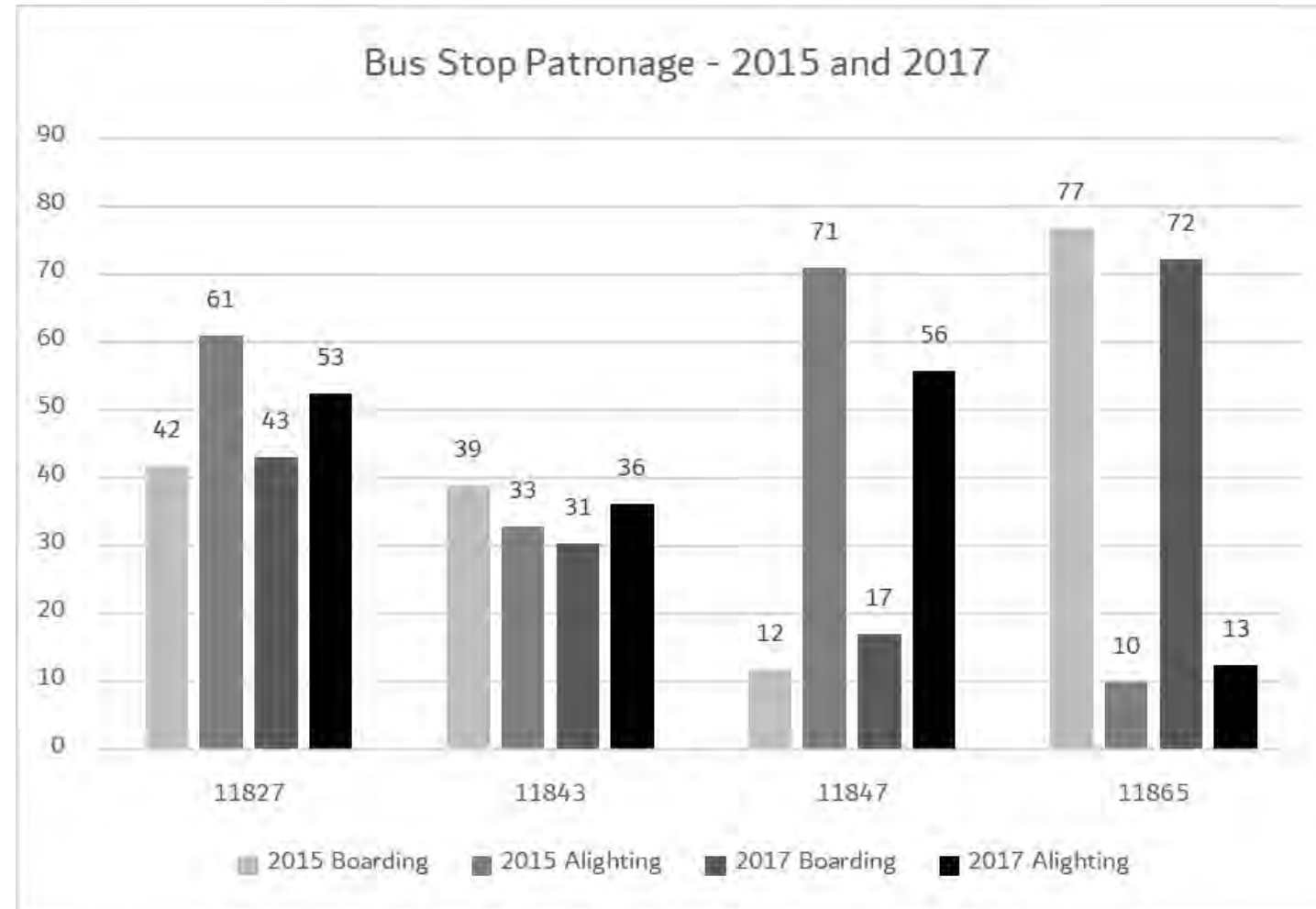


Figure 16 Bus stop patronage in Activity Centre - 2015 and 2017

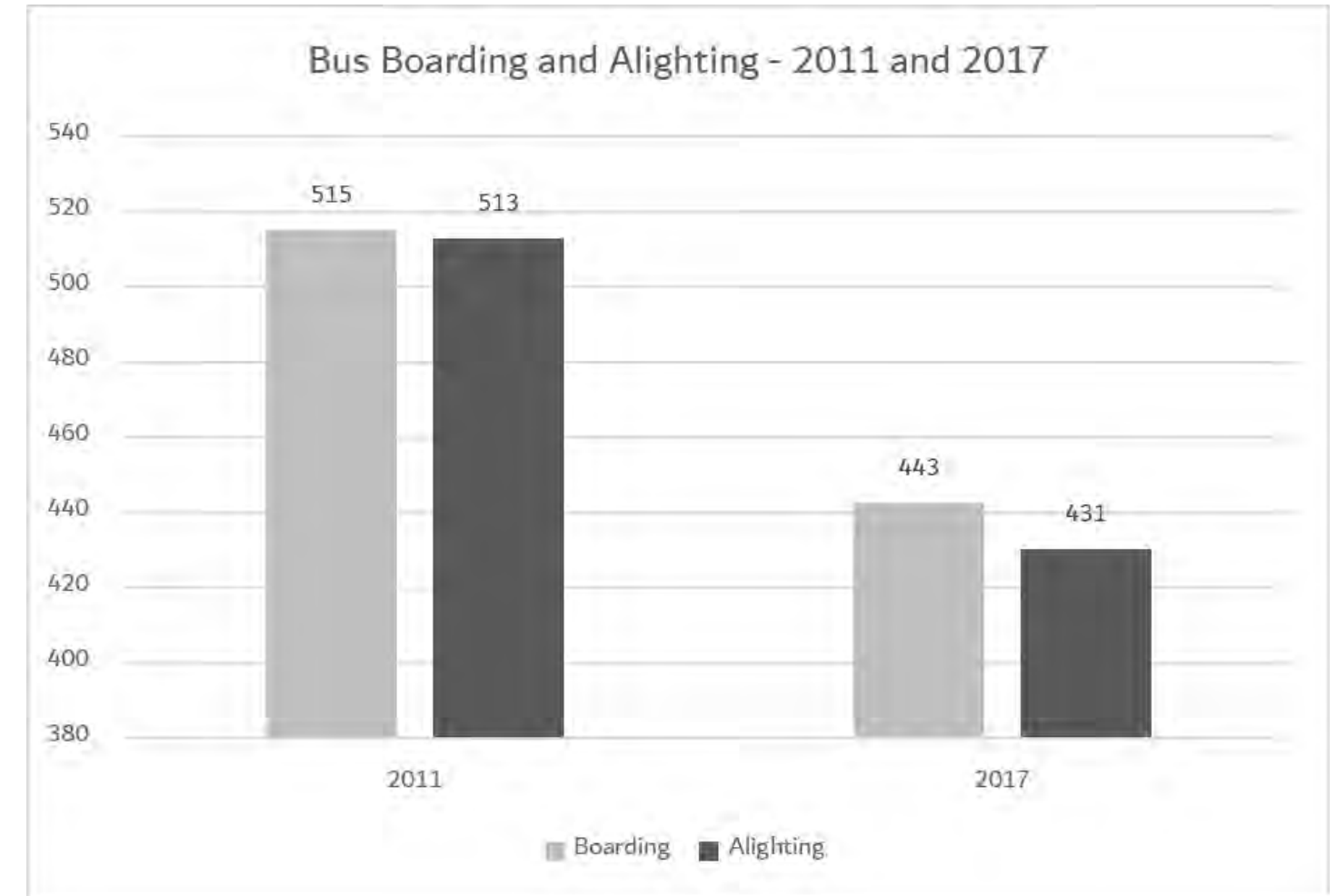


Figure 17 Bus boarding and alighting - 2011 and 2017

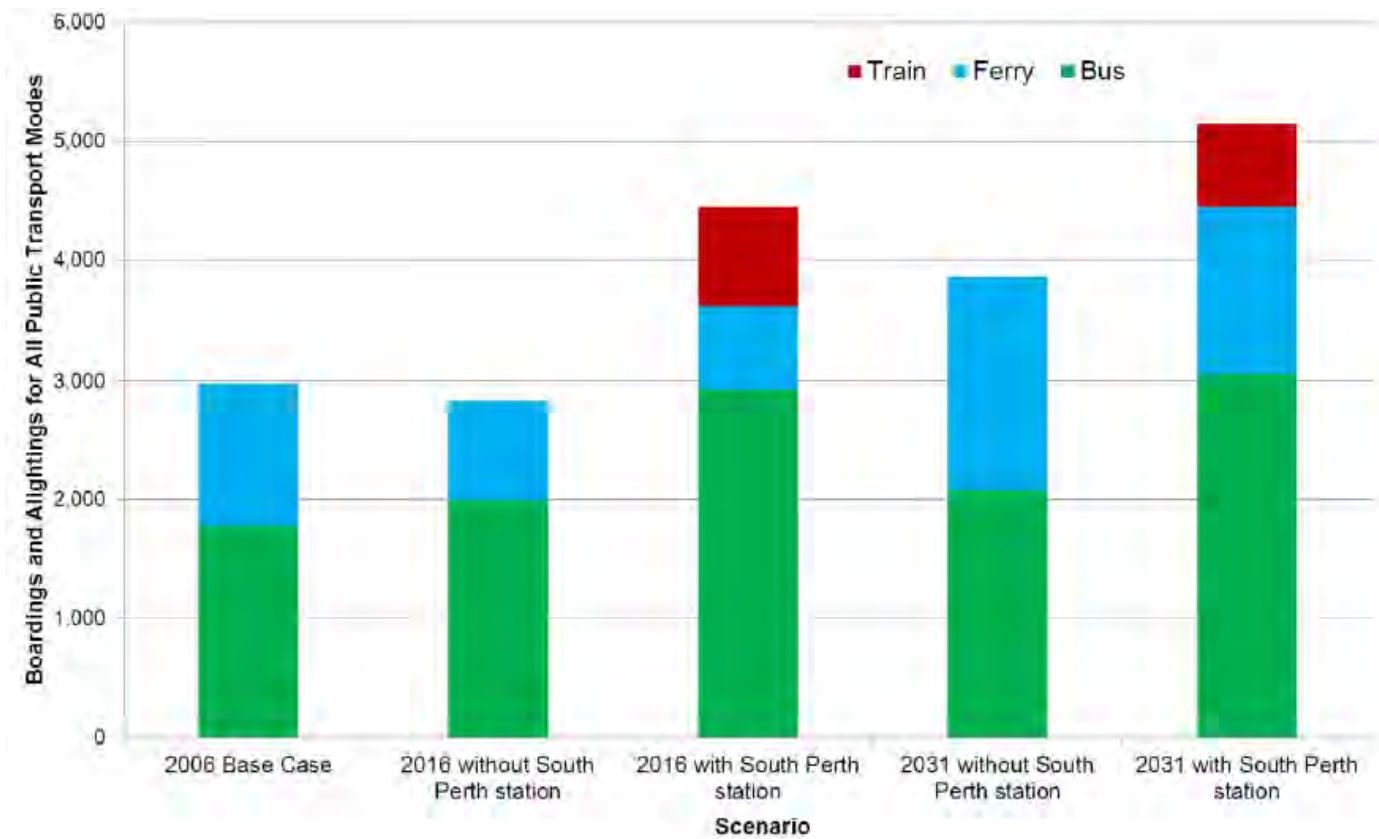


Figure 18 STEM model outputs 2031

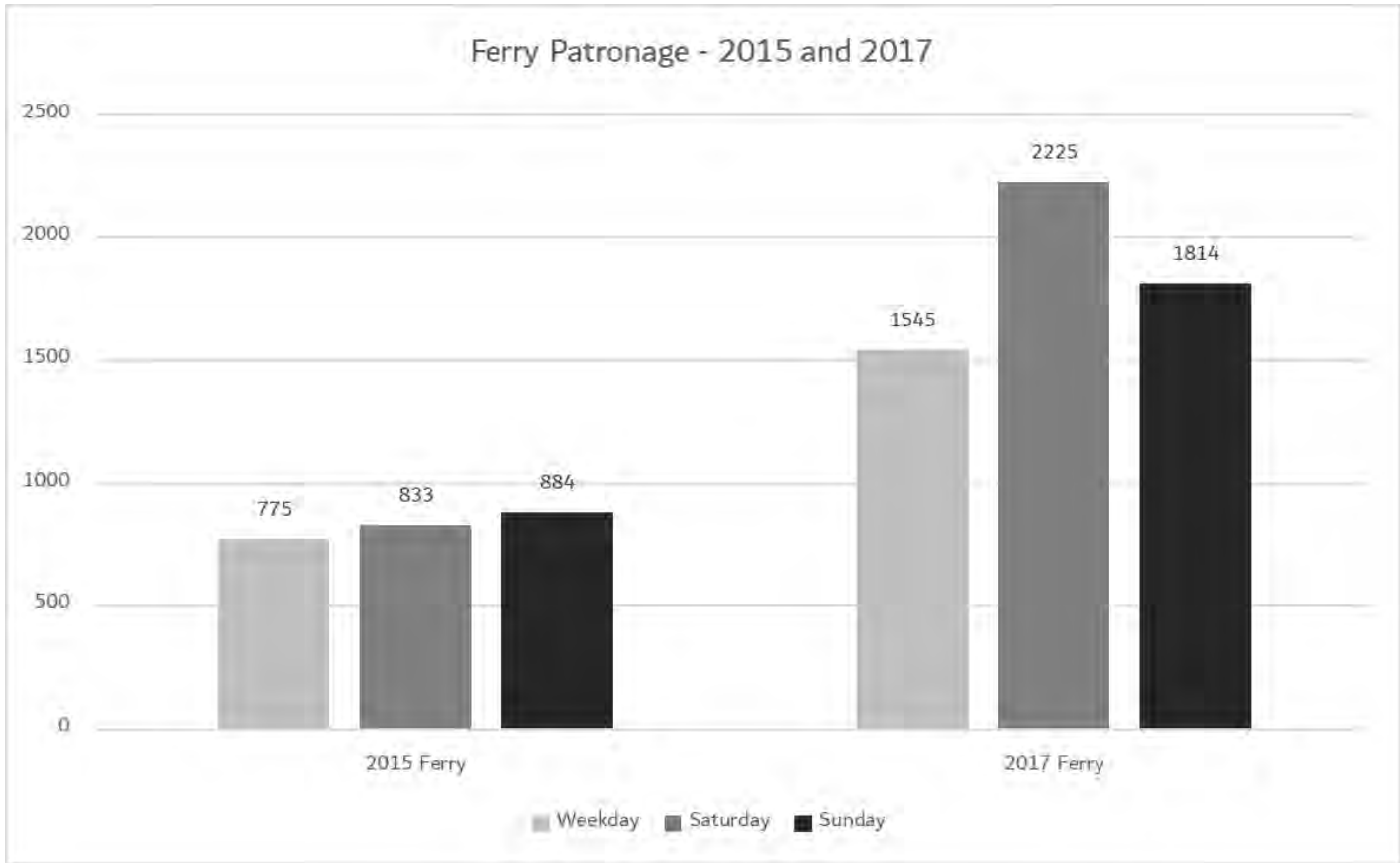


Figure 19 Ferry patronage - 2015 and 2017

Actual 2017 March weekday patronage numbers for Public Transport, shown in Figure 20, appears to indicate that STEM forecasts for 2016 were higher than actual usage by around 15-20% in total. This should be factored by the area of the STEM zone covering this patronage being larger than the South Perth Activity Centre. Taking into consideration the differences in areas, the level of 2016 patronage forecast within STEM appears reflective of 2017 conditions.

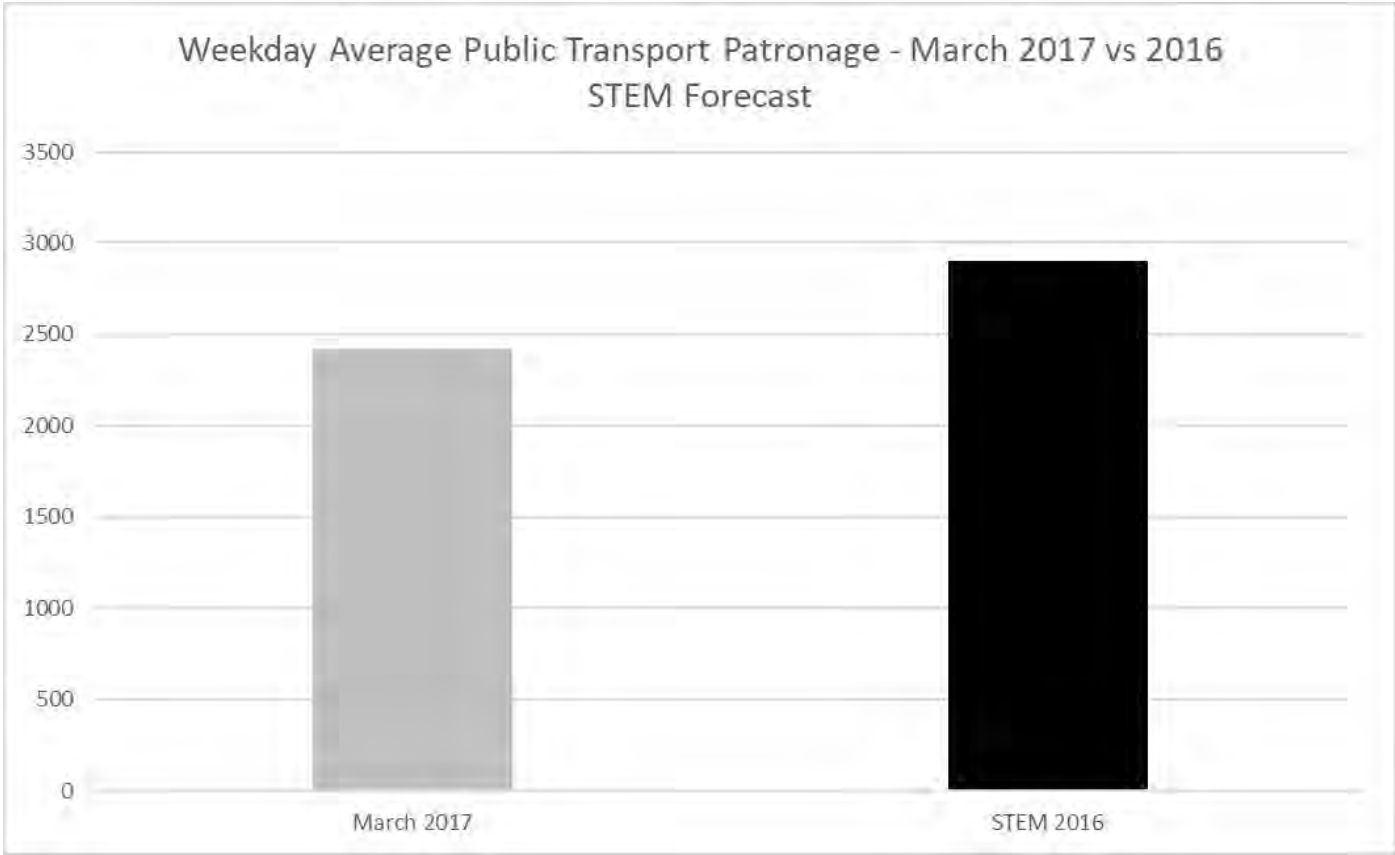


Figure 20 Weekly average public transport patronage comparison

The other element to the public transport usage, was the split between bus and ferry usage within STEM as opposed to the actual patronage levels. STEM 2016 forecast that there would be a higher bus patronage than ferry usage.

The actual splits for 2017 are shown in Figure 21 and Figure 22 for weekday, Saturday and Sunday. These splits show that there is higher ferry usage on weekdays and weekends associated with non-commuter trips. Within the Activity Centre, total overall weekday trips are also higher by Ferry. The overall public transport context analysis indicates that:

- Ferry usage outstrips bus usage for all time periods in the Activity Centre.
- There is a clear connection between Ferry usage and non-commuting trips between South Perth and Elizabeth Quay.
- There are minimal non-commuting trips made by bus to and from the Activity Centre.
- Bus patronage has plateaued in the Activity Centre in the past few years.
- Overall public transport accessibility within the Activity Centre in terms of standard walking distances is good and not seen as a barrier to use.
- Connection by public transport to the other Activity Centres in and adjacent to South Perth is poor and not competitive with private vehicles and, in many cases, cycling.

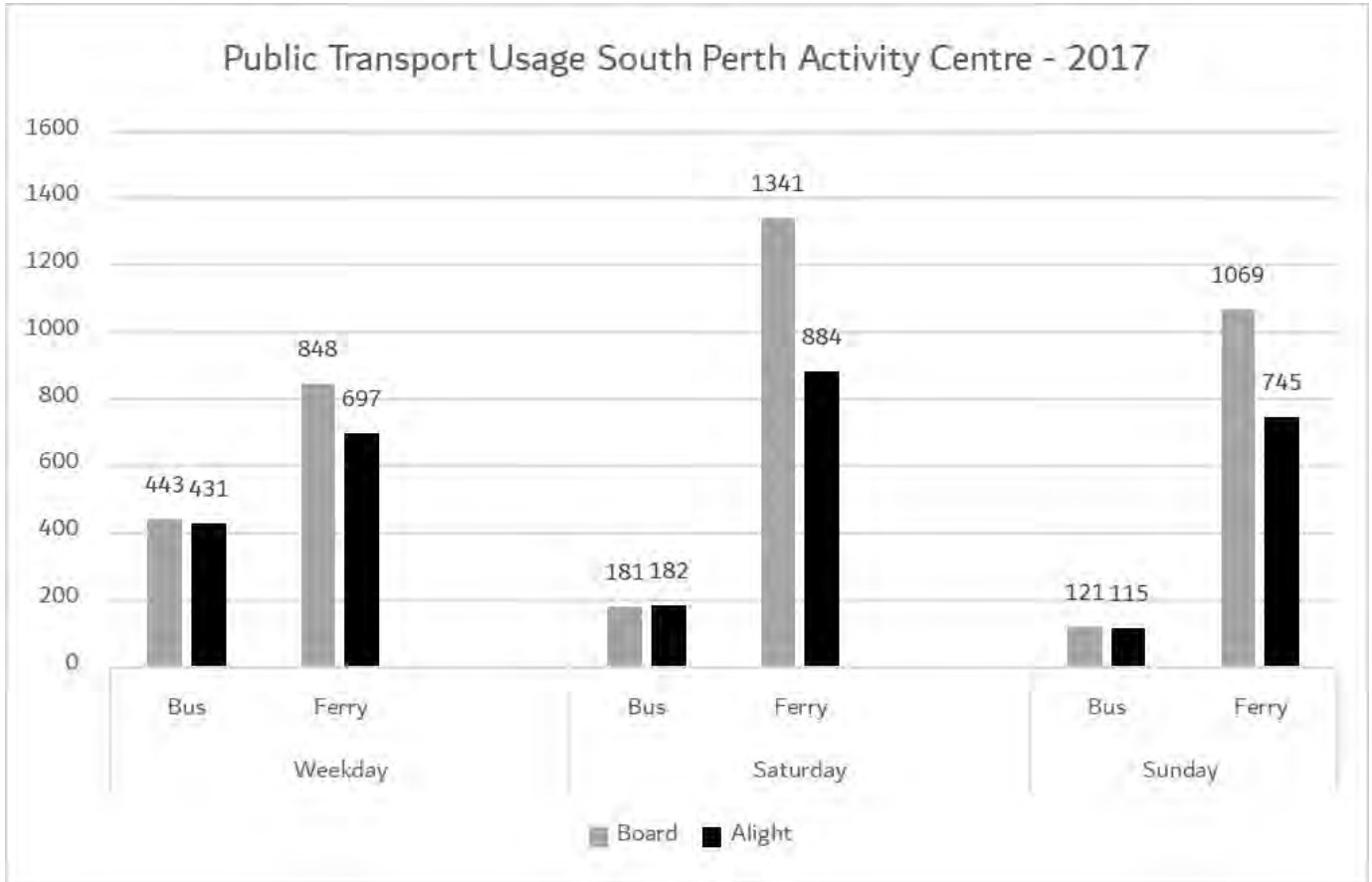


Figure 21 Public transport usage for Activity Centre 2017

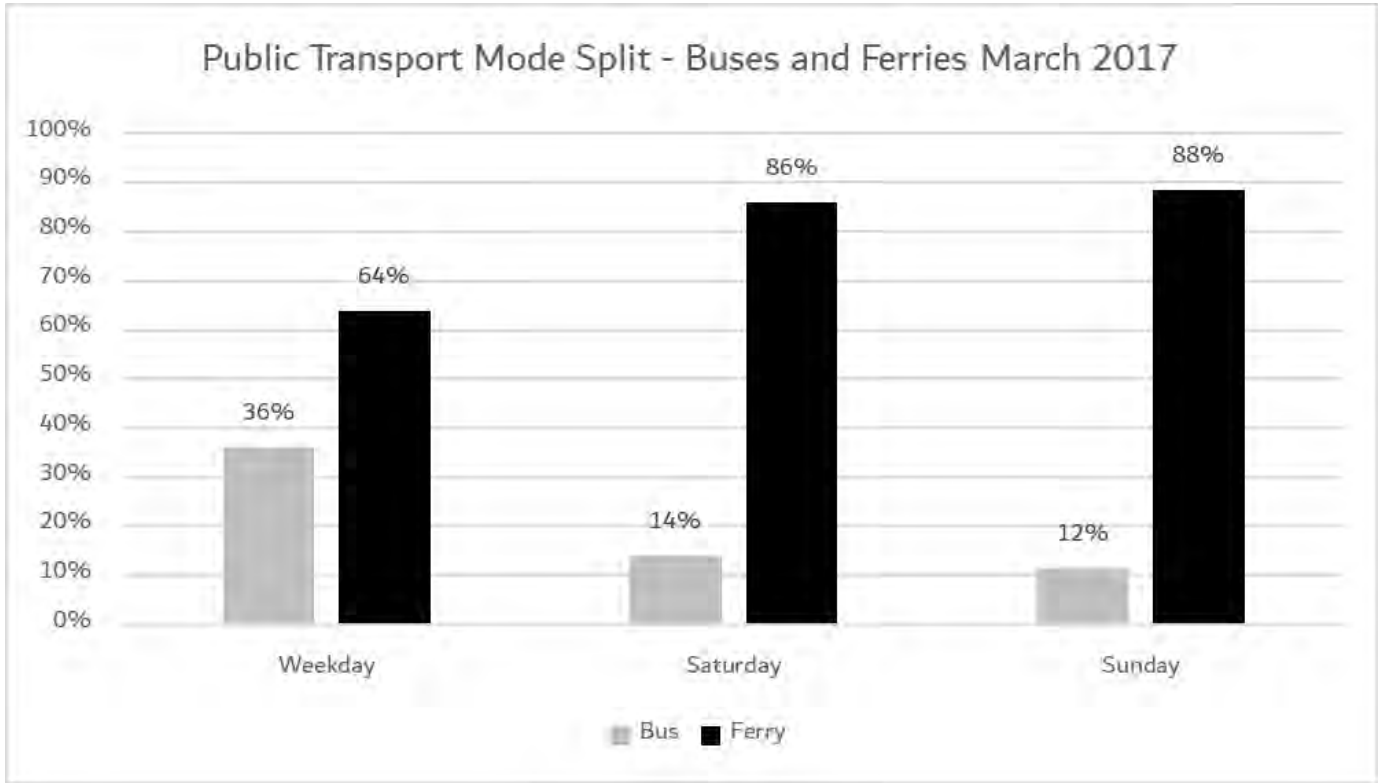


Figure 22 Public transport use by mode 2017



## 4. PEDESTRIAN MOVEMENT AND AMENITY

### 4.1 Pedestrian Movement

There is a high level of pedestrian facility provision in the Activity Centre with the vast majority of streets having footpaths on both sides. There is substantial provision of high quality shared paths in recreation reserves and along the Kwinana Freeway.

The key desire lines for pedestrians are heavily related to leisure or tourist based trips in the Activity Centre. At the core of most key pedestrian desire lines are the Perth Zoo or the Recreational Shared Path that runs along the Swan River. The key existing desire lines, as indicated on Figure 23, are:

- Between the Mends Street Ferry Terminal and Perth Zoo. The terminal is the major existing Public Transport entry point to the Activity Centre and is heavily used by visitors to the Zoo, patrons visiting South Perth for views back to Central Perth or for attending restaurants and cafes in South Perth.
- Across the Narrows Bridge into the Activity Centre. This route provides the key pedestrian route to and from Central Perth. It is a popular recreational route for people completing a loop around the Swan River.
- Along and around Mends Street in the main commercial, entertainment and retail area within the Activity Centre. Pedestrian trips dominate this area.
- Pedestrian movements between parking areas along Labouchere Road and Richardson Street to Perth Zoo. There are pedestrian only traffic signals located on Labouchere Road to allow people to safely cross with signalled priority.
- Along the South Perth foreshore.

The key desire lines for pedestrians within the Activity Centre is reinforced by heat mapping available from the commercial product, Strava. The application is popular with recreational joggers and therefore reflects a small user group. The image of the peninsula shown in Figure 24 is a heat map of the popular routes recorded by joggers and walkers. The key routes are:

- Along the South Perth foreshore
- Along the Kwinana Freeway using the PSP for north-south trips
- Along the Labouchere Road corridor
- Along Melville Parade accessing the existing bridge crossing of the Kwinana Freeway
- Along Mill Point Road leading up to Mends Street from the east.

To examine the existing context, an analysis of the commercial product, Walkscore, was completed. The score ascribed to locations around the Activity Centre for walking shown on Figure 25 is generally poor for an Inner City location and reflective of the type of urban form and land use, low provision (and use) of public transport and geographical constraints. Walkscore bandings are:

- 90–100 Walker's Paradise: Daily errands do not require a car
- 70–89 Very Walkable: Most errands can be accomplished on foot
- 50–69 Somewhat Walkable: Some errands can be accomplished on foot
- 25–49 Car-Dependent: Most errands require a car
- 0–24 Car-Dependent: Almost all errands require a car

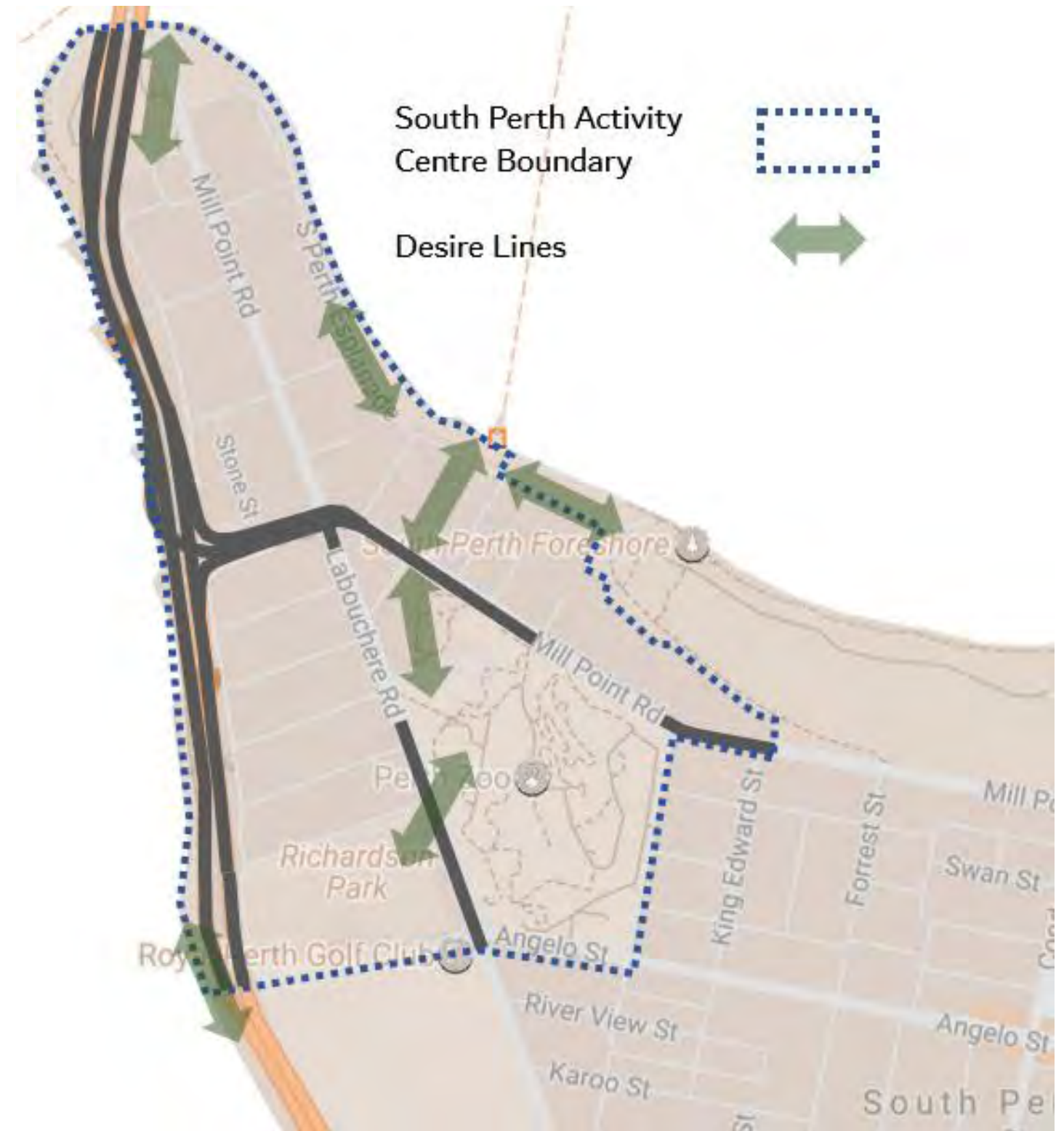


Figure 23 Desire lines - Activity Centre





Figure 24 Strava heatmapping for run activities - Activity Centre (source: Strava)



Figure 25 Walkscore bandings - Activity Centre



## 5. CYCLING

### 5.1 Cycle Network

The City of South Perth is presently developing a joint Bicycle Plan alongside the Town of Victoria Park to supersede the exiting 2012-2017 Bike Plan. The South Perth Activity Centre area includes two primary shared use paths along the Kwinana Freeway and Swan River (Sir James Mitchell Park). Count sites along these two main routes are permanent locations with data available up to 2015. The year by year average counts for Monday to Friday and Monday to Sunday for the Sir James Mitchell Park location (just to the east of the Activity Centre boundary) are shown in Figure 26 and Figure 27.

These counts show that, during the period from 2011/12 to 2014/15, there was an incremental growth in recorded cycling trips along this path. There was a lower level of growth along the Kwinana Freeway path. Use of the paths also fluctuates between week days and weekends. Figure 27 shows the hourly usage profile of the Sir James Mitchell Park path in 2015. There are two recorded periods, average weekdays and average weekends. Figure 28 sets out the existing cycling network plan.

Whilst the weekday period shows the tidal fluctuation associated with commuter cycling, the weekend average hourly counts show that there is a substantial peak in the morning (associated with casual, recreational trips) but then use tapers off. There is also a higher use of the clockwise path around the Swan River. Overall cycling use in South Perth is dominated by the presence of through commuting cycle trips, rather than more fine grained use of local streets. This is also evident in collated Strava data shown in Figure 29 which indicates the dominance of commuting routes along shared use paths.

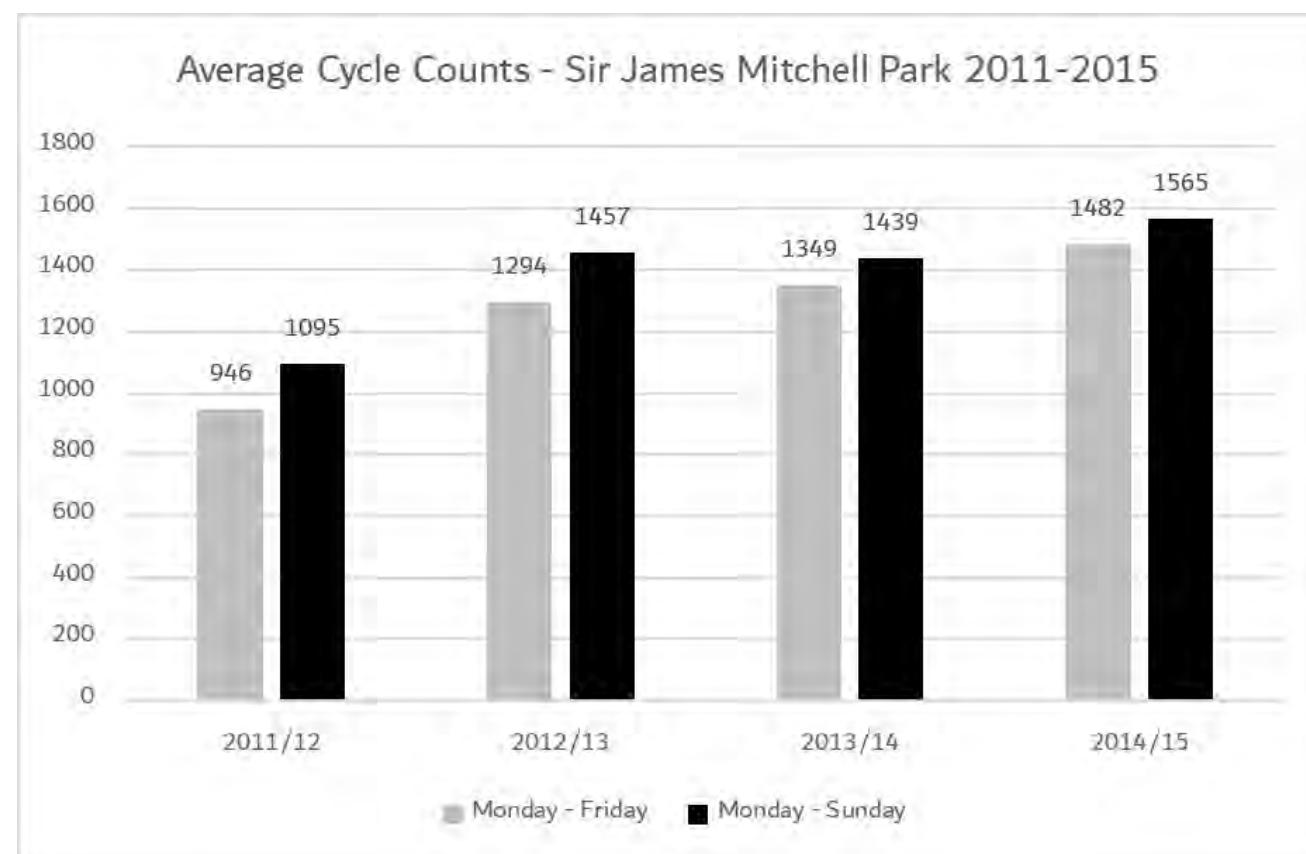


Figure 26 Cycle counts Sir James Mitchell Park 2015

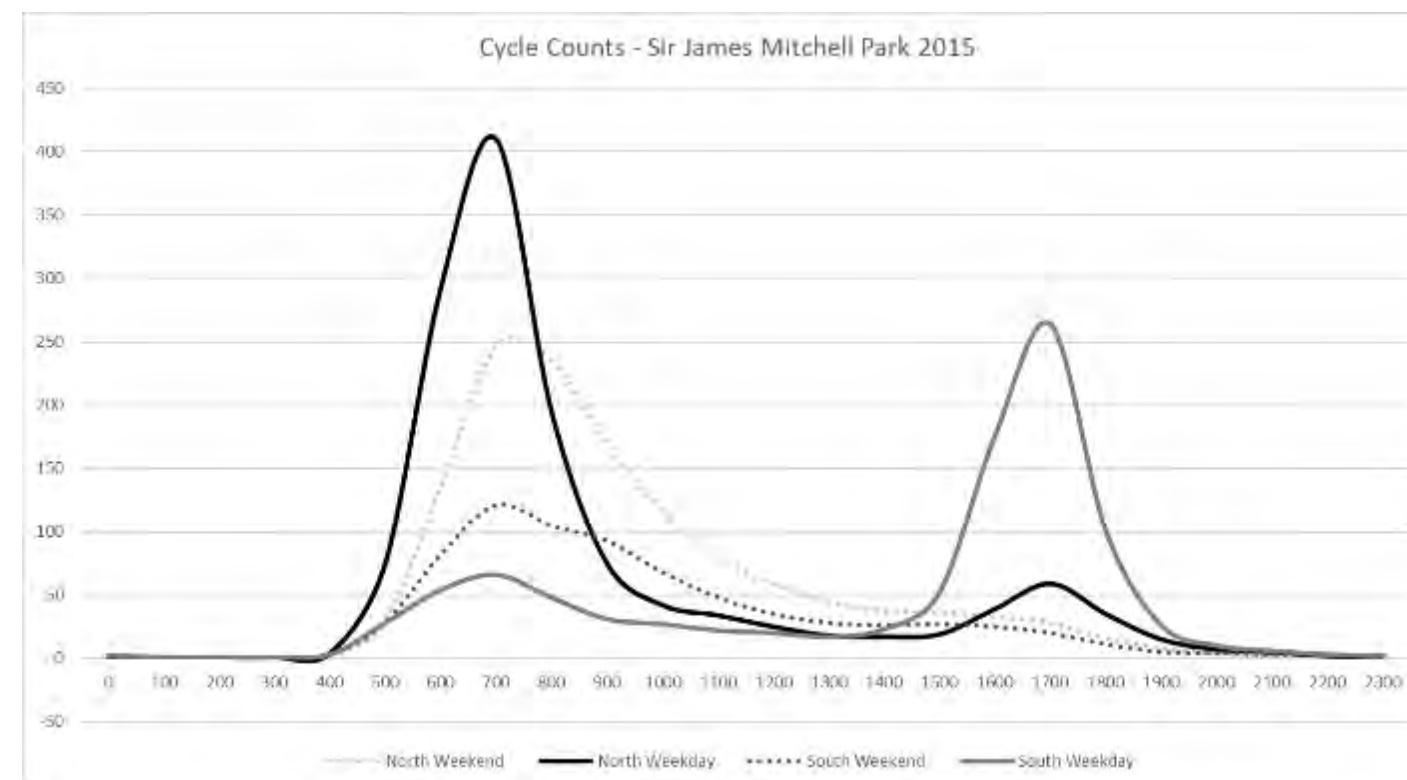


Figure 27 Cycle counts Sir James Mitchell Park 2015 - hourly profile



Figure 28 Department of Transport cycle map - Activity Centre



Figure 29 Strava heatmapping for cycling activities - Activity Centre (source: Strava)



## 6. VEHICULAR MOVEMENT AND ACCESS

### 6.1 Vehicular Movement and Access

Traffic volumes in the Activity Centre were set out in the 2016 South Perth Station Precinct Transport and Access Study and are replicated on Figure 30. The volumes in the location of the Activity Centre would not have fluctuated substantially since the 2015 data was collected.

In addressing traffic volumes, the Study states:

*“Peak hour intersection surveys were undertaken in October 2015. Traffic volumes were obtained from the City of South Perth at numerous locations within the study area. These traffic counts on the Council-controlled roads were collected in February 2016 by the City of South Perth.”*

*The traffic volumes on the on and off-ramps to the Kwinana Freeway at Mill Point Road west of Labouchere Road are based on the latest counts from the Main Roads WA website from 2014/15.*

*The Average Weekday Traffic (AWT) volumes are summarised to the nearest 100 vehicles and shown on Figure 30. As expected, the highest traffic volumes are generated along Mill Point Road and Labouchere Road (District Distributor B type roads).*

*Traffic volumes for other access roads, such as Melville Parade and Richardson Street, were significantly lower”.*

In addition to the collection of traffic information, the 2016 South Perth Station Precinct Transport and Access Study also undertook an analysis of mid-block capacity for three key traffic routes in the Activity Centre.

The Study notes:

*“A midblock capacity analysis was undertaken for all roads (other than access roads) where traffic volume data was available. Typical mid-block capacities for urban roads with interrupted flow have been sourced from Austroads Guide to Traffic Engineering Practice Part 2: Roadway Capacity.*

*Based on the existing traffic volumes, all roads had sufficient mid-block capacity and this is shown for the roads in study area as shown in (Figure 31)”.*

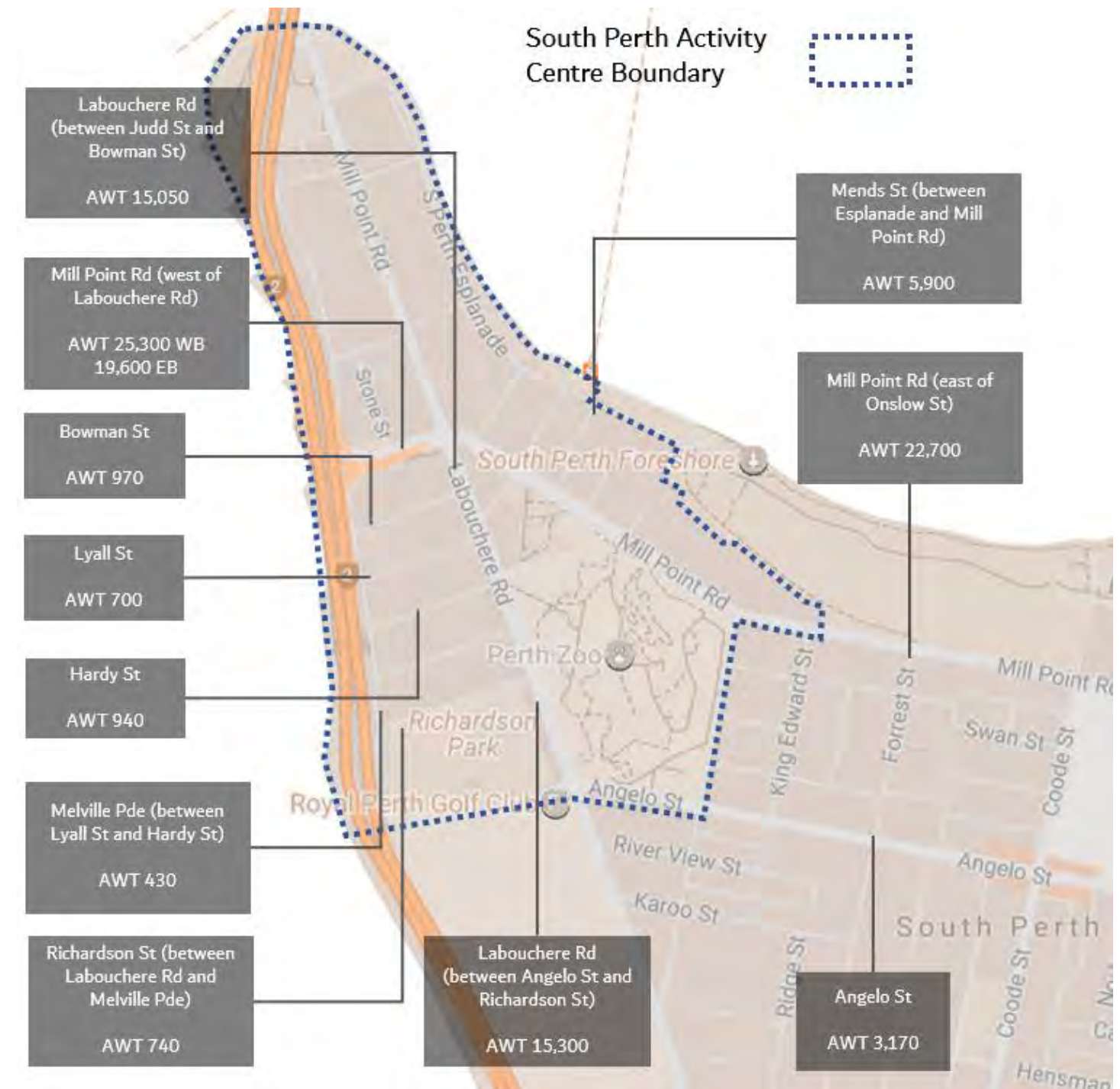


Figure 30 Average weekday traffic volumes



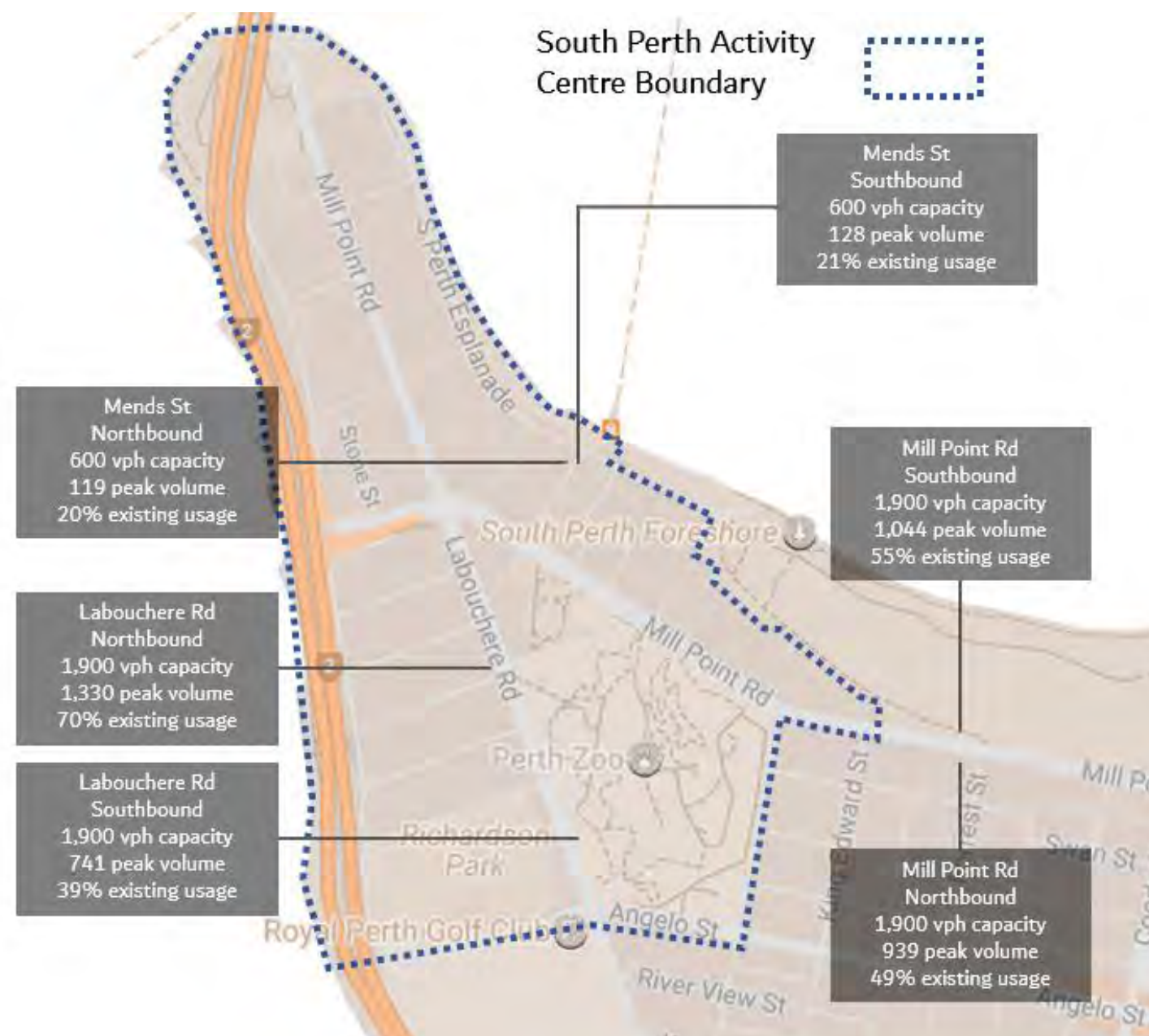


Figure 31 Mid-block capacity analysis 2016 South Perth Station Precinct Transport and Access Study

In response to a range of development and traffic related issues, South Perth commissioned the building of a traffic simulation model in 2016 to assist in informing both development assessment processes and traffic management proposals.

The coverage of the modelled area is shown on Figure 32, with the South Perth Activity Centre area modelled in detail to reflect existing and proposed developments. Canning Highway has only recently been included in the model. The AM and PM peak hour models have been calibrated to 2016 conditions with demand matrices developed based on ROM24.

The 2016 model outputs reflect the existing conditions of the local street network and regional road connections. In particular, the link delay plots shown in Figure 33 show that the vast majority of the network is comprised of local streets that experience minimal traffic congestion or delay issues in the peaks. The volume over capacity outputs of the model reflect average conditions where delays of vehicles are output in seconds – low delays on Figure 33 are in green with higher delays in red.

Within the Activity Centre, the key locations for traffic delay and peak period congestion are confined to the approach to the Kwinana Freeway on ramp from Labouchere Road and Mill Road and the signalised intersection of Mill Point Road and Mends Street.

This has been a long recognised reality and there has been substantial focus on these locations in the context of both planning and transport planning issues.

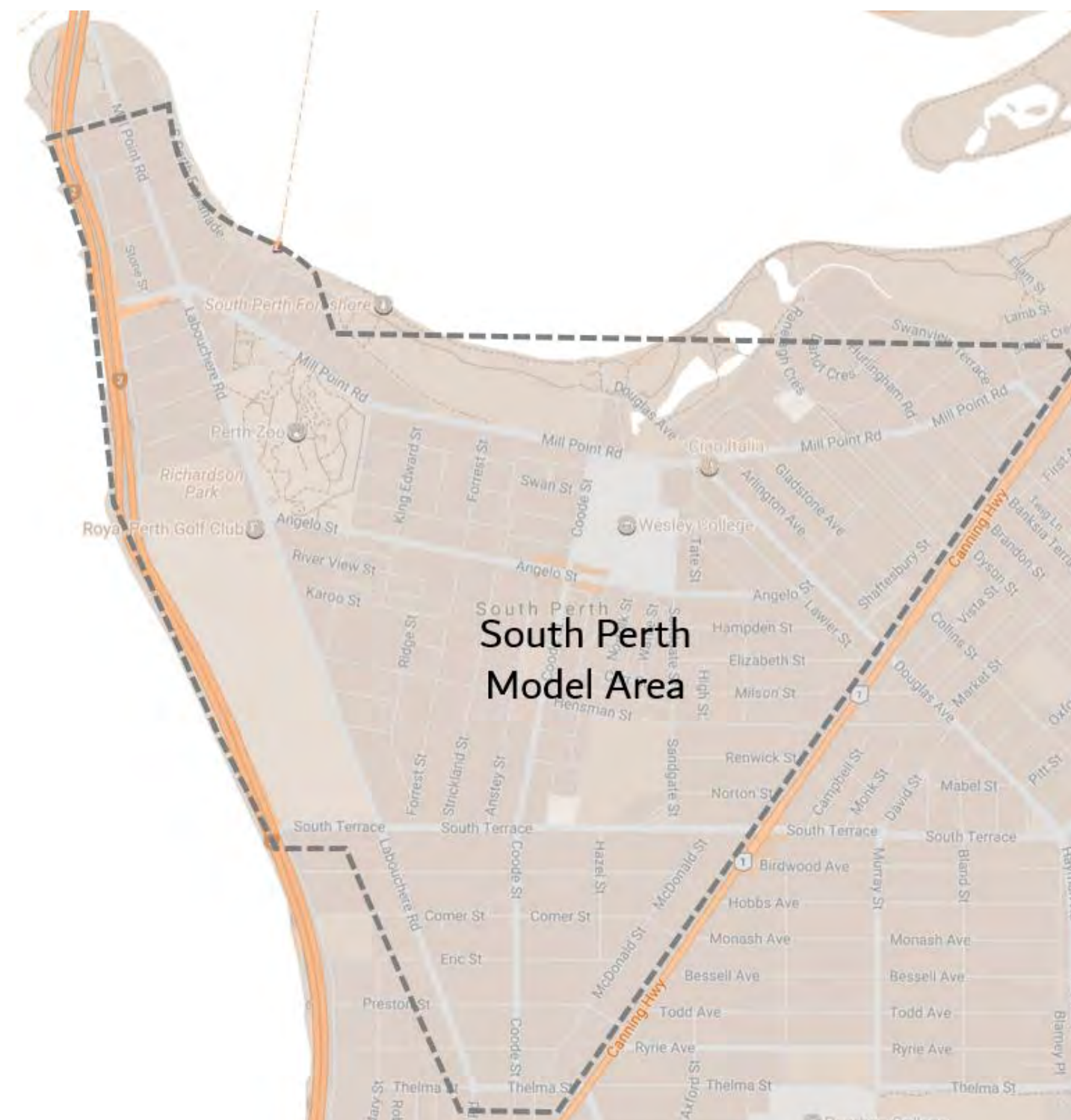
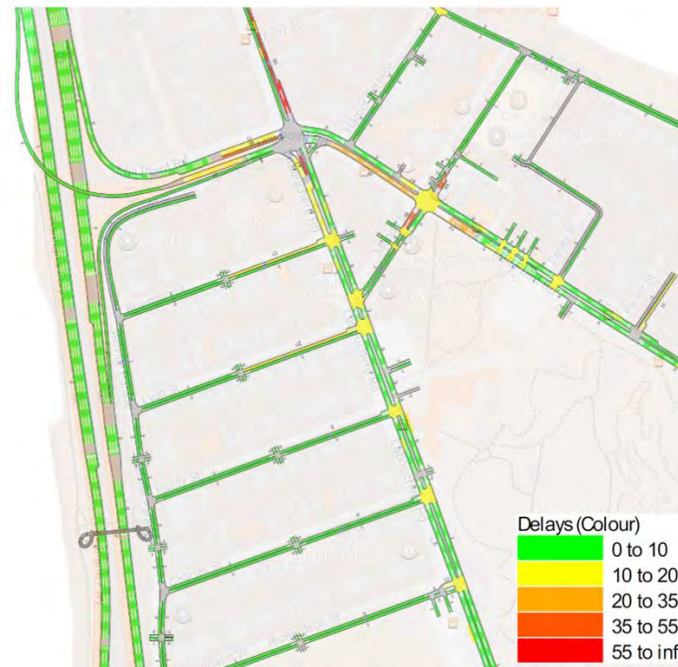


Figure 32 Microsimulation traffic model boundaries



AM Peak Model – Link Delays



PM Peak Model – Link Delays

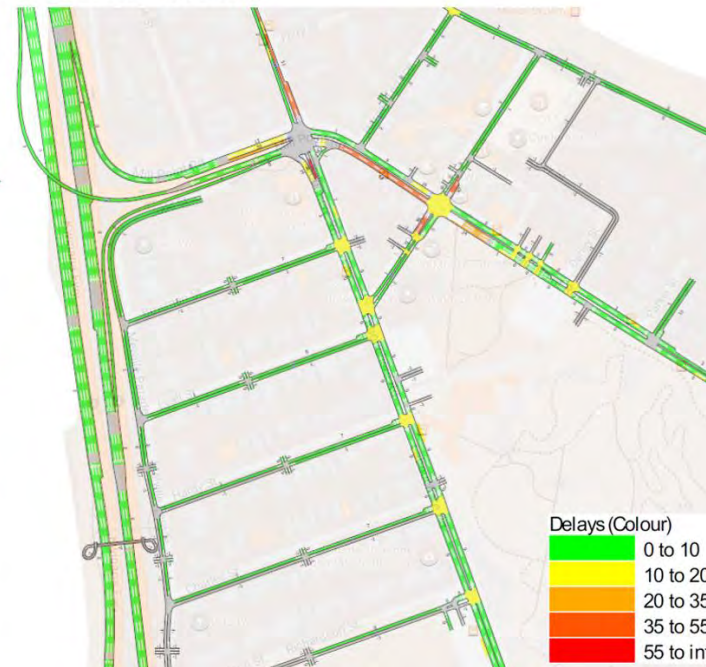


Figure 33 Model link delay outputs - AM and PM peak movements

## 6.2 Travel Context

Recognising that the main intersections are both the lynchpin to the movement of traffic as well as critical in terms of pedestrian movements, South Perth commissioned nano-simulation of the key intersections in 2017 alongside the existing give way intersection of Richardson Street and Labouchere Road.

The study covered potential signal optimisation and co-ordination, improvements to pedestrian access, revised layouts for the intersections and testing of new traffic signals at the existing give way intersection of Richardson Street and Labouchere Road. Separately, Main Roads WA also modelled the intersections to inform operational decisions around signal optimisation and performance. Both studies identified potential improvements and outcomes that will be considered in the South Perth Activity Centre Plan. They were:

- Banning some movements at the intersection of Mill Point Road and the Freeway ramps
- Change pedestrian movements at the intersection of Mill Point Road and the Freeway ramps to remove one leg and install a staged crossing on the eastern side of the intersection
- Install barriers and address access movements at adjacent development sites
- Widen out pedestrian refuge areas and kerbs at the intersection of Mill Point Road and Mends Street to cater for higher pedestrian volumes
- Examine signal times and phasing to improve pedestrian access
- Main Roads WA doesn't support traffic signals at Richardson Street at present however the City of South Perth will seek to implement changes to access movements within the South Perth Activity Centre to support this intersection with Labouchere Road being installed.

Outside of peak periods, the network does not sustain any congestion of note although it is recognised that special events (such as Australia Day fireworks) or school holidays result in higher levels of traffic, parking occupancy and congestion.

## 6.3 Vehicular Movement and Access – ROM24

The overarching strategic traffic model operated by Main Roads WA, ROM24, was examined to understand the strategic context of traffic movements, as well as provide a comparison to the South Perth Station Precinct Transport and Access Strategy. ROM24 provides forecast traffic volume information based on land use details extracted from the WAPC and road network proposals put forward by Main Roads WA. Forecast years examined are 2021 and 2031 – with the 2031 plot shown in Figure 34.



Figure 34 ROM24 forecast all day model outputs for 2031

Within the South Perth Station Precinct Transport and Access Strategy, Table 13 provided an assessment of the various forecast year outputs for the key links through the Activity Centre, Labouchere Road, Mill Point Road and the Freeway entrance and exit ramps.

All Day forecast year vehicle plots were requested from Main Roads WA to understand the updated context of vehicle volumes. For the South Perth Station Precinct Transport and Access Strategy, land use inputs into ROM24 were taken from the Main Roads WA Road Planning Branch. Network proposals were taken from the DoT Moving Network People Plan and Public Transport Plan for Perth 2031.

For the Activity Centre Plan, Main Roads WA provided forecast year plots based on land use taken from the WAPC MLUFS database (which is based on existing development proposals and forecast land development supplied by Local Government) and the transport network reflected the base 2031 road network. That network included Freeway expansion and other schemes presently under construction.

The differences between these plots are set out in Table 3. The final column shows the difference between 2016 observed traffic volumes and the 2031 ROM24 forecast volumes.

The general differences between the 2016 observed volumes and the 2031 forecast year volumes are that traffic is forecast to decrease along the Mill Point Road corridor with traffic along the Labouchere Road corridor forecast to increase.

There are substantial variances in the forecast traffic volumes between the previous assessment within the South Perth Station Precinct Transport and Access Strategy and the more recent version of ROM24.

This can be attributed to a range of factors, including:

- How the network is coded
- Land use within previous versions of ROM or ROM24 were vastly overstated in some circumstances, leading to higher forecast volumes
- Changes in network – for instance Freeway widening and measures would take some additional regional traffic away from Mill Point Road.

The South Perth Station Precinct Transport and Access Strategy qualifies the use of forecast year information, noting the impact of land use inputs and also the significant variances that are possible in how traffic is either forecast or attributed to certain sections of road.

In order to provide a magnitude of scale in terms of impacts, the South Perth Station Precinct Transport and Access Strategy undertook a midblock capacity assessment of key streets.

The results of this assessment, which used observed peak hour flows and a theoretical capacity of 1900 vehicles per hour (per direction with capacities taken from Austroads Guide to Traffic Engineering Practice Part 2: Roadway Capacity) are replicated in Table 2. This analysis reflected that the majority of road links in 2031 would be operating at or over capacity during peak hours taking into account forecast traffic volumes.

Table 2 Future midblock capacity analysis South Perth Station Precinct Transport and Access Strategy

**Table 14 Future Capacity Analysis Based on ROM24 Results (\*\*\*\*)**

Road	Direction	2016	2021	2031	2031 S
Labouchere Road (between Angelo Street and Mends Street)	Total Northbound	69%	104%	164%	158%
	Total Southbound	38%	79%	138%	127%
Labouchere Road (between Mends Street and Mill Point Road)	Total Northbound	52%	77%	132%	126%
	Total Southbound	32%	69%	146%	137%
Mill Point Road (east of Mends Street)	Total Westbound	55%	66%	86%	84%
	Total Eastbound	61%	77%	97%	96%
Freeway On-ramp	Exit Freeway	103%	149%	207%	199%
	Enter Freeway	124%	175%	243%	238%



Table 3 Forecast traffic volume analysis for Activity Centre

Average Annual Weekday Traffic (AAWT)									2017 Plots		
Road Link	Direction	2016 Survey	2016 ROM24	Difference	2016 Calibrated	2021 Calibrated	2031 Calibrated	2031 (S) Calibrated	2021 ROM24	2031 ROM24	Difference 2016 Obs and 2031
Labouchere Road (between Angelo Street and Mends Street)	Northbound	10,130	15,100	4,970	10,130	15,130	23,930	23,130	10,400	12,100	1,970
	Southbound	5,170	11,500	6,330	5,170	10,670	18,670	17,170	10,100	7,300	2,130
Labouchere Road (between Mends Street and Mill Point Road)	Northbound	9,900	18,000	8,100	9,900	14,700	25,100	24,000	13,300	14,900	5,000
	Southbound	5,140	13,100	7,960	5,140	10,940	23,140	21,740	11,600	10,200	5,060
Mill Point Road (east of Mends Street)	Westbound	10,300	9,300	N/A	13,180	15,580	20,380	19,880	7,700	8,900	-1,400
	Eastbound	9,700	9,600	N/A	11,675	14,575	18,375	18,175	9,100	9,400	-300
Mill Point Road (west of Mends Street)	Westbound	10,980	7,100	-3,880	10,980	14,480	22,280	21,580	5,600	6,300	-4,680
	Eastbound	10,475	8,400	-2,075	10,475	13,475	17,575	16,775	8,400	6,800	-3,675
Freeway On-ramp	Exit	19,600	21,400	1,800	19,600	28,300	39,400	37,900	19,000	15,300	-4,300
	Enter	25,300	25,100	-200	23,500	33,200	46,200	45,200	18,900	21,200	-4,100

## 6.4 Peak Hours

To understand the implications for revised ROM24 forecast year models, AM and PM peak period plots for the Activity Centre in 2031 and Volume over Capacity plots were requested. The midblock peak period plots (for two hours in the morning and afternoon) are shown for the AM in Figure 35 and the PM Figure 36, with Volume over Capacity plots in Figure 37.

In addition, to understand present peak hour movements, an analysis of 2017 SCATS<sup>1</sup> data at the intersection of Labouchere Road, Mill Point Road and the Freeway Ramps was completed to inform peak hour volumes as a percentage of overall daily traffic. This was completed to allow for a comparison of the analysis completed in the South Perth Station Precinct Transport and Access Strategy.

The results of the peak hour analysis are shown in Table 4, with significant variances in approaches depending on time and direction.

The ROM24 outputs for peak periods and the Volume over Capacity analysis indicates that there is requisite midblock capacity available for the forecast traffic volumes to be within accepted boundaries from a strategic level. None of the links within the Activity Centre network approach a practical capacity of at least 0.85

The peak hour proportions shown in Table 4 indicate that the volumes are generally tidal – in particular traffic moving along the Freeway / Labouchere Road corridor. This highlights the primacy of this movement through the area and ultimately the impact on the Activity Centre caused by sub-regional traffic travelling from elsewhere in South Perth through the area or from origins or destinations outside of South Perth.

*Table 4 Peak hour proportions from SCATS volumes in 2017*

Road Link	Direction	2017 Peak Hour	2017 Peak Hour
		AM	PM
Labouchere Road (between Mends Street and Mill Point Road)	Northbound	11%	9%
	Southbound	5%	12%
Mill Point Road (west of Mends Street)	Westbound	9%	7%
	Eastbound	7%	7%
Freeway On-ramp	Exit	7%	11%
	Enter	10%	8%



Figure 35 ROM24 2031 AM peak period forecast vehicle movements

<sup>1</sup> Sydney Coordinated Adaptive Traffic System ([SCATS](#)) collects traffic volume data using detectors at traffic signals (located near stop lines). SCATS data is captured 24 hours a day (midnight to midnight). Data is available at all signalised intersections (including pelican/puffin crossings) across the state. This data can be used to measure traffic volume including lane and/or turning counts (where available).





Figure 36 ROM24 2031 PM peak period forecast vehicle movements



Figure 37 ROM24 2031 peak period forecast volume over capacity outputs

## 6.5 Commentary - Modelling

A substantial amount of traffic modelling has been completed for the Activity Centre, all of which highlight a number of key issues for vehicle movements:

- The intersection of Labouchere Road, Mill Point Road and the Freeway ramps is a congested intersection and will continue to be so in the future. The City of South Perth and Main Roads WA are addressing this.
- The corridor along Labouchere Road and the Freeway is the highest volume traffic corridor and carries the highest volumes in peak hour and throughout the day.
- Local development will contribute to traffic volumes in the Activity Centre in the future resulting in the requirement to examine the capacity, management and configuration of some intersections.

As noted within the South Perth Station Precinct Transport and Access Strategy:

*“The roads within the precinct are adequate to accommodate the existing traffic volumes, however the future traffic forecasts from the ROM24 model from Main Roads WA indicates higher levels of congestion will occur in the peak direction. It is clear from the forecast traffic volumes that there will be considerable pressure on Labouchere Road from 2031 should development occur as proposed... there will need to be a significant change in travel behaviour to allow the network to operate satisfactorily beyond 2031 to include broader transport initiatives”.*



## 7. PARKING

### 7.1 South Perth Parking Strategy

The completion of the City of South Perth Parking Strategy in May 2016 established a framework for parking and travel demand management. This comprehensive strategy recommended a new approach to parking management and set out a series of parking control areas, including one focused on the South Perth Activity Centre (South Perth Station PCA), as shown in Figure 38.

The first major recommendation of the Strategy was based on the overall approach to travel demand management and the importance of parking:

*“Change the City’s approach from the current predict and provide to a demand management approach whereby parking facilities are used more effectively and parking is proactively managed to align with the agreed strategy”.*

*The key components of this recommendation were:*

- a) *“Focus on people access not vehicle access*
- b) *Provide efficient and effective alternatives to car access*
- c) *Parking policy and strategy must support sustainable transport*
- d) *The appropriate amount of parking for the centre will be well below the unconstrained demand for parking*
- e) *The provision of parking requires a demand management, not a demand satisfaction approach”.*



Figure 38 City of South Perth Parking Strategy precinct plan

## 7.2 On Street Parking – PCA1

The framework around on-street parking management for the entire City and in turn for the South Perth Station Precinct area was established in the City of South Perth Parking Strategy finalised and adopted in May 2016. The Parking Management Action Plan for the Precinct (PCA1) was completed in March 2017.

PCA1, as shown in Figure 39, generally accords with the South Perth Activity Centre Plan area. There are 1035 on-street bays and 1002 off-street bays within the overall Activity Centre boundary. Given the recent completion of both these technical assessments, their findings and recommendations for on-street parking management are taken as a given for the purposes of the Activity Centre Plan.

The key findings of the Parking Management Plan were:

1. There is available parking capacity within a reasonable walking distance (400m) of the key parking generators.
2. Existing parking management situation is inconsistent and inefficient, with conflicting management strategies between on-street and off-street, public and private, as well as between adjacent parking zones.
3. Prime parking bays adjacent to high-demand destinations are still being used for commuter and construction vehicle parking, despite existing parking restrictions.
4. Free duration-restricted on-street parking, while intended to support short-stay parking, does not adequately prevent use by local employees through periodic rotation of vehicles within a zone.
5. There are opportunities to use paid parking and duration restrictions to more effectively distribute demand across the zone, prioritising 'prime' parking locations for the highest value purposes.

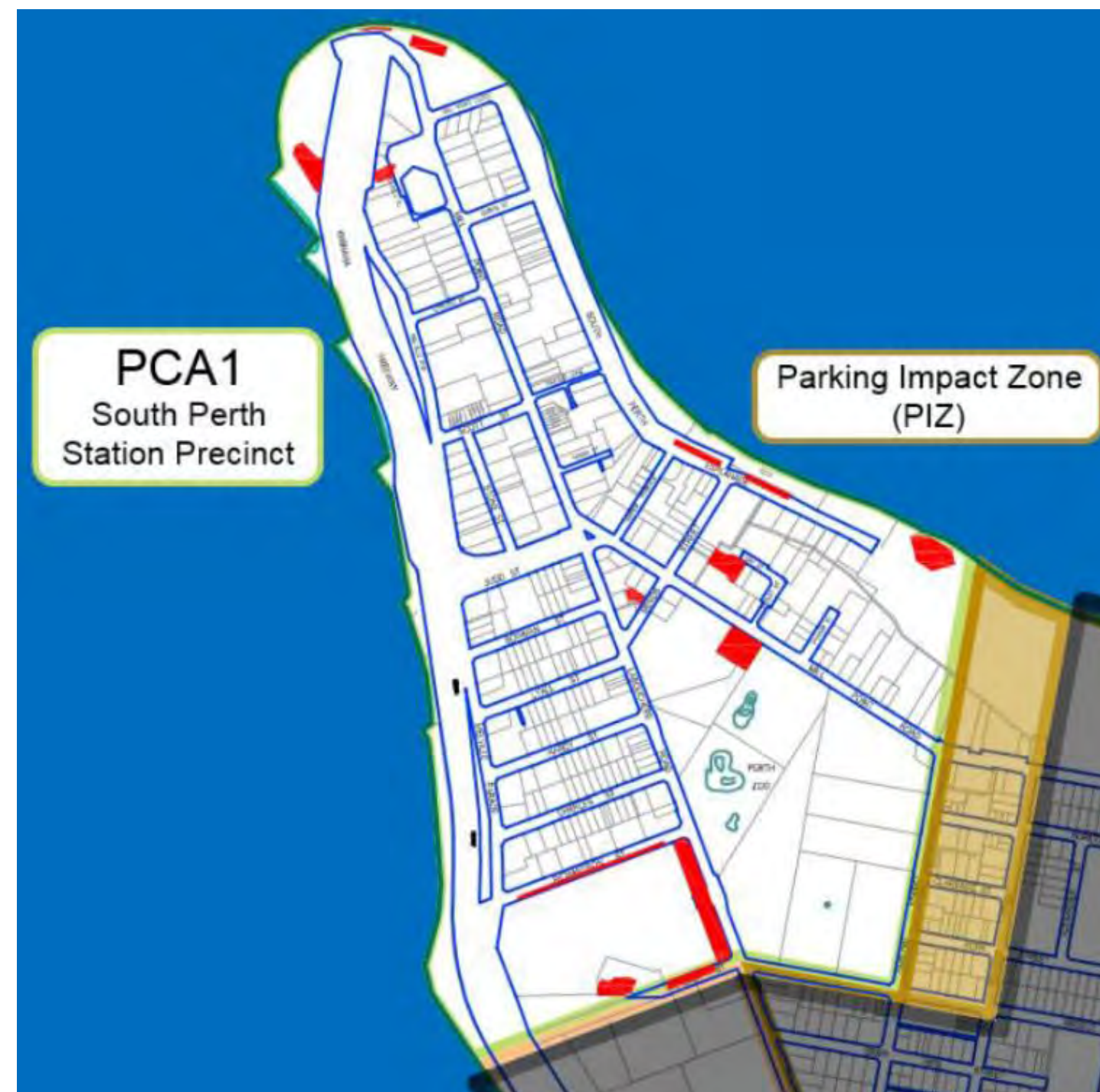


Figure 39 Parking Management Action Plan for the Precinct (PCA1)

For the purposes of the Parking Management Action Plan, on and off-street parking bays were surveyed in October 2016 to understand usage and effectiveness of timed measures. All bays were surveyed within the 6 precincts – the split of on and off-street parking available within the Activity Centre is shown in Figure 40.

The duration of parking within the Activity Centre showed a high turnover of bays with a high number of short term stays of one to three hours. The use of available parking bays reported in the Parking Management Action Plan is shown in Figure 41. The surveys also showed that there was a large volume of commuter parking associated with commercial land uses in the Activity Centre. The analysis for PCA1, embedded in the Parking Strategy, underpinned the recommendations for on-street parking.



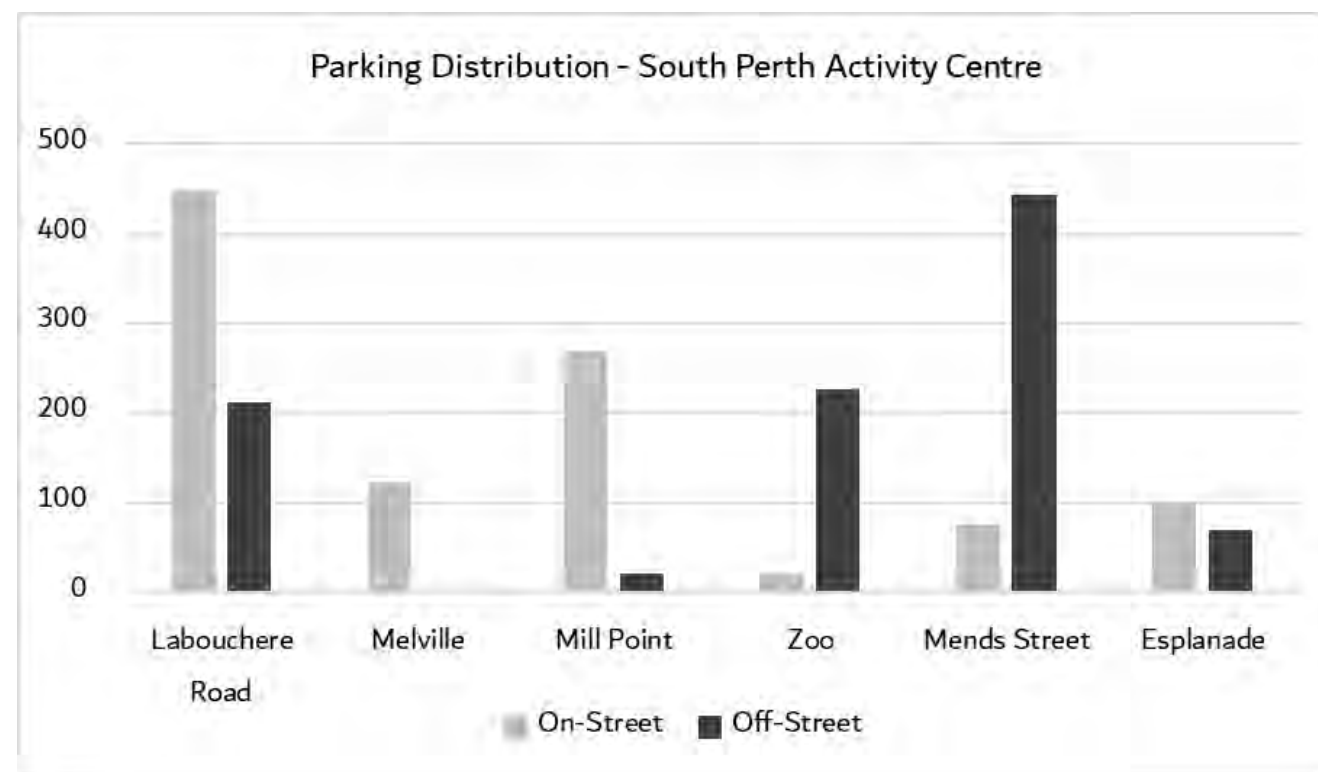


Figure 40 Parking distribution - South Perth Activity Centre

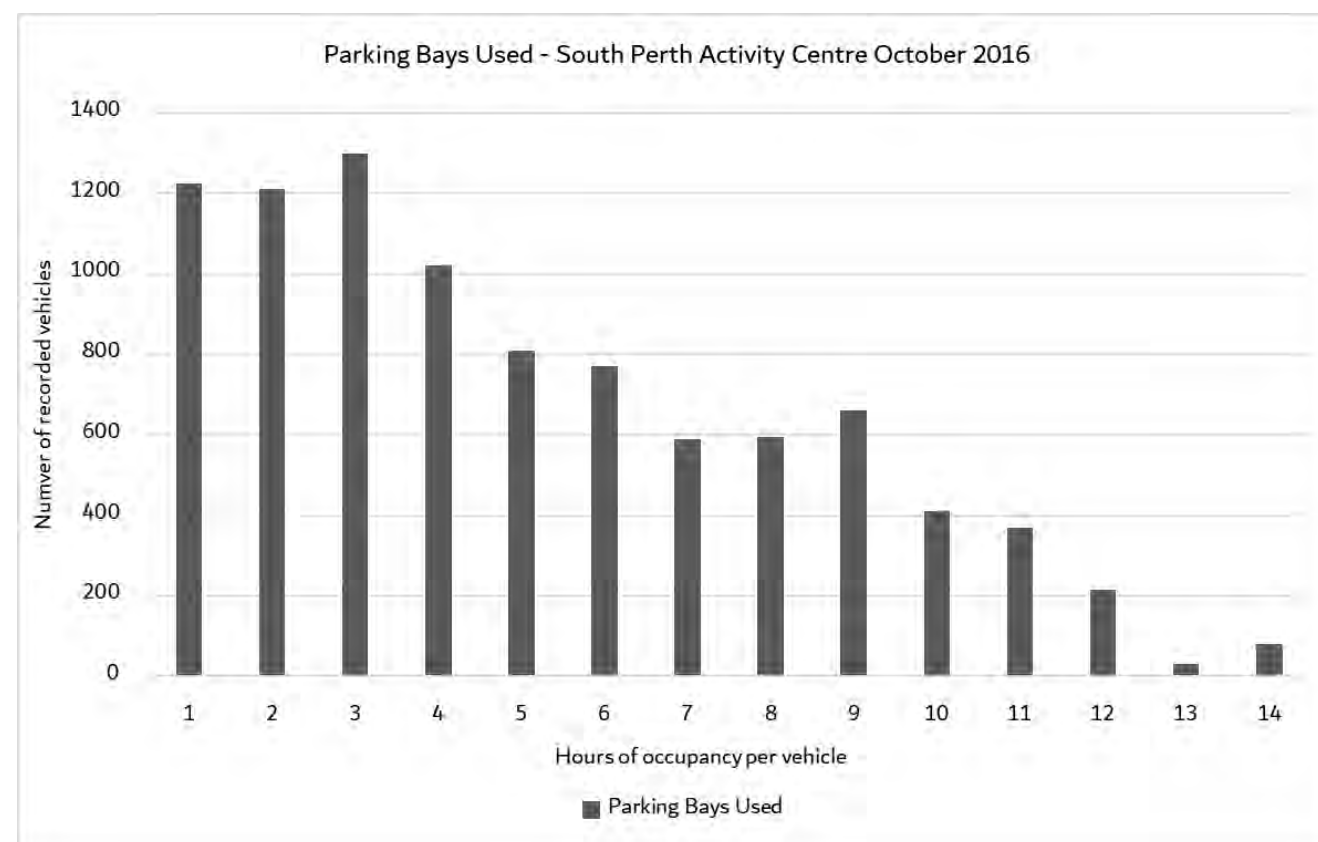


Figure 41 Parking bay usage October 2016

### 7.3 Parking – PCA1

The recommendations of the Parking Management Plan for implementation over a three year period, with the on-street outcomes by 2019-20 shown in Figure 42, were:

1. Consider the existing private and public parking supply as part of an integrated system. Work with and provide guidance to private suppliers to maximise their parking efficiency.
2. Manage demand to promote parking for specific users and land use types, using timing restrictions and fee payment schedules. These mechanisms may change to reflect different demand scenarios: weekday, weekend, school holidays, intense local construction periods.
3. Demand-responsive parking may be used (assuming high-quality occupancy data) to maximise the efficiency of the public parking supply, redistributing demand across a wider area and freeing up prime parking locations for high-value purposes.
4. Ongoing annual review of this Parking Management Plan, alongside the City's statutory parking charges review; to adapt to changes in the built environment and road network, and to accommodate construction traffic and parking requirements. Fine-grained changes in parking will be required throughout the year, which use the Parking Management Plan as a baseline document.
5. Parking wayfinding is an important tool to maximise the effectiveness of the parking system and should be employed in stages of increasing information and complexity, from static signage in the short term to dynamic signage or mobile application tools, corresponding to the availability of data and funding.

### 7.4 Development Site Parking – SCA1

On-site parking provision in the Activity Centre is set out within the City of South Perth Town Planning Scheme No.6 Scheme Text and related policies. Specifically for the Activity Centre, Amendment No.46 to the scheme added in Schedule 9A covering the Special Control Area SCA1 – South Perth Station Precinct. The area related to SCA1, which does not capture the entire Activity Centre, is shown on Figure 43.

The controls within Schedule 9A covering parking are within two broad categories. The general controls on parking (set out in Table 5) use minimum provision of bays for developments. For comprehensive new development (*means a development which is determined by Council not to be a minor alteration, addition or extension to an existing development*) seeking additional building height, there are a series of performance criteria that have to be achieved.

The application of minimum parking rates, without maximum provisions, allows for substantial over provision of parking for residential developments and in turn fosters private vehicle mode trips. Within the performance criteria for comprehensive new development, maximum rates are applied to residential land uses which provides the level of control envisaged within SPP4.2.

Provision of bays for non-residential land uses also imposes a minimum as opposed to more formal controls. Clause 9.2 in the Development Requirements does provide for a reduction in bays associated within non-residential uses which is subject to assessment and agreement with the City.



### Legend

#### On-street 2019

- 2P Paid
- 2P Unpaid
- 4P Paid
- 4P Paid/ Permit
- As per Connect South Project
- P Paid (Capped Fee 4hr)

#### Off-street

- 2P Paid
- 4P Paid
- Construction Vehicles Permit
- P Paid (Capped Fee 4hr)
- Private
- Tenant
- Tenant Permit/ P Paid

PCA1

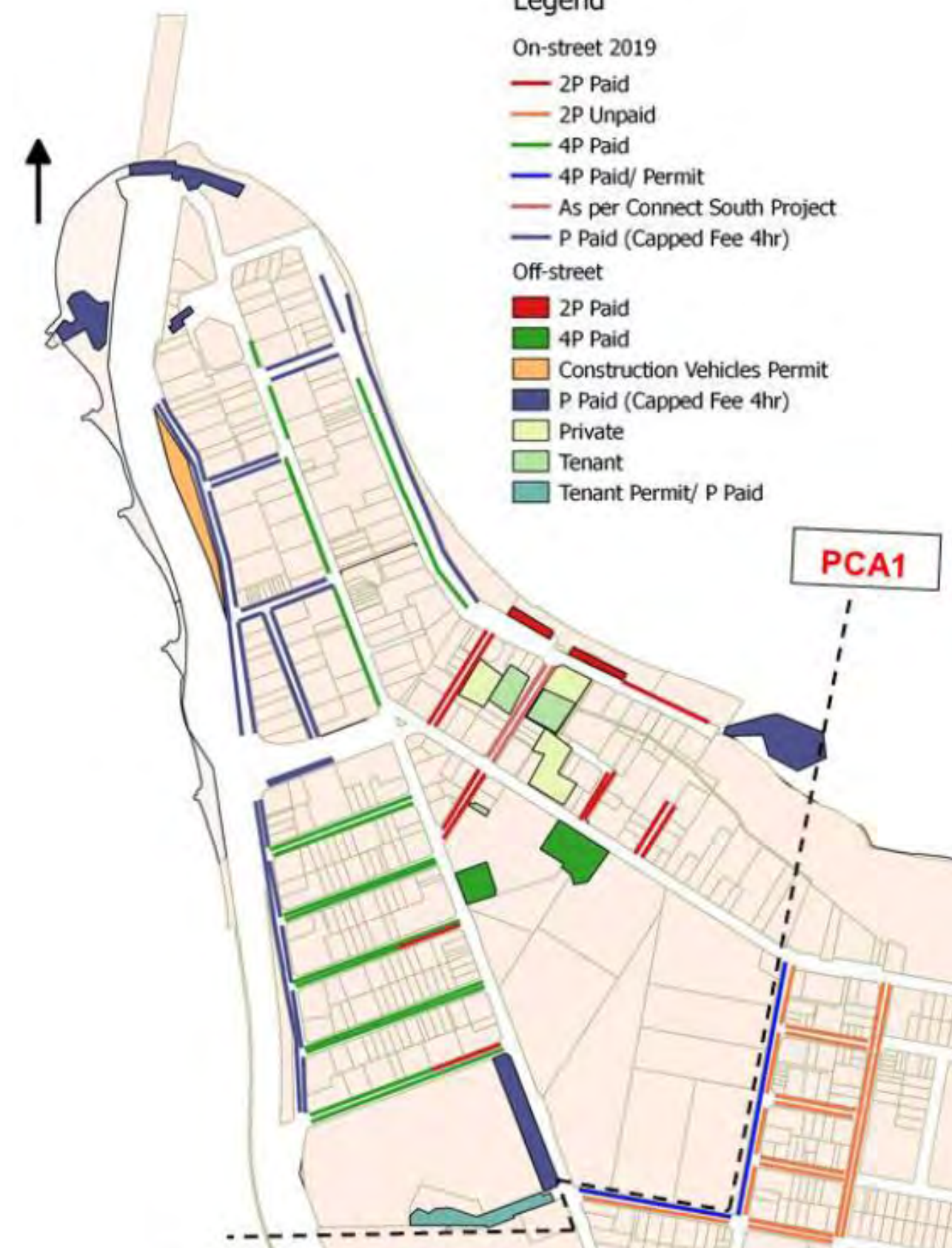


Figure 42 Parking Control Area 1 (PCA1) proposed on-street controls within Activity Centre

### LEGEND

#### Sub-Precincts

- Mends
- Scott-Richardson
- South Perth Esplanade
- Stone-Melville



Figure 43 Special Control Area SCA1 sub-precincts

Table 5 Schedule 9A parking controls

SCA1 – Development Requirements	Guidance Statements
<p>Element 9: Parking</p> <p>9.1 Subject to Development Requirement 9.2, the minimum required on-site parking bays shall be as follows:</p> <p>(a) For residential uses –</p> <p>(i) 0.75 car bays per dwelling for occupiers of Single Bedroom Dwellings;</p> <p>(ii) 1 car bay per dwelling for occupiers of dwellings other than Single Bedroom Dwellings;</p> <p>(iii) 1 additional car bay per 6 dwellings for visitors;</p> <p>(iv) in addition to the required car bays, 1 bicycle bay per 3 dwellings; and 1 bicycle bay per 10 dwellings for visitors, designed in accordance with AS2890.3 (as amended).</p> <p>(b) For non-residential Uses –</p> <p>(i) 0.5 car bays per Tourist Accommodation suite;</p> <p>(ii) 1 car bay per 50 square metres of gross floor area for uses other than Tourist Accommodation;</p> <p>(iii) 10%, or 2, of the total number of required car bays, whichever is the greater, marked for the exclusive use of visitors;</p> <p>(iv) in addition to the required car bays, for staff use, 1 bicycle bay per 200 square metres of gross floor area designed in accordance with AS2890.3 (as amended); together with 1 secure clothes locker per bay; and 1 male and 1 female shower per 10 bays.</p> <p>9.2 Notwithstanding Development Requirement 9.1 (b), for comprehensive new development consisting only of 2 or more non-residential uses, the Council may approve a lesser number of car or bicycle bays where it is demonstrated that the proposed number of bays is sufficient, having regard to different periods of peak parking demand for proposed non-residential land uses on the development site.</p>	<p>(a) In an urban area with excellent public transport and a highly walkable environment, there is a strong rationale not to apply the high levels of parking provision associated with suburban environments.</p> <p>(b) Having regard to the reduced parking requirements within the South Perth Station Precinct, no parking concessions are allowed except where a proposed comprehensive new development includes more than one non-residential use and those uses have different periods of peak parking demand.</p> <p>(c) On-site visitor parking bays need to be provided in a conveniently accessible location without obstructing entry to, or egress from, occupiers' parking bays.</p>
Table B – Performance Criteria	Performance Criteria
Design Consideration	
4. Car Parking	<p>The maximum permissible number of on-site parking bays for residential uses is as follows:</p> <p>(a) 1 car bay per dwelling for occupiers of 1 and 2 bedroom dwellings;</p> <p>(b) 2 car bays per dwelling for occupiers of dwellings containing 3 or more bedrooms.</p>



## 8. MOVEMENT NETWORK PLAN – ACTIVITY CENTRE

### 8.1 Movement

State Planning Policy 4.2 (SPP 4.2) – Activity Centres for Perth and Peel establishes the five key movement network elements that are required to be addressed. These elements are then tied to performance indicators. They are set out in Table 6:

Table 6 Performance indicators

Content required	Performance Indicators
Public Transport Infrastructure	Prioritisation of public transport
Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists
Traffic Assessment	Improved access by all modes, including freight vehicles
Freight Servicing	Improved access by all modes, including freight vehicles
Centre Parking Policy	Provides for upper limits and common use of car parking

This section sets out the response on these five elements that will allow the South Perth Activity Centre Plan to achieve the performance indicators set out in SPP 4.2.

### 8.2 Movement – Modal Split

Within the State Planning Policy 4.2, there is no requirement to establish a mode split target for the Activity Centre. Understanding the implications for mode split is however critical and it underlines the premise for recommendations within the Activity Centre Plan.

Given the general alignment of the main travel mode splits between the Activity Centre and South Perth, existing South Perth mode splits were applied to employed persons in 2016 and then projected forward to 2031, as shown in Table 7.

If there was to be no alteration in mode splits for journey to work, the implications over this 15 year period are clear – a doubling in vehicle trips of residents for work purposes. This does not consider trips into the Activity Centre for commercial or retail employees. In order for the Activity Centre to function within its practical capacity, modal shift for trips is required.

The required modal shift also applies to non-work trips where the RAC research shown in Figure 11 indicated there was significantly higher use of private vehicles for non-work trips. For the Activity Centre to support the form of future development proposed, the mode split for all trips needs to be closer to those established for other inner city Activity Centres such as Subiaco. Subiaco was chosen as a comparator as the overall population profile and economic profile of that area is very similar to South Perth, as shown in Figure 44 and Figure 45.

The comparison in terms of the impact of mode split is illustrated in Table 8 where 2016 Journey to Work mode splits from Subiaco were applied to the projected 2031 South Perth Activity Centre employment population. The difference in overall profile compared to Table 7 is obvious. The introduction of additional public transport infrastructure, such as the South Perth Train Station, would further support mode shift from private vehicles.

Table 7 Projection of 2016 journey to work mode split proportions to 2031 population

	South Perth 2016	Population (Employed) 2016	Population (Employed) 2031
Train	0.3%	4	9
Bus	13.1%	210	417
LRT/Ferry	0.8%	13	25
Car, Driver	71.2%	1143	2269
Car, Passenger	5.1%	81	161
Bicycle	3.5%	56	111
Walked	1.5%	23	46
Other	4.2%	67	133
Total	100%	1598	3172

## City of Subiaco 2016

↔ No significant change since previous Census (less than ±0.5%)    ▲ Increased since previous Census  
 ▼ Decreased since previous Census

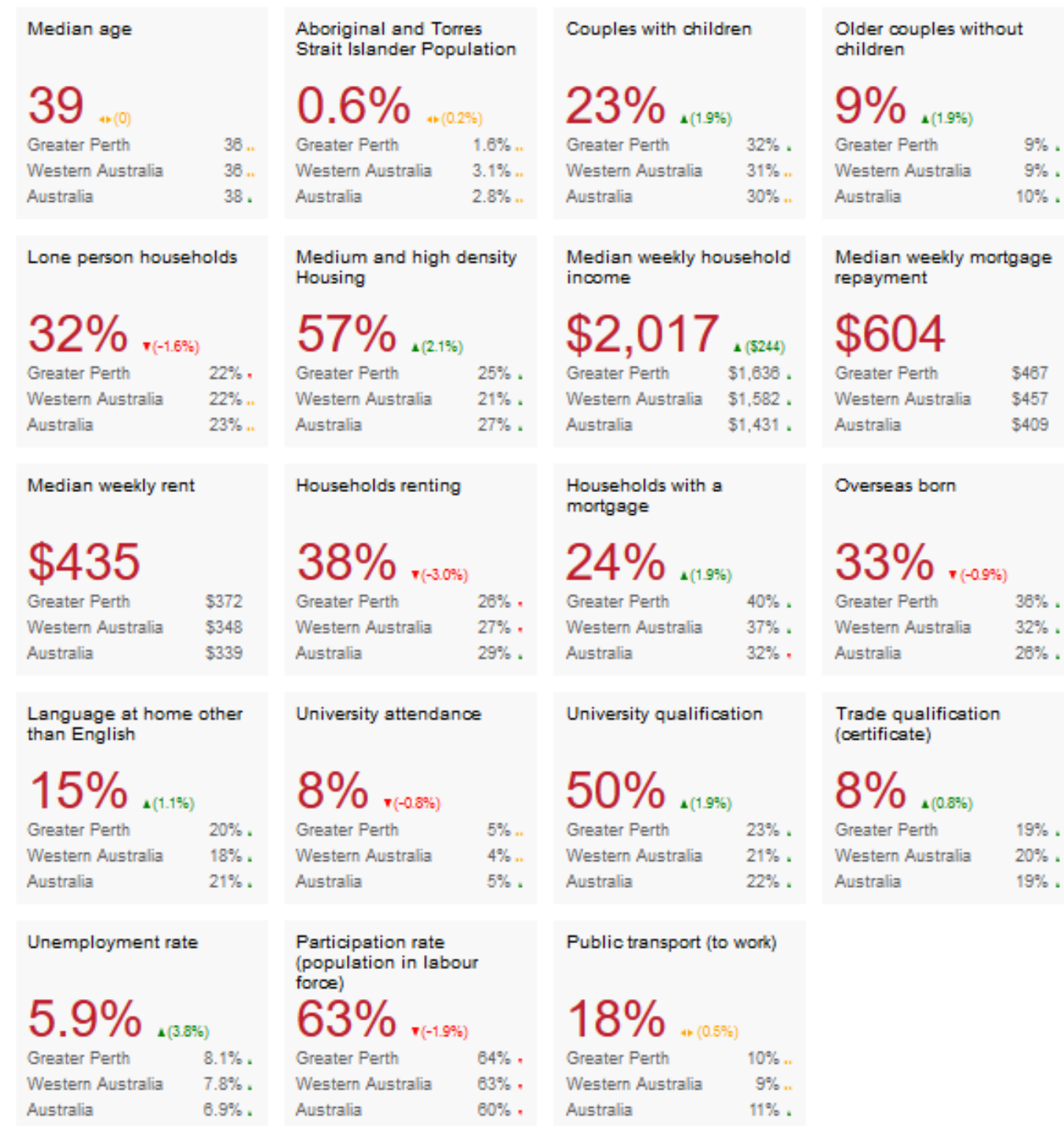


Figure 44 Subiaco 2016 population profile and economic profile

## South Perth 2016

↔ No significant change since previous Census (less than ±0.5%)    ▲ Increased since previous Census  
 ▼ Decreased since previous Census

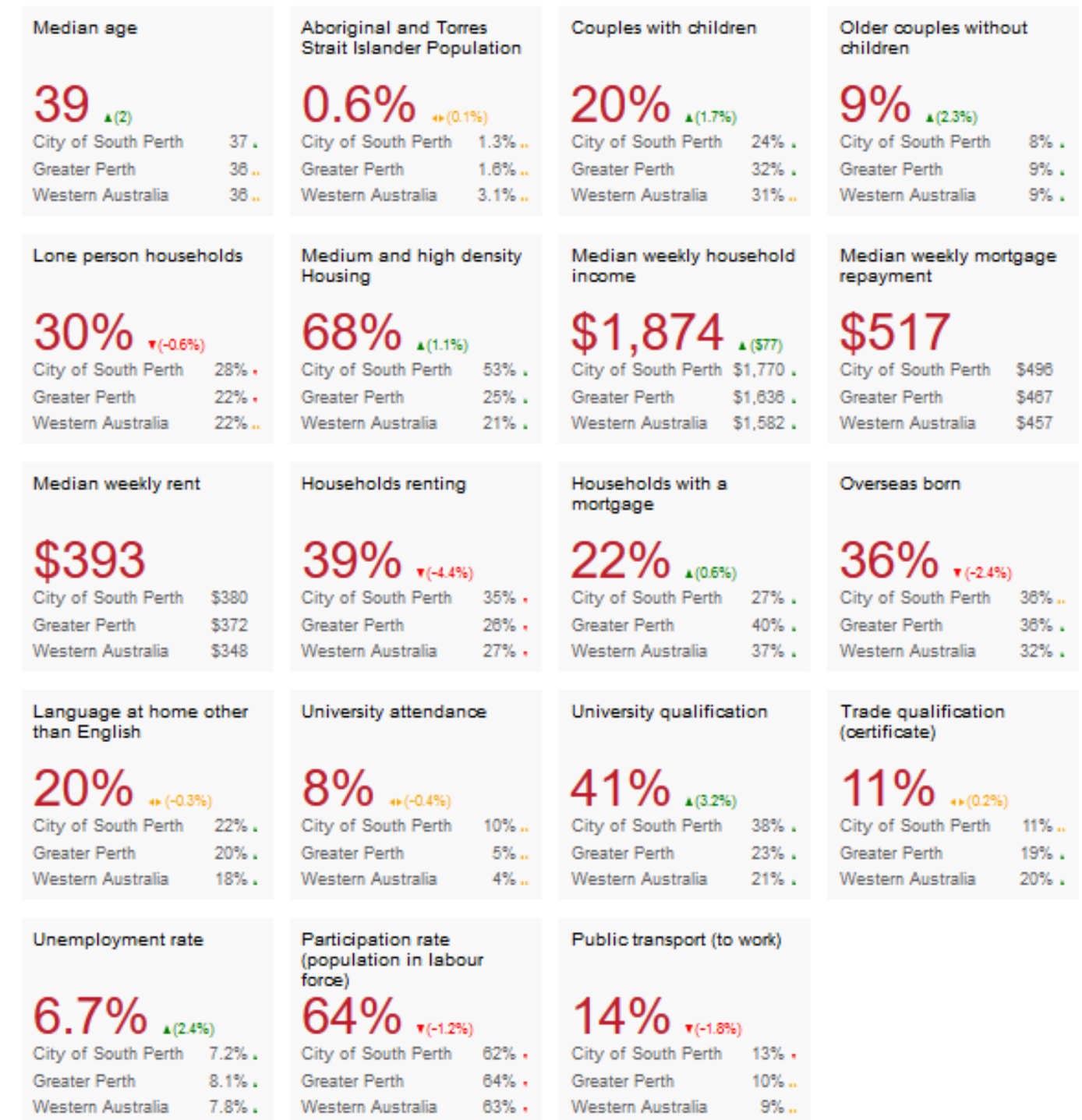


Figure 45 South Perth 2016 population profile and economic profile



Table 8 Application of Subiaco journey to work mode split proportions to South Perth 2031 population

	South Perth	Population (Employed)	Population (Employed)	Population (Employed)	Difference
	2016	2016	2031 No Change to mode split	2031 Mode split Change to Subiaco	
Train	0.3%	4	9	735	285
Bus	13.1%	210	417		
LRT/Ferry	0.8%	13	25		
Car, Driver	71.2%	1143	2269	1660	-610
Car, Passenger	5.1%	81	161	166	4
Bicycle	3.5%	56	111	166	54
Walked	1.5%	23	46	389	342
Other	4.2%	67	133	92	-66
Total	100%	1598	3172	3182	

### 8.3 Public Transport

At the moment, within the Activity Centre, there is no on-street priority for public transport. Overall use of public transport is low, including use of the existing Ferry service for commuting trips. The volume of buses, and total passengers, that pass through the main intersections in the Activity Centre would not in their own right justify on-street priority measures.

Given the projected increase in trip generation and land use in the area, not planning for public transport upgrades or increased usage in the forecast year is not practical. This is supported by the many reports and technical assessments related to the future South Perth Train Station. At present, the existing bus network generally caters for local movements to and from Curtin, Central Perth and Cannington, shown in Figure 46.

To support growth in land use, and promote ease of accessibility to and from the Activity Centre, a more regional approach to the future bus network is proposed, as shown in Figure 47. The high frequency 900 series bus routes promoted by Transperth are an indicator as to the type of bus network required to ultimately support land use. South Perth needs to be connected to other sub-regional destinations to improve competitiveness with other modes and improve access. This could be achieved through:

- 900 series connecting Perth Airport (Redcliffe Station) with UWA/QEII via South Perth and Mill Point Road.
- 900 series connection Cannington, Curtin, South Perth and ECU.
- Retaining existing local routes providing a connection for residents to opportunities in the Activity Centre.

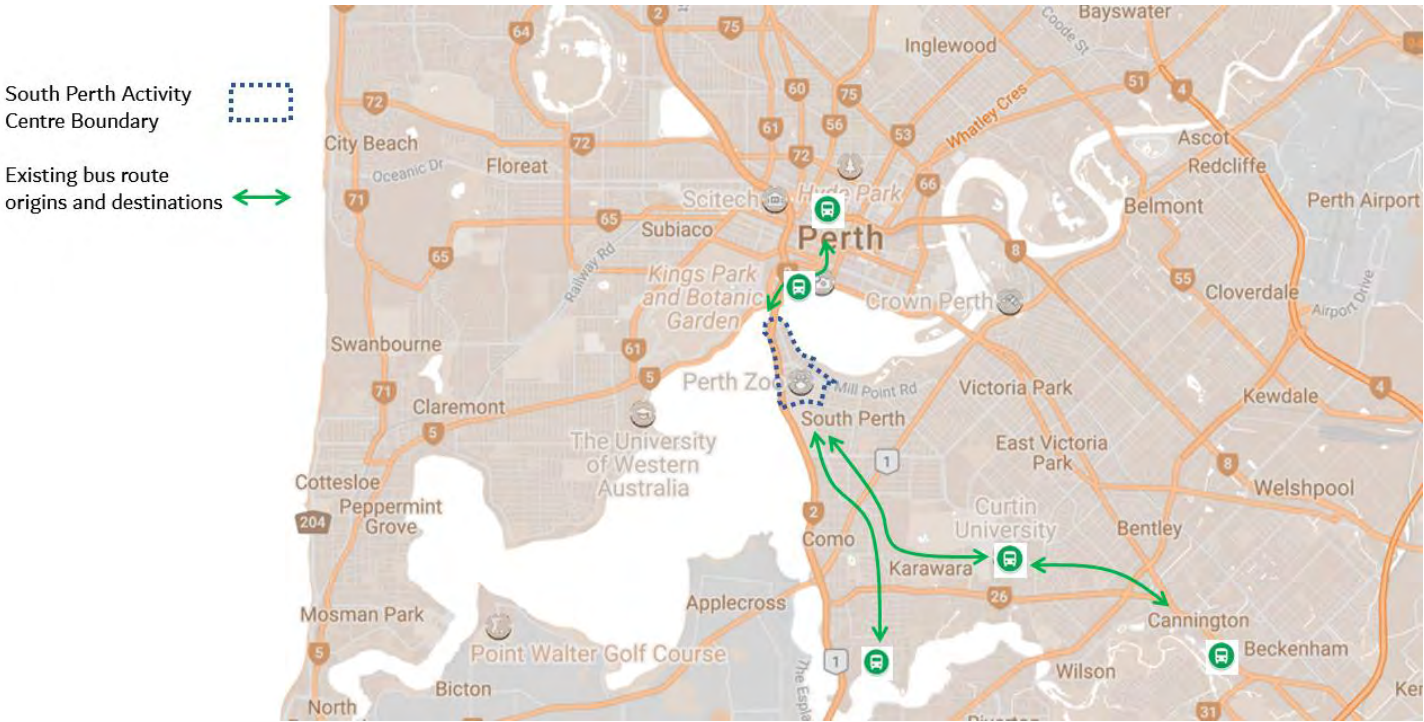


Figure 46 Existing local bus routes through Activity Centre

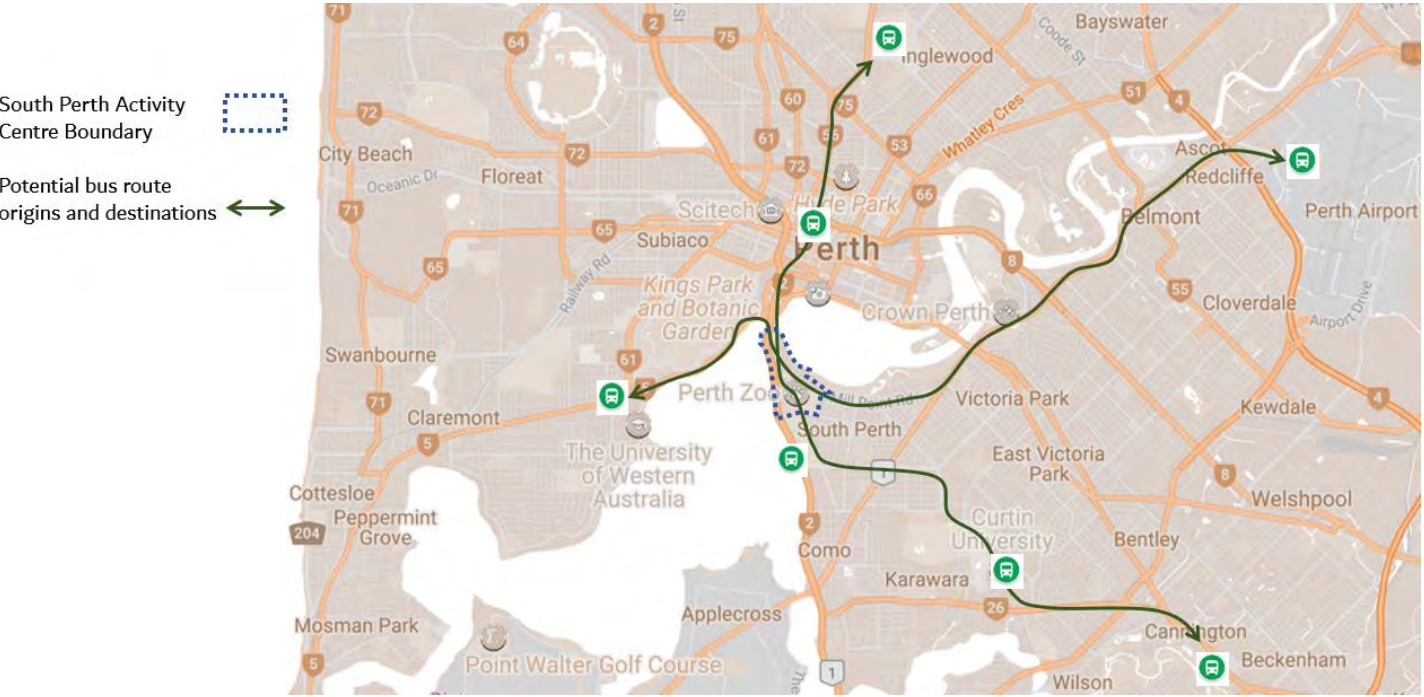


Figure 47 Future high frequency bus routes connecting South Perth Activity Centre to major activity areas

No on-street bus priority through the Activity Centre limits the potential for bus to provide a legitimate alternative for trips compared to private vehicle modes.

The intersection of greatest congestion is also one that could provide an opportunity for (peak hour) bus priority. This is illustrated in Figure 48 whereby a northbound peak hour bus lane could be provided between Stop 11866 and the Freeway on ramp. The heavy tidal flow in traffic on Labouchere Road could see a kerbside lane introduced and the southbound Labouchere Road configuration reduced to one lane with possible turning pocket into Bowman Street.



This configuration would need to take into account access into existing properties and future development on the Civic Heart site. A Bus phase could be introduced at the intersection to ensure priority.

In non-peak times, the section of bus lane between Bus Stop 11866 and south of the intersection of Mill Point Road could be used for short term parking bays to facilitate service vehicle movements and trips to businesses and residents along this section of Labouchere Road. The use of carriageway for on-street parking would also assist in redefining the use of Labouchere Road from being a freeway access road into a street that supports the overall movement network and land use in the immediate area.



Figure 48 General concept layout – bus priority along Labouchere Road

The development of South Perth Train Station has long been incorporated into strategic and land use planning within the South Perth Activity Centre.

Longer term development within the Activity Centre will support the addition of this station to the overall network, as summarised in the Business Case for South Perth Station completed in 2016. The business case establishes five major drivers:

1. Increasing number of residents in the catchment area.
2. Increasing employment in the catchment.
3. Patronage to the Perth Zoo (including special events and normal daily patronage).
4. Special event attractors (Australia Day Sky show, recreational walks/runs)
5. 'X-factors (enhanced development prospects)' .

The business case established a baseline daily boarding in 2026 of between 4,365 to 5,447 compared to previous assumed boardings of 2,100 to 2,800.

Even with the very low end projection of between 2,100 and 2,800 boardings, this is the same range that Redcliffe Station will have when the Forrestfield Airport Line opens. If the higher end projections for South Perth were to come to fruition, it would be 30% higher than boardings expected at Redcliffe Station in 2031 and be similar in boarding levels to Rockingham, Midland, Leederville and Subiaco.

With the progression of planning for the Cockburn to Thornlie Line link, the addition of South Perth Station would not result in impacts to overall operations of the network.

## 8.4 Pedestrian Movement and Amenity

The Activity Centre already has a well-defined pedestrian network that will see improvements through the introduction of infrastructure proposed within Connect South and longer term propositions within the Joint Bike Plan where shared use paths would provide high quality pedestrian connections.

Overall, the strategies employed to improve pedestrian accessibility must start at the principle of supporting pedestrian movements in the first instance. This strategy on the ground will only come to fruition when other modes and urban elements support pedestrian movements, not unduly impact them. The strategies include, as shown in Figure 49:

- Overall reduction in posted speed limits on street to a blanket 40km/h.
- Support for on-street tree planting programme aimed at shading pedestrian paths.
- Retention and improvement of pedestrian phases at signalised intersections in the Activity Centre.
- Introduction of traffic signals along Labouchere Road at Angelo Street and Richardson Street to include pedestrian phases.
- All intersecting streets along Mill Point Road north of the intersection of Labouchere Road to incorporate Wombat crossings for pedestrian priority (Wombat Crossings being raised, marked crossings to slow vehicles but provide pedestrians with an unimpeded path along the street).
- All intersection streets along Labouchere Road within the Richardson Character Area to have Wombat crossings for pedestrian priority with the exception of Richardson Street where pedestrian phase will be incorporated.
- Implementation of the recommendations within the Connect South project report.



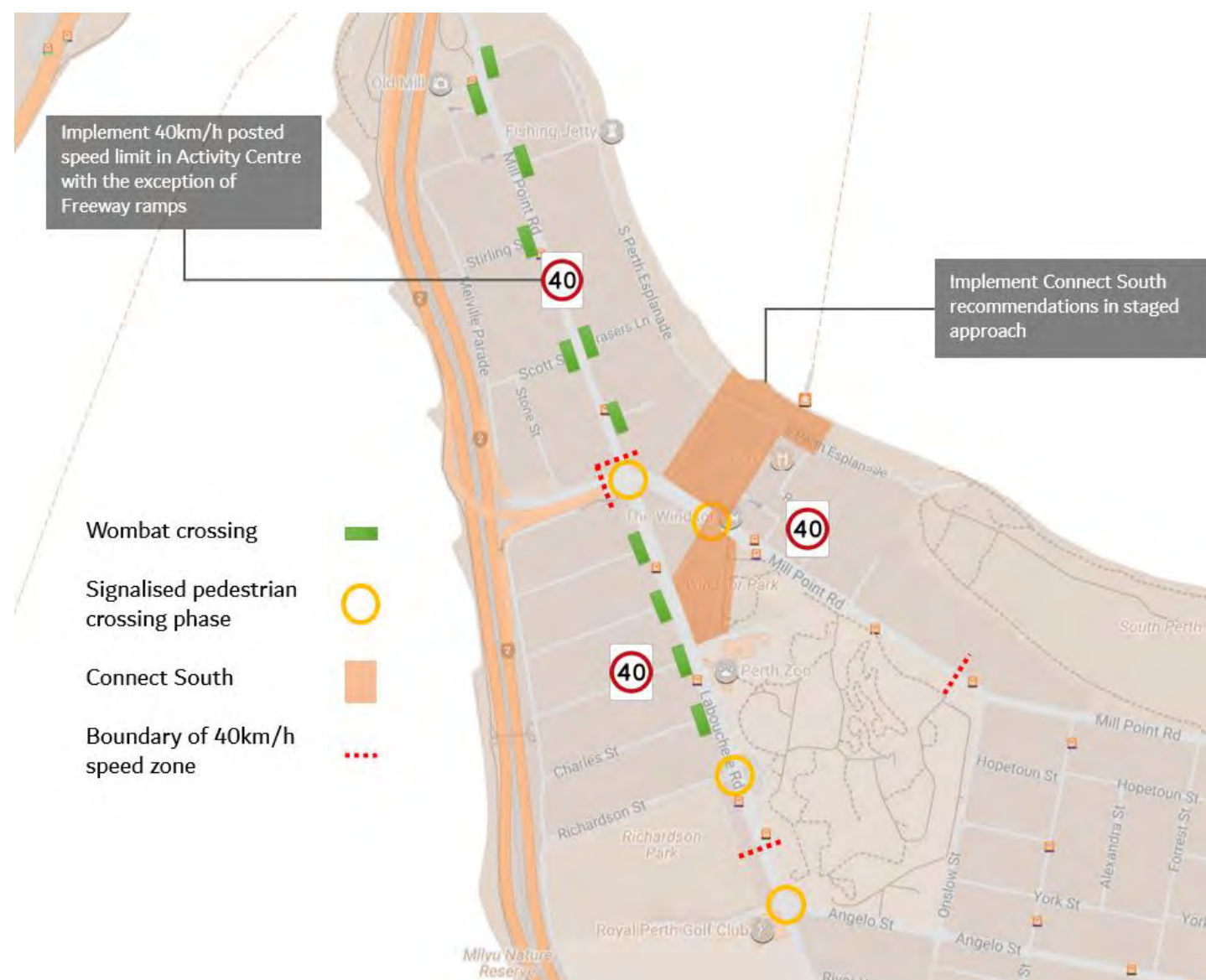


Figure 49 Pedestrian based measures within the South Perth Activity Centre

## 8.5 Cycling

The City of South Perth, alongside the Town of Victoria Park, have released a Joint Bike Plan for public comment. The recommendations for the on-street infrastructure are shown on Figure 50 alongside the existing cycling network. The principal changes proposed within the Activity Centre, that form the recommendations of this Movement Network Report as well, are:

- Development of a Principal Shared Path connection on the eastern side of the Freeway reserve along Melville Parade and including a grade separated connection of the Freeway ramps.
- Use of Lyall Street and Charles Street as safe active streets to connect with Mends Street (and Connect South).
- On or off-street connection along Labouchere Road to connect in with the existing routes along Angelo Street.

The development of the hard infrastructure must be complimented by additional planning measures aimed at supporting trips by bicycle. For the Activity Centre these are:

- Planning controls on End of Trip facilities that have no dispensation for not providing the required number of cycling parking facilities as per Schedule 9A.
- Connect South plans to be modified to include a dedicated, high quality End of Trip facility for cycle parking located within the heart of the development adjacent to the Ferry Terminal.
- Any redevelopment plans of Perth Zoo to include substantially improved cycle parking facilities and end of trip facilities for staff.
- Advance stop lines for cyclists on Mends Street arm of the Mill Point Road Intersection.

The City of South Perth is also presently developing plans for the construction of a new path connection along the South Perth Esplanade that accommodates the requirements for the Department of Transport Safe Active Streets program. The current proposition is to link into the Connect South proposals with a new 4m wide path linking Mill Point Close in the west through to the existing PSP east in St James Mitchell Park.

This proposal would also see the realignment of parking in the area (as set out in the Connect South project) and raised platform treatments at intersections. Mill Point Close would be limited to a single vehicle connection to reduce speeds and attractiveness of the route.

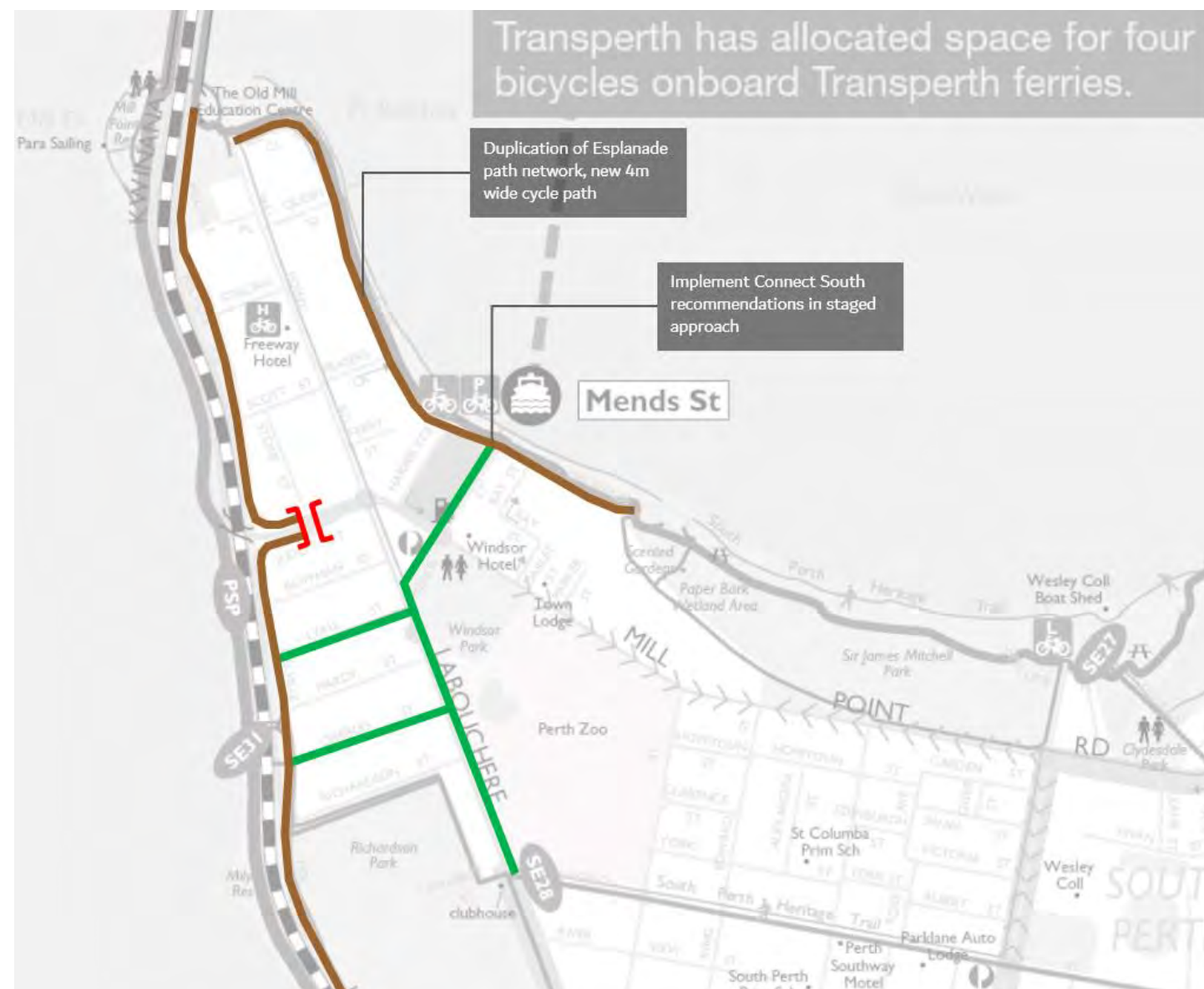


Figure 50 City of South Perth Bike Plan recommendations

## 8.6 Traffic and Freight

In examining the impacts of the Activity Centre plan, the general requirements of SPP 4.2 must be taken into direct consideration. It is not the role or responsibility of the Activity Centre Plan Movement Network report to consider each individual lot on its merits, moreover to set in place a framework to achieve the requirements of the State Planning Policy. The general requirements for traffic are:

*“The siting and planning of activity centres and management of traffic should:*

- *take account of the current and planned road capacity servicing the locality;*
- *ensure that vehicular access to arterial roads do not compromise their safe operation or desired transport function;*
- *ensure loading/unloading facilities and associated vehicle manoeuvring areas are designed so as to optimise public safety and convenience;*

- *balance regional traffic requirements for travel to, through (where appropriate) and around a centre with local traffic access needs; and*
- *sustain high levels of pedestrian movement and an external street-based retail and business environment by providing suitable traffic volumes and permeability within and around the activity centre”.*

To introduce additional road network capacity in this Activity Centre would simply make it more attractive to sub-regional traffic flows moving to and from the Freeway network and entrench existing travel patterns through the Activity Centre – additional road capacity would induce more traffic. This would exacerbate existing peak hour issues and reduce the ability of the network to accommodate trips associated with future development.

The opportunity to introduce additional road network capacity, such as additional or altered Freeway interchanges, was canvassed with Main Roads WA during the Activity Centre Plan. Any proposal to introduce a new interchange or connection point on the Freeway network between Canning Bridge and Mends Street is not being contemplated and is not considered a viable proposition.

Given the concept of alternative Freeway access arrangements has been rejected by Main Roads WA, the road and street network in the Activity Centre will largely remain unchanged in form in the future, however its function will be required to change.

In addition, wider area changes to the sub-regional network will likely need to be considered by the City of South Perth to ensure that the Activity Centre street network functions.

The City of South Perth has undertaken a substantial amount of modelling in the Activity Centre over the past two years, ranging from having a wider area mesoscopic model built to assess development impacts through to detailed nano-simulation intersection modelling to inform discussions with Main Roads WA on the future configuration of the road network. No modelling was undertaken for this Activity Centre plan, moreover the outputs from the existing models were reviewed and inputs/outputs interrogated to ensure that the models themselves reflected the impacts of the Activity Centre plan.

Overall, the street network in the Activity Centre performs well and its configuration supports existing and future development as well as use by all modes. The key issues relating to traffic and freight movement are focussed on the key intersections along Mill Point Road and peak hour movements.

The approach used within the Activity Centre Plan is to provide the capacity and network form required to deliver the plan through making the sub-regional movements by private vehicle less attractive and focus on benefits to the Activity Centre itself. At present, the congestion caused during peak hours is caused by both local movements and drivers using the intersection of Mill Point Road and the Freeway ramps as an access or egress point. Although this through movement largely won't disappear, the impacts of it and attractiveness of this area as a through route can be addressed.

The overall proposals are shown on Figure 51 and include:

- Implementation of a 40km/h posted speed limit zone within the Activity Centre excepting Freeway ramps
- Introduction of bus lane along Labouchere Road and redesign of overall street to reallocate space accordingly.
- On-street off-peak short term parking along Labouchere Road and Mill Point Road to support businesses and residential uses along these roads.
- Retention and improvement of pedestrian phases at signalised intersections in the Activity Centre.
- Introduction of traffic signals along Labouchere Road at Angelo Street and Richardson Street to include pedestrian phases.



- All intersecting streets along Mill Point Road north of the intersection of Labouchere Road to incorporate Wombat crossings for pedestrian priority.
- All intersection streets along Labouchere Road within the Richardson Character Area to have Wombat crossings for pedestrian priority with the exception of Richardson Street where pedestrian phase will be incorporated.
- Implementation of the recommendations within the Connect South project report.
- Redesign of Lyall Street and Charles Street to incorporate Safe Active Street principles, improve overall streetscape and maximise pedestrian amenity.
- Implementation of Safe Active Street principles along South Perth Esplanade, including raised intersections and severing Mill Point Close at the western end to limit through movements.

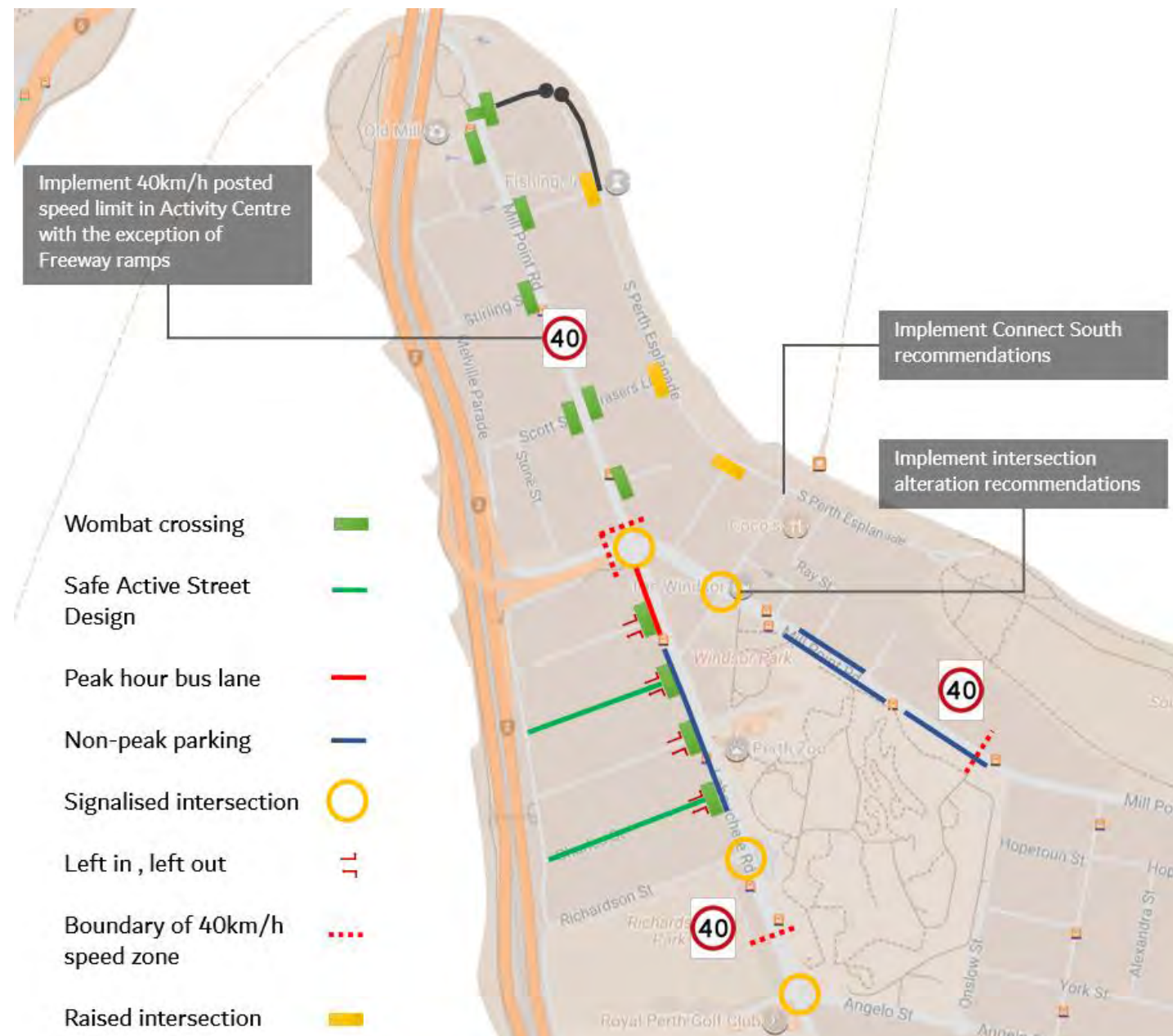


Figure 51 Overall traffic network proposals - Activity Centre

## 8.7 Parking – On-Street

As set out in this report, the framework around on-street parking management for the entire City and in turn for the South Perth Station Precinct area was established in the City of South Perth Parking Strategy finalised and adopted in May 2016. The Parking Management Action Plan for the Precinct (PCA1) was completed in March 2017.

Given the recent completion of both these technical assessments, their findings and recommendations for on-street parking management are taken as a given for the purposes of the Activity Centre Plan.

In addition to the recommendations of the PCA1, the Activity Centre Plan proposes the introduction of non-peak on-street parking along sections Labouchere Road and Mill Road. This is to support servicing trips and short term visits associated with businesses and residents along these roads.

These bays would have appropriate times (30 min or 2P) and only operate on weekdays out of peak periods (to reflect similar situations in Central Perth. This would provide for weekend use for visitors to the Activity Centre as well.

Similar reconfiguration of distributor level roads have been undertaken around Perth that act as precedent for reallocating street space, including Cambridge Street, Beaufort Street and Fitzgerald Street.

The proposed on-street parking configuration for the Activity Centre, including indicative sections for Labouchere Road and Mill Point Road, is shown on Figure 52.

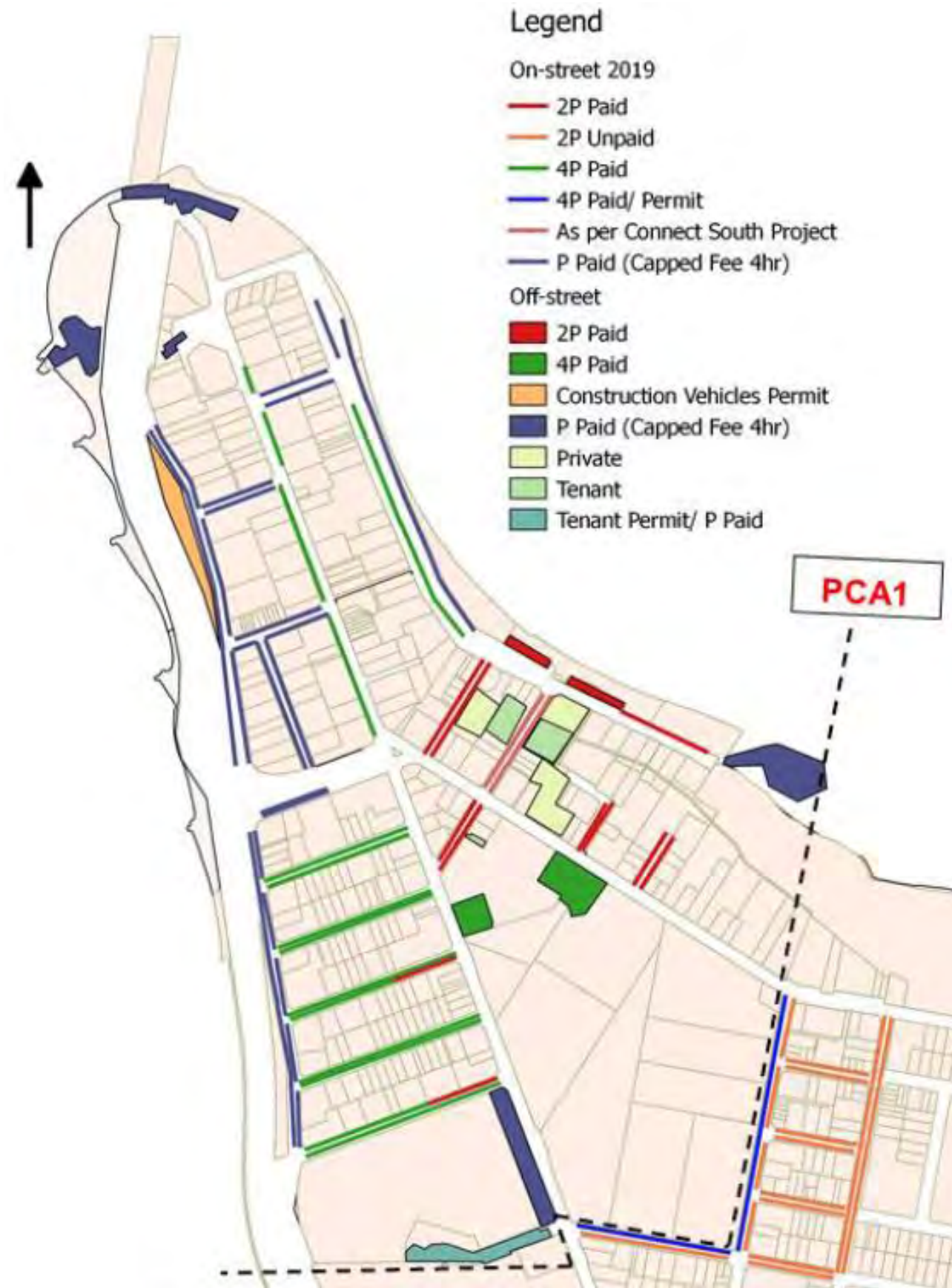


Figure 52 Parking Control Area 1 (PCA1) proposed on-street controls within Activity Centre

## 8.8 Parking – Off-Street

The existing off-street parking controls for development contained within Schedule 9A of the City of South Perth Town Planning Scheme No.6 for SCA1 reflect the intended strategic planning outcomes for the area that have been in place for a number of years.

The proposed off-street parking provision for development within the Activity Centre shown in Table 9 largely reflect these rates, or the impose general rates of parking based on outcomes within other similar Activity Centres. There are some general differences within the parking table shown in Table 9 and existing controls, being:

- There are fewer categories, covering headline land uses of retail, commercial and residential land uses.
- Residential land uses impose minimum and maximum rates in line with Schedule 9A and DesignWA provisions.
- There is a higher required provision of bicycle parking than presently set out in Schedule 9A. This is to support mode shift in the future and make use of new infrastructure provided within this plan and the City of South Perth Joint Bike Plan.
- There is a provision for payment of a transport contribution where a development seeks to provide parking bays beyond the minimum requirement. This contribution would be indexed and based on research baselined within the City of South Perth Parking Strategy. The required payment would be used to develop the transport infrastructure required to support non-private vehicle modes.
- Retention of End of Trip facility provision as per Schedule 9A of Town Planning Scheme No.6.
- Retention of potential for Clause 9.2 of Schedule 9A being considered relating to approval of a lesser number of parking bays subject to demonstrating impact.

For all development sites within the Activity Centre where there is a mixed land use composition, reciprocal rights for parking use and unbundling parking bays from land uses should be encouraged. Each application would need to demonstrate:

- Total parking mix proposed in comparison to current requirements
- Current on-street parking supply and use within 200m of front door of development
- Implications for trip generation and impact of development site
- Overall management plan
- Retention of visitor bays as per provision of Town Planning Scheme and Activity Centre Plan
- Provision or enhancement of End of Trip and bicycle parking facilities.

Table 9 Parking provisions Activity Centre

Land Use	Minimum Parking Rate	Maximum Parking Rate	Transport Contribution Requirement for bays over Minimum Provision	Bicycle Parking		Unit of Measure
				Employee	Visitor	
Retail	2	3	50% of the cost of one bay (rates to be determined by Council and indexed)	1 “Class 1“ per 100m <sup>2</sup>  End of trip facilities per Schedule 9A of TPS.6	1 “Class 3“ per 100m <sup>2</sup>	Per 100m <sup>2</sup> NLA
Commercial	2	3	50% of the cost of one bay (rates to be determined by Council and indexed)	1 “Class 1“ per 100m <sup>2</sup>  End of trip facilities per Schedule 9A of TPS.6	1 “Class 3“ per 100m <sup>2</sup>	Per 100m <sup>2</sup> NLA
Residential 1 bed or less	0.75* or consideration of Clause 9.2 of Schedule 9A	1	None	1 space per unit		Per Unit
Residential 2 bed or more	1	2	50% of the cost of one bay (rates to be determined by Council and indexed)	1 space per unit		Per Unit
Residential Visitors	1 bay per 6 dwellings		None, must be provided	1 space per 5 units for visitors		Per 6 dwellings
Other uses not listed	As per Town Planning Scheme No.6 and supporting policies					



## 8.9 Other Measures

During the course of developing the Activity Centre Plan, and predecessor planning exercises, a range of complimentary transport strategies have evolved that bear consideration as inputs in to the overall movement network. By and large, many of the strategies in the South Perth Station Precinct Transport and Access Strategy have been adopted or progressed since August 2016. Some would not be adopted given the change in policy emphasis and desired outcomes for the Activity Centre.

Other measures that are not in the bounds of the Activity Centre plans but required consideration, include:

- Retention of the intellibus trial
- Consideration of wider area car share scheme with other inner City Councils including Vincent, Victoria Park, Perth and Subiaco.
- Examination of the impact of evolving technologies in autonomous vehicles.
- Support for expansion of the local ferry network for either private or public operators that opens us access for the Activity Centre to wider Perth.
- Reintroduction of a travel demand management programme in South Perth that addresses travel to and from the Activity Centre as well as those trips generated by the Activity Centre.
- Provision for user pays parking station at Perth Zoo associated only with that facility but with the inclusion of high quality EoT facilities and sleeved development rights.

The overall transport elements set out in this Movement Network Report are set out on Figure 53.

## 8.10 Indicator Measurements

The success of the movement network measures proposed in the Activity Centre Plan are based on the ability of strategies and statutory controls being able to support the intent of SPP 4.2 and the objectives of that policy.

The relationship between measures proposed and the performance indicators is set out in the following pages.

- Public Transport – section 8.10.1
- Walking and Cycling – section 8.10.2
- Traffic and Freight – section 8.10.3
- Parking – section 8.10.4.



Figure 53 Transport measures within South Perth Activity Centre



### 8.10.1 Indicator measures – Public Transport

Measure	Element	Indicator	How indicator is achieved
Peak hour bus lanes on Labouchere Rd	Public Transport Infrastructure	Prioritisation of public transport	Supports prioritisation of buses in AM peak hour, increases attractiveness of bus travel and modal shift.
Introduction of high frequency bus services connecting South Perth to other Activity Centres	Public Transport Infrastructure	Prioritisation of public transport	Supports modal shift, reduces travel time between Activity Centres, maximises benefit of on-street bus lanes, makes South Perth more accessible and increase potential for area to be supported by Urban Rail in future.
Support for expansion of ferry network, either public or private	Public Transport Infrastructure	Prioritisation of public transport	Makes South Perth more accessible, increases economic activity, supports use of public transport and consolidates South Perth's unique location as a Ferry hub in Perth.
Intellibus retention	Public Transport Infrastructure	Prioritisation of public transport	Retains unique trial of bus, potential future application in wider area.
Continued support for South Perth Train Station	Public Transport Infrastructure	Prioritisation of public transport	Provides high quality, fast and high capacity public transport service that supports full build out of Activity Centre.

### 8.10.2 Indicator measures – Walking and Cycling

Measure	Element	Indicator	How indicator is achieved
Reduction in posted speed limit throughout Activity Centre to 40km/h	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Provides safer environment for pedestrians and cyclists and improves attractiveness of local trips within Activity Centre by foot or bicycle.
Retention and improvement of pedestrian phases at signalised intersections in the Activity Centre	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Supports movement of pedestrians over busiest intersections and attractiveness to visitors of the zoo of non private vehicle modes. Supports Connect South proposals.
Introduction of traffic signals along Labouchere Road at Angelo Street and Richardson Street including pedestrian phases	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Reduces impact of through vehicle traffic by making the route to and from the freeway longer in time by average. Supports movement of pedestrians across Labouchere Road between Zoo and existing parks and car parking areas.
All intersecting streets along Mill Point Road north of the intersection of Labouchere Road to incorporate Wombat crossings for pedestrian priority	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Prioritises pedestrian movement without restricting vehicles. Put clear emphasis on safety outcomes rather than vehicle speeds being the most important aspect of street network.
All intersection streets along Labouchere Road within the Richardson Character Area to have Wombat crossings for pedestrian priority with the exception of Richardson Street	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Prioritises pedestrian movement without restricting vehicles. Put clear emphasis on safety outcomes rather than vehicle speeds being the most important aspect of street network.

Measure	Element	Indicator	How indicator is achieved
Implement recommendations of Joint Bike Plan when finalised	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Supports travel by bicycle and makes Activity Centre safer to move around. Assists in achieving modal shift away from private vehicle use.
Planning controls on End of Trip facilities that have no dispensation for not providing the required number of cycling parking facilities as per Schedule 9A	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Provides end of trip facilities. Supports use of bicycle for commuting trips and maximises benefit from new cycling infrastructure.
Connect South plans to be modified to include a dedicated, high quality End of Trip facility for cycle parking located within the heart of the development adjacent to the Ferry Terminal	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Provides end of trip facilities. Supports use of bicycle for commuting and recreational trips and maximises benefit from new cycling infrastructure.
Any redevelopment plans of Perth Zoo to include substantially improved cycle parking facilities and end of trip facilities for staff	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Provides end of trip facilities. Supports use of bicycle for commuting trips and maximises benefit from new cycling infrastructure.
Advance stop lines for cyclists on Mends Street arm of the Mill Point Road Intersection	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Supports travel by bicycle and makes Activity Centre safer to move around.
Duplication of South Perth Esplanade Path	Walking and Cycling	Provision of End of Trip Facilities Improved access and facilities for pedestrians and cyclists	Supports travel by bicycle and makes Activity Centre safer to move around. Assists in achieving modal shift away from private vehicle use. Supports development of Connect South and community focal point.

### 8.10.3 Indicator measures – Traffic Assessment

Measure	Element	Indicator	How indicator is achieved
Peak hour bus lanes on Labouchere Rd	Traffic Assessment	Improved access by all modes, including freight vehicles	Supports travel by bicycle and makes Activity Centre safer to move around. Assists in achieving modal shift away from private vehicle use.
Reduction in posted speed limit throughout Activity Centre to 40km/h	Traffic Assessment	Improved access by all modes, including freight vehicles	Provides safer environment for pedestrians and cyclists and improves attractiveness of local trips within Activity Centre by foot or bicycle. Doesn't impact on travel times by vehicle, nor restrict access.
On-street off-peak short term parking along Labouchere Road and Mill Point Road	Traffic Assessment	Improved access by all modes, including freight vehicles	Support businesses and residential uses along these roads., provides more service bays which the PCA1 recommends but doesn't provide.
Retention and improvement of pedestrian phases at signalised intersections in the Activity Centre	Traffic Assessment	Improved access by all modes, including freight vehicles	Supports movement of pedestrians over busiest intersections and attractiveness to visitors of the zoo of non private vehicle modes. Supports Connect South proposals. No impact on access for private or service vehicles.
Introduction of traffic signals along Labouchere Road at Angelo Street and Richardson Street including pedestrian phases	Traffic Assessment	Improved access by all modes, including freight vehicles	Reduces impact of through vehicle traffic by making the route to and from the freeway longer in time by average. Supports movement of pedestrians across Labouchere Road between Zoo and existing parks and car parking areas. Supports movement of vehicles to development sites and Richardson character area.
Intersecting streets along Mill Point Road north of the intersection of Labouchere Road to incorporate Wombat crossings for pedestrian priority	Traffic Assessment	Improved access by all modes, including freight vehicles	Prioritises pedestrian movement without restricting vehicles. Put clear emphasis on safety outcomes rather than vehicle speeds being the most important aspect of street network.
Reconfiguration of streets in Richardson character area to provide left in-left out movements, supporting the need for traffic signals at Richardson Street	Traffic Assessment	Improved access by all modes, including freight vehicles	Provides distinct entry and exit points to character area and supports local trips over sub-regional traffic movement.
Redesign of Lyall Street and Charles Street to incorporate Safe Active Street principles, improve overall streetscape and maximise pedestrian amenity	Traffic Assessment	Improved access by all modes, including freight vehicles	Provides safer environment for pedestrians and cyclists and improves attractiveness of local trips within Activity Centre by foot or bicycle. Doesn't impact on travel times by vehicle, nor restrict access.
Implementation of Safe Active Street principles along South Perth Esplanade, including raised intersections and severing Mill Point Close at the western end to limit through movements	Traffic Assessment	Improved access by all modes, including freight vehicles	Provides safer environment for pedestrians and cyclists and improves attractiveness of local trips within Activity Centre by foot or bicycle. Doesn't impact on travel times by vehicle, nor restrict access.



#### 8.10.4 Indicator measures – Centre Parking Policy

Measure	Element	Indicator	How indicator is achieved
Implementation of Parking Management Action Plan for the Precinct (PCA1)	Centre Parking Policy	Provides for upper limits and common use of car parking	Supports management of parking based on assessment of supply and demand. Places appropriate management controls on available parking.
On-street off-peak short term parking along Labouchere Road and Mill Point Road	Centre Parking Policy	Provides for upper limits and common use of car parking	Support businesses and residential uses along these roads,, provides more service bays which the PCA1 recommends but doesn't provide.
Revised off-street parking provision for development within the Activity Centre	Centre Parking Policy	Provides for upper limits and common use of car parking	Supports use of upper limits on parking provision.
Higher provision of bicycle parking than presently set out in Schedule 9A	Centre Parking Policy	Provides for upper limits and common use of car parking	Support mode shift in the future and maximise use of new infrastructure provided.
Payment of a transport contribution where a development seeks to provide parking bays beyond the minimum requirement	Centre Parking Policy	Provides for upper limits and common use of car parking	Supports lower provision of parking associated with land uses without impacting visitor bays. Establishes fund to be able to implement other measures in Activity Centre Plan. Focuses user pays on the vehicle movements that do impact local streets.
In mixed land use composition, reciprocal rights for parking use and unbundling parking bays from land uses is encouraged.	Centre Parking Policy	Provides for upper limits and common use of car parking	Maximises use of parking in Activity Centre and reduces potential over provision.

DEPARTMENT OF PLANNING, LANDS AND HERITAGE	
DATE	FILE
21-Dec-2021	SPN/2229/1





# APPENDIX 3

## ENVIRONMENTAL ASSESSMENT REPORT



# Technical Memorandum

17 August 2021

<b>To</b>	City of South Perth		
<b>Copy to</b>			
<b>From</b>	Nicola Hoey	<b>Tel</b>	+61 8 6222 8222
<b>Subject</b>	Environmental Assessment Report – South Perth Activity Centre Structure Plan	<b>Project no.</b>	12550624

## 1. Desktop Environmental Assessment Report – South Perth Activity Centre

### 1.1 Background

The City of South Perth (the City) has prepared a draft South Perth Activity Centre Plan (ACP) and associated Scheme Amendment No. 61 (Amendment No. 61).

The ACP was considered at the Western Australian Planning Commission (WAPC) Statutory Planning Committee (SPC) Meeting on 30 March 2021. It was resolved by SPC that prior to final approval, a number of supporting technical reports are required to be prepared for the ACP, including:

- An Environmental Assessment Report (EAR) documenting the existing environmental condition of the ACP area;
- A Local Water Management Strategy (LWMS) prepared in accordance with State Planning Policy 2.9 Water Resources and accompanying Better Urban Water Management Guidelines; and
- A Civil Services Report (CSR) which includes the advice of essential service providers (i.e. Western Power, Water Corporation and Alinta Gas).

This document provides the EAR for the South Perth ACP.

### 1.2 Location

The South Perth ACP encompasses the area that stretches from the tip of South Perth Peninsula to Richardson Park and the Perth Zoo. It has been split into four character areas – Mends, Richardson, Mill Point and Hillside and is bounded to the north, east and west by the Swan River. Refer to Figure 1.

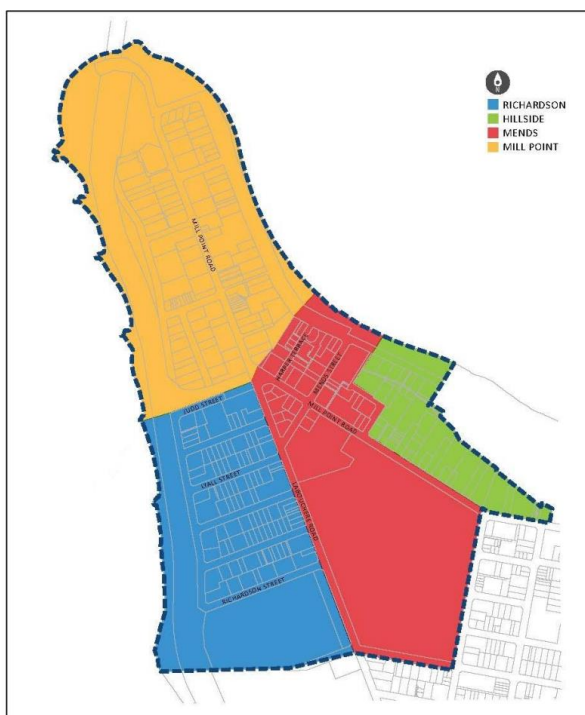


Figure 1 Location and Character area plan

## 1.3 Environmental Assessment

The following section provides a summary of the key environmental attributes for the ACP.

### 1.3.1 Vegetation and fauna

#### Bush Forever

There are no Bush Forever sites within or adjacent to the South Perth ACP area.

#### Native vegetation extent

The pre-European native vegetation of this area is mapped as Karrakatta Complex – Centre and South. This vegetation is considered to have limited remaining extent across the Perth Metropolitan area, however, the remaining vegetation in the ACP area is limited to small pockets within public open space and at the Perth Zoo.

#### Flora and fauna

A species search was conducted on the 29 May 2021 using the Department of Biodiversity, Conservation and Attractions NatureMap tool. A search of the ACP area within a one-kilometre radius revealed the presence of 239 native species and 161 naturalised species within, or directly adjacent to, the ACP area. Of these, seven species are protected by international agreement (IA), three are threatened (T), four have Priority 4 status and one is Priority 2. These are detailed below and illustrated in Figure 2:

- *Actitis hypoleucos* (Common Sandpiper) – IA
- *Calidris ruficollis* (Red-necked Stint) – IA\*
- *Calyptorhynchus banksii subsp. naso* (Forest Red-tailed Black Cockatoo) – T\*
- *Calyptorhynchus latirostris* (Carnaby's Cockatoo, White-tailed Short-billed Black Cockatoo – T\*
- *Dasyurus hallucatus* (Northern Quoll) – T
- *Dodonaea hackettiana* (Hackett's Hopbush) – P4\*
- *Hydromys chrysogaster* (Water-rat, Rakali) – P4

- *Hydroprogne caspia* (Caspian Tern) – IA
- *Oxyura australis* (Blue-billed duck) – P4\*
- *Pandion cristatus* (Osprey, Eastern Osprey) – P4
- *Papillogobius punctatus* – IA
- *Pluvialis squatarola* (Grey Plover) – IA\*
- *Thalasseus bergii* (Crested Tern) – IA\*
- *Thelymitra variegata* (Queen of Sheba) – P2\*
- *Tringa nebularia* (Common Greenshank, greenshank) – IA\*

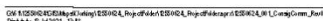
\* Presence confirmed by DBCA

Given the lack of remnant vegetation within the ACP area, the above species are unlikely to be impacted.

There are pockets of vegetation within the POS area between the Kwinana Freeway and Swan River and within Sir James Mitchell Park (a foreshore area adjacent to the ACP area) mapped as requiring investigation as Carnaby's Black Cockatoo foraging habitat (Figure 2). Ernest Johnson Oval, on the edge of the ACP area, is also a known Carnaby's Black Cockatoo Roosting site (Figure 2). It is therefore likely that Carnaby's foraging habitat within the ACP area will be utilised by the species.

The Swan River is known to support a variety of species such as birds, fish and frogs. It is possible that the Common Brush Tail Possum and Lesser Long eared bat are present but significant populations are unlikely due to lack of habitat. The wetlands of the Perth foreshore are known to support the long-necked Oblong Turtle (South Perth Foreshore Strategy and Management Plan, 2015).





## ➔ The Power of Commitment



## Threatened Ecological Communities

Sir James Mitchell Park is mapped as containing Banksia Dominated Woodlands of the Swan Coastal Plain Interim Biogeographic Regionalisation for Australia (IBRA) Region. This community is considered to be a Priority 3 threatened ecological community (TEC) under the State listing, however, is a nationally protected ecological community, listed as endangered under the *Environment Protection and Biodiversity Conservation Act, 1999*.

The ACP does not propose to change the land use of the South Perth Foreshore, where the TEC is located.

## Weeds and diseases

*Phytophthora cinnamomi* and wood rot fungus are known to affect plant species of the South Perth foreshore. The presence of these diseases is unlikely to affect development in the ACP area.

### 1.3.2 Geology and soils

#### Geology and soils

The geological formations of the ACP area are made up of Quaternary deposits of partly lithified or unconsolidated sediments which are related to erosion and deposition processes during the Pleistocene and Holocene eras.

The major part of the ACP area is made up of sandy plains, which have peaty podzols in the swampy areas known as the Bassendean Soil Unit (McArthur and Bettenay, 1974).

The ACP area is made up of:

- Aeolian deposits of the Karrakatta Soil unit (deep yellow sands over limestone); and
- Marine deposits of the Vasse unit consisting of mixed layers of recent estuarine deposits are present along the southern Perth Water foreshore.

The early settlers found the soil consisted of excessively drained deep yellow sands, except for the northern shore where the land was sandy loam (South Perth Foreshore Strategy and Management Plan, 2015).

#### Acid Sulfate soils

Acid sulfate soils (ASS) occur naturally in WA and are harmless when left in a waterlogged, undisturbed environment. However, when exposed to air, through drainage or excavation, the iron sulfides in the soils react with oxygen to produce iron compounds and sulfuric acid. This acid can mobilise other substances, including metals (and metalloids), nutrients (phosphate) from the soil and enter into the surrounding environment and waterways.

Activities with the potential to disturb ASS must be managed carefully to avoid serious environmental harm. The ACP area is mapped by the Department of Water and Environmental Regulation (DWER) as 'Moderate to low risk of acid sulfate soils occurring within 3 m of natural soil surface but high to moderate risk of ASS beyond 3 m of natural soil surface'.

Soils within this risk category are required be investigated where soil or sediment disturbance is greater than 100 m<sup>3</sup> below the natural water table. This may be required where there is significant disturbance that may occur as part of site works associated with the foundations for multi-storey buildings and underground car parks.



## Legends

### Acid Sulfate Soil Risk Map 50K (DWER-049) - Web Mapping Service (WMS)

#### Risk Class

- 1 - High to moderate risk of ASS occurring within 3m of natural soil surface
- 2 - Moderate to low risk of ASS occurring within 3m of natural soil surface but high to moderate risk of ASS beyond 3m of natural soil surface

Figure 3 Acid Sulfate Soils Mapping (DWER, 2012)

### 1.3.3 Groundwater

Depth to groundwater across the ACP area fluctuates across the ACP area:

- Mill Point – Depth to groundwater: 0.0-1.0 metres
- Richardson – Depth to groundwater: 0.0-2.0 metres
- Mends – Depth to groundwater: 0.0-3.0 metres
- Hillside - Depth to groundwater: 0.0-19.0 metres

(Perth Groundwater Map, accessed 19<sup>th</sup> July 2021).

The high groundwater table is a key consideration when considering future development across the ACP area. Foreshore areas are generally considered to have a depth to groundwater of 0.0m.

### 1.3.4 Surface water

The Swan River provides a natural boundary to the ACP area to the north, east and west. The Swan River provides significant habitat value in the local environment. It is also the end point for stormwater drainage.

The Swan River is mapped as a conservation category wetland and should be protected and natural flows into the system maintained.

Miller's Pool is located on Mill Point. This historical wetland has been reclaimed following filling by the former Road Board in the 1930's. The City is working to improve the ecological value of this wetland and although it does not currently have a conservation classification it is functioning as a compensation basin, contributing to stormwater management.

## Floodplain mapping

The ACP area is at risk from flooding in the 1 in 100 (1%) annual exceedance probability (AEP) flood event. The 1% AEP flood has a 1% chance of occurring in any given year. Floods larger than this may occur, but are less likely. Floodplain mapping is provided in Figure 4.

## Climate change

Climate change and sea level rise are issues that will affect the State in the coming century and, for coastal planning purposes, an allowance for sea level rise of 0.9m over the next 100 years has been adopted.

Properties within the South Perth ACP area are particularly sensitive to sea level changes. Sea level rise is predicted to increase peak water levels in the 1 in 100 AEP flood. Peak flood levels at the South Perth Esplanade Reserve is expected to rise from 1.43m AHD to 2.28m AHD. Peak flood levels in the Swan River along the western boundary of the ACP is expected to increase from 1.35m AHD to 2.22m AHD (City of South Perth Sea level Rise Summary Assessment based on Swan and Helena River Flood Studies, BMT 2021).

The risk of flooding is likely to be further increased due to other climate change impacts such as altered weather patterns and storm events. Sea level rise may also affect areas of public open space.



*Figure 4 Floodplain mapping in the 1 in 100 AEP flood event, taken from the DWER Western Australia floodplain mapping tool on 14 July 2021*

### 1.3.5 Contaminated sites

There are no known contaminated sites within the ACP area.

## 2. Key Considerations for the South Perth Activity Centre Structure Plan

Based on the investigations and findings identified above, the following recommendations are provided to inform modifications to the current draft ACP.

### 2.1 Groundwater and Flooding

- Add a new development requirement 4.3.4.6 (page 26) that all development should incorporate water sensitive design principles and consider integrated water cycle management, including water supply and efficiency, groundwater, stormwater, wastewater, flooding, waterways and wetlands, consistent with the Better Urban Water Management (WAPC, 2008) framework (as amended).

- Add a new development requirement 4.3.4.7 (page 26) that all development shall have adequate flood protection from at least a 1 in 100 (1%) Annual Exceedance Probability (AEP) flood and shall not detrimentally impact on the existing flooding regime of the area.
- Groundwater levels and flooding risks are currently not discussed in the South Perth Activity Centre Structure Plan. The plan would be strengthened by including this discussion.
- Once the Local Water Management Strategy is complete, further development considerations may be recommended, particularly if these additional reports indicate significant cumulative impacts from development.
- The City's Clause 6.9 Local Planning Scheme No. 6 requires that minimum ground and floor levels:
  1. *Subject to sub-clause (3), a lot shall not be developed unless the ground level is, or is raised to, a level of at least 1.7 metres above Australian Height Datum.*
  2. *Subject to sub-clause (3), the following minimum levels for floors in buildings or additions to buildings erected in the Scheme area are prescribed:*
    - a. *the floors of habitable rooms shall be not less than 2.3 metres above Australian Height Datum;*
    - b. *the floors of non-habitable rooms shall be not less than 1.75 metres above Australian Height Datum;*
    - c. *the floors of any part of a building used for car parking shall be not less than 1.75 metres above Australian Height Datum.*
  3. *The local government may permit land to be developed with lower levels than prescribed in sub-clauses (1) and (2), if:*
    - a. *provision is made in the design and construction of the floor and walls of the building for adequate protection against subsoil water seepage;*
    - b. *the applicant provides the local government with certification from a consulting engineer that adequate water-proofing has been achieved; and*
    - c. *the applicant satisfies the local government in such manner as the local government may specify that the proposed levels are acceptable having regard to the 100-year flood levels applicable to the lot.*

Much of the subject site is between 1 and 2 metres AHD. It is therefore important to align and consider how the requirements of Local Planning Scheme No. 6 (LPS No.6) can be addressed in the ACP. This should be discussed in the explanatory text section of the ACP together with consideration of whether the requirements should be updated in response to expected climate change impacts.

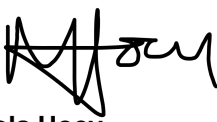
## 2.2 Threatened species and ecological communities

It is recommended that the ACP is updated to acknowledge the presence of threatened species and ecological communities within proximity of the ACP area. The ACP could be updated to acknowledge the potential for landscaping plant species to be utilised as a food source for Black Cockatoo species within the public realm.

## 2.3 Public open space

The potential impacts to public open space due to inundation risk should be considered as part of public open space planning.

Regards



**Nicola Hoey**  
Senior Planner





# APPENDIX 4

## CIVIL SERVICES REPORT



# **Servicing Report**

## **for South Perth Activity Centre Plan**

City of South Perth

12 August 2021

**GHD Pty Ltd ABN 39 008 488 373**



999 Hay Street, Level 10

Perth, Western Australia 6000, Australia

**T** +61 8 6222 8222 | **F** +61 8 6222 8555 | **E** permail@ghd.com | **ghd.com**

<b>Printed date</b>	12/08/2021 8:38:00 PM
<b>Last saved date</b>	12 August 2021
<b>File name</b>	https://projectsportal.ghd.com/sites/pp18_02/cospsouthperthactivi/ProjectDocs/12550624 - CoSP - South Perth Activity Centre Plan - Civil Servicing Report.docx
<b>Author</b>	Louise Johnson / Adrian Wood
<b>Project manager</b>	Louise Johnson
<b>Client name</b>	City of South Perth
<b>Project name</b>	CoSP - South Perth Activity Centre Plan - EAR, LWMS & CSR
<b>Document title</b>	Servicing Report   for South Perth Activity Centre Plan
<b>Revision version</b>	Rev 0
<b>Project number</b>	12550624

**Document status**

Status Code	Revision	Author	Reviewer		Approved for issue		
			Name	Signature	Name	Signature	Date
Final	0	L. Johnson A. Wood	G. Hendrie		G. Hendrie		13/08/21

© GHD 2021

This document is and shall remain the property of GHD. The document may only be used for the purpose for which it was commissioned and in accordance with the Terms of Engagement for the commission. Unauthorised use of this document in any form whatsoever is prohibited.





# Contents

<b>1.</b>	<b>Introduction</b>	<b>1</b>
1.1	Purpose of this report	1
1.2	Scope and limitations	1
1.3	Assumptions	1
<b>2.</b>	<b>Site Background</b>	<b>2</b>
	Richardson	3
	Hillside	3
	Mends	3
	Mill Point	3
2.1	Proposed Development	4
<b>3.</b>	<b>Wastewater</b>	<b>5</b>
3.1	Existing Infrastructure	5
	Richardson	5
	Hillside	5
	Mends	6
	Mill Point	7
3.2	Proposed Infrastructure & Upgrades	8
3.3	Development Considerations	10
3.3.1	Protection of existing assets	10
3.3.2	Developer Funded Works	10
<b>4.</b>	<b>Water</b>	<b>11</b>
4.1	Existing Infrastructure	11
	Richardson	11
	Hillside	12
	Mends	12
	Mill Point	12
4.2	Proposed Infrastructure	12
	Richardson	12
	Hillside	12
	Mends	12
	Mill Point	13
4.3	Development Considerations	13
4.3.1	Fire Services	13
4.3.2	Protection of existing assets	13
4.3.3	Developer Funded Works	13
<b>5.</b>	<b>Gas</b>	<b>14</b>
5.1	Existing Infrastructure	14
	Richardson	14
	Hillside	14
	Mends	14
	Mill Point	14
5.2	Proposed Infrastructure	15
<b>6.</b>	<b>Power</b>	<b>16</b>
6.1	Existing Infrastructure	16
	Richardson	16

	Hillside	17
	Mends	17
	Mill Point	17
6.2	Proposed Infrastructure	17
	Richardson	19
	Hillside	19
	Mends	19
	Mill Point	19
6.3	Development Considerations	19
6.3.1	Public/Private Electrical Vehicle Charging Stations	19
6.3.2	Community Batteries Land Allowance	19
<b>7.</b>	<b>Telecommunications</b>	<b>20</b>
7.1	Existing Infrastructure	20
	Richardson	20
	Hillside	20
	Mends	21
	Mill Point	22
7.2	Proposed Infrastructure	22
<b>8.</b>	<b>References</b>	<b>24</b>

## Table index

Table 1	Character Areas	2
Table 2	Forecast Growth in the ACP Area (Roberts Day, 2019)	4

## Figure index

Figure 1	Character Area Map	2
Figure 2	Example of sewer infrastructure within the Richardson area (ESInet, July 2021)	5
Figure 3	Example of sewer infrastructure within the Hillside area (ESInet, July 2021)	6
Figure 4	Example of sewer infrastructure within the Mends area (ESInet, July 2021)	7
Figure 5	Example of sewer infrastructure within the Mill Point area (ESInet, July 2021)	8
Figure 6	Bowman WWPS gravity sewer upgrade	8
Figure 7	Bowman WWPS additional gravity sewer	9
Figure 8	Mends WWPS additional gravity sewer	9
Figure 9	Water Corporation 'Pipes for Perth' recently completed upgrade works	11
Figure 10	Existing HV Infrastructure	16
Figure 11	Zone Substation Locations	18
Figure 12	Clarence Street Zone Substation	18
Figure 13	Richardson Area – Telstra Cable Plan	20
Figure 14	Hillside Area – Telstra Cable Plan	21
Figure 15	Mends Area – Telstra Cable Plan	21
Figure 16	Mill Point Area – Telstra Cable Plan	22

## Appendices

Appendix A	South Perth Activity Centre Plan (ACP)
Appendix B	Water Corporation Wastewater Principal Assets Plan
Appendix C	Water Corporation Existing Water Network Plan
Appendix D	Liaison with ATCO Gas



# 1. Introduction

## 1.1 Purpose of this report

GHD has been engaged by the City of South Perth (the City) to provide a servicing report, to support the draft South Perth Activity Centre Plan (ACP). The civil servicing report will review and discuss the adequacy of existing services infrastructure for the ACP area and highlight any necessary service infrastructure upgrades which would be required to support the developments proposed in the ACP. These services include:

- Wastewater Reticulation
- Water Reticulation
- Gas
- Power
- Telecommunications

The service authorities responsible for services located within the City of South Perth jurisdiction are Water Corporation, ATCO Gas, Western Power, Telstra, and other various telecommunications providers. Where required, GHD liaised directly with these authorities to acquire information related to existing infrastructure and planned future upgrades.

## 1.2 Scope and limitations

*This report: has been prepared by GHD for City of South Perth and may only be used and relied on by City of South Perth for the purpose agreed between GHD and City of South Perth as set out in Section 1.1 of this report.*

*GHD otherwise disclaims responsibility to any person other than City of South Perth arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.*

*The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.*

*The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.*

*The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer section(s) 1.3 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.*

*GHD has prepared this report on the basis of information provided by City of South Perth and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.*

## 1.3 Assumptions

- The servicing report for the subject sites is based on a desktop study only. GHD has liaised with service authorities where applicable and included comments from the relevant service authority providers in this report.
- The assessment is based on the proposed developments outlined by the City as part of their Draft South Perth Activity Centre Plan. These have been summarised below in Section 2.1. The assessment assumes that the developments will occur over the existing freehold title(s) at addresses across the Subject Area as outlined in Section 2.
- The Kwinana Freeway and Mill Point Road on ramp were excluded from the assessment area.

## 2. Site Background

South Perth is a well-developed suburb located centrally in Perth, Western Australia, with a population of over 12,000 residents.

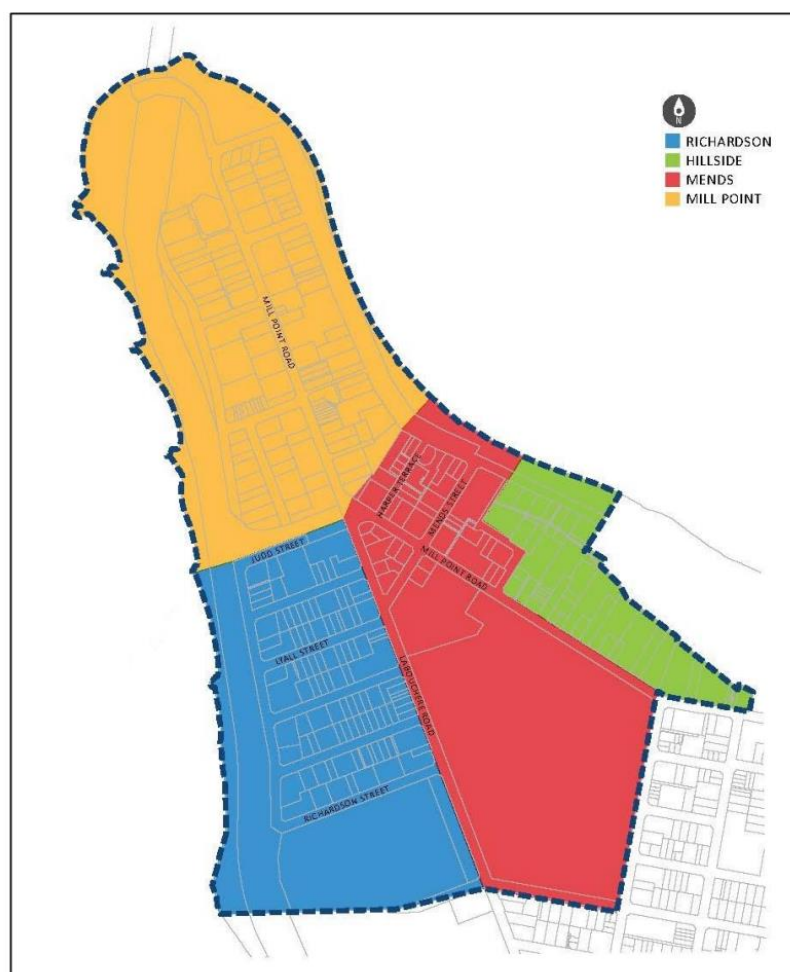
As wider metropolitan Perth grows, the demand for South Perth to grow will also increase, due to its existing urban environment, exceptional amenities, natural setting, and central location.

Therefore, the City has developed a draft ACP and associated proposed Town Planning Scheme Amendment 61, to provide a clear vision and detailed planning framework, to manage the growth of area and ensure that future developments build upon its existing characteristics and promote economic growth.

The ACP is comprised of four “character areas” spread across South Perth. The sites have been summarised in Table 1 and shown in Figure 1 below.

**Table 1** Character Areas

Area	Approximate Area (m <sup>2</sup> )	Description
Richardson	310,000	Area with mixed building styles and land uses. Area of proposed train station.
Hillside	48,000	Quiet, secluded and predominantly residential area.
Mends	370,000	Intended to be “cultural and commercial centre” of the activity centre. Includes amenities such as the Foreshore, Perth Zoo, and a new City Square.
Mill Point	410,000	Predominantly residential area characterised by green, leafy streets.



**Figure 1** Character Area Map

## Richardson

Richardson lies in the south-western corner of the area enclosed by the ACP. It is constrained by Kwinana Freeway to the west, Labouchere Road to the East, Judd Street to the North and the Royal Perth Golf Club to the South. As noted earlier, this area will also house the proposed South Perth train station, situated west of Richardson Park.

The Richardson area is the most varied of all the character areas, in terms of land use and building styles. Currently, most of the area has a residential zone code of R60/R80. This has resulted in a mix of residential, low-rise apartment blocks and detached housing, and mid-small sized commercial properties making up most of the lots.

In terms of existing services, the area is home to an extensive network of live and abandoned services. These services generally have the larger mains run down Labouchere Road and Melville Parade, branching down the various side streets to service each lot.

## Hillside

The Hillside character area is a small area which resides on the eastern edge of the proposed ACP. It is constrained by Perth Waters to the north, Mill Point Road to the south, Ray Street to the west and Sir James Mitchell Park to the east.

As the area is intended to be primarily residential, the area is currently zoned with relatively high zoning codes, ranging from R30 to R100, with an average of ~R80. Hence, it is currently home to several medium-low rise apartment blocks and townhouses with fewer commercial properties.

Like the Richardson area, Hillside is serviced by two main service corridors, these being South Perth Esplanade and Mill Point Road. However, the South Perth Esplanade corridor only services a few lots on the northern side of the character area, with the rest of the area being service off the Mill Point Road corridor.

## Mends

The Mends area is constrained by the Angelo and Onslow Street to the south and boundaries of the Richardson, Hillside and Mill Point areas to the west, east and north respectively.

As noted earlier, the area is intended to be the “cultural and commercial” centre of the activity centre, mainly due to it being characterised by several important amenities including Perth Zoo, Windsor Park, the and the Foreshore. These amenities take up a significant amount of space of the Mends area and are reserved for “Parks and Recreational” areas with restricted public access. The rest of the area is predominantly zoned as R100

The main service corridors for the Mends area are Mill Point Road and Labouchere Road. Abandoned services are also present extensively.

## Mill Point

The Mill Point character area is constrained by Kwinana Freeway to the west, the off-ramp to the south and the Swan River to the north and east.

Like Hillside, the Mill Point area is mainly intended to be residential and therefore has similar land uses. The R-zoning codes for the area typically range from R80 to R100, correlating with a host of medium-low rise apartment blocks and townhouses with minimal commercial properties.

Similarly, to the other character areas, the Mill Point area houses several live and abandoned mains for various services. Most of these services run down Mill Point Road and South Perth Esplanade, and branch off onto the side streets to service the surrounding lots. As for the other areas, abandoned services are also present.

## 2.1 Proposed Density

A density code of R-AC0 is proposed by the City for the entire ACP area, refer to Appendix A.

The population and dwelling growth forecasts to 2041 are represented in Table 2.

*Table 2 Forecast Growth in the ACP Area (Roberts Day, 2019)*

INDICATOR	CURRENT	2031	2041	GROWTH BY 2041
Population	2,675	4,750	7,500	4,825
Dwellings	1,941	2,750	4,250	2,309



## 3. Wastewater

### 3.1 Existing Infrastructure

The ACP falls within the Water Corporation's South Perth sewer district (South Perth SD).

A desktop review of the existing wastewater infrastructure was undertaken by GHD to assess spare capacity based on the proposed rezoning.

The Water Corporation's current planning for the ACP assumes high density development however the variability of a proposed R-AC0 zoning means there may be even greater levels of development than originally expected.

It is noted that the character area boundaries generally coincide with the wastewater reticulation area boundaries.

A plan showing the Water Corporation's principal wastewater assets in the area has been included as Appendix B.

#### Richardson

Existing wastewater infrastructure in the Richardson character area is characterised by a network of smaller branching sewer pipes, mostly midblock sewers, which converge to an existing wastewater pump station (WWPS) on Bowman Street. These pipes are sized at 150 mm dia and are either vitrified clay (VC) or PVC. The pipes and associated access chambers are generally located at and through the rear boundary of the properties (refer to Figure 2).

A 610 mm dia main sewer runs within the eastern verge of Labouchere Road.

The Bowman Street WWPS pumps to the main sewer via a 225 mm dia asbestos cement (AC) pipe, where it joins the wider sewer network.

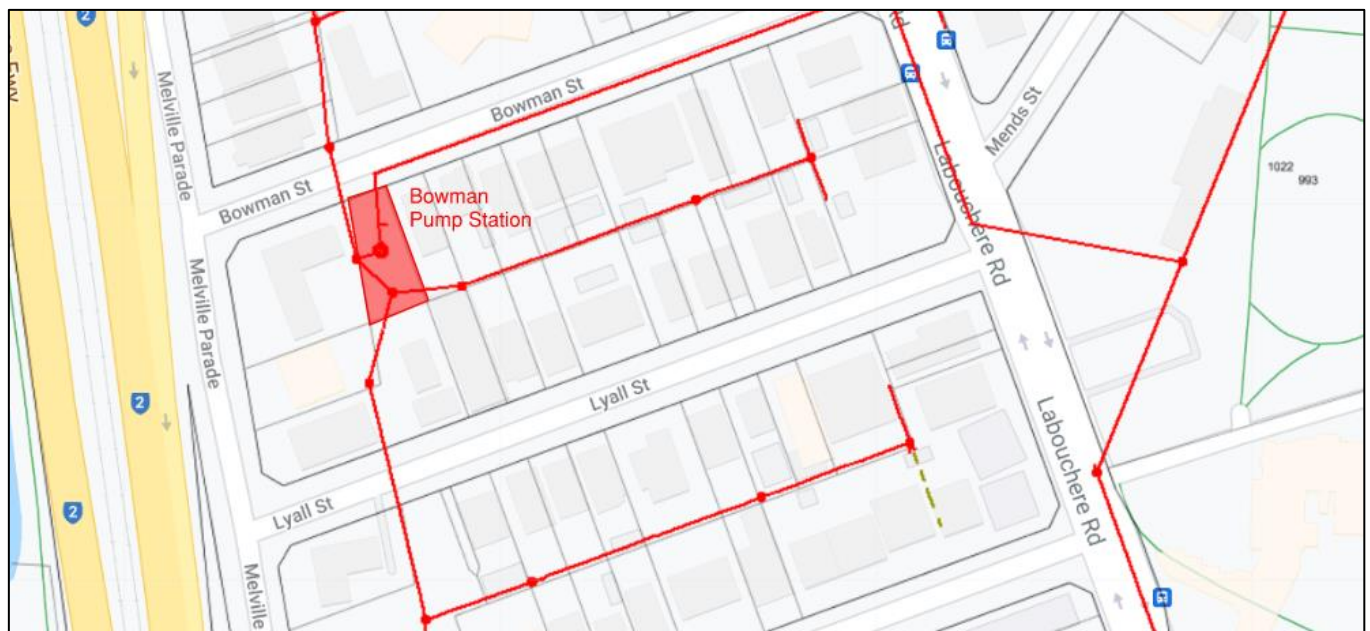


Figure 2 Example of sewer infrastructure within the Richardson area (ESInet, July 2021)

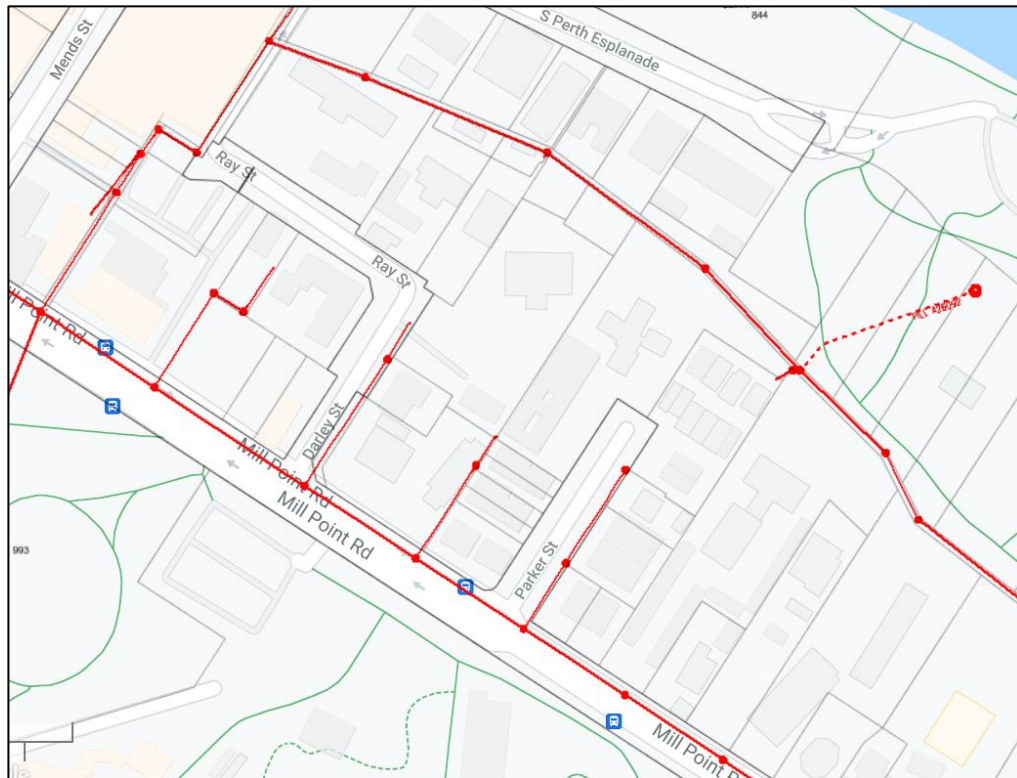
#### Hillside

Within the Hillside area, lots are serviced by 150 mm dia VC pipe located within the northern verge of Mill Point Road, and pipes within Parker Street, Darley Street and through private property.

These VC pipes connect to the 610 mm dia main sewer, which then runs through the rear of The Windsor Hotel building before heading east through the rear of private properties fronting onto South Perth Esplanade.

A private WWPS also discharges into the main sewer.

Ultimately, the main sewer travels east along the foreshore to a WWPS located on north Armagh Street, which is then pumped to Woodman Point.



**Figure 3** Example of sewer infrastructure within the Hillside area (ESINet, July 2021)

## Mends

The Mends area is separated into two minor catchments, one directing flows to a small Type 10 WWPS located on South Perth Esplanade (opposite Mends Street on the foreshore) and one directed via Harper Terrace to a 225 mm dia pressure main on Mill Point Road.

Both small catchments discharge to the 610 mm dia main sewer.



**Figure 4** Example of sewer infrastructure within the Mends area (ESInet, July 2021)

## Mill Point

Lots in the Mill Point area are generally serviced by sewer at the rear boundary of the property (refer to Figure 5) which then flow to the area's WWPS.

The WWPS is located on Mill Point Road, opposite Stirling Street. The WWPS then discharges into the main sewer via a 225 mm dia pressure main running south on Mill Point Road.



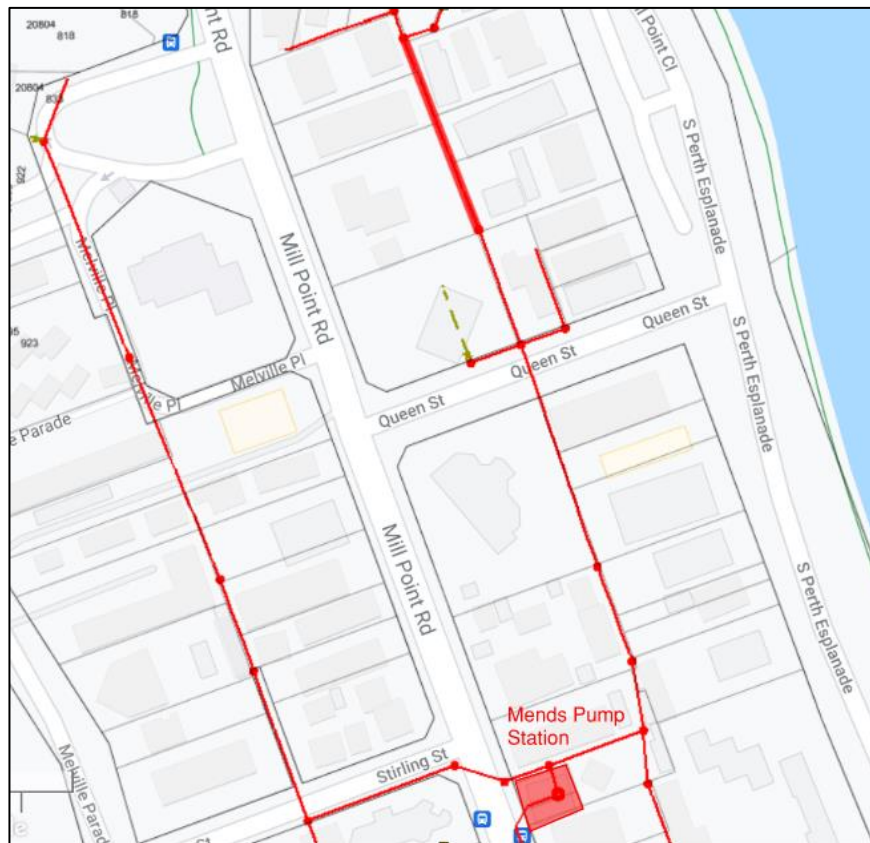


Figure 5 Example of sewer infrastructure within the Mill Point area (ESInet, July 2021)

## 3.2 Proposed Infrastructure & Upgrades

The Water Corporation has provided advice to indicate that the existing pipe sizes will need to be increased to cater for increased flows from the expected development.

In particular, several gravity sewer upgrades have been identified in the vicinity of the Bowman St WWPS and the Mill Point Rd WWPS, including:

- The 150 mm gravity sewer south of the Bowman Street WWPS will be required to be upgraded to 300 mm dia to support expected development (refer to Figure 6 extent shown indicatively).

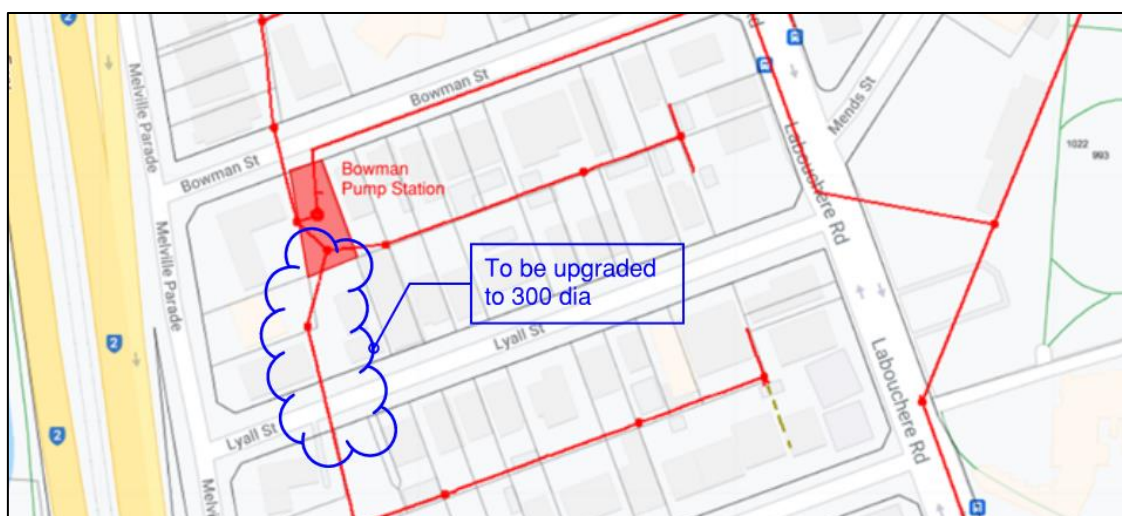
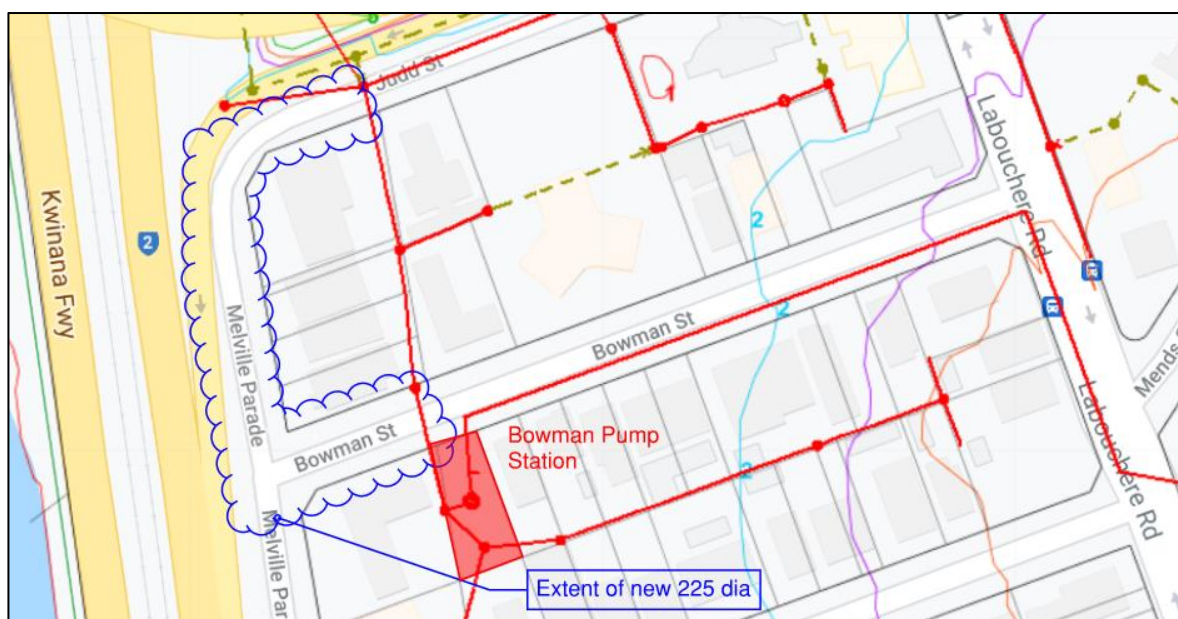


Figure 6 Bowman WWPS gravity sewer upgrade



- A new 225 mm dia sewer will be required from Bowman Street to Judd Street (refer to Figure 7 for indicative extent).



**Figure 7** Bowman WWPS additional gravity sewer

- A new 225 mm dia sewer will be required along Mill Point Road from the corner of Frasers Lane, to the Mill Point Road WWPS (refer to Figure 8 for indicative extent).



**Figure 8** Mends WWPS additional gravity sewer

The above works (and others as required) must be confirmed by the Water Corporation and completed by the relevant developer as part of development.

Water Corporation planning has allowed for a WWPS station and minor wastewater flows from the future train station location. Several new gravity sewers and downstream sewer upgrades will be required to support the future station and it is assumed that these works will be state government funded.

In addition to the above, the Water Corporation has also highlighted Major Asset upgrades, including pump station, wastewater pressure mains and large gravity main sewer upgrades to support development in future. Construction of these upgrades and assets will be completed (and funded) by the Water Corporation when required in future, noting there are no projects in the area on the Water Corporation's current 5-year capital investment program.

There are redevelopment limitations associated with such upgrades that will need to be considered by the developers.

The Bowman Street WWPS will ultimately pump 50 L/s and House No. 54 Melville Parade and No. 4 Bowman Street will be required to consider an ultimate 20m radius odour buffer with any new development.

The Type 10 foreshore WWPS and associated 10m odour buffer in the Mends area will not impact residential development however may impact any redevelopment around the Mends St Jetty area.

The Mill Point Road WWPS has a 10m radius odour buffer which should remain unchanged, provided the density and yields in the catchment are not increased beyond what is planned in the ACP.

## 3.3 Development Considerations

### 3.3.1 Protection of existing assets

Development in the ACP will be high density and it is expected that buildings and infrastructure will be built with minor to nil boundary setbacks.

In such cases, development may necessitate excavations, such as for basements or deep footings, that may compromise the Water Corporation's assets within the road reserve or within private property. This issue is compounded in the ACP area due to the age and material of the existing assets and boundary setbacks.

The *Water Services Act 2012* (Section 90) and the *Water Services Regulations* provide a legal framework and process for protecting existing Water Corporation assets. Water Corporation has a Protection of Assets application process which details the process that should be followed.

Developers are required to protect the Water Corporation's assets during and post construction and will be responsible for liaising with the Water Corporation at the planning stage (prior to building permit stage). Furthermore, developers must ensure that adequate measures are in place during construction to protect the Water Corporation's assets. The cost of any measures to protect or relocate pipes shall be borne by the developer.

### 3.3.2 Developer Funded Works

Developers are to be aware that responsibility for minor reticulation works – including minor upgrades, replacement, or duplications as a direct result of development - are the responsibility of the developer and will be required to be funded by the developer. This includes all associated works such as design and approvals, dewatering, traffic management, reinstatements, service location and protection,

The Water Corporation has indicated that upgrades to their assets would be required (as a minimum) fronting developments and extended to the nearest street intersection. Given this advice is not intended to be prescriptive for each development, individual developers shall confirm the extent of these upgrades with the Water Corporation prior to submission of Development Approval (DA).

The Water Corporation can be contacted at [land.planning@watercorporation.com.au](mailto:land.planning@watercorporation.com.au).

In the absence of a Developer Contribution Scheme facilitated by the City, developers will be directly responsible for the costs of any amendments deemed necessary by the Water Corporation.

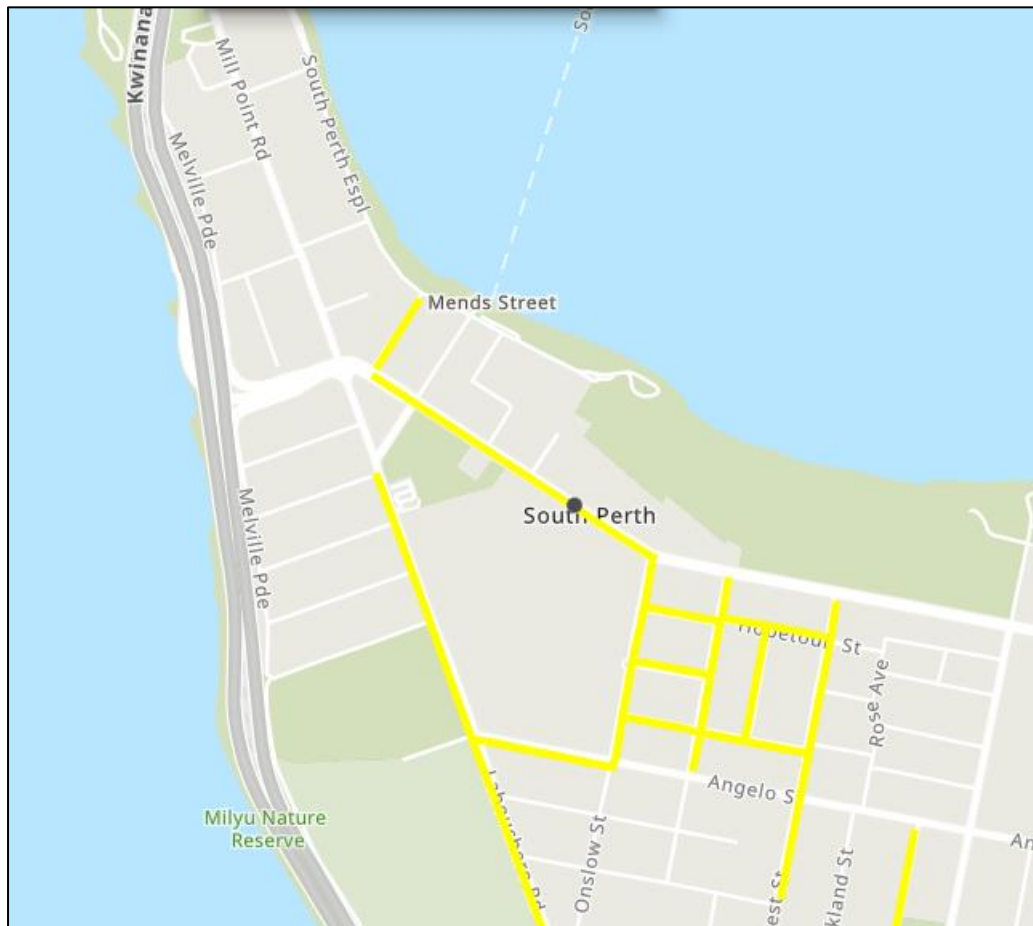
## 4. Water

### 4.1 Existing Infrastructure

The ACP is located within the Water Corporation's South Perth Trunk Main Gravity Zone.

A plan showing the Water Corporation's existing water network has been included as Appendix C.

The Water Corporation has recently completed works to replace aging pipes within the South Perth area, as part of the funded 'Pipes for Perth' project. Figure 9 illustrates the location of these works, noting no further replacement or upgrades works within the ACP are proposed or funded under the 'Pipes for Perth' project.



**Figure 9** Water Corporation 'Pipes for Perth' recently completed upgrade works

### Richardson

The Serpentine Trunk Main (1065mm dia steel main) runs west of Melville Parade, between the Kwinana Freeway reserve. The connection off the trunk main into the ACP is located at Judd Street. This connection provides the main feed for the ACP.

A 200 mm dia PVC main runs from Richardson Street to Judd Street within the eastern verge of Melville Parade.

Charles Street main was upgraded to a 150 mm dia PVC main in 2003.

## Hillside

Lots within the Hillside area are serviced by a 180 polyurethane (PE) offshoot main from a 305 dia steel main located within Mill Point Road, a 150mm dia cast iron (CI) extension within Parker Street, and a 100 mm dia AC/CI main within South Perth Esplanade.

## Mends

Water main upgrades have recently been completed on Labouchere Road, Harper Terrace, Angelo Street and Mill Point Road, as detailed on Figure 9, and the redundant mains have been abandoned in-situ.

## Mill Point

Existing water infrastructure within the Mill Point area has constructed dates ranging from the 1950's to the 1980's, and pipe sizes from 100 mm dia (internal) to 205 mm dia on Melville Parade and Stirling Street.

## 4.2 Proposed Infrastructure

Proposed water infrastructure can be separated into two categories:

- Major Works funded by the Water Corporation
- Minor Works funded by the Developer

Smaller reticulation sized water pipes (less than and equal to 300 mm dia) are funded and constructed by the developer in order to meet the natural growth demands on the reticulation mains required by development.

Within the South Perth area, replacement of an existing main will be required by the Water Corporation where:

- an aging asset is deemed unlikely to support the development for the future, and/or
- the existing main is undersized to cater for the expected level of development.

Where an upgrade is necessary, it is expected that the developer will be required to upgrade the water main for the frontage of their development, at a minimum, and potentially extend the main to the nearest intersection (if not already replaced or upgraded by others).

The extent of these upgrades should be discussed with and confirmed by the Water Corporation prior to submission for Development Approval (DA) for each development.

There are no major works planned in the area based on the Water Corporation's current 5 year capital investment program.

## Richardson

Upgrades to water main infrastructure on Richardson Street, Charles Street, Lyall Street and Bowman Street should be assumed to facilitate high density development, given the size and age of the existing mains.

The 75mm and 90mm dia CI mains will be required to progressively be replaced with a minimum 100 mm dia main, possibly 150 mm dia main depending on the development water demands and fire flow requirements.

## Hillside

Water main upgrades within the Hillside area are not expected, unless necessitated by the hydraulic demands of development (refer to Section 4.3.1).

## Mends

Water main upgrades within Mends Street and along South Perth Esplanade should be assumed to facilitate high density development, given the size and age of the existing mains.



## Mill Point

Given the age of the existing mains, all mains should be assumed to require upgrading or replacement during development.

### 4.3 Development Considerations

#### 4.3.1 Fire Services

Certain buildings will require pressurized fire services, connected to the Water Corporation water network, in order to meet the required building code. Where the fire service size requirement is larger (for example, 150mm dia) than the Water Corporation main to the property (for example, 100mm diameter) then the Water Corporation main will require upgrading to the larger size.

Such requirements should be communicated to the Water Corporation prior to submission of a Development Application. The Water Corporation can then advise the extent of upgrade to the main.

#### 4.3.2 Protection of existing assets

Refer to Section 3.3.1.

#### 4.3.3 Developer Funded Works

Refer to Section 3.3.2.

## 5. Gas

ATCO Gas is the service authority responsible for gas reticulation within the area enclosed by the ACP and the greater South Perth area in general. All gas mains within the road reserve are owned and maintained by ATCO Gas. See

### 5.1 Existing Infrastructure

#### Richardson

Existing gas infrastructure in the Richardson character area is characterised by short lengths of medium pressure (70 kPa) PVC gas mains and an extensive network of medium-low pressure (7 kPa) mains. These mains branch off onto the side streets to service the surrounding lots.

The medium pressure mains are located on Labouchere Road, near the intersection with Mill Point Road and the Kwinana Freeway off-ramp, whilst the medium-low pressure mains are spread throughout the rest of the area. These medium-low pressure mains, typically made of PVC with diameters ranging from 63-155 mm, are responsible for providing gas to most of the Richardson area. It should be noted that there is a 225 mm dia. PE main running down Melville Parade, adjacent to Kwinana Freeway.

Additionally, there are several abandoned gas mains spread throughout the area.

#### Hillside

This area's existing gas infrastructure is also characterised by medium and medium-low pressure PVC gas mains, which similarly branch off into the side streets to service individual lots.

Specifically, lots located in the top half of the Hillside area are serviced by an 80 mm dia. PVC 7 kPa medium low pressure main, off South Perth Esplanade. The lower half of the character area is serviced by a 195 mm dia. PVC MP 70 kPa main off Mill Point Road, narrowing to 80 mm down Darley Street and Parker Street.

Abandoned mains run down all streets enclosed within the area.

#### Mends

The Mends area follows the typical gas reticulation arrangement followed by the other character areas and by other major services.

The main gas main that services this area is a medium pressure main, ranging from 100-195 mm dia. and PVC or PE, which runs down Labouchere Road and diverts onto Mill Point Road from Mends Street. It should be noted however, that there is group of lots located, which are currently not connected to the existing live gas reticulation network, only via abandoned connections.

#### Mill Point

Similarly, as shown above, the area is characterised by medium and medium-low pressure PVC gas mains. These are located under Mill Point Road and South Perth Esplanade and branch off onto the side streets to service the surrounding lots.

Central lots and those on the eastern edge of the area are serviced by an 80-100 mm dia. PVC 7 kPa medium low pressure main, on South Perth Esplanade. The pipe sizing narrows down to 80 mm when servicing Queen Street, and 63 mm dia. PE pipe when servicing Fraser's Lane. Lots on the western edge are serviced by a medium pressure main, down Melville Parade.

Additionally, the area contains several abandoned gas mains scattered throughout the area as usual.

## 5.2 Proposed Infrastructure

Upgrades required due to natural growth of an area, such as infill, are generally funded by ATCO Gas as part of their operation of the network.

ATCO Gas has provided the advice that their existing network should be able to cope relatively well with the anticipated increase in demand, the exception being the area around Harper Terrace, which will require upgrades to meet anticipated demands (see Appendix D). This advice was based on ATCO Gas's annual forecast modelling, which produces a 10-year forecast model.

However, due to a lack of detailed information regarding future developments or a master plan which displays anticipated growth distribution, only high-level advice can be provided. As such, there are a few assumptions and qualifications that should be noted, namely:

- The increase in demand was based off a growth of 809 new dwellings by 2031, as shown in the draft ACP.
- Forecast modelling for loads was only considered up to 2031. There are no forecasts available for any point beyond 2031.
- ATCO Gas's advice was based on an analysis that assumed a uniform distribution of expected loads on existing infrastructure, giving a rough idea of average performance throughout the character areas but doesn't consider variable loads at different locations.
- The forecast was based on the ATCO Gas's current Diversified Unit Load for residential customers, in addition to 25% for commercial customers.

As more detailed information regarding proposed developments becomes available in the future, and as development proceeds, ATCO Gas is willing to update their forecasts and advice accordingly.

## 6. Power

### 6.1 Existing Infrastructure

The proposed redevelopment area is currently serviced by the 11kV Western Power network that is supplied from the 66kV/11kV Clarence Street Zone Substation (Z/S) as per the figure below. All the lots within the redevelopment area are currently serviced with a Low Voltage (LV) supply via mini pillars, uni pillars or direct connections from transformers on the lot with the exception of the Perth Zoo which has a HV metered supply. A vast majority of this area is currently serviced by 2 underground High Voltage (HV) feeders that have a maximum permissible load of 5MVA. However, these feeders are interconnected with other HV feeders from the Clarence Street Zone Substation on the eastern and southern side of the redevelopment area that enables switching of loads and HV Network reconfiguration.

As per the Western Power Annual Report 2020 published in February 2021, the Clarence Street Zone Substation had 43MVA of spare capacity with a utilisation of 51% in 2019 and a forecast utilisation of 56% by 2025.

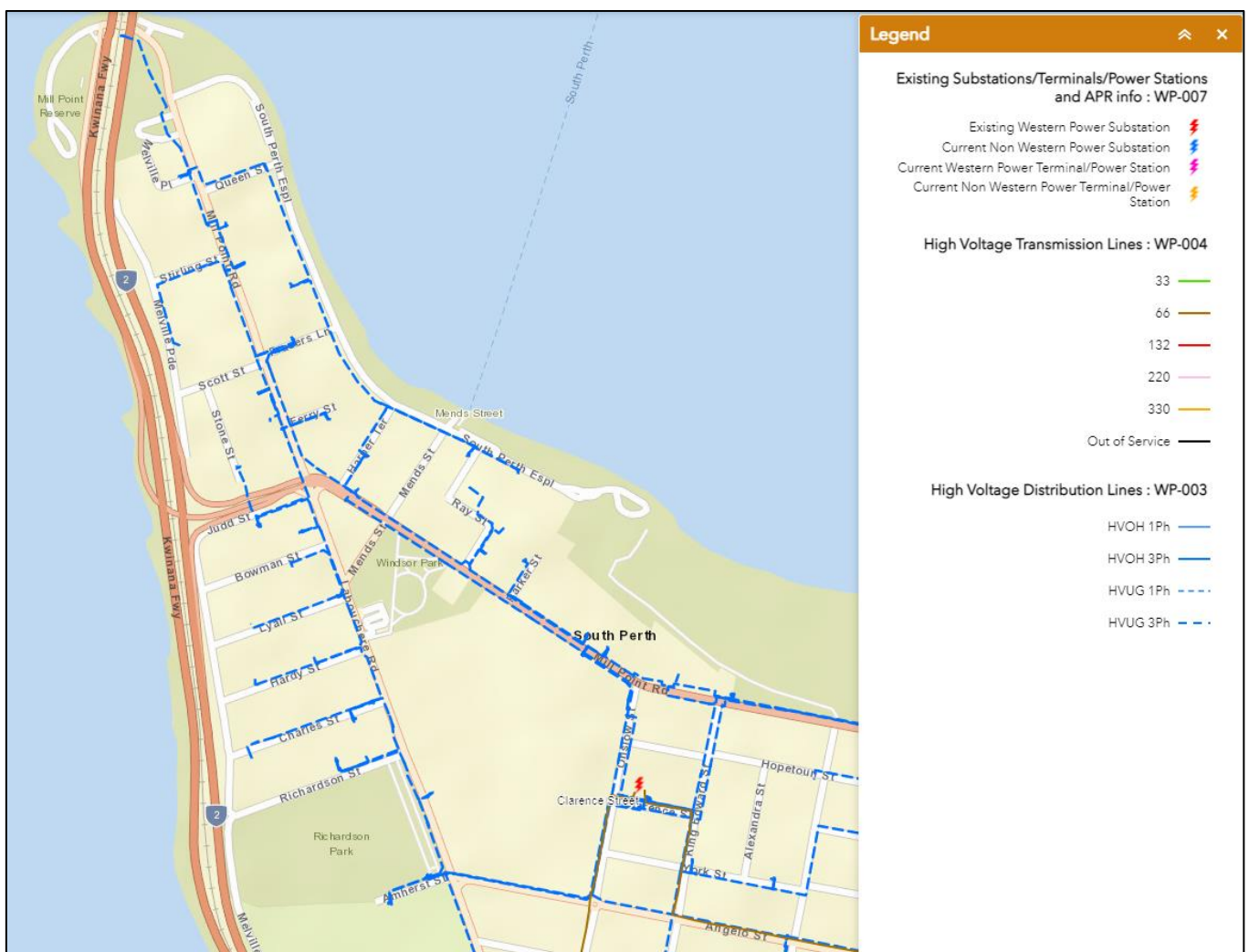


Figure 10 Existing HV Infrastructure

### Richardson

The Richardson area comprises of a mix of residential, low-rise apartment blocks and detached housing as well as small sized commercial properties. As a result, this area has been serviced by a large number of distribution substations with transformers of varying sizes. This area has various distribution substations installed indoors as



well as outdoors with the potential to upgrade the smaller substations if required to provide additional Low Voltage network capacity.

## Hillside

The Hillside area of medium-low rise apartment blocks, townhouses and commercial properties are all serviced with LV Supplies. This area lies in close proximity to the Clarence Street Z/S and has the potential to extend the existing HV feeder servicing the eastern side of Mill Point Road into the redevelopment area.

## Mends

A significant amount of space in the Mends area is taken up by the Perth Zoo, Windsor Park and the Foreshore. However, there are still a reasonable number of distribution substations within the area due to the numerous commercial properties and medium-low rise apartment blocks. Most of the distribution substations in this area seem to be located indoors which may limit their potential to future upgrades due to lack of space within the substation rooms or compounds.

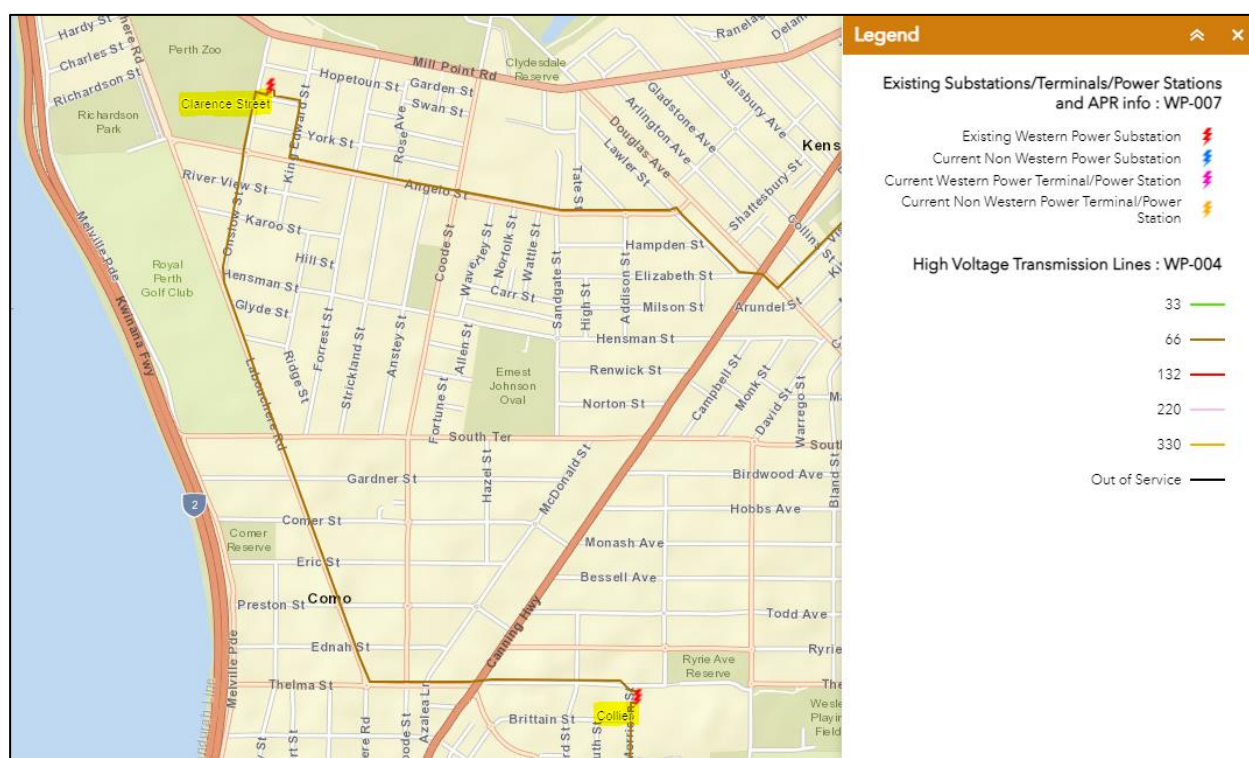
## Mill Point

The Mill Point area has similar land use as Hillside which is mainly used for medium-low rise apartment blocks and townhouses with minimal commercial properties and therefore has similar Western Power assets installed. Like the Mends area, most of the distribution substations in this area also seem to be located indoors.

## 6.2 Proposed Infrastructure

As this redevelopment is a long-term plan and it is still in the early stages, the exact land usage for each of the lots is unknown. Based on previous assessments of this area, the load demand for this redevelopment is estimated to be in the order of 20MVA to 25MVA. It is anticipated that each lot will be developed by private developers who will submit applications to Western Power for new supplies or supply upgrades as required. Due to the long-term nature of the redevelopment, this load increase will be gradual and is likely to be considered as natural load growth by Western Power.

Based on the final load demand, there is sufficient capacity at the Clarence Street Z/S to service this redevelopment, however, the limiting factor is the 5MVA maximum permissible load on each of the HV Feeders. In the initial stages of the redevelopment, the existing HV feeders and transformers can be re-used, however as the demand triggers larger loads through increased developments, at least 2 more HV feeders from the Clarence Street Z/S will be required to effectively service all the lots. As per the Western Power Annual Report 2020, the Collier Z/S located to the south as per the figure below had 69MVA of spare capacity. Some of the loads on the HV feeders that interconnect with the Collier Z/S may be offloaded to create more spare capacity on the HV feeders. Further assessment and network reinforcement/augmentation will need to be assessed by Western Power to determine the suitability of this option.



**Figure 11** Zone Substation Locations

Western Power may be required to upgrade the existing Clarence Street Z/S to enable the connection of additional HV feeders in future, however there are physical limitations for expansion of the existing Clarence Street Z/S site as illustrated in the figure below. Western Power may require an alternate Zone Substation site if an upgrade of the existing site is deemed impractical. This will be assessed in conjunction with Western Power's proposed long-term 66kV retirement strategy in the Cannington Terminal Load area.



**Figure 12** Clarence Street Zone Substation

Due to the dynamic nature of the Western Power network, network connection points, the extent of the network reinforcement and augmentation works are unknown, and will need to be assessed by Western Power on a case-by-case basis as new developments apply for load increases to Western Power.

## Richardson

Depending on final land use of this area, it is likely that the existing distribution substations can be re-used or upgraded to service this area. The new proposed train station to the west of this area will add to the load on the existing HV feeder supplying this area, however, this load is not anticipated to be large enough to significantly limit the HV feeder capacity at this stage.

## Hillside

In the Hillside area, the preference would be to interconnect/extend the existing HV feeder servicing the eastern side of Mill Point Road into the Hillside area, thereby limiting/postponing the need for a new HV feeder.

## Mends

Since the Mends area is intended to be the “cultural and commercial” centre of the activity centre, it is likely that any new developments that cannot use the existing transformers to meet the load demands will need to install an indoor/basement distribution substation that includes a HV switchgear and transformer with contiguous customer connection to limit the visual impact.

## Mill Point

The Mill Point area is the largest section of the redevelopment. If a new feeder is to be installed from the Clarence Street Z/S, it is recommended that it interconnects with the existing HV feeder near the boundary of the Mill Point and Richardson areas to enable a more balanced distribution of loads.

## 6.3 Development Considerations

### 6.3.1 Public/Private Electrical Vehicle Charging Stations

Based on the intended characteristics of the activity centre, the CoSP may choose to install Electrical Vehicle Charging Stations to improve the amenities of the area as well as enhance its accessibility to residents and visitors. It should be noted that the load requirements for charging stations have not been factored into the load assessments, these will increase the overall power demand for the area and the CoSP will likely have ongoing maintenance and electricity costs for public charging stations.

### 6.3.2 Community Batteries Land Allowance

Community batteries can be used to store excess solar power which can be used later during peak times. They can help maintain power reliability and quality while potentially reducing electricity bills. Community batteries may also postpone the need for upgrading of existing infrastructure on the Western Power distribution network.

## 7. Telecommunications

### 7.1 Existing Infrastructure

Telecommunications assets in the area enclosed by the ACP, and the greater South Perth area in general, are owned by Telstra, nbn™ (previously NBN Co), Optus and Vocus. Several telecommunications service providers also operate within the area. All the character areas are located within an existing nbn™ fixed line service area and it is therefore anticipated that they are serviced by nbn™ Fibre to The Node (FTTN) or Fibre to the Premises (FTTP) technology.

The ACP is serviced by the South Perth exchange located on Angelo Street near Coode Street.

#### Richardson

Existing telecommunications infrastructure in the Richardson character area is owned by numerous telecommunications providers such as Vocus, Optus, TPG, Telstra and Nextgen Group, with the majority of assets being held by Telstra. These assets take the form of an extensive network of cable mains, cables, and pits spread throughout the area. See Figure 13 below for an example of extent of the Telstra network in the Richardson area, adjacent to Kwinana Freeway.

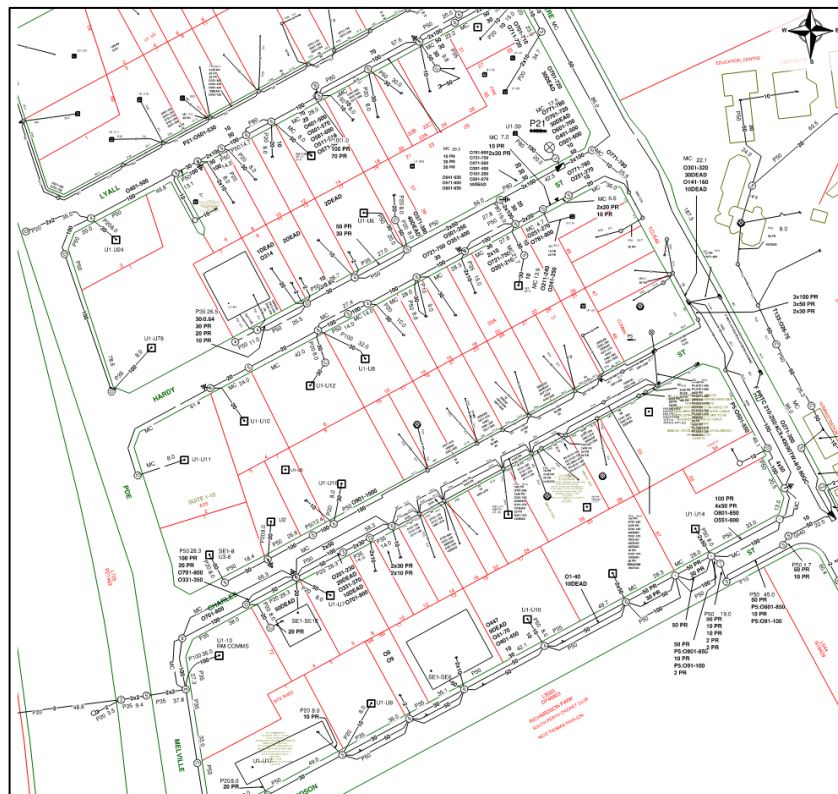


Figure 13 Richardson Area – Telstra Cable Plan

#### Hillside

Unlike the Richardson area, based on DBYD data, the entirety of the Hillside area is serviced by Telstra, as all the pit and cable assets in the area are owned and operated by Telstra. See Figure 14 below for an example of the Telstra network in the Hillside area, near South Perth Esplanade.



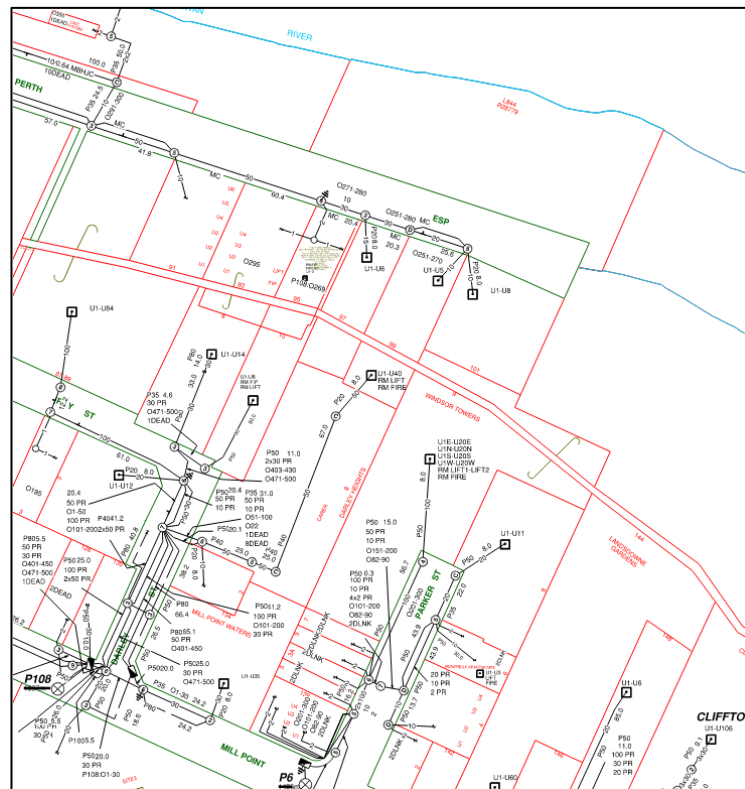


Figure 14 Hillside Area – Telstra Cable Plan

## Mends

The service providers that are operating or have assets within this area are Aussie Broadband, Nextgen Group, Optus, Telstra, TPG and Vocus. Most of these providers have cable mains and pits running down Labouchere Road and Mill Point Road. See Figure 15 below for an example of the Telstra network in the Mends area, near Mill Point Road.

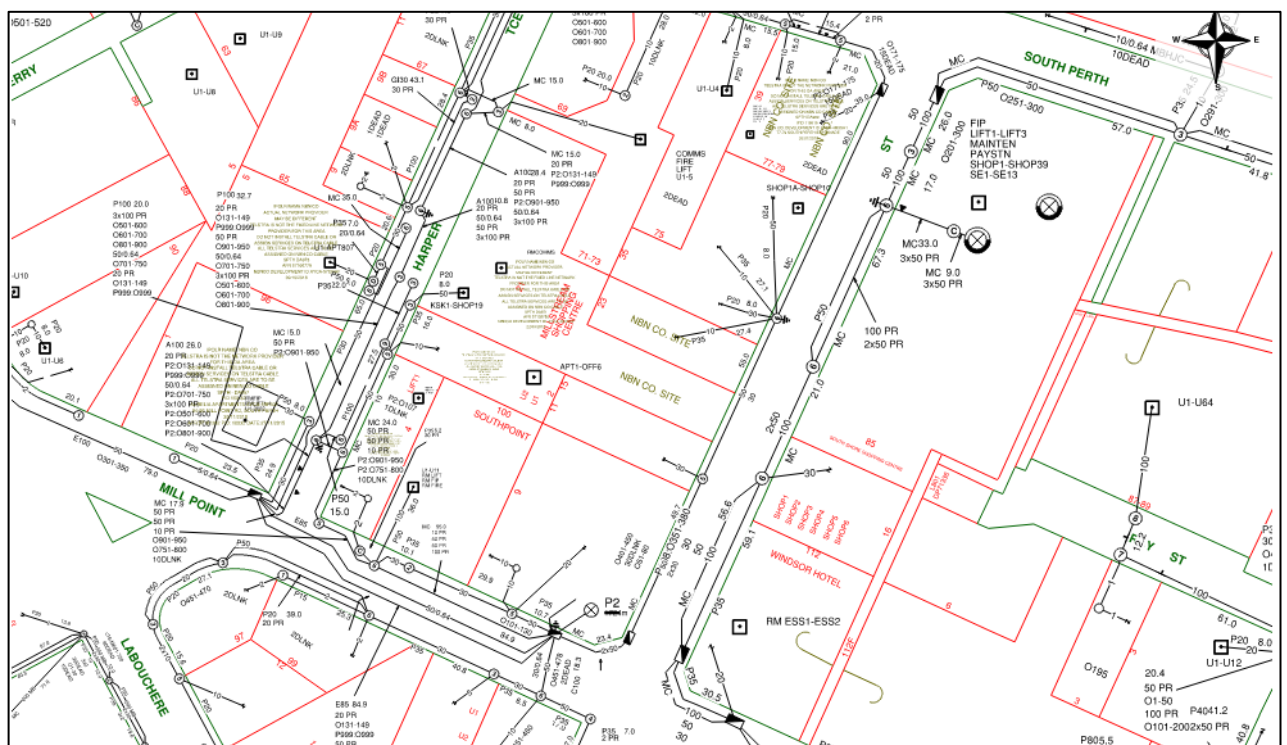


Figure 15 Mends Area – Telstra Cable Plan

## Mill Point

The service providers that are operating or have assets within this area are Aussie Broadband, Nextgen Group, Optus, Telstra, TPG and Vocus. Similarly, to the rest of the character areas, the Mill Point area is situated within an extensive telecommunications network. See Figure 16 below for an example of the Telstra network in the Mill Point area, around Mill Point Road.



Figure 16 Mill Point Area – Telstra Cable Plan

## 7.2 Proposed Infrastructure

Developers are indirectly bound to provide telecommunications to new properties under the Commonwealth Telecommunications Act 1997.

Individual developers can choose a telecommunications carrier to service their developments, there is no prescribed telecommunications requirement and this is up to the lot developer to determine.

The default infrastructure provider for broadband Australia wide is nbn™.

The ACP is identified on nbn™'s rollout map as a 'service available area'. This means that a developer can apply to nbn™ to provide infrastructure to their development, and there is a standard process for this. Should nbn™ be the chosen carrier, the developer is required to install and fund a pit and pipe system to nbn™ requirements (if not already existing) and then transfer ownership of this infrastructure to nbn™ via the execution of a Developer's Agreement in exchange for provision of data infrastructure within that pit and pipe.

Alternatively, individual developers can make arrangements with other providers, such as Opticomm, to provide similar infrastructure.

As all the character areas are already well established and within several existing extensive telecommunications networks with fibre cables, it is anticipated that the existing pit and pipe network will be able support the telecommunications demand of the future population. Previous advice (WGE 2018) highlighted several conduit upgrades may be required however this will be dependent upon the level of development, and may be funded by the chosen service provider.

## 8. References

- *South Perth Activity Centre Plan – Draft for Consultation*, Version 3, Roberts Day, February 2019.
- *Infrastructure Servicing Report – South Perth Train Station Precinct*, Cardno, February 2012.
- *Infrastructure Funding Feasibility Study – South Perth Station Precinct Civil Services Report*, WGE, October 2018.
- *Water Services Act 2012*, Department of Water & Environmental Regulation, September 2012.
- *Water Services Regulations 2013*, Western Australia, November 2013.
- *Technical Guidelines for safely working near Water Corporation assets*, Water Corporation, June 2019.
- *Underground Distribution Schemes Manual*, Western Power, February 2020.
- *South Perth SD065 Conceptual Planning Long Term Scheme*, Water Corporation, June 2019.
- Electronic Submissions Interface (ESInet) database, Water Corporation, accessed July 2021.  
<https://esinet-mw.watercorporation.com.au/myworld/esinet.html>



# Appendices

# Appendix A

## South Perth Activity Centre Plan (ACP)

LE

- MRS Reserve - Freeway
- MRS Reserve - Civic + Cultural
- MRS Reserve - Regional Open Space
- TPS Reserve - Parks and Recreation
- Character Areas & Activity Centre Boundary
- Perth Zoo Boundary
- R-ACO R-CODE
- Other Roads
- Ferry Terminal
- Future Train Station
- Perth Zoo
- Windsor Park
- Landmark Site
- Low Building Typology
- Low - Medium Typology
- Medium Building Typology
- Medium - High Building Typology
- High Building Typology



# Appendix B

## Water Corporation Wastewater Principal Assets Plan



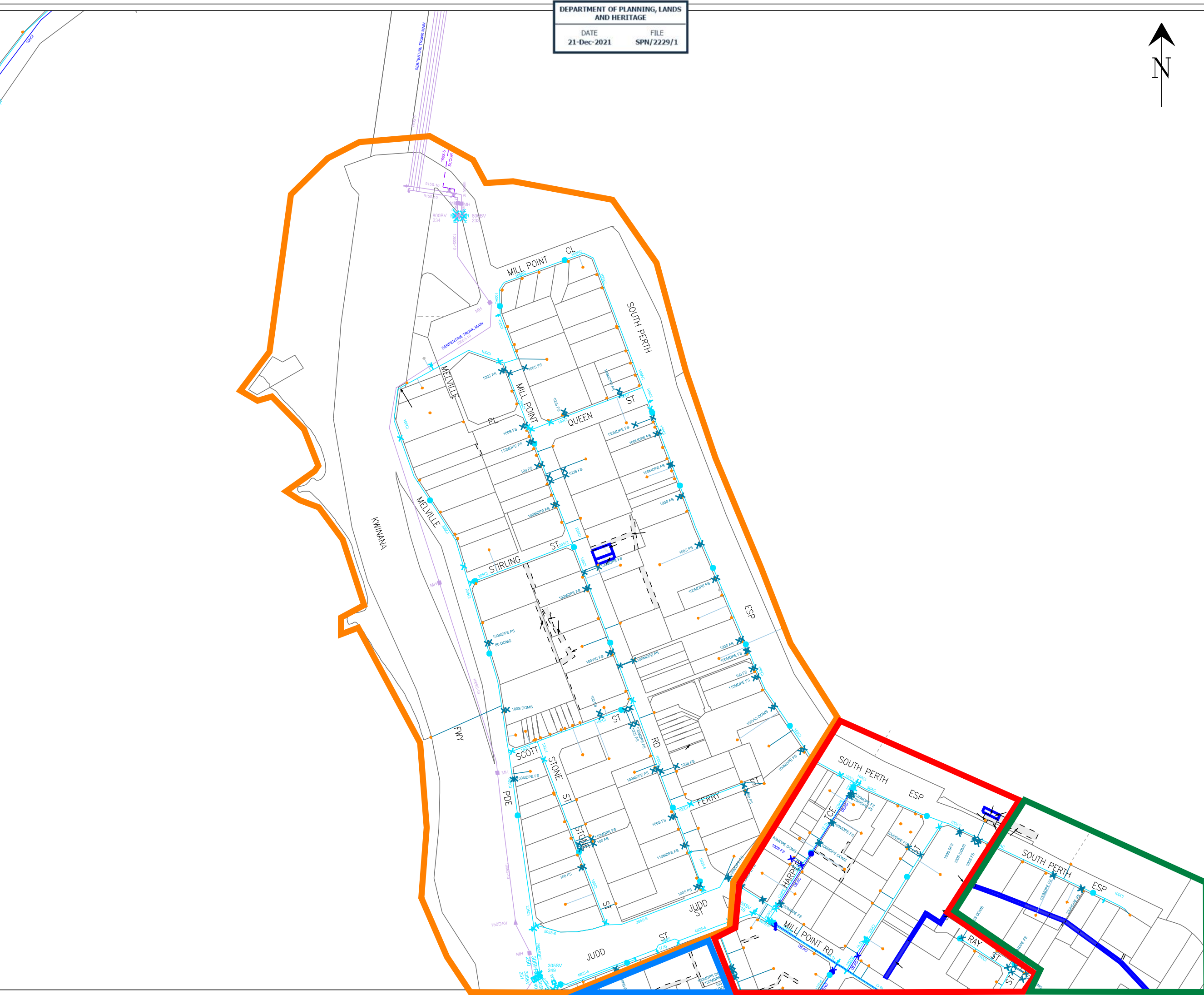
COPIER M.S.

SOUTH PERTH PS 1  
GOSS AVE

APPLECROSS PS 1  
CANNING BEACH RD

# Appendix C

## Water Corporation Existing Water Network Plan



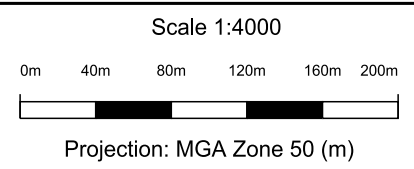
- Legend
- Road Casement,Lodged Location - S- surveyed
  - Parcel Edge,Lodged Location - G- grouped
  - Parcel Edge,Lodged Location - S- surveyed
  - Land Matter Boundary,Boundary
  - Land Matter Coverage,Coverage
  - Land Matter Coverage,Coverage - 10
  - Land Leader Line,Leader Line
  - Water Scour Fitting,Location (Dist) - Dist
  - Water Access Chamber,Location (Trans) - Manhole
  - Water Casing,Route (In Use)
  - Water Fitting,Location (Dist Out Of Use) - Change Point
  - Water Fitting,Location (Dist) - Dead Plate
  - Water Fitting,Location (Dist) - Connector
  - Water Fitting,Location (Dist) - Change Point
  - Water Fitting,Location (Serv Out Of Use) - Connector
  - Water Fitting,Location (Serv) - Connector
  - Water Fitting,Location (Trans) - Double Air Valve
  - Water Fitting,Location (Trans) - Dead Plate
  - Water Fitting,Location (Trans) - Connector
  - Water Fitting,Location (Trans) - Change Point
  - Water Hydrant,Location (Dist Out Of Use) - Hydrant
  - Water Hydrant,Location (Dist) - Hydrant
  - Water Pipe,Route (Dist Out Of Use) - Potable - Water Corporation
  - Water Pipe,Route (Dist) - Potable - Water Corporation
  - Water Pipe,Route (Serv Design) - Potable - Water Corporation
  - Water Pipe,Route (Serv Out Of Use) - Potable - Water Corporation
  - Water Pipe,Route (Serv) - Potable - Water Corporation
  - Water Pipe,Route (Trans) - Potable - Water Corporation
  - Water Pipe,Route (Trans) - Raw Water
  - Water Valve,Location (Dist Out Of Use) - Open
  - Water Valve,Location (Dist) - Open
  - Water Valve,Location (Serv Out Of Use) - Open
  - Water Valve,Location (Serv) - Open
  - Water Valve,Location (Trans) - Open
  - Water Pressure Reducing Valve,Location (Dist) - Dist
  - Water Sample Point,Location (Dist) - Dist
  - Service Point Location,Location (Serv Out Of Use) - Active
  - Service Point Location,Location (Serv) - Active
  - Service Point Location,Location (Serv) - Inactive

\*ACP character areas shown indicatively for reference

- RICHARDSON
- HILLSIDE
- MENDS
- MILL POINT

Title:

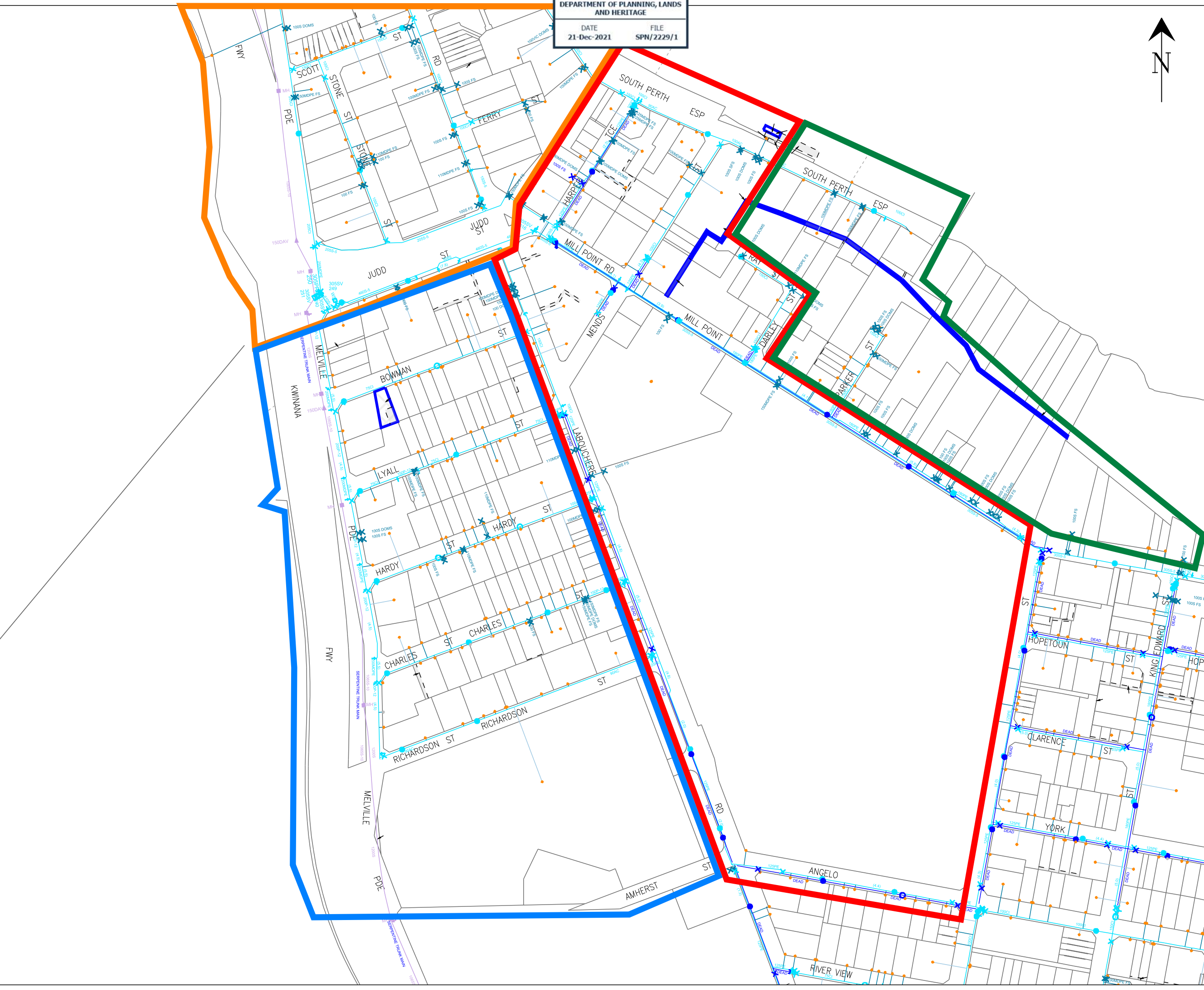
Print Date: 18/06/2021 09:13:24



The Water Corporation has taken due care in the preparation of data comprised on this map but accepts no responsibility for any inaccuracy of facility, cadastral or other information provided nor inappropriate use of this information. The user is reminded that under no circumstances can the information herewith displayed be copied, altered, modified or otherwise published in any form including the Internet without express permission of the Water Corporation. Prior to carrying out any physical activities in proximity to facilities displayed on this map the Water Corporation should be contacted on 13 13 95. Any inaccuracies found with information contained on this map should be advised to Asset Registration on (08) 9420 2069 or Email [asset.registration@watercorporation.com.au](mailto:asset.registration@watercorporation.com.au)

© Copyright 2005 Water Corporation





DEPARTMENT OF PLANNING, LANDS  
AND HERITAGE

DATE	FILE
21-Dec-2021	SPN/2229/1



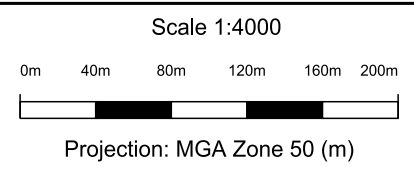
- Legend**
- Road Casement, Lodged Location - S- surveyed
  - - - Parcel Edge, Lodged Location - G- grouped
  - - - Parcel Edge, Lodged Location - S- surveyed
  - - - Land Matter Boundary, Boundary
  - - - Land Matter Coverage, Coverage
  - - - Land Matter Coverage, Coverage - 10
  - - - Land Leader Line, Leader Line
  - Water Access Chamber, Location (Trans) - Manhole
  - Water Fitting, Location (Dist Out Of Use) - Dead Plate
  - Water Fitting, Location (Dist Out Of Use) - Connector
  - Water Fitting, Location (Dist Out Of Use) - Change Point
  - Water Fitting, Location (Dist) - Dead Plate
  - Water Fitting, Location (Dist) - Connector
  - Water Fitting, Location (Dist) - Change Point
  - Water Fitting, Location (Serv Design) - Change Point
  - Water Fitting, Location (Serv Out Of Use) - Connector
  - Water Fitting, Location (Serv) - Connector
  - Water Fitting, Location (Serv) - Change Point
  - Water Fitting, Location (Trans) - Double Air Valve
  - Water Fitting, Location (Trans) - Change Point
  - Water Hydrant, Location (Dist Out Of Use) - Hydrant
  - Water Hydrant, Location (Dist Out Of Use) - Hydrant Tee
  - Water Hydrant, Location (Dist) - Hydrant
  - Water Hydrant, Location (Dist) - Hydrant Tee
  - Water Pipe, Route (Dist Out Of Use) - Potable - Water Corporation
  - Water Pipe, Route (Dist) - Potable - Water Corporation
  - Water Pipe, Route (Dist) - Potable - Water Corporation
  - Water Pipe, Route (Serv Design) - Potable - Water Corporation
  - Water Pipe, Route (Serv Out Of Use) - Potable - Water Corporation
  - Water Pipe, Route (Serv) - Potable - Water Corporation
  - Water Pipe, Route (Trans) - Potable - Water Corporation
  - Water Valve, Location (Dist Out Of Use) - Open
  - Water Valve, Location (Dist) - Open
  - Water Valve, Location (Serv Out Of Use) - Open
  - Water Valve, Location (Serv) - Open
  - Water Pressure Reducing Valve, Location (Dist) - Dist
  - Water Sample Point, Location (Dist) - Dist
  - Service Point, Location, Location (Serv Out Of Use) - Active
  - Service Point, Location, Location (Serv) - Active
  - Service Point, Location, Location (Serv) - Inactive

\*ACP character areas shown indicatively for reference

- RICHARDSON
- HILLSIDE
- MENDS
- MILL POINT

Title:

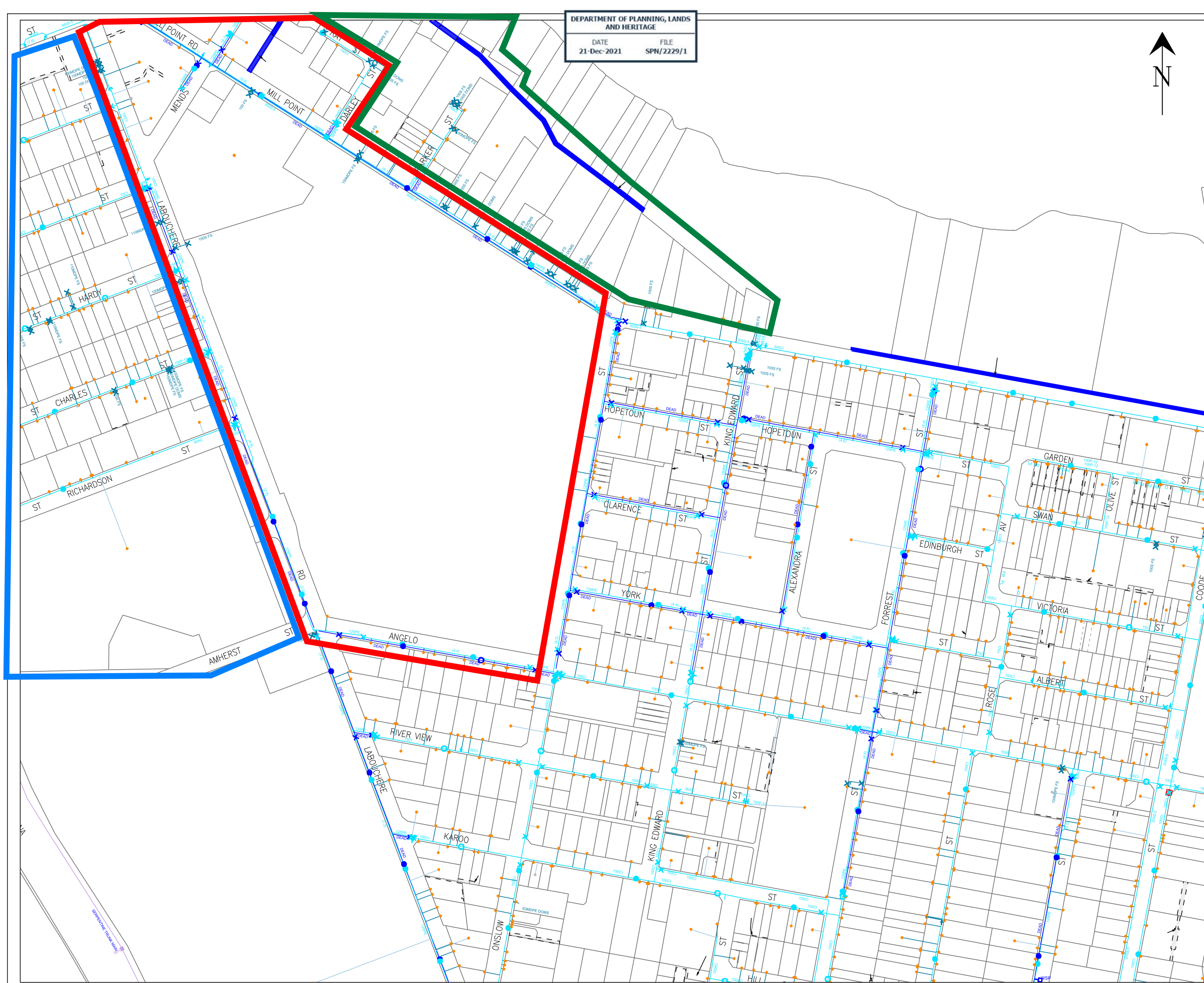
Print Date: 18/06/2021 09:12:26



The Water Corporation has taken due care in the preparation of data comprised on this map but accepts no responsibility for any inaccuracy of facility, cadastral or other information provided nor inappropriate use of this information. The user is reminded that under no circumstances can the information herewith displayed be copied, altered, modified or otherwise published in any form including the Internet without express permission of the Water Corporation. Prior to carrying out any physical activities in proximity to facilities displayed on this map the Water Corporation should be contacted on 13 13 95. Any inaccuracies found with information contained on this map should be advised to Asset Registration on (08) 9420 2069 or Email [asset.registration@watercorporation.com.au](mailto:asset.registration@watercorporation.com.au)

© Copyright 2005 Water Corporation





DEPARTMENT OF PLANNING, LANDS  
AND HERITAGE

DATE	FILE
21-Dec-2021	SPN/2229/1

- Legend**
- Road Casement, Lodged Location - S- surveyed
  - - - Parcel Edge, Lodged Location - G- grouped
  - - - Parcel Edge, Lodged Location - S- surveyed
  - - - Land Matter Boundary, Boundary
  - - - Land Matter Coverage, Coverage
  - - - Land Matter Coverage, Coverage - 10
  - Land Leader Line, Leader Line
  - Water Access Chamber, Location (Trans) - Manhole
  - Water Fitting, Location (Dist Out Of Use) - Dead Plate
  - Water Fitting, Location (Dist Out Of Use) - Connector
  - Water Fitting, Location (Dist Out Of Use) - Change Point
  - Water Fitting, Location (Dist) - Dead Plate
  - Water Fitting, Location (Dist) - Connector
  - Water Fitting, Location (Dist) - Change Point
  - Water Fitting, Location (Serv Design) - Change Point
  - Water Fitting, Location (Serv) - Connector
  - Water Fitting, Location (Serv) - Change Point
  - Water Hydrant, Location (Dist Out Of Use) - Hydrant
  - Water Hydrant, Location (Dist Out Of Use) - Hydrant Tee
  - Water Hydrant, Location (Dist) - Hydrant
  - Water Hydrant, Location (Dist) - Hydrant Tee
  - Water Pipe, Route (Dist Out Of Use) - Potable - Water Corporation
  - Water Pipe, Route (Dist) - Potable - Water Corporation
  - Water Pipe, Route (Dist) - Potable - Water Corporation
  - Water Pipe, Route (Serv Design) - Potable - Water Corporation
  - Water Pipe, Route (Serv) - Potable - Water Corporation
  - Water Pipe, Route (Trans) - Potable - Water Corporation
  - Water Valve, Location (Dist Out Of Use) - Open
  - Water Valve, Location (Dist Out Of Use) - Closed
  - Water Valve, Location (Dist) - Open
  - Water Valve, Location (Serv) - Open
  - Water Sample Point, Location (Dist Out Of Use) - Dist Out of Use
  - Service Point Location, Location (Serv Out of Use) - Active
  - Service Point Location, Location (Serv) - Active
  - Service Point Location, Location (Serv) - Inactive

\*ACP character areas shown indicatively for reference

- █ RICHARDSON
- █ HILLSIDE
- █ MENDS
- █ MILL POINT

Title:

Print Date: 18/06/2021 09:11:38

Scale 1:4000

0m 40m 80m 120m 160m 200m

Projection: MGA Zone 50 (m)

The Water Corporation has taken due care in the preparation of data comprised on this map but accepts no responsibility for any inaccuracy of facility, cadastral or other information provided nor inappropriate use of this information. The user is reminded that under no circumstances can the information herewith displayed be copied, altered, modified or otherwise published in any form including the Internet without express permission of the Water Corporation. Prior to carrying out any physical activities in proximity to facilities displayed on this map the Water Corporation should be contacted on 13 13 95. Any inaccuracies found with information contained on this map should be advised to Asset Registration on (08) 9420 2069 or Email [asset.registration@watercorporation.com.au](mailto:asset.registration@watercorporation.com.au)

© Copyright 2005 Water Corporation

# Appendix D

**Liaison with ATCO Gas**

**Louise Johnson**

---

**From:** Gaafar, Mansour <Mansour.Gaafar@atco.com>  
**Sent:** Wednesday, 14 July 2021 8:43 AM  
**To:** Anthony Dang  
**Cc:** Asset Services; Louise Johnson  
**Subject:** RE: Request for Planning Info - CoSP Activity Centre Plan  
**Attachments:** Draft\_South\_Perth\_Activity\_Centre\_Plan\_February\_2019.pdf; South of Perth ACP.pdf

**OperatingCentre:** 61  
**JobNo:** 12550624  
**CompleteRepository:** 12550624  
**RepoEmail:** 12550624@ghd.com  
**Description:** CoSP - South Perth Activity Centre Plan - EAR, LWMS & CSR  
**RepoType:** Project

Hi Anthony,

Good morning!

Thanks for your email yesterday and for bearing with us for few days till we look further into this. As discussed, we do have gas infrastructure in place in South of Perth, and as part of our annual modelling we produce a 10 years forecast models based on growth expectations in WA estimated by different agencies. So every year we have some visibility for 10 years ahead, but not beyond. Based on the figures quoted in draft plan provided by GHD, copy attached, of an expected growth of about 809 new dwellings by 2031, it appears that our existing infrastructure should couple relatively well with their expected loads, with the exception of the area around Harper Terrace. Please note below assumptions taken into considerations,

- Only loads up to 2031 were taken into considerations, we have no forecasts beyond 2031 at the moment,
- This analysis was based on a uniform distribution of the expected load on our existing infrastructure, which may give a rough idea about the overall performance in the area, but will not account for a relatively high load required at a specified location,
- The forecast was based on our current Diversified Unit Load for residential customers in addition to 25% of the load for commercial customers,

From my understanding GHD and City Council do not currently have some kind of masterplan forecasting where the expected growth is distributed across the area, and I am assuming that at this point you are seeking an overview about the ability of different infrastructure to couple with demands that may happen over the coming 10-20 years. We are happy to work with you as more information becomes available in updating our forecasts.

I have attached an overview drawing showing our existing infrastructure in the subject area for your reference, however, I believe you might be able to access more information about our infrastructure through SLIP.

Please let me know if you have any queries.

Kind regards,

**Mansour Gaafar**

Asset Management Engineer  
 ATCO, Gas Division, Australia

**P.** +61 8 6163 5432 **M.** +61 432 611 926  
**A.** 81 Prinsep Road, Jandakot, Western Australia, 6164

**From:** Anthony Dang <Anthony.Dang@ghd.com>  
**Sent:** Monday, 5 July 2021 7:36 PM  
**To:** Gaafar, Mansour <Mansour.Gaafar@atco.com>  
**Cc:** Asset Services <Asset.Services@atco.com>; Louise Johnson <Louise.Johnson@ghd.com>  
**Subject:** RE: Request for Planning Info - CoSP Activity Centre Plan

**\*\*Caution – This email is from an external source. If you are concerned about this message, please forward it to [spam@atco.com](mailto:spam@atco.com) for analysis.\*\***

Hi Mansour,

Thanks for responding to my call earlier today.

We are looking for any information on any planned upgrades to the gas network, which would help us put together our civil servicing report for the CoSP.

From what you mentioned earlier, I understand that the network generally should be able to cater for the proposed increase in population/number of dwellings that was predicted by the Draft ACP, based on ATCOs modelling of the network up until 2031.

If you could confirm this advice from ATCO, in written form by replying to this email, then that would be much appreciated.

Additionally, if you have any information on any specific areas of note within the network, such as points where the network may be weaker or struggle to cope with the increased demand, then that would also be much appreciated. However, I understand that as we do not have any information on specific developments, and can't provide much else, this may not be possible for you.

I look forward to hearing from you soon, and if you have any questions, please feel free to contact me.

Kind regards,

**Anthony Dang**  
 Graduate Civil Engineer – Roads & Civil Infrastructure

**GHD**  
 Proudly employee owned | [ghd.com](http://ghd.com)  
 999 Hay Street Perth WA 6000 Australia  
 D 61 8 6222 8412 M +61 413 467 081 E [anthony.dang@ghd.com](mailto:anthony.dang@ghd.com)

➔ **The Power of Commitment**

Connect



Please consider the environment before printing this email

**From:** Gaafar, Mansour <[Mansour.Gaafar@atco.com](mailto:Mansour.Gaafar@atco.com)>  
**Sent:** Friday, 2 July 2021 10:46 AM  
**To:** Anthony Dang <[Anthony.Dang@ghd.com](mailto:Anthony.Dang@ghd.com)>  
**Cc:** See, Mabel <[Mabel.See@atco.com](mailto:Mabel.See@atco.com)>; Asset Services <[Asset.Services@atco.com](mailto:Asset.Services@atco.com)>  
**Subject:** RE: Request for Planning Info - CoSP Activity Centre Plan

You don't often get email from [mansour.gaafar@atco.com](mailto:mansour.gaafar@atco.com). [Learn why this is important](#)

Hi Anthony,

Good morning.

Thanks for your email below and for sharing the information with us. I tried giving you a call to have a chat about the plan and how we can best be of help.



I will appreciate if you could give me a call back at your convenience on the below number.

Kind regard,

**Mansour Gaafar**

Asset Management Engineer  
ATCO, Gas Division, Australia

**P.** +61 8 6163 5432 **M.** +61 432 611 926

**A.** 81 Prinsep Road, Jandakot, Western Australia, 6164

---

**From:** See, Mabel <[Mabel.See@atco.com](mailto:Mabel.See@atco.com)>  
**Sent:** Tuesday, 29 June 2021 8:48 AM  
**To:** Asset Services <[Asset.Services@atco.com](mailto:Asset.Services@atco.com)>  
**Subject:** FW: Request for Planning Info - CoSP Activity Centre Plan

**Mabel See**

Senior Asset Planning Engineer  
ATCO, Gas Division, Australia

**P.** +61 8 6163 5042

ATCO acknowledges Aboriginal people as the Traditional Custodians of country throughout Australia including Torres Strait Islander peoples.

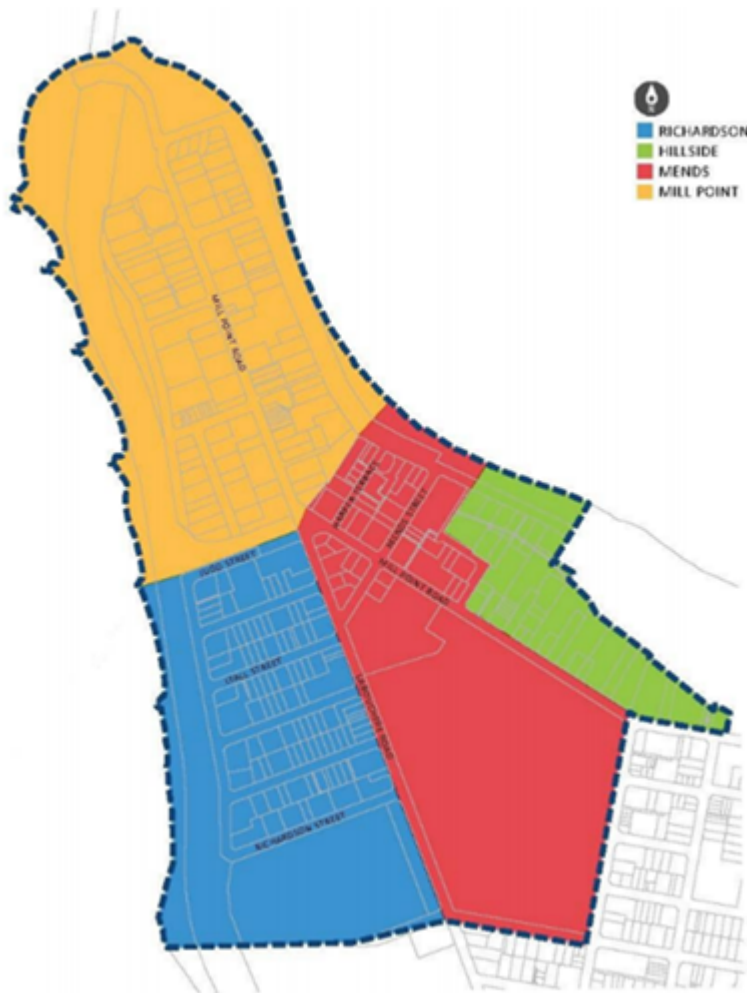
---

**From:** Anthony Dang <[Anthony.Dang@ghd.com](mailto:Anthony.Dang@ghd.com)>  
**Sent:** Tuesday, 22 June 2021 5:20 PM  
**To:** [assets.services@atco.com](mailto:assets.services@atco.com)  
**Cc:** Louise Johnson <[Louise.Johnson@ghd.com](mailto:Louise.Johnson@ghd.com)>; See, Mabel <[Mabel.See@atco.com](mailto:Mabel.See@atco.com)>  
**Subject:** Request for Planning Info - CoSP Activity Centre Plan

**\*\*Caution – This email is from an external source. If you are concerned about this message, please forward it to [spam@atco.com](mailto:spam@atco.com) for analysis.\*\***

Hi ATCO Assets Team,

This email is just to request planning information for the gas reticulation network in an extensive area in South Perth, see image below.



GHD has been engaged by the City of South Perth to prepare a civil servicing report, which is intended to support the City's recent South Perth Activity Centre Plan (ACP) submission to the West Australian Planning Commission (WAPC). Our report's scope aims to do this by showing what level of the proposed developments, detailed in the ACP, can be supported with existing infrastructure and how it can be supported via upgrades etc. I have attached the City's Draft Activity Centre Plan for reference.

I expect that you will need additional information to sort out the extent of the study area and the level of information we need, so please feel free to contact me to discuss further.

Thanks in advance,

**Anthony Dang**  
Graduate Civil Engineer – Roads & Civil Infrastructure

**GHD**  
Proudly employee owned | [ghd.com](http://ghd.com)  
999 Hay Street Perth WA 6000 Australia  
D 61 8 6222 8412 M +61 413 467 081 E [anthony.dang@ghd.com](mailto:anthony.dang@ghd.com)

➔ **The Power of Commitment**

Connect



Please consider the environment before printing this email

**CONFIDENTIALITY NOTICE:** This email, including any attachments, is confidential and may be privileged. If you are not the intended recipient please notify the sender immediately, and please delete it; you should not copy it or use it for any purpose or disclose its contents to any other person. GHD and its affiliates reserve the right to monitor and modify all email communications through their networks.





DEPARTMENT OF PLANNING, LANDS AND HERITAGE	
DATE	FILE
21-Dec-2021	SPN/2229/1





# APPENDIX 5

## LOCAL WATER MANAGEMENT STRATEGY



# South Perth Activity Centre Plan

## Local Water Management Strategy

City of South Perth

09 September 2021

# GHD Pty Ltd | ABN 39 008 488 373


999 Hay Street, Level 10

Perth, Western Australia 6000, Australia

T +61 8 6222 8222 | F +61 8 6222 8555 | E [permail@ghd.com](mailto:permail@ghd.com) | [ghd.com](http://ghd.com)

Printed date	9/09/2021 10:46:00 AM
Last saved date	09 September 2021
File name	<a href="https://projectsportal.ghd.com/sites/pp18_02/cospsouthperthactivi/ProjectDocs/12550624-REP-South Perth Activity Centre_LWMS.docx">https://projectsportal.ghd.com/sites/pp18_02/cospsouthperthactivi/ProjectDocs/12550624-REP-South Perth Activity Centre_LWMS.docx</a>
Author	Kelsey Hunt
Project manager	Louise Johnson
Client name	City of South Perth
Project name	CoSP - South Perth Activity Centre Plan - EAR, LWMS & CSR
Document title	South Perth Activity Centre Plan   Local Water Management Strategy
Revision version	Rev 0
Project number	12550624

## Document status

Status Code	Revision	Author	Reviewer		Approved for issue		
			Name	Signature	Name	Signature	Date
DRAFT	A	K Hunt	N Deeks		G Hendrie	On file	11/08/2021
FINAL	0	K Hunt	N Deeks		G Hendrie		09/09/2021

© GHD 2021

This document is and shall remain the property of GHD. The document may only be used for the purpose for which it was commissioned and in accordance with the Terms of Engagement for the commission. Unauthorised use of this document in any form whatsoever is prohibited.



# Executive summary

This local water management strategy (LWMS) has been prepared to support the South Perth Activity Centre Plan (ACP) area. The South Perth ACP was developed to guide future growth within the South Perth Activity Centre.

The ACP area is largely developed, with redevelopment likely to occur in an incremental manner over time. Planning for the ACP aims to ensure that future development supports and builds upon the existing character of the area, while accommodating a diversity of land uses and dwelling typologies throughout the ACP area.

The South Perth ACP LWMS proposes a total water cycle approach to sustainably manage water resources within the ACP, and proposes the following key water management objectives:

- Optimise potable and non-potable water use efficiencies and maximise water reuse wherever possible.
- Where redevelopment occurs improve water quality through retrofit of local drainage infrastructure using water sensitive design principles, while maintaining flood protection and conveyance capacity of the drainage system.
- Revitalise urban areas with regard to local environmental and heritage values and future climate, through provision of green space corridors.
- Implement waterwise garden practices across all open space areas, including sustainable irrigation practices.

This LWMS identifies further water management principles, design criteria and development requirements to meet the above management objectives with regard to existing site conditions, and key aspects of the redevelopment.

The ACP is serviced by an extensive network of existing services including scheme and wastewater, and existing local street drainage.

Key site characteristics that inform water management in the ACP include its location on a peninsula bounded by the Swan River, with climate change and resulting sea level rise predicted to result in an increased risk of flooding within the ACP. Shallow depth to groundwater also occurs across the majority of the ACP. These key characteristics will need to be considered during development planning, design and construction.

This report is subject to, and must be read in conjunction with, the limitations set out in section 1.2 and the assumptions and qualifications contained throughout the Report.

# Contents

<b>1.</b>	<b>Introduction</b>	<b>1</b>
1.1	Purpose of this report	1
1.2	Scope and limitations	1
1.3	Assumptions	1
1.4	Planning background	1
1.4.1	State planning and guidance	2
1.4.1.1	State Planning Policy 4.2 Activity Centres for Perth and Peel	2
1.4.1.2	Waterwise Perth Action Plan	3
1.4.1.3	Swan and Canning Rivers Management Act 2006	3
1.4.2	City of South Perth planning, policy, and guidelines	3
1.4.2.1	City of South Perth Town Planning Scheme	3
1.4.2.2	Water Management Plan	4
1.4.2.3	Public Open Space Strategy	5
1.4.2.4	Green Plan	5
1.4.2.5	South Perth Activity Centre Landscape Design Guidelines	6
1.4.2.6	Council policies	6
1.4.3	Previous studies relevant to the ACP	6
1.4.3.1	Integrated Catchment Management Plan	6
1.4.3.2	South Perth Stormwater Management Plan	7
1.4.3.3	BMT Flood Study	7
<b>2.</b>	<b>Proposed development</b>	<b>9</b>
2.1	The ACP	9
2.2	Existing land use and infrastructure	10
2.3	Planning	10
2.4	Key elements of the proposed development	11
<b>3.</b>	<b>Existing site characteristics</b>	<b>13</b>
3.1	Climate	13
3.2	Topography and geology	13
3.2.1	Topography	13
3.2.2	Soils	13
3.2.3	Acid sulfate soils	14
3.3	Contaminated sites	15
3.4	Flora and fauna	15
3.4.1	Threatened ecological communities	15
3.4.2	Fauna	16
3.5	Environmentally sensitive areas	16
3.5.1	DWER Environmentally Sensitive Areas	16
3.5.2	Groundwater dependent ecosystems	16
3.6	Reserves	16
3.7	Heritage	17
3.7.1	Aboriginal heritage	17
3.7.2	European heritage	18
3.8	Surface water	18
3.8.1	Catchments	18
3.8.2	Stormwater and drainage	18
3.8.3	Flood mapping and management area	19
3.8.4	Waterbodies and wetlands	20

3.8.5	Surface water quality	20
3.9	Groundwater	21
3.9.1	Licensed groundwater allocation	21
3.9.2	Groundwater level	21
3.9.3	Groundwater quality	22
3.10	Water infrastructure	22
3.10.1	Potable water supply	22
3.10.1.1	Existing infrastructure	22
3.10.1.2	Proposed Infrastructure	22
3.10.2	Non-potable water supply	23
3.10.3	Wastewater services	23
3.10.3.1	Existing Infrastructure	23
3.10.3.2	Proposed Infrastructure	23
<b>4.</b>	<b>Water management strategy</b>	<b>24</b>
4.1	Water conservation	24
4.1.1	Potable water targets	24
4.1.2	Sustainable water use	24
4.2	Stormwater management	25
4.2.1	Local drainage infrastructure	25
4.2.2	Lot drainage	25
4.2.3	Flood management	26
4.3	Water sensitive urban design	26
4.4	Groundwater management	29
4.4.1	Pre-construction	29
4.4.1.1	Planning	29
4.4.1.2	Design	29
4.4.1.3	Site investigations	30
4.4.2	Construction	31
4.4.3	Post-construction	32
4.4.4	Groundwater quality	32
<b>5.</b>	<b>Implementation</b>	<b>33</b>
5.1	Requirements for future planning and development	33
5.1.1	Development application	33
5.1.2	Pre-construction	33
5.1.3	Construction management	33
5.2	Review	34
<b>6.</b>	<b>References</b>	<b>35</b>

## Table index

Table 1.1	SPP 4.2 planning considerations for water management	2
Table 1.2	Water Management Plan 2017-2022, Water management goals and priority areas	4
Table 1.3	Water Management Plan 2017-2022, Examples of Water Actions and Outcomes	4
Table 1.4	City of South Perth Policies relevant to local water management	6
Table 1.5	Summary of Water Technology (2018) results and recommendations	7
Table 3.2	Registered Aboriginal heritage sites within or adjacent Site boundary (DPLH 2021)	17
Table 3.3	Swan Canning River System short and long term nutrient targets (DBCA 2021)	21
Table 3.4	Groundwater abstraction licences	21

Table 4.2	Pre-development stage groundwater management site investigation and management plans	30
Table 4.3	Dewater disposal options	31

## Figure index

Figure 1.1	Framework for integrating water planning with land planning	2
Figure 2.1	South Perth Activity Centre Structure Plan area and boundary (Roberts Day 2019)	9
Figure 2.2	Swan and Canning River Development Control Area (DBCA-028)	10
Table 3.1	Mean rainfall for Perth Metro	13
Figure 3.1	Soil landscape mapping (DPRID-076)	14
Figure 3.2	ASS risk mapping (DWER-055)	15
Figure 3.3	Location of registered Aboriginal heritage sites	17
Figure 3.4	State Register Places (DPLH-006)	18
Figure 3.5	DWER FPM 1 in 100 (1%) AEP Floodplain Development Control Area (DWER-003)	20
Figure 4.1	Water sensitive urban design examples	27
Table 4.1	Best practice water sensitive urban design measures	28
Figure E.1	DWER FPM Extent of Flooding mapping (DWER-017)	47
Figure E.2	DWER FPM Floodplain Area mapping (DWER-020)	48

## Appendices

Appendix A	South Perth Activity Centre Plan
Appendix B	ACP Conservation significant flora and fauna
Appendix C	City of South Perth (2004) Integrated Catchment Management Plan
Appendix D	Water Technology Stormwater Modelling
Appendix E	DWER Flood Mapping
Appendix F	South Perth ACP WSUD opportunities



# 1. Introduction

The South Perth Activity Centre Plan (ACP) area is identified as an inner-city district centre under *State Planning Policy 4.2: Activity Centres for Perth and Peel* (Western Australian Government 2010) and *Central Metropolitan Perth Sub-Regional Strategy; Direction 2031* (WAPC 2010). The main role and function of the district centre is to provide a broad range of complementary employment, entertainment, education and commercial functions, focused on servicing local resident needs.

## 1.1 Purpose of this report

This local water management strategy (LWMS) has been prepared to support infill development, redevelopment, and revitalisation within the ACP.

The strategy provides background to the ACP, and identifies key principles, design criteria and development requirements, and additional guidance to support new infill development, redevelopment, and revitalisation within the ACP.

## 1.2 Scope and limitations

This report has been prepared by GHD for City of South Perth and may only be used and relied on by City of South Perth for the purpose agreed between GHD and City of South Perth as set out in section 1.1 of this report.

GHD otherwise disclaims responsibility to any person other than City of South Perth arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in section 1.3 and throughout this report. GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report on the basis of information provided by City of South Perth and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

## 1.3 Assumptions

This LWMS is based on a desktop study only, using available information from a range of existing published and unpublished data sources and reports.

Development within the ACP should be completed with regard to site specific investigations.

## 1.4 Planning background

This LWMS has been prepared in accordance with *State Planning Policy 2.9: Water Resources* (WAPC 2004) and *Better Urban Water Management* (WAPC 2008). The planning framework for land and water planning is illustrated in Figure 1.1. Further key state and local guidance documents are summarised in Section 1.4.1 and Section 1.4.2, respectively.

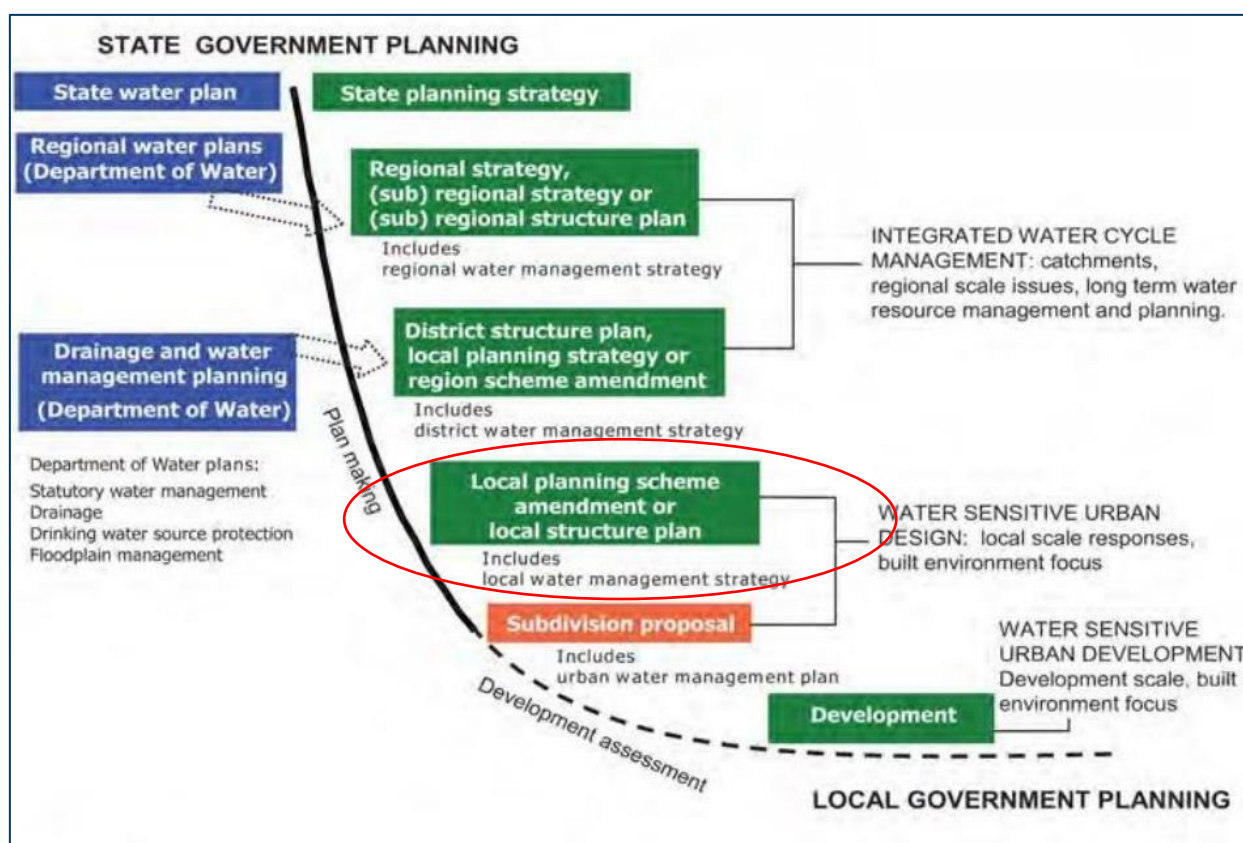


Figure 1.1 Framework for integrating water planning with land planning

## 1.4.1 State planning and guidance

### 1.4.1.1 State Planning Policy 4.2 Activity Centres for Perth and Peel

State Planning Policy 4.2 (SPP 4.2) identifies the requirements for planning, redevelopment, and renewal of existing centres. Under SPP 4.2 the South Perth Activity Centre Plan must ensure that planning contributes to the conservation of resources, in particular reduced consumption of water, with identification of design guidelines for the application of sustainable development principles to maximise water conservation. In particular SPP 4.2 identifies the planning considerations in Table 1.1 with regards to water.

Table 1.1 SPP 4.2 planning considerations for water management

Element	Planning considerations
Waterwise plants	While landscaping helps soften the public environment and provide respite consideration must be given to the type of plants used. Landscaped areas should be designed for high water efficiency through use of 'waterwise' planting.
Stormwater management	Investigate opportunities to apply Water Sensitive Urban Design principles to manage stormwater from roads and open space, and to incorporate other integrated water systems.
Efficiency measures	Water conservation may extend to buildings through water-saving installation and management measures. Structure plans may set design controls for water-efficient development including targets to collect and re-use rainwater.

SPP 4.2 also notes under clause 6.4 the following with respect to water:

- Mandate the use of waterwise plants and trees in all centre landscape plans.
- Establish targets for stormwater and greywater use.

### 1.4.1.2 Waterwise Perth Action Plan

The Waterwise Perth Action Plan (DWER 2019) sets the direction for transitioning Perth to a leading Waterwise city by 2030. The action plan has the following vision for a waterwise city:

*A waterwise Perth is cool, liveable, green and sustainable, a place where people want to live, work and spend their time. It is a city where communities care about and value water, while making best use of its various sources (groundwater, surface water, stormwater, seawater and wastewater). The city serves as a catchment and provides healthy natural environments, supporting a range of social, ecological and economic benefits.*

A key strategy of the action plan is saving of 32 billion litres of water per year through reduction in per person water use from 126 kL/yr to 110 kL/yr.

Other key actions at the precinct scale that are of relevance to the strategy area include:

- Increase green space in urban environments through the Waterwise Greening Scheme.
- Invest in infrastructure to support local government and the not for profit sector to improve the water efficiency of aquatic facilities, sports grounds and other community infrastructure.
- Implement an urban forest tree canopy program to plant trees in high urban heat risk areas.

Key targets of relevance to the strategy area include:

- Retrofit of land and water assets to improve local community access to green spaces.
- 100% of irrigated open space has been audited and is adopting Waterwise management practices.

Where redevelopment requires a large non-potable future water demand the following target is also of relevance:

- Recycled and alternative water supplies will make up 45% of the projected gap between future water demand and supply.

### 1.4.1.3 Swan and Canning Rivers Management Act 2006

The *Swan and Canning Rivers Management Act 2006* makes provision for the protection of the Swan and Canning rivers to ensure maintenance of ecological and community benefits and amenity. The Act applies to the River reserve, the Riverpark and the Swan and Canning River Development Control Area (DCA).

The Act was created to provide a statutory framework for the protection of the rivers, to enable integrated and coordinated planning and management of the rivers and to ensure that development around the rivers was appropriate to protect this important resource and community asset.

## 1.4.2 City of South Perth planning, policy, and guidelines

The City of South Perth (the City) has a number of local policies and technical specifications relevant to water management within the strategy area which are summarised in the following sections. Further, the City is a participant of the Waterwise Council program and has achieved Waterwise Council status.

### 1.4.2.1 City of South Perth Town Planning Scheme

Overview of City of South Perth Town Planning Scheme No. 6 (TPS No. 6) sets out the way land is to be used and developed, classifies areas for land use and includes provisions to coordinate infrastructure, including specific development controls which apply to each property.

Of particular relevance to the ACP provision 6.9 specifies the following minimum ground and floor levels:

1. *Subject to sub-clause (3), a lot shall not be developed unless the ground level is, or is raised to, a level of at least 1.7 metres above Australian Height Datum.*
2. *Subject to sub-clause (3), the following minimum levels for floors in buildings or additions to buildings erected in the Scheme area are prescribed:*
  - a. *the floors of habitable rooms shall be not less than 2.3 metres above Australian Height Datum;*

- b. the floors of non-habitable rooms shall be not less than 1.75 metres above Australian Height Datum;
  - c. the floors of any part of a building used for car parking shall be not less than 1.75 metres above Australian Height Datum.
3. The local government may permit land to be developed with lower levels than prescribed in sub-clauses (1) and (2), if:
  - a. provision is made in the design and construction of the floor and walls of the building for adequate protection against subsoil water seepage;
  - b. the applicant provides the local government with certification from a consulting engineer that adequate water-proofing has been achieved; and
  - c. the applicant satisfies the local government in such manner as the local government may specify that the proposed levels are acceptable having regard to the 100-year flood levels applicable to the lot.

### 1.4.2.2 Water Management Plan

The *Water Management Plan 2017-2022* (City of South Perth 2017) details the goals and the actions the City commits to undertake to improve water sustainability. The strategy involves key focus areas relevant to the South Perth Activity Centre redevelopment that includes corporate and community water efficiency and water quality. Table 1.2 tabulates the water management goals and priority areas outlined in the strategy.

**Table 1.2** Water Management Plan 2017-2022, Water management goals and priority areas

Objective	Goals	Priority Areas
Corporate Water Consumption Goal	Maintain corporate potable water consumption at or below 2014/2015 base year levels (67,596kl) by 2021/2022	
Community Water Consumption Goal	Maintain water consumption at or below 2014/2015 base year levels (109kl per capita) by 2021/2022.	
Corporate Water Quality Goal	Implement at least 80% of the corporate water quality actions by 2021/2022.	Top three corporate water quality priority areas: <ul style="list-style-type: none"> <li>• Erosion control;</li> <li>• Herbicide and pesticide management</li> <li>• Nutrient management.</li> </ul>
Community Water Quality Goal	Implement 100% of the community water quality actions (in Section 7 below) by 2021/2022.	Top three community water quality priority areas: <ul style="list-style-type: none"> <li>• Nutrient management</li> <li>• Herbicide and pesticide management</li> <li>• Gross litter and pollution management</li> </ul>

The water management plan includes a comprehensive list of management actions. Examples of key actions identified for the focus areas are summarised in Table 1.3.

**Table 1.3** Water Management Plan 2017-2022, Examples of Water Actions and Outcomes

Objective	Examples of Actions
Corporate Water Consumption Goal	Conduct a water audit on each of the council's top water using sites.



Objective	Examples of Actions
	Upgrade median strips and garden areas to reduce or eliminate the requirement for irrigation. Landscaping plans to include low water use plants (local natives), hydrozoning and soil amendments/wetting agents.
	Consider the feasibility of utilising alternative water sources such as stormwater, greywater, rainwater and recycled wastewater.
	Develop and implement Sustainable Groundwater Management Policy
Community Water Consumption Goal	Engage with household and business ratepayers and promote water efficiency.
	Support Waterwise verges and provide information to ratepayers on how to design and maintain a Waterwise verge.
	Engage with local schools on water efficiency and sustainability programs.
	Provide information on the installation and local regulation of greywater systems and rainwater tanks where appropriate.
Corporate Water Quality Goal	Incorporate water sensitive urban design techniques into management practices when upgrading the catchment (e.g. permeable paving, bio-retention swales, pipe-less streets and rain gardens).
	Establish native vegetation buffers to lakes and waterways, including a mix of local native sedges, rushes, small aquatic plants and specifically Melaleuca species
	Continue to implement environmental herbicide, pesticide and fertiliser application policy/guidelines for staff and contractors.
	Continue to maintain street drainage and existing GPTs and assess the amount of litter removed.
Community Water Quality Goal	Engage with household and business ratepayers on sustainable water management.
	Conduct a litter awareness raising campaign based on the results of the litter audit
	Implement an awareness raising campaign to promote proper use the City's waste services, including green waste (bulk), recycling, hazardous waste/backyard chemicals, and oil collection.
	Continue to educate local schools on sustainable water management via delivery of Millennium Kids "Schools Nurturing Nature" annual education program.

The plan also includes details on the city's water use profile, as well as example initiatives taken to improve water efficiency and quality.

### 1.4.2.3 Public Open Space Strategy

The *City of South Perth Public Open Space* (City of South Perth 2012) identified key public open space issues and challenges and recommends a broad strategy for public open spaces. The identified key challenges include issues surrounding climate change, increasing density and diversity, management costs, water conservation and biodiversity. The plan encourages the reduction in the amount of reticulated turf, increased canopy and tree planting, increased diversity in reserves, native planting and zone planting for differential watering requirements.

### 1.4.2.4 Green Plan

The *Green Plan* (City of South Perth 2002) provides a strategy for managing remnant native vegetation, public parks and gardens, street trees and private parks and gardens. This includes conserving and rehabilitating natural areas, while providing greenways to link all types of vegetated areas to improve biodiversity. The plan has mapped existing vegetated area types and has proposed specific greenways to provide linkage between the fragmented areas. A part of this plan includes managing stormwater quality and implementing water sensitive urban design for its purpose.

### 1.4.2.5 South Perth Activity Centre Landscape Design Guidelines

The *draft South Perth Activity Centre Landscape Design Guidelines* (City of South Perth 2020) provides guidance for both public and private landscape areas within the ACP including street and park upgrades, pocket parks, roof gardens setbacks and front gardens. The document is for primary use by developers during the planning process and City officers during planning for public space upgrades and development approval.

### 1.4.2.6 Council policies

City of South Perth council policies articulate the strategic intent and guide the city's operation and decision making. The policies relevant to water management are listed in Table 1.4.

**Table 1.4** City of South Perth Policies relevant to local water management

Policy	Overview
P203 Ground Water Management	This policy details the city's commitment to protecting groundwater quality and supply. This involves principles and irrigation practices for minimizing extraction and maximising recharge, as well as intercepting surface flows.  Development with basement construction requires Dewatering and Acid Sulfate Soils management plans and an independent review of water quality preservation plans by a competent groundwater professional. Infiltration of dewatering water is not encouraged in the policy except where it is proven that there is no risk.
P211 Water Sensitive Urban Design	This policy details the city's commitment to employing WSUD principles for managing water resources, and refers to the Water Sensitive Urban Design Guidelines for guidance on best management practice WSUD measures.
P350.01 Environmentally Sustainable Building Design	All development to which the policy applies shall achieve and provide certification of at least a four star green star rating under the relevant Green Star rating tool.
P354 Stormwater Drainage Requirements for Proposed Buildings	This policy sets standards for stormwater drainage in new developments within the City. Drainage designs are to ensure flows in excess of design flows are to be retained on site in secure approved areas and not directed towards the road reserve or adjacent properties.

## 1.4.3 Previous studies relevant to the ACP

### 1.4.3.1 Integrated Catchment Management Plan

The *Integrated Catchment Management Plan* (City of South Perth 2004) provides a framework for catchment management within the City with key focus areas of catchment mapping, water quality, environmental management, and infrastructure management.

Catchment mapping involved identifying surface water and groundwater catchment boundaries, with the extent of the storm water drainage system, as well as historical and existing land use.

Catchments were prioritised on both environmental criteria and infrastructure. Environmental priority catchments were determined through a risk-based approach of mapping nutrient input and metal/other pollutant sources with the environmental and social value of the receiving environment. Infrastructure priority catchments were determined through the assessment of pipe and basin capacities, as well as identifying locations of reported flooding. The plan includes a comprehensive list of actions to address the risks and issues for priority catchments through an implementation plan.

The plan also lists applicable water quality standards and criteria along with non-structural and structural water quality controls as part of water quality management. Key non-structural controls included education campaigns, refinement of local government management and maintenance activities, planting of native gardens for new development, street sweeping, and land use planning.

The structural control options are presented in the plan using a matrix of different engineering treatment measures rated in terms of efficiency for different pollution sources.

### 1.4.3.2 South Perth Stormwater Management Plan

The *South Perth Stormwater Management Plan; Hydraulic Modelling – Catchments 14, 15, 16, 17 and 18* (Water Technology 2018) was prepared for the majority of the ACP. The modelling extent included the South Perth Peninsula with a project boundary of the Swan River at the north east and west boundaries, Perth Zoo at the south boundary, Richardson Park at the south west, and Hillside at the south east. The study did not include the majority of Perth Zoo as part of the stormwater analysis.

The study was completed to understand existing drainage issues and to determine increased flood impacts by the proposed development. This involved stormwater modelling using TUFLOW with two-dimensional surface terrain for overland flows and a one-dimensional pipe network. The study utilized GIS layers and survey information supplied by City of South Perth for its analysis, as well as pipe network data, which included pit, pipe and house connections. Assumptions were made on pipe and house connections where data was not available.

A summary of hydraulic modelling is provided in Section 3.8.2.

Table 1.5 summarises the results and recommendations of mitigation options for alleviating existing drainage issues and reducing flood impacts by the proposed development in the modelled area.

**Table 1.5** *Summary of Water Technology (2018) results and recommendations*

Results	Recommendations
Pump rates were assumed, and sensitivity tests show that differing pumping rates significantly affect flooding in areas, with higher pump capacity resulting in lower flood levels within connected lots but higher flood levels at roads.	<p>Audit of existing lot connection pumps to quantify the extent to which developers are complying with council's policy</p> <p>Investigate mitigation option to upgrade the pump capacity for the pump station on Melville Parade/Lyall Street, including attenuation storage to manage additional stormwater demand from new developments;</p>
Minor flood occurring at Judd Street and the intersection of Mends Street and the South Perth Esplanade for pre-development scenarios, which increased for post-development scenarios.	<p>Investigate mitigation option to divert the pipe from Angelo Street and Labouchere Road down Richardson Street to ease flood in Mends Street</p> <p>Investigate mitigation option to install attenuation storage in Mends Street to alleviate flooding at the Mends Street/South Perth Esplanade intersection</p> <p>Investigate mitigation option to modify the pipe configuration on Judd Street</p>
The pipe running from Angelo Street, down Labouchere Road and Mends Street at capacity, with flooding bubbling up from pits	Investigate mitigation option to increase pit inlet capacities along Hardy Street, Lyall Street and Bowman Street

The study also included a water quality assessment of stormwater runoff into the Swan River using the conceptual model Urban Nutrient Decision Outcomes (UNDO) developed by then Department of Water (now Department of Water Environmental Regulation). The assessment indicated an increase of 6.4 kg/year nitrogen and 1.5 kg/year of phosphorus between pre- to post-development scenarios. This was due to an increase of areas that are directly connected to the network, and that land use did not change significantly between pre- and post-development. A need for water treatment to offset increased nutrient loads was recommended.

### 1.4.3.3 BMT Flood Study

The *City of South Perth Sea Level Rise Summary Assessment based on Swan and Helena River Flood Studies* (BMT 2021) summarises the impacts of sea level rise as a consequence of climate change on the South Perth Activity Centre Plan (ACP) area.

The Swan and Helena River Flood Study considers a sea level rise of 0.9m in the 1% Annual Exceedance Event (AEP) over the period to 2110, in accordance with the State Coastal Planning Policy (Department of Transport 2010). The study identifies how sea level rise and peak flood levels may impact existing properties and redevelopment within the ACP, and identifies a range of flood risk management recommendations to assist in managing and adapting to climate change impacts, and improve design of future infrastructure.

The study outlined a number of adaptive planning actions, of which key actions for current and future development within the ACP include:

- Review/ verify actual floor levels to verify building inundation risk for existing properties (short term < 6 months)
- Raise Flood Awareness regarding building inundation, rare events (short term < 6 months)
- Flood planning LGA (short term < 6 months)
- Adapt to climate change (long term > 2 years)
- Improve Flood Warning and Flood Awareness building inundation, frequent events (long term > 2 years)



## 2. Proposed development

### 2.1 The ACP

The South Perth Activity Centre Plan (ACP) area comprises 102.46 ha of land (Roberts Day 2019) (Figure 2.1). The ACP is bounded by the Swan River on three sides and separated from the suburban area of South Perth by Sir James Mitchell Park, Royal Perth Golf Course and Perth Zoo.



**Figure 2.1** South Perth Activity Centre Structure Plan area and boundary (Roberts Day 2019)



The South Perth Activity Centre Plan area is identified as an inner city district centre under *State Planning Policy 4.2: Activity Centres for Perth and Peel* (Western Australian Government 2010) and *Central Metropolitan Perth Sub-Regional Strategy; Direction 2031* (WAPC 2010).

## 2.4 Key elements of the proposed development

The South Perth ACP is presented in Figure 2.3. The plan identifies a range of building typologies as well as four adjacent and connected character areas.

The character areas include:

- Mends – Identified as the cultural and commercial heart, with Mends Street functioning as the urban centre, and offering a wide diversity of recreational and commercial offerings.
- Richardson – Identified as a diverse and varied area with an eclectic mix of building styles and uses, with future development recognising and enhancing the diversity and establishment of a new train station at Richardson Street creating a transit orientated node.
- Mill Point – Identified as a predominantly residential area characterised by green, leafy streets and buildings set back from the street. Future development will strengthen existing character, improve community amenity and connections.
- Hillside - Identified as a predominantly elevated residential area characterised with a diverse range of building styles overlooking the Swan River. Future incremental infill development will complement existing residential towers, with provision of improved community amenity and public connections.





Figure 2.3 South Perth Activity Centre Plan



## 3. Existing site characteristics

### 3.1 Climate

The climate within the ACP is typically classified by hot, dry summers and mild, wet winters. The nearest Bureau of Meteorology weather station with long term data is located at Perth Metro (Station 009225), located approximately 6.8 kilometres away. Rainfall has been recorded at this station since 1993.

The average annual rainfall recorded at the station since 1993 is 730.9 mm, with an average of 80.8 rain days per year. The majority of rainfall falls between May to September, with the monthly distribution of rainfall shown in Table 3.1.

**Table 3.1** Mean rainfall for Perth Metro

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean rainfall (mm)	18.5	14.3	20.4	35.4	88.6	126.2	146.8	124.4	82.7	37.7	24.2	10.4

Rainfall in the Perth metropolitan area has reduced 15 per cent since 1975, with climatic models predicting a further six per cent reduction by 2030 (DWER 2019). The average number of days with temperatures above 35°C are also predicted to increase, with this increase linked to the 'urban heat island effect' which results in built-up areas to be warmer both during the day and at night (UMW 2014), with the effect intensified in suburbs with minimal tree canopy.

### 3.2 Topography and geology

#### 3.2.1 Topography

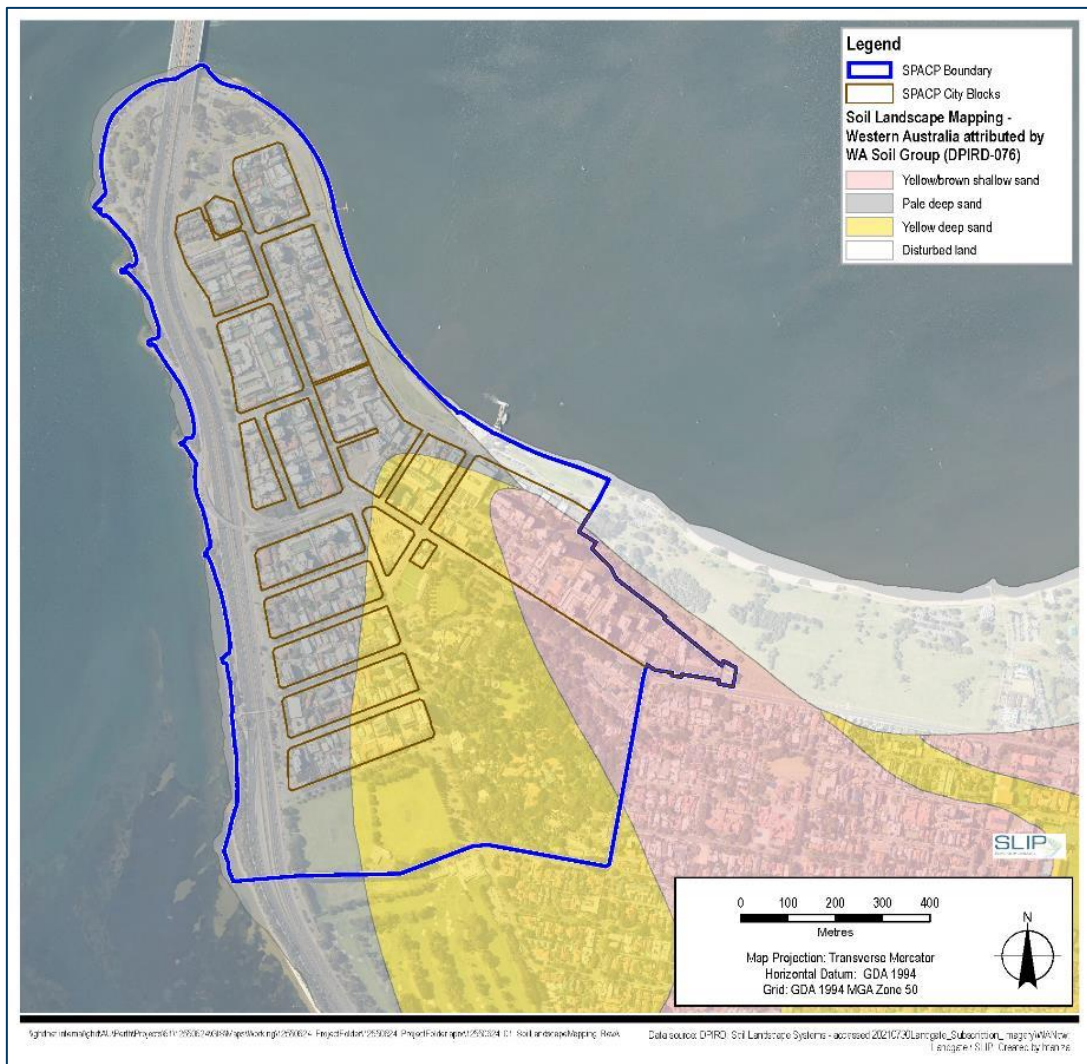
Topography generally ranges from 0 to 2 mAHD along Swan River foreshore reserve areas, 2 to 8 mAHD within the majority of the ACP area with elevations increasing in the Hillside precinct and into the Perth Zoo with a maximum elevation of 22 mAHD near the central eastern boundary.

#### 3.2.2 Soils

The Department of Primary Industries and Regional Development (DPIRD) DPIRD-076 dataset attributes WA Soil Groups to each Soil Landscape Mapping Unit as defined by Schoknecht and Pathan (2013) in the report titled '*Soil groups of Western Australia: a simple guide to the main soils of Western Australia (4th edn)*'. DPIRD (2013) use the following criteria to differentiate Soil Groups: presence of carbonates, colour, depth to soil horizons, pH and soil structure.

This dataset identifies three key soil types (as shown in Figure 3.1) within the Site:

- Pale deep sand (Soil Group 444): described as "sand >80 cm deep with white, grey or pale yellow topsoil" (Schoknecht and Pathan 2013). This soil type has low fertility and subject to high nutrient leaching, and rapid permeability in its surface layers.
- Yellow deep sand (Soil Group 446): described as "yellow sands greater than 80 cm deep" (Schoknecht and Pathan 2013). This soil type has high permeability in its surface layers.
- Yellow/brown shallow sand (Soil Group 424): described as "yellow or brown sand over rock, hardpan or other cemented layer at" (Schoknecht and Pathan 2013). The soil depth can vary considerably over short distances, and is typically rapidly drained.



**Figure 3.1** Soil landscape mapping (DPRID-076)

### 3.2.3 Acid sulfate soils

A review of the DWER acid sulfate soil risk mapping for the Swan Coastal Plain (DWER-055 database) identifies the northern and western portion of the Site are classified as *'Moderate to low risk of acid sulfate soils occurring within 3 m of natural soil surface but high to moderate risk of ASS beyond 3 m of natural soil surface'*.

The ASS soil risk should be considered where excavation occurs below 3 m of natural surface across the ACP, or for soils below the seasonal low (autumn) groundwater level where this is within 3m of the natural surface.

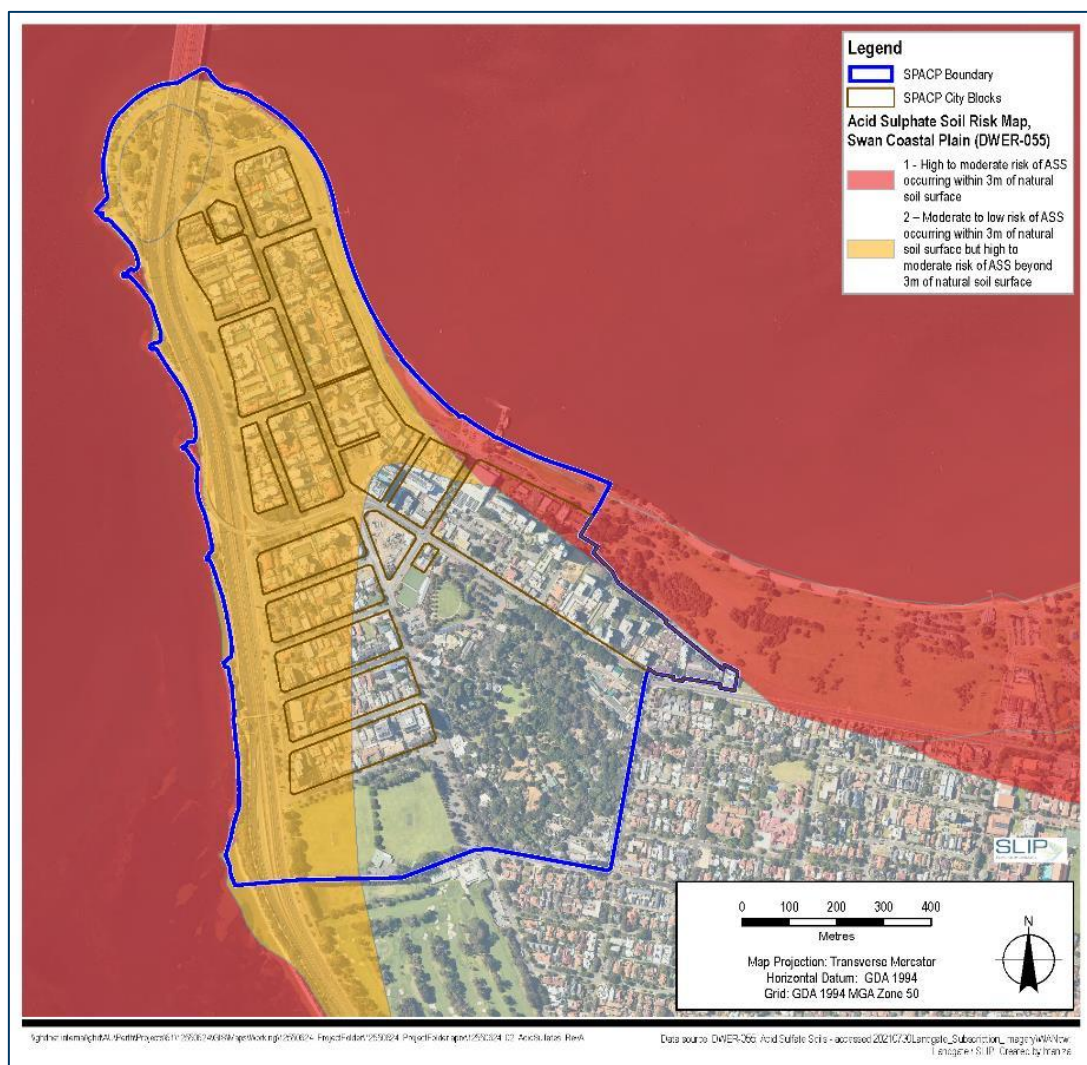


Figure 3.2 ASS risk mapping (DWER-055)

### 3.3 Contaminated sites

A search of the DWER Contaminated Sites Database identifies no contaminated sites within the ACP boundary.

It is understood that the database does not include reported sites, including those awaiting classification or classified as *Potentially contaminated – Investigation required*. Historic land use within the South Perth areas is known to include market gardening as well as local rubbish tips, and these factors should be considered through site specific investigation during redevelopment of the ACP.

Where contaminated sites are identified during construction activities these should be managed in accordance with the Contaminated Sites Act 2003 (WA).

### 3.4 Flora and fauna

The below sections summarise the desktop flora and fauna from the *Desktop Environmental Assessment Report – South Perth Activity Centre* (GHD draft 2021a). A map presenting the locations of conservation significant flora and fauna is provided in Appendix B.

#### 3.4.1 Threatened ecological communities

Sir James Mitchell Park is mapped as containing Banksia Dominated Woodlands of the Swan Coastal Plain Interim Biogeographic Regionalisation for Australia (IBRA) Region. This community is considered to be a Priority 3



threatened ecological community (TEC) under the State listing, however, is a nationally protected ecological community, listed as endangered under the *Environment Protection and Biodiversity Conservation Act, 1999*.

The ACP does not propose to change the land use of the South Perth Foreshore, where the TEC is located.

## 3.4.2 Fauna

A search of the DBCA NatureMap tool identified seven species are protected by international agreement (IA), three are threatened (T), four have Priority 4 status and one is Priority 2 comprising the following species:

- *Actitis hypoleucos* (Common Sandpiper) – IA
- *Calidris ruficollis* (Red-necked Stint) – IA\*
- *Calyptorhynchus banksii subsp. naso* (Forest Red-tailed Black Cockatoo) – T\*
- *Calyptorhynchus latirostris* (Carnaby's Cockatoo, White-tailed Short-billed Black Cockatoo – T\*
- *Dasyurus hallucatus* (Northern Quoll) – T
- *Dodonaea hackettiana* (Hackett's Hopbush) – P4\*
- *Hydromys chrysogaster* (Water-rat, Rakali) – P4
- *Hydroprogne caspia* (Caspian Tern) – IA
- *Oxyura australis* (Blue-billed duck) – P4\*
- *Pandion cristatus* (Osprey, Eastern Osprey) – P4
- *Papillogobius punctatus* – IA
- *Pluvialis squatarola* (Grey Plover) – IA\*
- *Thalasseus bergii* (Crested Tern) – IA\*
- *Thelymitra variegata* (Queen of Sheba) – P2\*
- *Tringa nebularia* (Common Greenshank, greenshank) – IA\*

\* Presence confirmed by DBCA

Given the lack of remnant vegetation within the ACP area, the above species are unlikely to be impacted.

Pockets of remnant vegetation are identified as requiring investigation as Carnaby's Black Cockatoo foraging habitat.

The Swan River is known to support a variety of species such as birds, fish and frogs. It is possible that the Common Brush Tail Possum and Lesser Long eared bat are present but significant populations are unlikely due to lack of habitat. The wetlands of the Perth foreshore are known to support the long-necked Oblong Turtle (South Perth Foreshore Strategy and Management Plan, 2015).

## 3.5 Environmentally sensitive areas

### 3.5.1 DWER Environmentally Sensitive Areas

The DWER maintains a dataset of Environmentally Sensitive Areas (ESAs). ESAs are areas of land deemed to support conservation, heritage or ecological value, or an area protected through existing State Policy. A search of the DWER ESA database (DWER-046) identifies the Swan River as an ESA.

### 3.5.2 Groundwater dependent ecosystems

A search of the online *Groundwater Dependent Ecosystems (GDE) Atlas* (BoM 2021) identified one low potential GDE within the within the ACP boundary, and two moderate potential GDEs to the east. The potential GDEs are all located in the Swan River foreshore boundary and are identified as 'Medium woodland; tuart and jarrah'.

## 3.6 Reserves

The MRS identifies the Swan River foreshore areas and Richardson Park as Parks and Recreation (Reserve).



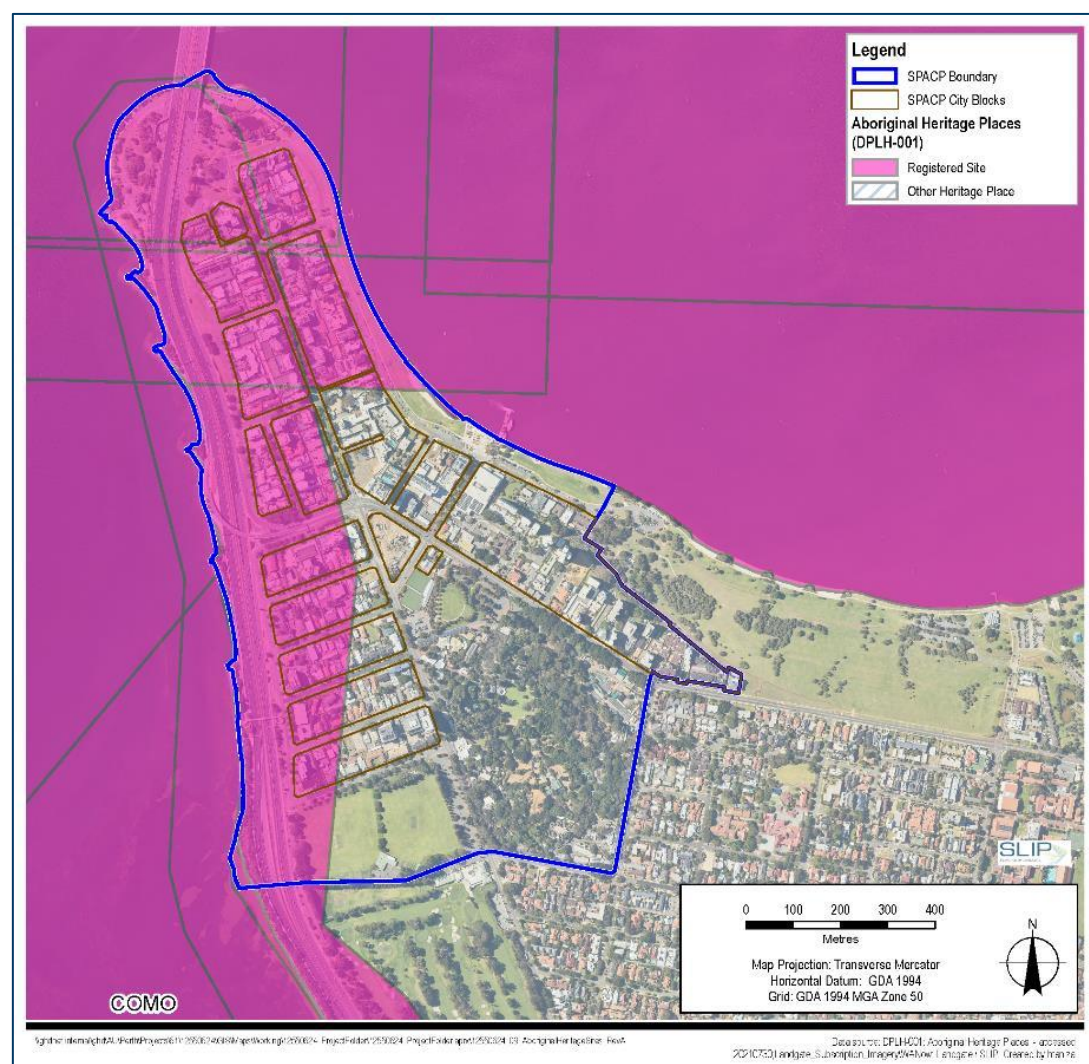
## 3.7 Heritage

### 3.7.1 Aboriginal heritage

A search of the DPLH Aboriginal Heritage Inquiry System (AHIS) identified several registered Aboriginal heritage sites located within and immediately adjacent the ACP. The location of the registered sites with reference to the ACP boundary is presented in Figure 3.3.

**Table 3.2** Registered Aboriginal heritage sites within or adjacent Site boundary (DPLH 2021)

Site ID	Site name	Status	Type
3536	Swan River	Registered Site	Mythological
3703	Spring Street	Registered Site	Camp, Named Place, Water Source
3704	Kings Park Waugul	Registered Site	Ceremonial, Mythological, Plant Resource, Water Source
3705	Foreshore Camping Ground	Registered Site	Camp, Hunting Place
3787	Mounts Bay Road	Registered Site	Mythological, Camp, Named Place, Water Source
4406	Como	Registered Site	Fish Trap



**Figure 3.3** Location of registered Aboriginal heritage sites

## 3.7.2 European heritage

There are numerous European Heritage sites listed on the State Register of Heritage Places. The European heritage sites predominantly comprise buildings. The City of South Perth Local Heritage Inventory contains numerous other buildings, local landmarks and individual residencies. State Register Places listed within and adjacent to the ACP are presented in Figure 3.4.

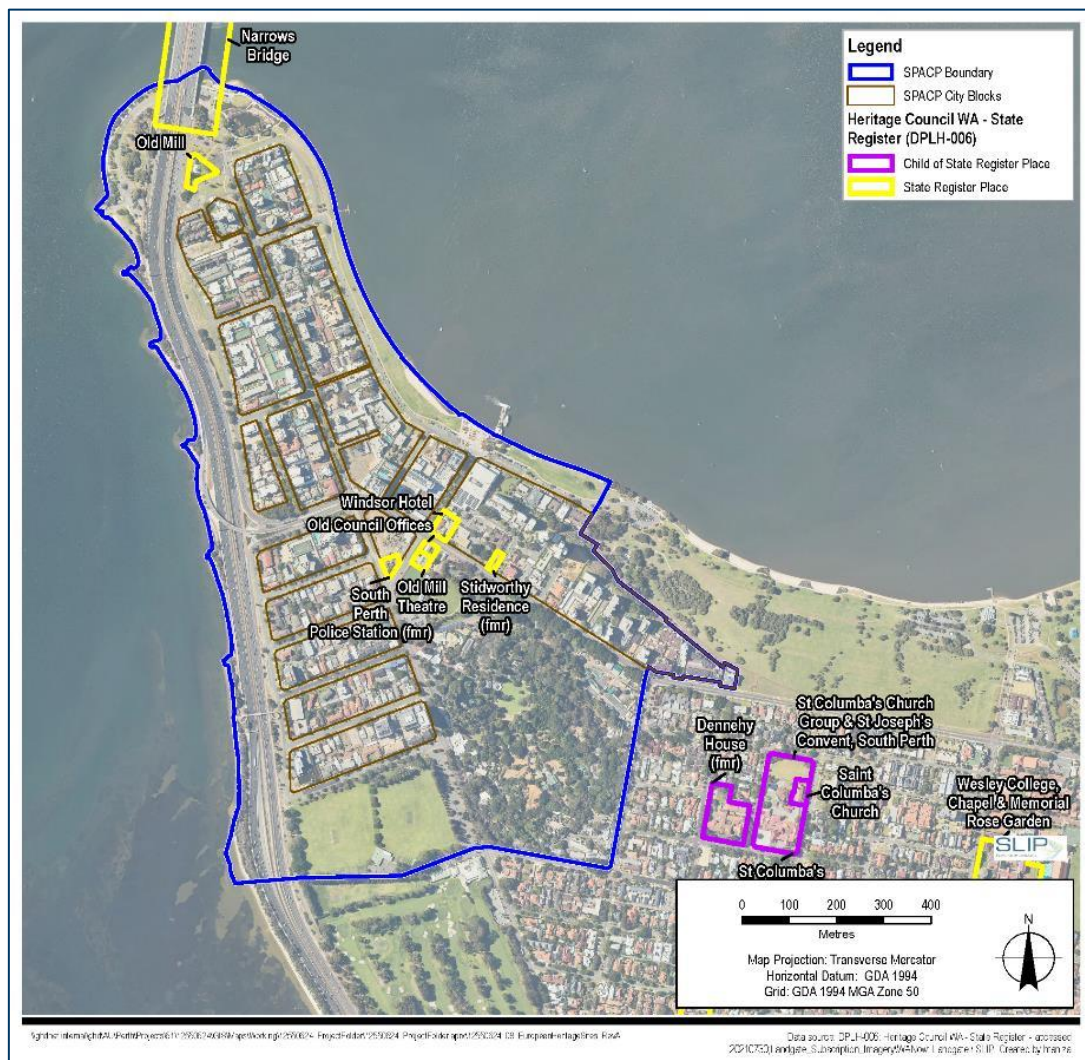


Figure 3.4 State Register Places (DPLH-006)

## 3.8 Surface water

### 3.8.1 Catchments

The ACP is located within the larger Swan Canning River catchment, and the South Perth sub-catchment.

### 3.8.2 Stormwater and drainage

The ACP does not occur within a Water Corporation main drainage catchment.

Stormwater management within the ACP is managed via local City of South Perth drainage infrastructure. The City has commissioned several studies to review the stormwater management within the ACP, summaries of which are provided in Section 1.4.3.1 and 1.4.3.2.

Key findings from these studies include:

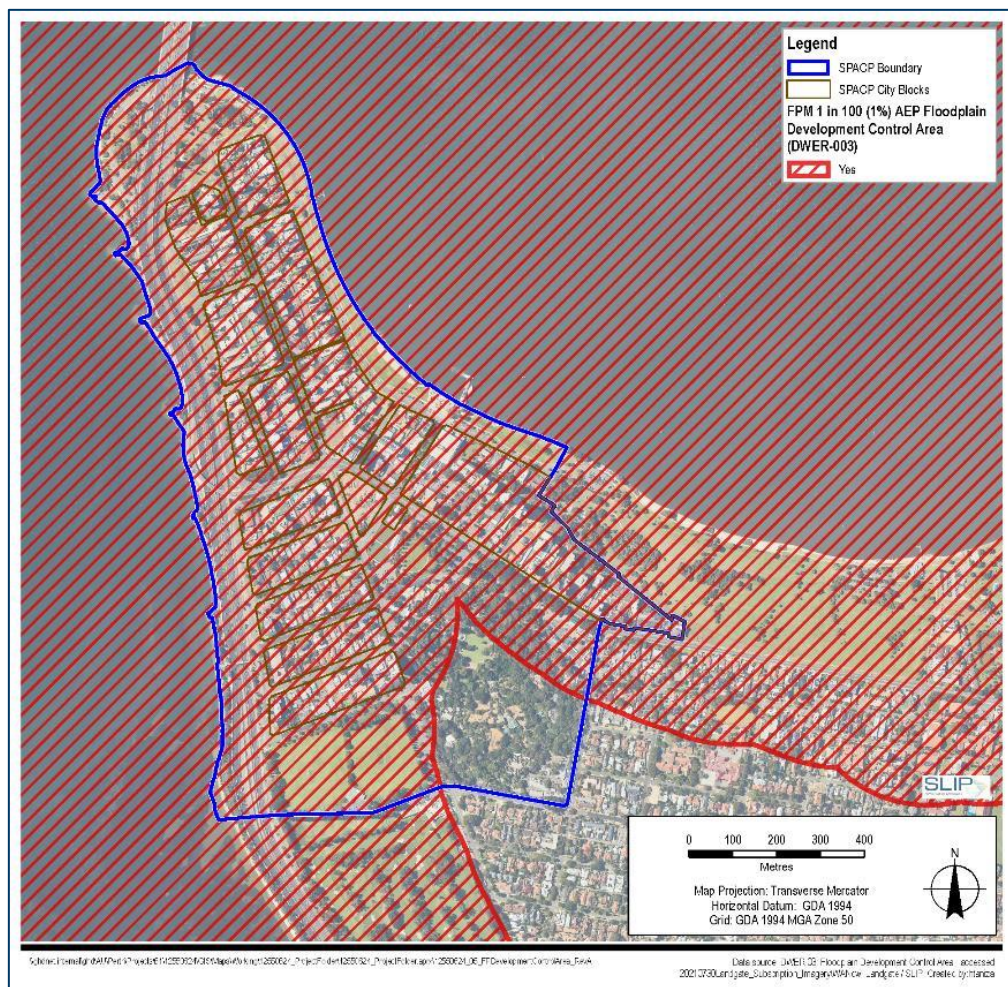
- The majority of stormwater drainage in the ACP is disposed of via direct discharge to the Swan River, with discharge in larger POS and recreational areas via diffuse infiltration. The stormwater drainage mapping from CoSP (2004) is presented in Appendix C.
- Along the north-eastern boundary of the ACP there are ten direct stormwater outlets to the Swan River, of which two have GPTs installed and one has a compensation basin (Millers Pool) (CoSP 2004).
- Along the western boundary of the ACP there is one City of South Perth there are six direct stormwater outlets to the Swan River, comprising a mix of City of South Perth drainage (1), City of South Perth and Kwinana Freeway outfalls (4) and Kwinana Freeway outfall (1). Of these outfalls all but one is fitted with an integrated GPT (CoSP 2004).
- Two stormwater pumping stations are located in the ACP, integrated with gross pollutant traps (GPTs) prior to discharge into the Swan River. These include:
  - One north of Queen Street
  - One north of Frasers Lane
- Hydraulic modelling completed for the *South Perth Stormwater Management Plan; Hydraulic Modelling – Catchments 14, 15, 16, 17 and 18* (Water Technology 2018) identified that in most areas the local pipe network is sufficiently catering for the 10% AEP storm event. Some minor flooding was modelled in the following areas in the 10% AEP event:
  - Judd Street and the intersection of Mends Street and the South Perth Esplanade.
  - Hardy Street, Lyall Street and Bowman Street also show minor flooding, which is mainly a result of the pit inlet capacities rather than the pipe capacity.
- The pipe running from Angelo Street, down Labouchere Road and Mends Street is at capacity (Water Technology 2018), which is causing pits to bubble up at several locations.
- The figure showing 10% AEP existing (pre-development) flood depths and pipe capacities, and locations of potential flooding issues is included in Appendix D.
- Post development flood impacts were shown to only increase flooding in areas that experience flood impacts in pre-development scenarios (Water Technology 2018). The minor increase in flooding in the post-development modelling was attributed to development requirement to attenuate flows from lot connected properties, limited to 1 L/s per 500 m<sup>2</sup>.

### 3.8.3 Flood mapping and management area

Flood mapping for the ACP is derived from the hydraulic modelling report *Swan and Helena Rivers Flood Study and Floodplain Management Plan - Hydraulic Modelling Final Report* (BMT 2017).

The majority of the ACP is located within the 1% AEP Floodplain Development Control Area (Figure 3.5). Appendix E presents DWER mapping of the Swan River Flooding Extent and Floodplain Area, which identify that in a 10% AEP event flooding from the Swan River is restricted to low lying areas within the foreshore reserve and existing compensation basin (Millers Pool, Section 3.8.4). In the designated event flooding extends to significant parts of the ACP and Kwinana Freeway.





**Figure 3.5** DWER FPM 1 in 100 (1%) AEP Floodplain Development Control Area (DWER-003)

### 3.8.4 Waterbodies and wetlands

The Swan River provides a natural boundary to the ACP to the north, east and west. The Swan River provides significant habitat value in the local environment. It is also the end point for stormwater drainage.

The Swan River is mapped as a conservation category wetland and should be protected and natural flows into the system maintained.

Miller's Pool is located on Mill Point. This historical wetland has been reclaimed following filling by the former Road Board in the 1930's. The City is working to improve the ecological value of this wetland and although it does not currently have a conservation classification it is functioning as a compensation basin, contributing to stormwater management.

### 3.8.5 Surface water quality

Stormwater drainage in the ACP area is from local drains, and there is no regular water quality monitoring of these drainage outlets.

The water quality of the Swan River estuary is monitored weekly by the DBCA with water quality profiles for some physico-chemical parameters summarised on the Eyes on the Swan Canning Riverpark website, and fortnightly monitoring for a wider suite of parameters throughout the catchment.

The weekly monitoring identifies that the Swan River near the South Perth peninsula is primarily estuarine, with salinity increasing over the summer months due to lack of rainfall and decline in freshwater river flow. None of the fortnightly catchment monitoring locations occur within the ACP.



Nutrient targets have been developed for catchments of the Swan Canning river system, and these targets are applicable to stormwater drainage from the ACP. The nutrient targets are summarised in Table 3.3.

**Table 3.3** *Swan Canning River System short and long term nutrient targets (DBCA 2021)*

Target	Total nitrogen (mg/L)	Total phosphorus (mg/L)
Short-term	2.0	0.2
Long-term	1.0	0.1

## 3.9 Groundwater

### 3.9.1 Licensed groundwater allocation

The DWER online Water Register identifies that groundwater resources within the strategy area are fully allocated. Licensed groundwater abstractions in the strategy area are summarised in Table 3.4.

**Table 3.4** *Groundwater abstraction licences*

Licence number	Licence expiry date	Licence allocation	Registered party or Licence holder	Aquifer
150802	31/8/2022	317000 KL	Zoological Parks Authority	Perth - Superficial Swan
151051	31/8/2022	1500 KL	Zoological Parks Authority	Perth - Leederville
50708	13/9/2026	828455 KL	City of South Perth	Perth - Superficial Swan
206031	19/6/2022	72576 KL	City of South Perth	Perth - Superficial Swan
205190	3/12/2021	315569 KL	Multiplex Constructions Pty Ltd	Perth - Superficial Swan
205472	8/2/2022	20000 KL	South Perth Civic Triangle Pty Ltd	Perth - Superficial Swan
204952	19/10/2021	95000 KL	Opulence Grand Pty Ltd	Perth - Superficial Swan
50709	13/9/2026	225000 KL	City of South Perth	Perth - Leederville
205245	13/12/2021	87091 KL	Edge Holdings No 6 Pty Ltd	Perth - Superficial Swan

### 3.9.2 Groundwater level

Review of groundwater levels across the ACP has considered the following data sources:

- The DWER Perth Groundwater Map with groundwater levels based on groundwater modelling of regional groundwater levels
- DWER Water Information Reporting database groundwater level data with groundwater levels based on measurements from monitoring bores within and in proximity to the ACP. The measured groundwater levels have been compared to a Digital Elevation Map (DEM) in 5m resolution.

The DWER Perth Groundwater Map indicates that the depth to water table is typically between 0 m to 3 m below ground level (bgl), and up to 19 m bgl depending on the location within the ACP and the local surface elevation. Along the Swan River foreshore reserve the groundwater level is comparable to the water level in the Swan River. Minimum groundwater contours typically follow the shape of the peninsula, with flow direction towards the nearest bank of the Swan River. The base of the superficial aquifer is shown to vary from -15 m AHD to -30 m AHD which equates to a depth of 19 m to 40 m bgl and an aquifer thickness of 16 to 31m. The superficial aquifer is thickest and deepest below the peninsula (Mill Point character area), shallowing and thinning to the south and east.

Groundwater level observations from the DWER WIR database are limited, with large temporal gaps in the available record. The available observed groundwater levels are typically in agreement line with the Perth Groundwater Map. In general, the groundwater relative to sea level (AHD) is around 1 m to 1.5 m AHD and is slightly lower in the centre of the peninsula. It must however be noted that water levels measurements are scarce, dated, and not always of good precision.

The State Planning Policy 2.6 State Coastal Planning Policy (SPP 2.6) (WAPC 2013) predicts a sea level rise of 0.9 m to 2110. The predicted increase in sea level rise is not anticipated to be fully replicated in the Swan River (Main Roads 2011) however riverine water level rise is anticipated, with groundwater level rise in response to increased riverine water levels (Barnett *et al.* 2015).

### 3.9.3 Groundwater quality

Review of groundwater quality across the ACP has referred to the DWER Perth Groundwater Map and available water quality data from the DWER WIR database.

The DWER Perth Groundwater Map indicates that the local shallow groundwater salinity is typically in the range of 1,000 – 1,500 mg/L as total dissolved solids (TDS), indicating that water quality is typically of suitable quality for irrigation of public and private open space without treatment.

DWER WIR database water quality measurements are scarce, dated and not always of good precision. Limited pH data indicates a groundwater pH of typically between 6 and 7. The Swan Canning Interface 1M (SWIM) bore (61611791), located on the South Perth foreshore, has a measured pH range of 5.1 to 8.1. This bore also has the only recent salinity data within the ACP, with a salinity range of between 393 and 1,273 mg/L TDS.

Predictions of sea level rise associated with climate change (SPP 2.6, WAPC 2013) is anticipated to propagate the saline wedge and riverine salinity in the Swan River, and lead to enhanced penetration of increasingly saline groundwater into the base of the shallow aquifer surrounding the Swan River (Swan River Trust 2007). Due to a paucity of local data and monitoring wells, it is not known if a salt wedge currently extends under some or all of the ACP at the base of the superficial aquifer.

## 3.10 Water infrastructure

### 3.10.1 Potable water supply

#### 3.10.1.1 Existing infrastructure

The ACP is located within the Water Corporation's South Perth Trunk Main Gravity Zone.

The Water Corporation has recently completed works to replace aging pipes within the South Perth area, as part of the funded 'Pipes for Perth' project. Detail of the existing infrastructure and recent upgrades are provided in the *South Perth Activity Centre Plan Civil Servicing Report* (GHD 2021b).

#### 3.10.1.2 Proposed Infrastructure

Proposed water infrastructure can be separated into two categories:

- Major Works funded by the Water Corporation
- Minor Works funded by the Developer

Smaller reticulation sized water pipes (less than and equal to 300 mm dia) are funded and constructed by the developer in order to meet the natural growth demands on the reticulation mains required by development.

Within the South Perth area, replacement of an existing main will be required by the Water Corporation where:

- an aging asset is deemed unlikely to support the development for the future, and/or
- the existing main is undersized to cater for the expected level of development.

Where an upgrade is necessary, it is expected that the developer will be required to upgrade the water main for the frontage of their development, at a minimum, and potentially extend the main to the nearest intersection (if not already replaced or upgraded by others).

The extent of these upgrades should be discussed with and confirmed by the Water Corporation prior to submission for Development Approval (DA) for each development. Proactive delivery of infrastructure is recommended to promote urban renewal and avoid developments being constrained due to infrastructure limitations.

Further detail relevant to the identified ACP character areas is provided in GHD (2021b).

### 3.10.2 Non-potable water supply

Responsibility for non-potable water infrastructure within the lot boundary is the responsibility of the developer.

### 3.10.3 Wastewater services

#### 3.10.3.1 Existing Infrastructure

The ACP falls within the Water Corporation's South Perth sewer district (South Perth SD).

A desktop review of the existing wastewater infrastructure was undertaken by GHD (2021b) to assess spare capacity based on the proposed rezoning. The Water Corporation's current planning for the ACP assumes high density development however the variability of a proposed R-AC0 zoning means there may be even greater levels of development than originally expected.

#### 3.10.3.2 Proposed Infrastructure

The Water Corporation has provided advice to indicate that existing pipe sizes will need to be increased to cater for increased flows from the expected development.

In particular, several gravity sewer upgrades have been identified in the vicinity of the Bowman St wastewater pump station (WWPS) and the Mill Point Rd WWPS. These upgrades (and others as required) must be confirmed by the Water Corporation and completed by the relevant developer as part of development.

Water Corporation planning has allowed for a WWPS station and minor wastewater flows from the future train station location. Several new gravity sewers and downstream sewer upgrades will be required to support the future station and it is assumed that these works will be state government funded.

In addition to the above, the Water Corporation has also highlighted Major Asset upgrades, including pump station, wastewater pressure mains and large gravity main sewer upgrades to support development in future. There are limitations to such upgrades, for example Bowman Street WWPS which is located between existing buildings and is limited by the allowable buffer. Construction of these upgrades and assets will be completed (and funded) by the Water Corporation when required in future.

## 4. Water management strategy

The following section identifies the water management principles, development requirements and strategies to achieve total water cycle management for redevelopment and revitalisation of the South Perth ACP area.

### 4.1 Water conservation

Redevelopment within the ACP aims to optimise water conservation, maximise water reuse and incorporate water management initiatives throughout the life of the development, with opportunities at the lot, precinct and development scale to achieve sustainable water management for both in-house and ex-house applications.

#### 4.1.1 Potable water targets

The City of South Perth Water Management Plan (City of South Perth 2017) identifies a potable water consumption target of 109 kL per person per year, which is in accordance with the Waterwise Perth Action Plan target of 110 kL/yr (DWER 2019).

Given the high density nature of the redevelopment a reduction in the potable water consumption target is considered achievable through implementation of alternative fit for purpose water sources (rainwater tank, greywater or blackwater system) for non-potable and ex-house water demands.

#### 4.1.2 Sustainable water use

Sustainable water use throughout the ACP will be achieved through implementation of a range of measures to further optimise water use efficiency and maximise water reuse wherever possible.

##### Buildings

For buildings throughout the ACP sustainable water use will primarily be achieved by the requirement for development to applicable buildings to achieve and provide certification of at least a four star green star rating under the relevant Green Star rating tool, in accordance with City Policy P350.01 Environmentally Sustainable Building Design.

To achieve Green Star rating for water use efficiency development design should incorporate water efficient fittings and appliances. Fittings and appliances should be within one level of the highest level available under the Water Efficiency Labelling and Standards (WELS) system.

Utilise non-potable water sources where possible within buildings to further reduce potable water consumption. Opportunities for non-potable use include:

- Installation of infrastructure to harvest and store stormwater runoff from roof and impervious surfaces.
- Installation of greywater recycling systems, or provision of required connections and infrastructure for future conversion.
- Use of alternative fit for purpose water sources for both internal non-potable uses (toilet flushing, laundry, irrigation and potentially cooling towers) and external irrigation.

Where wastewater recycling systems (greywater and/or blackwater) are proposed, systems are to be designed in accordance with the requirements of the Department of Health. Details, including required connections to centralised infrastructure, should be provided to the City at Development Application stage.

Below ground infrastructure should be designed to be waterproof to minimise ongoing pumping of groundwater ingress and dewater disposal over the life of the building.

##### Landscape and POS areas

Landscaping plans to demonstrate full compliance with the Water Corporations Waterwise Development criteria, including the use of plants with low water requirements and use of waterwise irrigation types and practices. This



includes subsurface irrigation systems, selection of 'waterwise' species, and soils improved with conditioners and mulch to reduce water demand.

Maximise efficiency of groundwater usage for irrigation of any additional open spaces through appropriate landscape design so that additional allocations are not required.

### ACP area

In addition to specific water sustainability actions for buildings and landscape areas, there are further opportunities to implement water efficiency and water sustainability measures across the ACP including:

- Continued water audits for City assets and buildings.
- Retrofit of existing buildings with water efficient fixtures, fittings and appliances.
- Investigate opportunities to implement fit for purpose water source options for City assets and buildings including:
  - Recycling greywater from public bathroom basins for use in public toilets.
  - Harvesting stormwater from roof areas for use in public bathroom basins.

## 4.2 Stormwater management

The ACP is fully developed and predominantly serviced by piped local drainage infrastructure. During redevelopment and revitalisation of the ACP opportunities to retrofit existing drainage infrastructure, and incorporate water sensitive urban design elements into the ACP at both the lot and streetscape scale should be considered.

Key stormwater management design criteria for the ACP include:

- All runoff from constructed impervious area within the ACP to receive treatment prior to infiltration or discharge, typically through appropriately sized biofilters or other proprietary devices within public and private land.
- Retain or detain stormwater runoff from constructed impervious surfaces generated by the first 15 mm of rainfall at-source.
- All development within the ACP is to manage stormwater up to the 1% AEP within lot boundaries, to maintain peak stormwater discharge rates to pre-development conditions.
- Design and implement water sensitive urban design elements at the lot scale and street scale, including retrofit of local drainage infrastructure and streetscapes where feasible. Elements should be designed in accordance with the Stormwater Management Manual for Western Australia (Department of Water 2004-2007).

### 4.2.1 Local drainage infrastructure

Section 3.8.2 provides a summary of the local drainage infrastructure within the ACP. Recognising the existing constraints on the local drainage network and the developed nature of the ACP, stormwater management should identify opportunities to maintain or reduce existing stormwater discharge rates to the downstream drainage network.

Redevelopment of street facing blocks provides the opportunity to retrofit existing local pit and pipe street drainage to incorporate water sensitive urban design (WSUD) elements (Section 4.3), in line with the Waterwise Perth Action Plan (DWER 2019) and vision for a waterwise city (Section 1.4.1.2).

### 4.2.2 Lot drainage

In accordance with City of South Perth policy stormwater generated within lots is to be retained on site for all events including the small (1EY), minor (10% AEP) and major (1% AEP) event. Options for stormwater retention within lots include stormwater storage, direction to bio-retention areas and infiltration to groundwater through deep soil zones within the lot boundary.

Runoff from constructed impervious areas (podiums, paved areas at ground level, basement parking), or from non-native garden on podiums, shall receive treatment prior to infiltration. Treatment will typically be achieved through appropriately sized bio-retention areas or proprietary devices.

Management options for stormwater runoff at the lot scale include:

- Underground tanks may be utilised to provide stormwater storage as well as providing options for reuse where there is sufficient clearance from groundwater.
- Rainwater tanks may be utilised to harvest stormwater from buildings with the water used for a range of non-potable demands including indoor non-potable uses (e.g. toilet flushing, cold water laundry) and landscape irrigation.
- Infiltration options that may be implemented at the lot scale subject to site conditions include:
  - Biofilters
  - Tree pits
  - Swales within car parking areas to direct stormwater runoff to landscape areas and promote recharge of groundwater
  - Maximise permeable surfaces to reduce stormwater runoff and increase local infiltration (e.g. gravel, permeable paving)
  - Soakwells, drainage cells or infiltration galleries may be required where car parking or other impervious areas are large.

## 4.2.3 Flood management

As noted in Section 3.8.3 the majority of the ACP is located within the 1% AEP Floodplain Development Control Area.

Planning and development within the ACP should refer to the following with reference to development within areas affected by the 1% AEP Floodplain Development Control Area:

- City of South Perth TPS No. 6 provision 6.9 minimum ground and floor levels (Section 1.4.2.1);
- 1% AEP (100 year ARI) flood level guidance applicable to the ACP including:
  - BMT (2018a) Swan and Helena Rivers Flood Study and Floodplain Management Plan Flood Risk Assessment Final Report
  - BMT (2018b) Swan and Helena Rivers Flood Study and Floodplain Management Plan Floodplain Development Strategy
  - BMT (2020) Adaptation Plan City of South Perth

## 4.3 Water sensitive urban design

Water sensitive urban design (WSUD) offers multiple benefits sought by the objectives of the ACP, including improvements to green space, urban heat, water quality, liveability, canopy cover, and runoff control.

Opportunities to incorporate and retrofit WSUD elements and water quality treatment structures should be investigated at the lot, road and development scale as redevelopment of the strategy area progresses, as well as retrofit opportunities within existing streetscape where redevelopment is not proposed.

Examples of some best practice WSUD measures are presented in Figure 4.1, with a summary of WSUD options at the various scales of development area summarised in Table 4.1. Opportunities to implement or retrofit WSUD within the ACP are presented in Appendix F.



a) Biofiltration pocket adjacent side entry pit



b) Example permeable paving



c) Residential rain garden



d) Median swale with flush kerbing



e) Examples of biofiltration pocket and car park raingarden

Figure 4.1 Water sensitive urban design examples



**Table 4.1** *Best practice water sensitive urban design measures*

Development scale	WSUD measures
Development - lot scale	Landscaped treatment structures (for example biofilters, tree pits, vegetated swales, rain gardens) Water wise and nutrient-wise landscaping Permeable pavements Hydrocarbon management and sediment traps Roof gardens Green walls (vegetated walls) Rainwater tanks Stormwater tanks
Car parks	Landscaped treatment structures (for example biofilters, tree pits, vegetated swales, rain gardens) Hydrocarbon management and sediment traps Underground storage Permeable pavements
Street scale	Landscaped treatment structures (for example biofilters, tree pits, vegetated swales, rain gardens) Permeable pavements Hydrocarbon management, sediment traps, and gross pollutant traps Conveyance biofilter systems
Landscaping	Waterwise gardens Roof gardens Green walls (vegetated walls) WSUD treatment structures to treat runoff from fertilised podium landscape areas (for example biofilters, tree pits, vegetated swales, rain gardens) Conveyance biofilter systems

The proposed streetscape upgrades in the draft South Perth Activity Centre Landscape Design Guidelines (Section 1.4.2.5) identify sufficient development setbacks to accommodate WSUD opportunities, while providing multiple community benefits including safe pedestrian and cycling routes, improved green space, canopy cover, infiltration opportunities reducing demand on local drainage infrastructure and water quality treatment. In particular wider road verges with Street Parks, verge planting opportunities and upgrades to local road intersections provide opportunity to incorporate water sensitive urban elements including:

- Permeable paving for raised intersections and traffic calming areas to infiltrate runoff generated on the surface.
- Inclusion of biofilters and raingardens within street verge upgrades and at road intersection with kerb openings or flush kerbing. Biofilters will assist with treating small event runoff from impervious sections of verge and/or local road catchments.
- Inclusion of tree pits where street tree plantings are proposed to treat small event runoff from local road catchments.
- Kerb openings to existing verge areas to maximise at source infiltration of local stormwater runoff.
- Low traffic areas such as pathways, driveways and car-parking may incorporate permeable paving and biofilters where practicable.



## 4.4 Groundwater management

Groundwater is shallow across the majority of the ACP (Section 3.9.2) and large parts of the ACP are also subject to impacts of climate change and sea level rise (Section 1.4.3.3 and Section 3.9.2). Groundwater level and potential flood management impacts therefore need to be considered widely across the ACP during pre-development, construction, and post-construction phases of redevelopment.

Groundwater quality should also be considered across the ACP, with potential for saline intrusion a consideration for design of underground structures, as well as management of acid sulfate soils (Section 3.2.3) and potential contamination associated with historic and existing land use (Section 3.3).

Building design, and management during the pre- and post-development period should be completed with regard to the following local policy, guidance and standards:

- The City of South Perth Local Planning Scheme No. 6, with particular reference to Provision 6.9 Minimum Ground and Floor Levels.
- Relevant Australian Standards for buildings design of concrete structures, with consideration of risk of saline intrusion and other potential water quality impacts on structures (e.g. ASS).
- Local policy:
  - City of South Perth Town Planning Scheme No. 6 (TPS No. 6)
  - City of Perth Policy P203 Ground Water Management

Groundwater management for redevelopment areas within the ACP comprises three key stages:

- Pre-construction (planning, design, and site investigations)
- Construction
- Post-construction

Site specific monitoring, technical investigations and management plans may be required to support development design, construction management and planning approval. The level of investigation and management required should be appropriate to the site location, site specific characteristics, proposed development approach and extent of dewatering required. Further detail of supporting information that may be required at the various stages is summarised in the following sections.

### 4.4.1 Pre-construction

#### 4.4.1.1 Planning

Building planning should further consider site specific conditions, in particular in relation to site geotechnical and groundwater conditions, as well as the location of significant parts of the ACP within areas subject to impacts from flooding as well as expected climate change impacts including sea level rise.

Planning should consider the minimum ground height and floor levels identified in Provision 6.9 of TPS No. 6 (Section 1.4.3.3).

Significant parts of the ACP are between 1 and 2 metres AHD, and therefore redevelopment will not be able to meet the minimum ground and floor levels specified in TPS No. 6, in particular below ground building and infrastructure. In these instances developers will be required to provide evidence that building designs:

- Have water-proof infrastructure;
- Have considered the flood predictions associated with the 1% AEP event; and
- Have considered climate change impacts associated with sea level rise (Section 1.4.3.3 and Section 3.9.2).

#### 4.4.1.2 Design

Building design can impact construction groundwater management (dewatering and drawdown, groundwater quality including management of saline intrusion, ASS and/or contamination) and requirements for ongoing groundwater management. Development applications should include justification and rationale for the proposed building design and construction techniques.

Design and development of buildings in the ACP, including below ground infrastructure, should:

- Minimise groundwater drawdown during construction.
- Reduce requirement for ongoing dewatering of building post-construction (waterproofed below ground structures).

Building design should also consider concrete requirements for below ground infrastructure (i.e. compressive strength curing times, cover over reinforcement) to ensure durability and performance over the design life of the structure in line with Australian Standards.

#### 4.4.1.3 Site investigations

During the pre-development stage information should be obtained to adequately characterise site conditions, to inform building design, construction approach, construction, and post-construction management requirements for the site.

Development application submissions for tower redevelopment within the ACP should be informed by appropriate site investigations and management plans.

Building design can impact dewatering volume and drawdown during construction, as well as potential ongoing dewatering requirements during post-construction period. The preferred building design and construction approach within the ACP is for the design of water tight below ground infrastructure and foundations (for example diaphragm walls with waterproof joints) to minimise groundwater drawdown, construction dewatering and ongoing dewatering. The development application and supporting documents should provide justification and rationale outlining why a particular development type and construction approach has been selected.

A summary of key site specific investigations and management plans to support development design and construction management, as well as key guidance documents, is provided in Table 4.2. These should be submitted with development applications or to satisfy a condition of DA approval.

**Table 4.2** Pre-development stage groundwater management site investigation and management plans

Site Investigation / Management Plan	Development requirement	Guidance documents
Pre-development groundwater monitoring	Characterise site specific conditions: <ul style="list-style-type: none"> <li>– Groundwater level and recharge characteristics of the water table</li> <li>– Groundwater quality, including pH, salinity and presence of contamination</li> </ul>	
Geotechnical and soil investigation	Characterise site specific conditions: <ul style="list-style-type: none"> <li>– Geotechnical conditions</li> <li>– Soil type</li> <li>– Presence of acid sulfate soils</li> <li>– Presence of contaminated soils</li> </ul> Should be completed by a suitably qualified geotechnical engineer.	
Groundwater assessment report	Investigation of the impact of development design, construction and groundwater management on local groundwater conditions. Groundwater modelling may be required to support some dewatering proposals. The potential for cumulative impacts to groundwater from concurrent dewatering of multiple buildings may also require groundwater modelling. Should be completed by suitably qualified hydrogeologist.	

Site Investigation / Management Plan	Development requirement	Guidance documents
Dewatering Management Plan	Detail of dewatering management, including management and monitoring of water quantity and water quality, and contingency actions.	Should be prepared in accordance with DBCA (2017) <i>Corporate policy statement No. 50 Planning for dewatering affecting the Swan Canning Development Control Area</i> .
Acid Sulfate Soil Management Plan	To be prepared if development or construction activities will disturb ASS.	Should be prepared in accordance with DWER guidelines (DER 2015) <i>Treatment and Management of Soil and Water in Acid Sulfate Soil Landscapes</i>
Construction Environmental Management Plan	Required to be submitted and approved by the City prior to commencement of site works.	

## 4.4.2 Construction

Construction phase requirements for groundwater management include implementation and reporting of site specific management plans and monitoring. The format and detail of these plans will be determined in the planning application phase.

Management plans must articulate risks associated with dewater disposal, actions taken to minimise the risks as well as contingency dewatering disposal options.

In almost all cases, development proposals that minimise the volume and rate of dewatering required will carry lower dewatering related risks, costs and have more viable options available for dewater disposal.

Construction dewatering system designs should be incorporated into, and presented with development plans and building design to ensure constructability and risks such as saline water intrusion are manageable. Off-site increases or decreases in groundwater levels from dewatering, injection, or the impediment of groundwater flow paths has the potential to introduce geotechnical risk and structural damage to nearby buildings and infrastructure. The developer will be responsible for managing and mitigating these risks. Where redevelopment within the ACP requires dewatering, conditions will be applied to the development approval requiring supporting site investigations and management plans (if required) to detail the dewatering method and disposal option selected, including justification and rationale. For redevelopment of the ACP the options for dewater disposal in the ACP, in order of preference, are summarised in Table 4.3.

**Table 4.3** *Dewater disposal options*

Disposal number	Disposal option	Detail
1a	Discharge to Water Corporation sewer	Where disposal to sewer is proposed this will be subject to Water Corporation approval, subject to volume and water quality criteria. Water Corporation have provided preliminary advice of capacity constraints in some sections of existing wastewater infrastructure that should be considered. Developers should contact Water Corporation for advice on disposal to sewer and any capacity constraints.
1b	On-site recharge of abstracted groundwater	On-site recharge of abstracted groundwater (e.g. reinjection wells and infiltration ponds) is subject to site constraints. Groundwater modelling and monitoring may be required to demonstrate any impact of recharge on local groundwater levels and quality is manageable and acceptable.
2	Tankering of dewater off-site for disposal	This approach may be subject to other site constraints, including traffic management.
3	Dewater disposal to local stormwater infrastructure	This approach is subject to volume and water quality criteria and will require identification of discharge points and monitoring for duration of dewatering. Active water treatment may also be required.

### 4.4.3 Post-construction

Post-construction stage requirements for groundwater management are typically limited to development that requires ongoing dewatering or for developments which have an off-site drawdown impact (with associated ASS and building settlement related risks).

The requirement for a post construction monitoring program and will be identified during the planning phase of the project. Post-construction water level and water quality targets may be a condition of development approval.

### 4.4.4 Groundwater quality

Groundwater within the ACP is used for local irrigation of public open space areas. The City of South Perth actively manage and monitor groundwater quality within irrigation bores to minimise the potential for saline groundwater intrusion.

Review of development applications should consider the risk to groundwater quality from proposed development in with particular reference to proposed groundwater management during construction and post-construction stages. Key groundwater quality risks that should be considered include:

- Potential for saline groundwater intrusion from over-abstraction of local groundwater. Cumulative impacts from concurrent developments should also be considered and may require alternate groundwater disposal options. High water tables, as present across parts of the ACP (Section 3.9.2), in combination with groundwater salinity has the potential to impact local vegetation and ecology dependent on fresh groundwater. Saline groundwater may also decrease the durability of concrete structures.
- Potential for disturbance of acid sulfate soils both on-site and off-site (especially if significant off-site groundwater drawdown is predicted).
- Potential for mobilisation of existing groundwater contamination associated with current or historic land use.



## 5. Implementation

As the South Perth Activity Centre is an existing urban area implementation of the ACP and requirements of this LWMS will occur over extended time frames. This section identifies requirements for future planning and development and review timeframes.

This LWMS provides guidance on water management within the ACP. Urban water management plans are not anticipated to be required to support small scale residential redevelopment of individual lots within the study area. Urban water management plans may be required where a development is proposed that is unable to meet the design criteria identified in Section 4.

### 5.1 Requirements for future planning and development

#### 5.1.1 Development application

Development applications (DA) submitted to the City, including engineering and building drawings, should be supported by clear and auditable documentation that details the water management requirements and fit for purpose water source systems, including any proposed staging, and demonstrating compliance with the objectives and criteria in this LWMS.

At the DA stage additional supporting documentation may be required that reports on the outcomes of specialist studies and site investigations.

The development application and supporting documents should provide justification and rationale outlining why a particular development type and construction approach has been selected. For tower development in areas with high groundwater conditions key documentation required to support the DA will include:

- Geotechnical and soil investigation.
- Groundwater assessment report, including detail of pre-development monitoring and groundwater modelling if required.

Other site investigations and summary reporting may be required based on existing site conditions. Developers should seek advice from the City, the DWER and DBCA where required.

#### 5.1.2 Pre-construction

A Construction Environmental Management Plan (CEMP) is required for all development to ensure careful management of the construction process. Key aspects of a CEMP include:

- Dust management
- Stormwater and sediment control
- Soil excavation method (if applicable)
- Groundwater management and dewatering management (if applicable)
- Waste management
- Monitoring and reporting requirements

The City may require submission and approval of additional site management plans prior to commencement of site works. The requirement for additional supporting site investigations and management plans (if required) will be applied to the development approval.

#### 5.1.3 Construction management

Construction shall occur in accordance with management plans prepared in support of the DA, or prepared as a condition of approval.

Where contaminated sites are identified during construction activities these should be managed in accordance with the Contaminated Sites Act 2003 (WA).

## 5.2 Review

In recognition of the infill and redevelopment nature of the proposed development, this LWMS has been developed as a live document that is subject to scheduled reviews or may be updated more frequently as key documents or concepts are prepared to support redevelopment.

Scheduled reviews of the LWMS should occur every five years, or as required, ensuring the information presented and the recommendations remain current in achieving best management practice in total water cycle management through the life of the redevelopment. As key documents or concepts are prepared the information may be referred to in an addendum to the LWMS or incorporated during the document revision.

## 6. References

- Barnett, J.C., Rogers, A.D., Serafini, G. and Davies, J.R. (2015) *Rising groundwater levels associated with sea level rise*, JDA Consultant Hydrologists, IPWEA WA State Conference March 2015
- BMT (2018a) *Swan and Helena Rivers Flood Study and Floodplain Management Plan Flood Risk Assessment Final Report*
- BMT (2018b) *Swan and Helena Rivers Flood Study and Floodplain Management Plan Floodplain Development Strategy*
- BMT (2020) *Adaptation Plan City of South Perth*
- BMT (2021) *City of South Perth Sea Level Rise Summary Assessment based on Swan and Helena River Flood Studies*
- City of South Perth (2002) *Green Plan*, Government of Western Australia.
- City of South Perth (2021) *City of South Perth Public Open Space*, unpublished report prepared by Professor David Hedgecock for City of South Perth.
- City of South Perth (2004) *Integrated Catchment Management Plan*, unpublished report prepared by JDA Consulting Hydrologists for City of South Perth.
- City of South Perth (2017) *Water Management Plan 2017-2022*, Government of Western Australia.
- City of South Perth (2020) *draft South Perth Activity Centre Landscape Design Guidelines*, unpublished report prepared by City of South Perth, May 2020.
- (DBCA) Department of Biodiversity Conservation and Attractions (2021) *Monitoring, evaluation and reporting - Catchment water quality*, accessed from <https://www.dpaw.wa.gov.au/management/swan-canning-riverpark/ecosystem-health-and-management/374-monitoring-evaluation-and-reporting?showall=&start=2>
- Department of Water (2004-2007) *Stormwater Management Manual for Western Australia*, Government of Western Australia.
- Department of Water Environmental Regulation (2019) *Waterwise Perth Action Plan*, Government of Western Australia.
- (GHD draft 2021a) *Desktop Environmental Assessment Report – South Perth Activity Centre*, , unpublished report prepared for the City of South Perth
- GHD (2021b) *South Perth Activity Centre Plan Civil Servicing Report*, unpublished report prepared for the City of South Perth
- Roberts Day (2019) *South Perth Activity Centre Plan (Draft for Public Consultation)*, prepared for City of South Perth, February 2019.
- Swan River Trust (2007) Potential impacts of climate change on the Swan and Canning Rivers, prepared for the Swan River Trust by the Technical Advisory Panel, December 2007.
- University of Wisconsin-Madison (UMW) (2014) Urban heat islands, <https://wsc.linology.wisc.edu/research/urban-heat-island>
- (WAPC) Western Australian Planning Commission (2013) State Planning Policy 2.6 State Coastal Planning Policy (SPP 2.6)

# Appendices



# Appendix A

## South Perth Activity Centre Plan

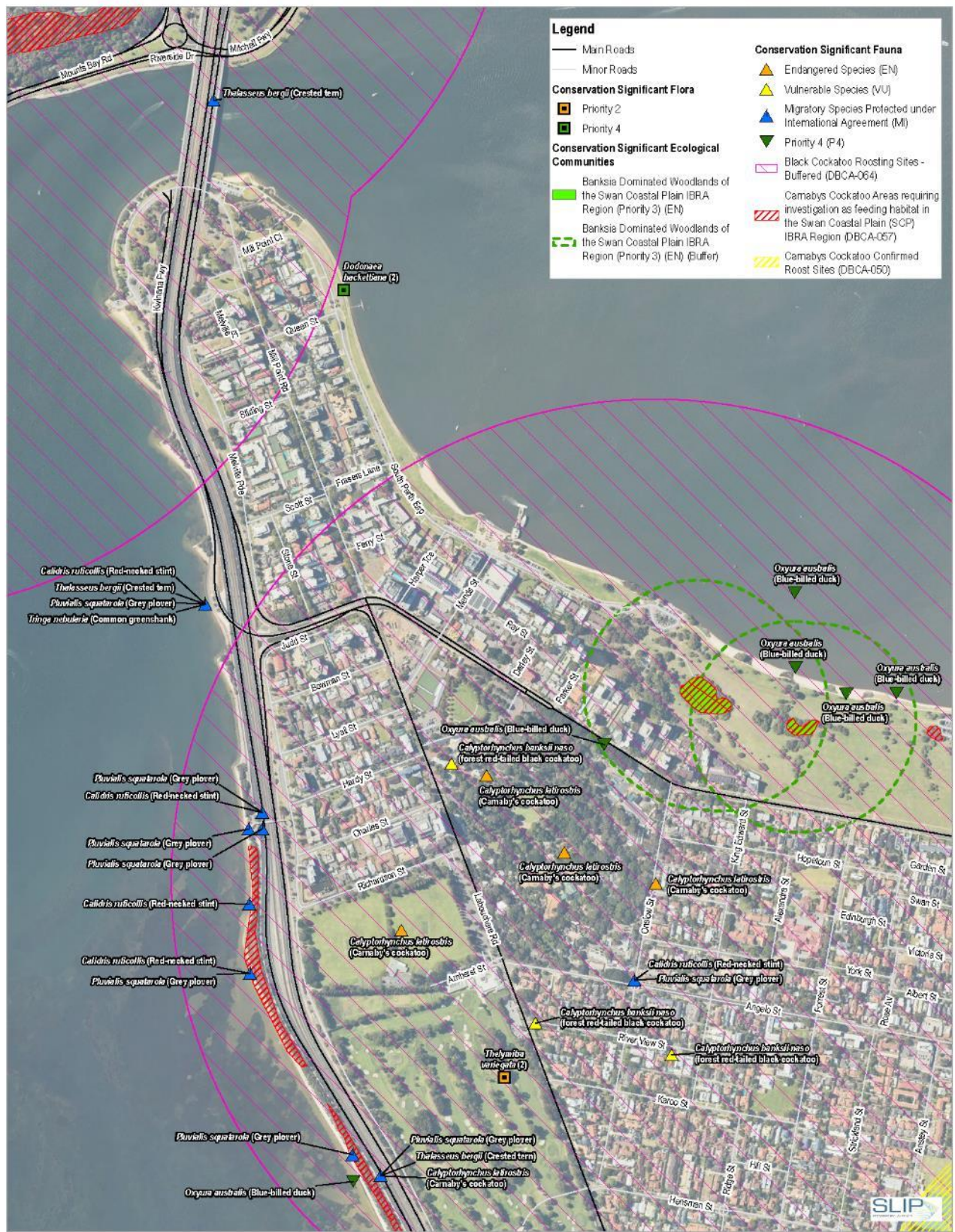


Figure A.1 South Perth Activity Centre Plan

# Appendix B

## ACP Conservation significant flora and fauna





City of South Perth  
South Perth Activity Centre Plan -  
EAP, LVMS & CSR

Conservation Significant Fauna,  
Conservation Significant Flora &  
Conservation significant ecological communities

Project No. 12550624  
Revision No. 0  
Date 13/07/2021

FIGURE 1

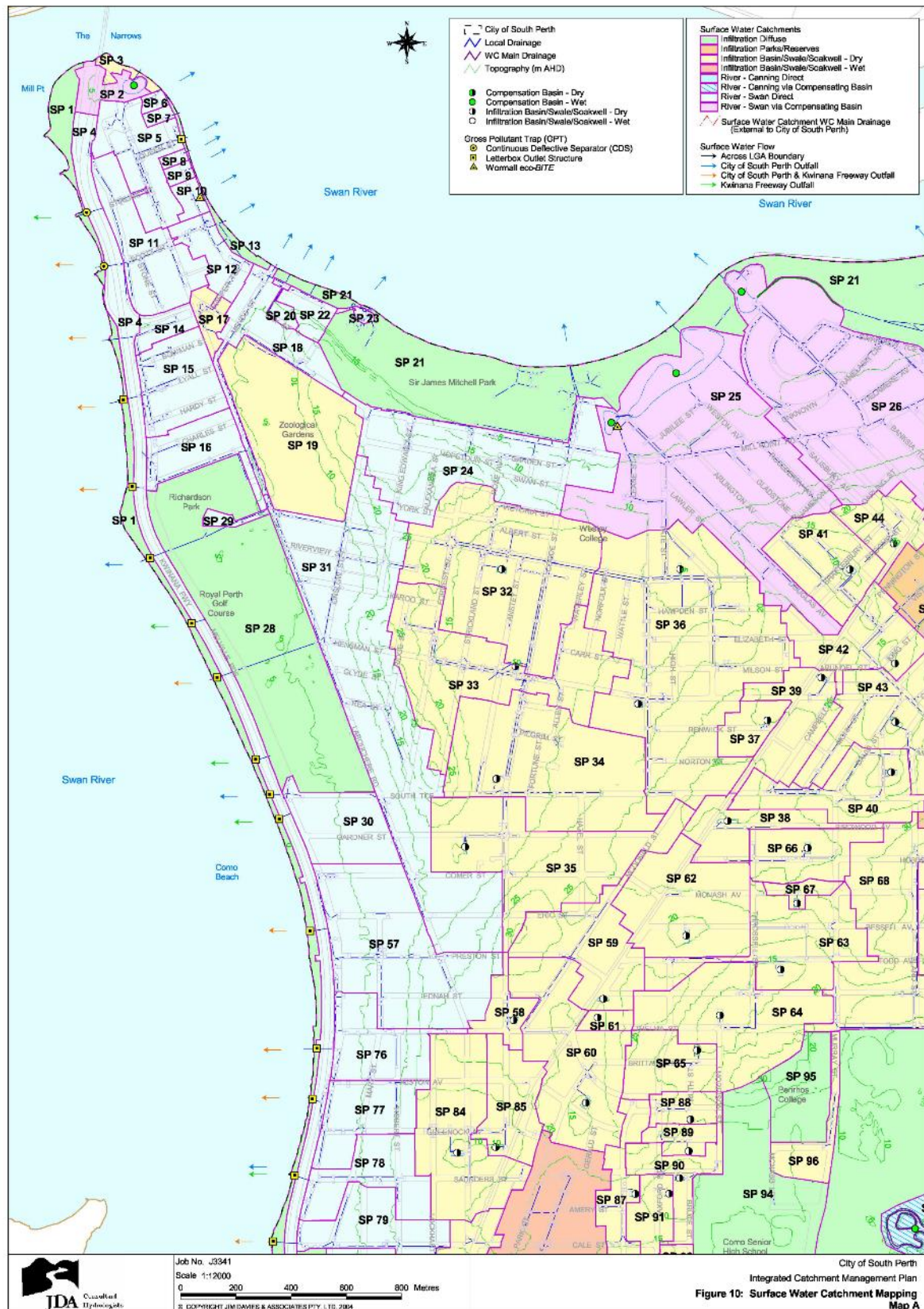
City of South Perth | 12550624 | South Perth Activity Centre Plan



# Appendix C

## City of South Perth (2004) Integrated Catchment Management Plan

Catchment mapping



# Appendix D

## Water Technology Stormwater Modelling

Figure 4-1 10% AEP Pre-development results and flooding location (Water Technology 2018)



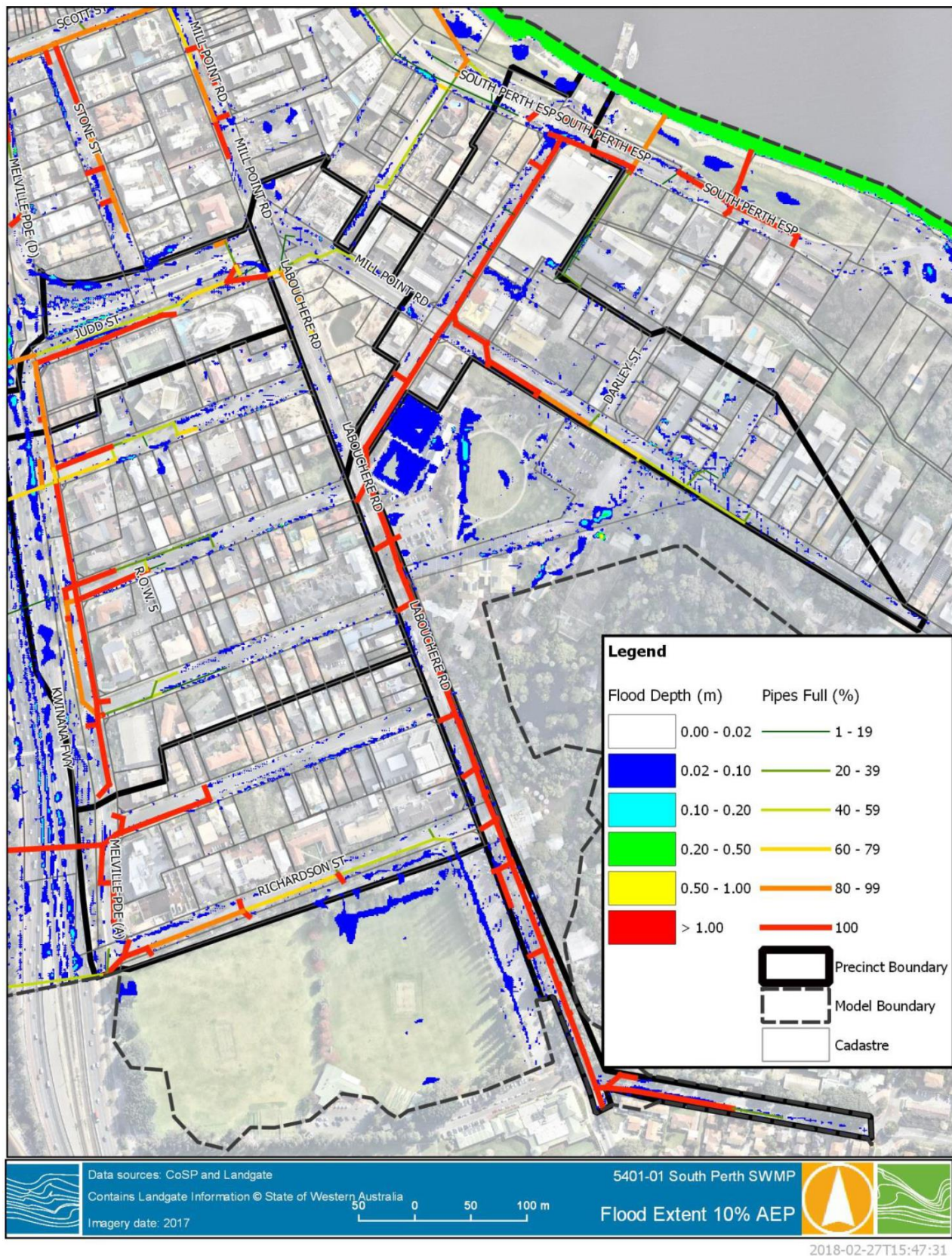


FIGURE 4-1 10% AEP PRE-DEVELOPMENT RESULTS AND FLOODING LOCATIONS

Source: Water Technology (2018)





# Appendix E

## DWER Flood Mapping



Figure E.1 DWER FPM Extent of Flooding mapping (DWER-017)



Figure E.2 DWER FPM Floodplain Area mapping (DWER-020)



# Appendix F

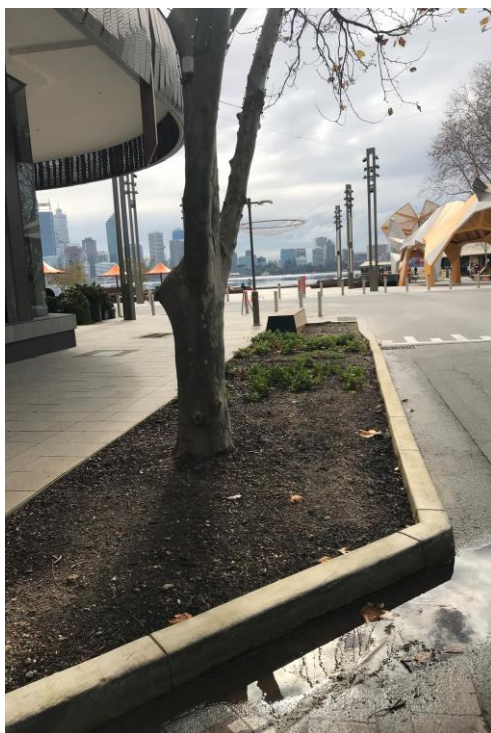
**South Perth ACP WSUD opportunities**



a) Existing garden bed with flush kerb along South Perth Esplanade presents opportunity to incorporate biofilter elements



b) Existing garden bed with flush kerbing on Mends Street presents opportunity to incorporate biofilter elements



c) Existing garden bed on Mends Street presents opportunity to incorporate kerb opening for street drainage and biofilter elements



d) Existing street parking on Mends Street presents opportunity for permeable paving





e) Existing stormwater side entry pit presents opportunity to retrofit as tree pit, providing both landscape, amenity and water quality treatment benefits



f) Existing street parkign and garden beds adjacent Richardson Park present oppornities for permeable parking and incorporation of biofilter elements



g) New street trees associated with development may be designed as tree pits, providing both landscape, amenity and water quality treatment benefits



DEPARTMENT OF PLANNING, LANDS AND HERITAGE	
DATE	FILE
21-Dec-2021	SPN/2229/1

[ghd.com](https://ghd.com)

➔ **The Power of Commitment**





# APPENDIX 6

## SEA LEVEL RISE SUMMARY ASSESSMENT

BMT Commercial Australia Pty Ltd  
Level 5, 348 Edward Street  
Brisbane Qld 4000  
Australia  
PO Box 203, Spring Hill 4004

Tel: +61 7 3831 6744  
Fax: + 61 7 3832 3627

ABN 54 010 830 421

[www.bmt.org](http://www.bmt.org)

Our Ref: L.A11106.002.docx

25 June 2021

City of South Perth  
Cnr Sandgate St and South Tce  
South Perth WA 6151

To whom it may concern,

**RE: CITY OF SOUTH PERTH SEA LEVEL RISE SUMMARY ASSESSMENT BASED ON SWAN AND HELENA RIVER FLOOD STUDIES**

This letter report outlines the summary of work undertaken through the Swan and Helena River Flood Studies, undertaken by BMT between 2018 and 2020, with a particular focus on impacts of sea level rise as a consequence of climate change on the South Perth Activity Centre Plan (ACP) area. The City of South Perth has prepared the Draft South Perth Activity Centre Plan in February 2019.

The Swan and Helena River Flood Study considered a sea-level rise of 0.9m to the 1% AEP level to reflect a 2110 horizon, per the State Coastal Planning Policy (Department of Transport, 2010). This letter report also summarises the climate change recommendations for the City of South Perth provided in the adaptation plan.

## Summary of work undertaken to date

The studies undertaken to date include the following:

- Hydrologic modelling for the entire Swan River catchment (Stage 1 – HARC, 2016)
- Hydraulic modelling for riverine flooding in the lower Swan and Helena Rivers (downstream of Walyunga) producing a calibrated model and design flood mapping (Stage 2 – BMT WBM, 2017a and BMT, 2017b)
- Flood risk management study for six local government areas in the lower Swan and Helena Rivers, including City of South Perth (Stage 3 - BMT, 2018a)
- Flood adaptation planning for the same study area as the flood risk management study (Stage 4 – BMT, 2020).

There are numerous sources of flooding within the study area, including flooding from the major waterways of the Swan and Helena Rivers (fluvial flooding), coastal flooding caused by storm surges, and local flooding caused by rainfall within the study area. All flooding sources, except local flooding, were considered in the hydraulic assessment and subsequent stages. Local flooding from other minor tributaries that feed into the Swan and Helena Rivers were not assessed<sup>1</sup>.

---

<sup>1</sup> A study by Department of Water identified that minor tributaries have negligible influence on the peak flood levels on the Swan River

## Climate change and storm surge modelling

Climate change conditions in the Swan and Helena catchments were represented in the hydraulic model with a sea level rise of 0.9m applied to the 1 in 100 AEP event. The increase in sea level rise of 0.9m is in line with State Coastal Planning Policy to a planning horizon of 2110. Increased rainfall was not included as part of the climate change assessment, in line with advice that the Perth region is likely to experience drier conditions in the longer term.

The Swan River was determined as being sensitive to the choice of downstream boundary (storm surge) and so an in-depth joint probability assessment was undertaken as part of the Stage 2 hydraulic modelling. This assessment involved running differing combinations of fluvial and tidal (storm surge) boundaries to identify the 'joint probability zone'. A 'joint probability zone' is defined in ARR2016 as being a 'region in which the dependence between riverine and ocean processes has the potential to influence the design flood level'. A combination of events for each annual exceedance probability (AEP / flood size) were then selected which together were representative of the overall AEP flood surface from Walyunga to Fremantle.

## Summary of flood impacts within the ACP area

The City of South Perth LGA is located within the 'joint probability zone' and is subject to both riverine and coastal flooding. Properties within the LGA are highly sensitive to changes in sea level, particularly properties south of the Narrows Bridge. The Floodplain Risk Management Study found that the damage costs to residential and commercial properties affected by future climate conditions are expected to increase significantly. Damages to residential properties are estimated to increase significantly, from \$354,000 in a current climate 1% AEP, to \$14.9M under future climate change conditions. Damages to commercial properties are expected increase from \$433,000 under current climate conditions to approximately \$4M under future climate change conditions.

Figure 1 and Figure 2 present peak flood levels for the 1 in 100 AEP flood with the application of sea level rise and the change in peak flood levels due to the applied sea level rise from the current conditions, respectively. Figure 3 shows the peak water level depths under the 1 in 100 AEP including climate change conditions. The following impacts were identified in the 1 in 100 AEP event in the future (year 2110) scenario:

- Peak flood levels are expected to rise between 0.87m and 0.83m in the region from Narrows Bridge to the eastern boundary of the City of South Perth. Impacts then begin to decrease upstream and further east from the coast. The overall flood extents are anticipated to increase and inundate new areas in the Narrows Parklands, Mill Point Reserve, South Perth Esplanade Reserve, Milyu Nature Reserve and Kwinana Freeway.
- Under the future climate change conditions, breakout flow begins to occur along Mill Point Road and across the peninsular. Generally, the water depth in the newly inundated areas to the south of Mill Point Reserve is approximately 0.6m under the future climate change conditions. However, an isolated pocket near the intersection of Mill Point Road and Queen Street is estimated to reach a water depth of up to 0.9m.
- The water level at the South Perth Esplanade Reserve is expected to rise from 1.43m AHD to 2.28m AHD due to future climate change. Generally, water depth in the newly inundated areas at South Perth Esplanade Reserve will be between 0.2m to 0.6m under climate change conditions. The residential



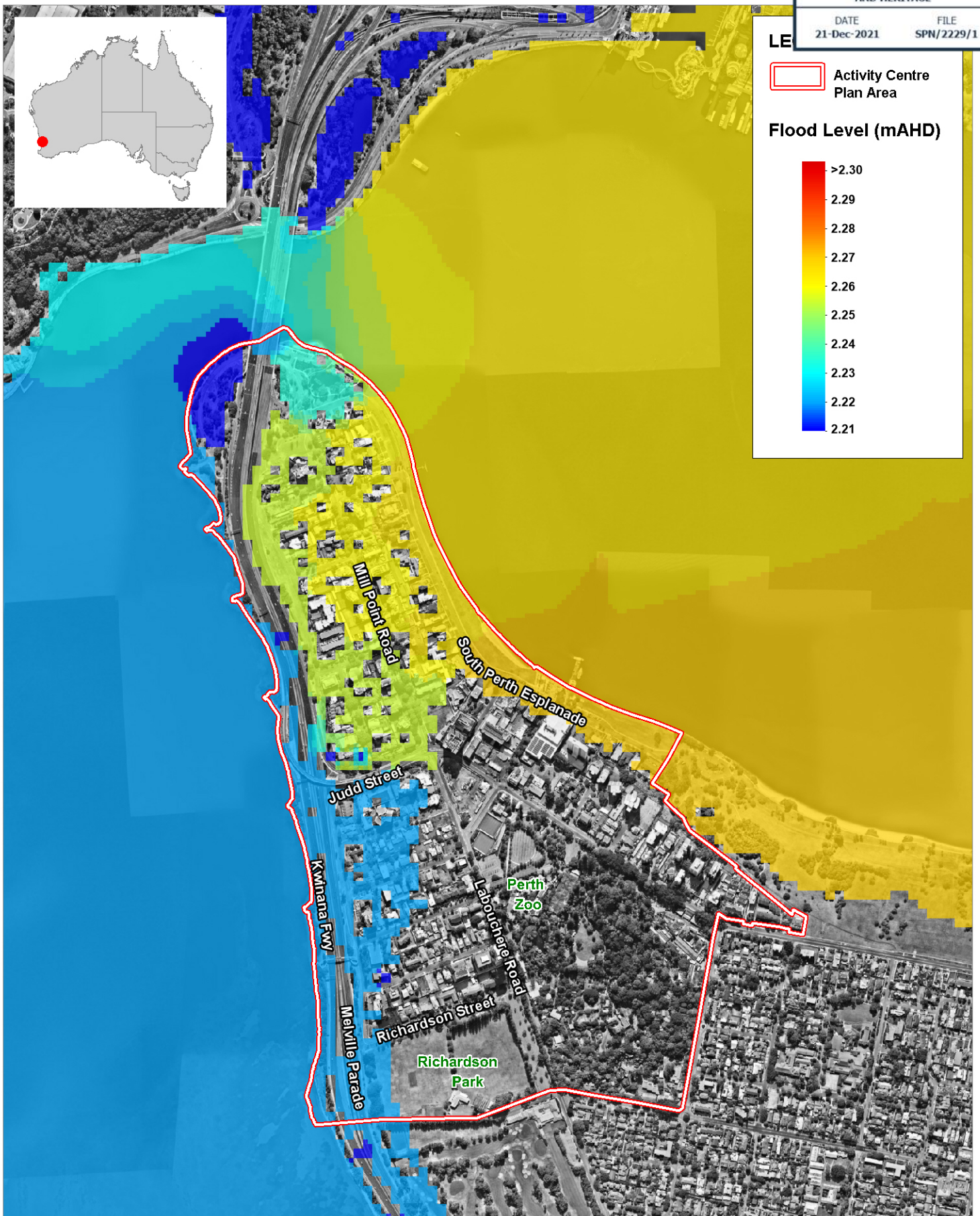
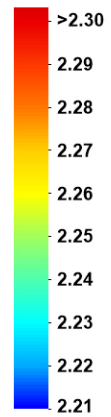
properties along South Perth Esplanade Reserve are expected to be partially inundated to a depth of up to 0.8m.

- Water levels in the Swan River along the western boundary of the ACP is expected to increase from 1.35m AHD to 2.22m AHD due to future climate change. As such, parts of Kwinana Freeway will be inundated, including near the intersection of Judd Street and Melville Street. Breakout flow is expected to newly inundate buildings in Melville Parade and Bowman Street to a depth of up to 0.9m. The buildings to the western side of Lyall Streets and Hardy Street are also expected to be newly inundated to a depth of up to 0.6m in the future (year 2110) scenario.

LE

Activity Centre  
Plan Area

Flood Level (mAHD)



Title:  
**Sea Level Rise (0.9m)  
Peak Water Surface Level - 1 in 100 AEP**

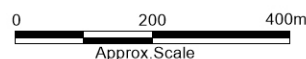
Figure:

1

Rev:

A

BMT WBM endeavours to ensure that the information provided in this map is correct at the time of publication. BMT WBM does not warrant, guarantee or make representations regarding the currency and accuracy of information contained in this map.

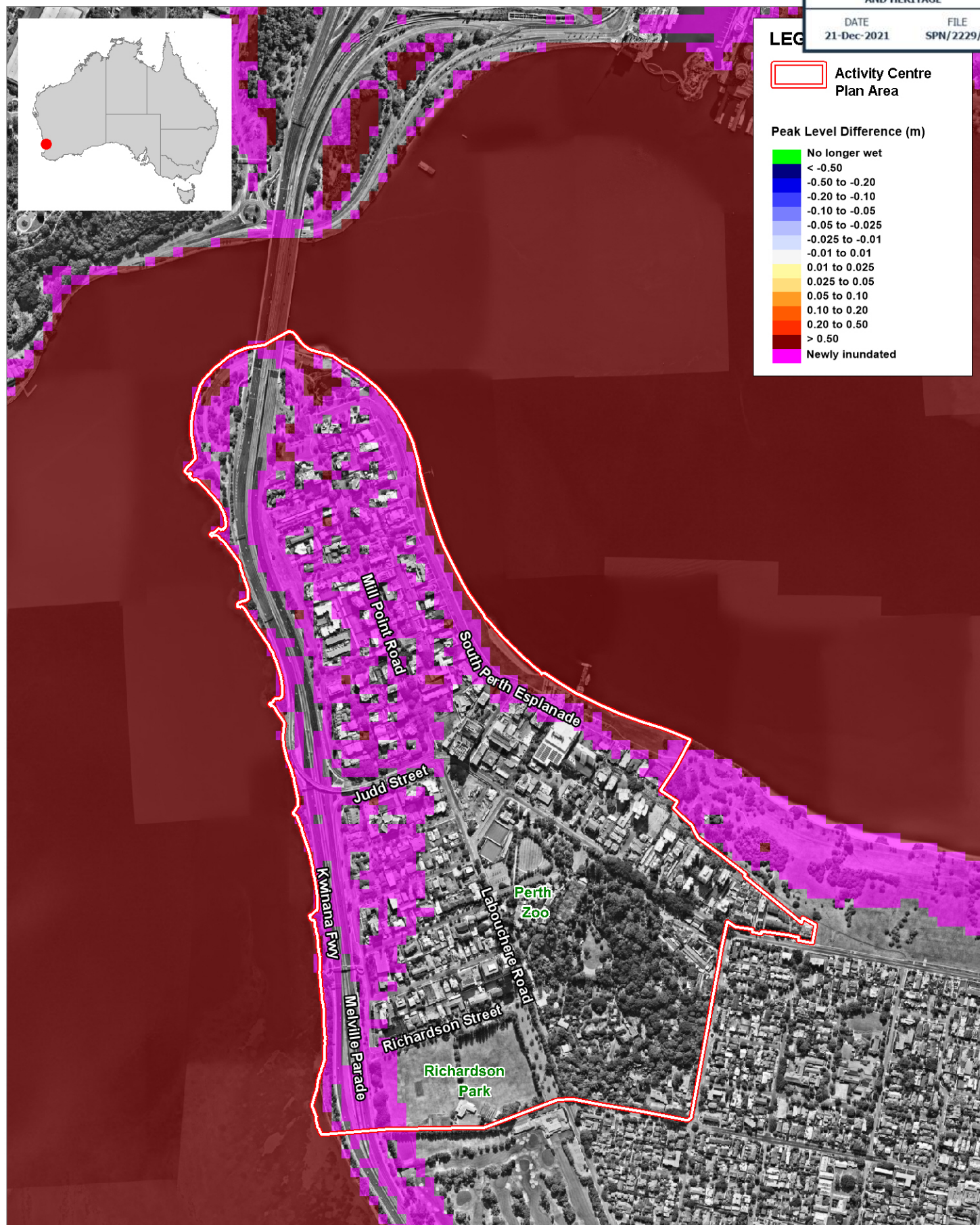
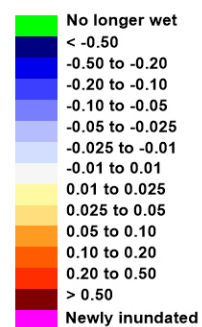




LEG

 Activity Centre  
Plan Area

Peak Level Difference (m)



Title:

## Sea Level Rise (0.9m) Peak Level Differences - 1 in 100 AEP

Figure:

2

Rev:

A

BMT WBM endeavours to ensure that the information provided in this map is correct at the time of publication. BMT WBM does not warrant, guarantee or make representations regarding the currency and accuracy of information contained in this map.





0 200 400m  
Approx. Scale










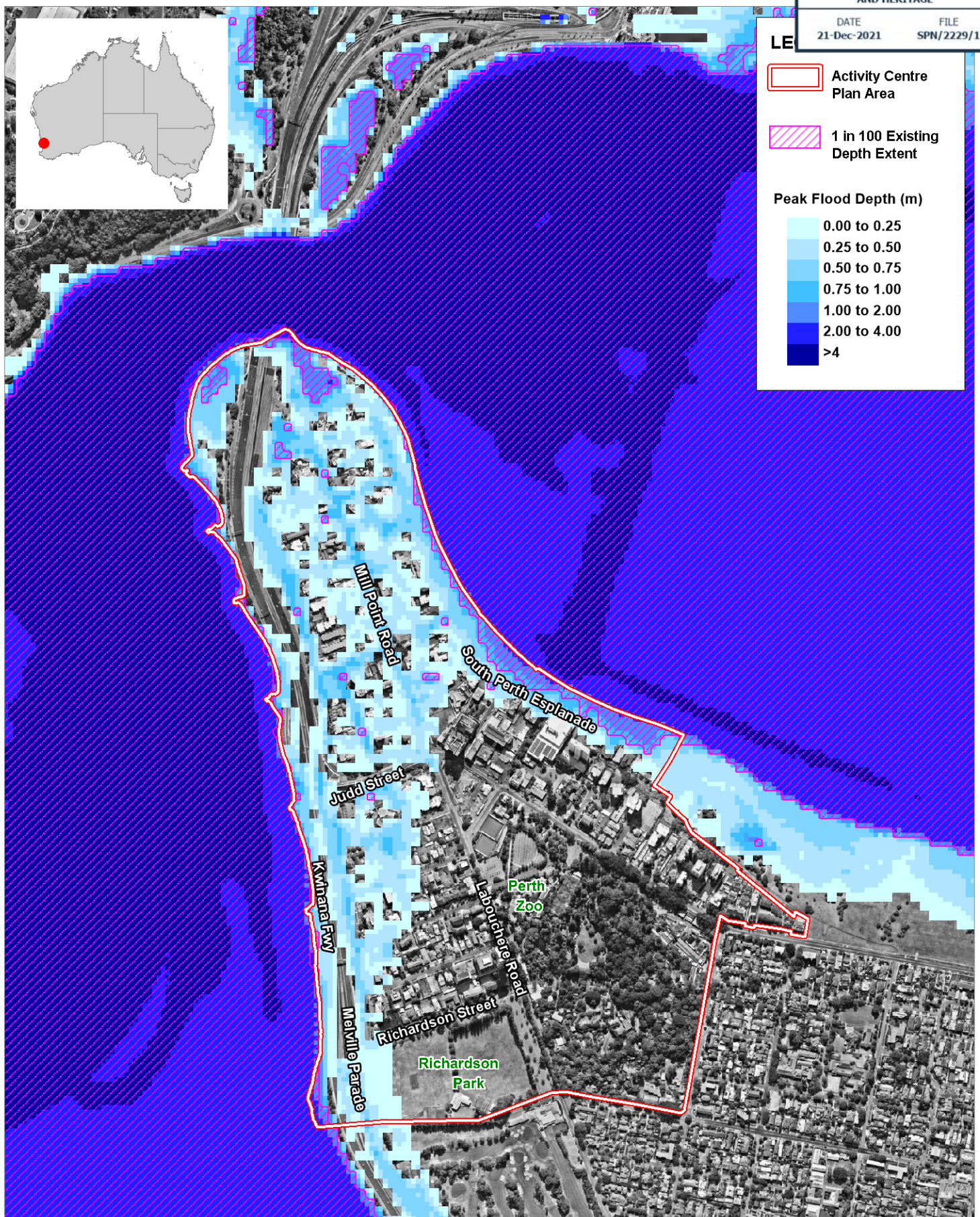


LE

-  Activity Centre  
Plan Area
-  1 in 100 Existing  
Depth Extent

## Peak Flood Depth (m)

-  0.00 to 0.25
-  0.25 to 0.50
-  0.50 to 0.75
-  0.75 to 1.00
-  1.00 to 2.00
-  2.00 to 4.00
-  >4



Title:  
**Sea Level Rise (0.9m)  
Peak Water Depths - 1 in 100 AEP**

Figure:

**3**

Rev:

**A**

BMT WBM endeavours to ensure that the information provided in this map is correct at the time of publication. BMT WBM does not warrant, guarantee or make representations regarding the currency and accuracy of information contained in this map.



0 200 400m  
Approx. Scale

[www.bmt.org](http://www.bmt.org)



## Summary of climate change recommendations

The *Adaptation Plan – City of South Perth (2020)* includes recommendations to update current policies, plans, processes, raise community awareness and actions for climate change adaptation in the City of South Perth. The recommendations provided in the adaptation plan are based on the findings from the gap analysis and feedback received from City of South Perth and other state agencies (i.e. Department of Water and Environmental Regulation, Department of Fire and Emergency Services).

The actions proposed in the adaptation plan cover a broad range of flood risk management adaptation measures including improvements to flood warning, promotion of community awareness and allowance for future climate change in the design of future infrastructure. All floodplain management recommendations provided in the adaptation plan will help Council manage flooding now and in the future. The following recommendations, extracted from the adaptation plan, relate specifically to climate change adaptation:

- Action 1: Stay informed about best practice principles and assumptions
- Action 2: Avoid locating new important community infrastructure with a long design life in hazard areas.
- Action 3: Identify and tackle low-lying areas (i.e. low-lying areas that require pumping and low-lying roads that will be affected by king tides; review evacuation routes).
- Action 4: Gradually review and develop climate change adaptation actions.

A total of 22 flood adaptation actions were identified in the plan to help the City of South Perth and its communities adapt to existing and future flood risk. A summary of the planning actions from the *Adaption Plan – City of South Perth (2020)* is presented in Appendix A.

## Conclusion

The climate change conditions in the Swan and Helena catchments are represented in the hydraulic model with an increase in sea level rise of 0.9m applied to the 1 in 100 AEP flood event. Studies completed to date identified that properties within the City of South Perth are highly sensitive to changes in sea level, particularly properties south of the Narrows Bridge. Peak water levels in a 1 in 100 AEP flood under future climate change conditions are expected to rise from 1.43m AHD to 2.28m AHD at South Perth Esplanade Reserve. In response to the current flood risk and the increased risk predicted for the future, the *Adaption Plan – City of South Perth (2020)* has provided four recommendations which aligns with best practice and directly address climate change.

Note that this assessment sought to identify the risk of flood inundation to the ACP area from riverine flooding and storm tide flooding. Flooding caused by rainfall within the study area, elevated river levels backing up the stormwater network, or wave overtopping has not been assessed. As such, flood mapping is likely to underestimate the total flood risk to the City of South Perth (and the ACP area), including potential worsening of flood risk due to climate change.

Yours Faithfully



**Carrie Dearnley**  
**Associate Principal Flood Engineer**  
**BMT**

## References

---

Department of Transport: DoT, 2010 Sea Level Change in Western Australia. Application to Coastal Planning. Discussion Paper.

BMT, 2017a, Swan and Helena Rivers Flood Study and Floodplain Management Plan: Model Development and Calibration Report, Prepared for EMRC, Final, July 2017.

BMT, 2017b, Swan and Helena Rivers Flood Study and Floodplain Management Plan: Hydraulic Modelling Final Report

BMT, 2018a, Swan and Helena Rivers Flood Study and Floodplain Management Plan Flood Risk Assessment Final Report

BMT, 2018b, Swan and Helena Rivers Flood Study and Floodplain Management Plan Floodplain Development Strategy

BMT, 2020, Adaptation Plan City of South Perth

## Appendix A

---

Table 6-1 Summary of adaptation planning actions

Priority	Action ID	Description of Action	LG*	EMRC **	State***	Outcome	Timing
1	2	Review/ verify actual floor levels to verify building inundation risk for properties	✓			Aligns with best practice	Short-term (< 6 months)
2	5	Raise Flood Awareness regarding building inundation, rare events	✓	✓		Aligns with best practice	Short-term (< 6 months)
2	7	Raise Awareness of Vulnerable institutions	✓	✓		Aligns with best practice	Short-term (< 6 months)
2	16	Raising Community Awareness through social media	✓	✓		Informs the community, raises flood awareness and resilience	Short-term (< 6 months)
3	6	Raise Awareness of potential Isolation	✓	✓		Aligns with best practice	Short-term (< 6 months)
3	14	Raising Community Awareness regarding to improve flood knowledge and increase resilience	✓	✓		Informs the community, raises flood awareness and resilience	Short-term (< 6 months)
3	15	Raising Community Awareness through a website	✓	✓		Informs the community, raises flood awareness and resilience	Short-term (< 6 months)
4	1	Webinar on the model and data available from Stage 3	✓	✓		Informs LG of flood model and data available	Short-term (< 6 months)
4	8	Review SLIP portal info			✓	Informs LG of flood model and data available	Short-term (< 6 months)
4	9	Consider adding the flood hazard layers to SLIP portal	✓	✓	✓	Informs LG of flood model and data available	Short-term (< 6 months)
4	10	Investigate potential to update the polygons for the floodway and fringe areas	✓	✓	✓	Aligns with best practice	Short-term (< 6 months)
5	4	Improve Flood Warning and Flood Awareness building inundation, moderate events	✓	✓	✓	Aligns with best practice in flood risk management	Short-term (< 6 months)
5	11	Flood planning LGA	✓	✓		Aligns with best practice	Short-term (< 6 months)



Priority	Action ID	Description of Action	LG*	EMRC **	State***	Outcome	Timing
5	12	Flood planning EMRC	✓	✓		Aligns with best practice	Short-term (< 6 months)
6	19	Adapt to Climate Change – Action 3	✓	✓		Aligns with best practice and adapt to climate change	Long-term (> 2 years)
7	22	Development of a flood intelligence tool	✓	✓	✓	Improve flood awareness and response in LG	Medium-term (< 2 years)
8	17	Adapt to Climate Change – Action 1	✓	✓		Aligns with best practice and adapt to climate change	Long-term (> 2 years)
9	18	Adapt to Climate Change – Action 2	✓	✓		Aligns with best practice and adapt to climate change	Long-term (> 2 years)
9	20	Adapt to Climate Change – Action 4	✓	✓		Aligns with best practice and adapt to climate change	Long-term (> 2 years)
10	21	Review and improve the current Flood Warning processes	✓	✓	✓	Improve flood awareness and response in LG	Long-term (> 2 years)
11	13	Flood planning state government			✓	Aligns with best practice	Long-term (> 2 years)
11	3	Improve Flood Warning and Flood Awareness building inundation, frequent events	✓	✓		Reduce flood risk in frequent events	Medium-term (< 2 years)

\*Actions that involve Local Government, \*\* Actions that involve EMRC, \*\*\*Actions that involve State Government



# APPENDIX 7

## COMMUNITY BENEFIT CONTRIBUTION FRAMEWORK

# South Perth Activity Centre Plan

## Community Benefit Contribution Framework

December 2021





We acknowledge the custodians of this land,  
the Whadjuk Nyoongar and their Elders past,  
present and emerging.

We wish to acknowledge and respect their  
continuing culture and the contribution they  
make to the life of this city and this region.

# Contents

<b>1. Introduction</b>	<b>1</b>
<b>2. Community Benefit Contribution Categories</b>	<b>3</b>
<b>3. Relationship to State Planning Policy</b>	
7.2 Precinct Design Guidelines and	
State Planning Policy 7.3 Residential	
Design Codes Vol.2	<b>4</b>
<b>4. Relationship to State Planning Policy 3.6 –</b>	
<b>Infrastructure Contributions Guidelines</b>	<b>5</b>
<b>5. Literature Review</b>	<b>9</b>
5.1 Key findings and implications	10
5.2 Identified Community Benefit Contribution Projects	11
<b>6. Community Needs Analysis</b>	<b>13</b>
<b>7. Community Benefit Contribution Projects</b>	<b>15</b>
<b>8. Assessment Criteria for Unlisted</b>	
<b>Community Benefits</b>	<b>16</b>
<b>9. Project Prioritisation</b>	<b>17</b>
9.1 Value Assessment Matrix	17
9.2 Location of investment	18
9.3 Streetscape / public realm / intersection upgrades	18
9.4 Strategic considerations	19
9.5 Engagement Outcomes	19
<b>10. Funding and Timing</b>	<b>23</b>
<b>11. Review of the CBCF</b>	<b>24</b>
<b>Appendix 1 – Community Benefits Contribution</b>	
<b>Framework Project List</b>	<b>25</b>
<b>Appendix 2 - Community Needs Analysis</b>	<b>31</b>
<b>Appendix 3 - Community Benefit Contribution</b>	
<b>Procedural Guide</b>	<b>32</b>





Chelsea Street Playground, NSW. Source - Green Magazine



Urban Plaza Park, Shanghai. Source - 100 Architects



# 1. Introduction

Community benefit contribution requirements are contained within Schedule 9B of Town Planning Scheme No.6 (TPS 6) and apply where development is proposed above the primary building height and/or plot ratio limits. The purpose of the Community Benefit Contribution Framework (CBCF) is to provide an effective, accountable, clear and robust framework to guide the delivery of community benefit contribution items both within the public realm and on-site as part of private development.

The CBCF sets out a transparent approach to guide the prioritisation of community benefit contribution items funded through monetary contributions to the City of South Perth (the City) or included within private development, based on the ability for an item to create community benefit in the ACP area.

The CBCF has been designed to be flexible to respond to changing community benefit needs and to provide guidance when community benefits are proposed that are not currently included in the CBCF. Reviews of the CBCF will be undertaken to ensure its relevance and effectiveness in delivering community benefits.





Rockhampton Riverside, QLD. Source - Landscape Australia



Docklands Park, VIC. Source - SVC Products



## 2. Community Benefit Contribution Categories

The South Perth Activity Centre Plan (ACP) lists six categories of items that may be funded from the Community Benefits Fund. Rationale set out in Table 1 provides the rationale for the inclusion of each category.

**Table 1 – Community Benefit Contribution categories**

Community benefit category	Rationale for inclusion
<b>Community facilities</b>	Provision and improvement of sporting, recreation and social facilities is highly desirable. Community benefit contributions may fund new facilities or upgrades and expansion of existing facilities.
<b>Streetscape and public realm upgrades</b>	Upgrades and improvements to streetscapes and the public realm will make the ACP area more attractive, comfortable and accessible, especially for pedestrians, cyclists and people with disabilities. Community benefit contributions may fund new, restored or upgraded treatments, facilities and landscaping within road reserves and other public areas.
<b>Street trees and landscaping</b>	Trees and green spaces provide a wide range of benefits including shade, water management, biodiversity and visual attractiveness. Community benefit contributions may fund the planting of new trees and landscaped areas. Landscaping may include provision of pocket parks in accordance with the ACP.
<b>Upgrades to public open space</b>	Public open space performs a wide range of essential functions including passive and active recreation. As the ACP area population grows, public open space will be more heavily used and will need to be adaptable and multifunctional. Community benefit contributions may fund improvements to public open space to enhance its usefulness and public value.
<b>Movement Network and Transport infrastructure</b>	The South Perth ACP aims to improve walking, cycling and public transport facilities as efficient and attractive alternatives to the private car. This will be increasingly important as the ACP area and wider metropolitan area continue to grow. Community benefit contributions may fund projects that improve walking and cycling infrastructure and access to public transport, especially for people with disabilities. Upgrades to road infrastructure including intersection upgrades and provision of signalised intersections may also be included.
<b>Placemaking initiatives</b>	The South Perth ACP vision is for the area to be a distinctive destination and neighbourhood that supports a wide range of businesses and is an attractive place to live. A wide range of initiatives may be funded by community benefit contributions that help make places be actively used, interesting and attractive.

### 3. Relationship to State Planning Policy

#### 7.2 Precinct Design Guidelines and State Planning Policy 7.3 Residential Design Codes Vol.2

State Planning Policy 7.2 Precinct Design Guidelines (the Guidelines) and State Planning Policy 7.3 Residential Design Codes Vol.2 (R-Codes Vol.2) provide guidance on the establishment of development incentives in exchange for the delivery of community benefits.

A key consideration of both policies is ensuring the value of the community benefit is proportionate to any additional development entitlement. Schedule 9B of TPS 6 provides for building height and plot ratio to be considered above the primary limits where design excellence is achieved, and community benefits are proposed to be delivered on-site and/or as a monetary contribution to the satisfaction of the City. The provisions and formula contained within Schedule 9B have been calibrated to ensure the community benefits provided are commensurate to the additional height being sought.

The Guidelines and R-Codes Vol.2 provide examples of community benefits which may be considered by the Local Government when establishing development incentives. Through the development of the ACP and community benefit framework, specific community benefit categories have been established which are reflective of the outcomes community engagement and site and context analysis outlined in Part 2 of the ACP. The community benefit categories established are intended to deliver projects which offer a tangible benefit to the wider community which are not limited to those who occupy a development. The community benefit examples listed within the Guidelines and R-Codes Vol.2 were also considered when preparing the framework and community benefit categories. Those examples deemed appropriate to the South Perth context have been referenced in the framework and ACP. The examples which have not been included are not aligned to the ACP or community benefit framework.

A list of prospective community benefit projects is outlined within Appendix 1, supported by the community needs analysis within Appendix 2. Although not exhaustive, the list predominantly encompasses projects within the public realm consistent with the overall intent of the ACP and community benefit framework.

## 4. Relationship to State Planning Policy

### 3.6 – Infrastructure Contributions Guidelines

State Planning Policy 3.6 – Infrastructure Contributions (SPP 3.6) provides guidance on the preparation, establishment and operation of infrastructure contributions system in Western Australia. Development Contribution Plans (DCPs) are the primary tool established in SPP 3.6 as a system for sharing the cost of public infrastructure and facilities that are essential to meet the demands arising from population growth. A DCP must demonstrate ‘need’ for the infrastructure item to be funded and the connection (‘nexus’) between the infrastructure item and the demand being created by the development. DCPs are commonplace in newly urbanised areas where the need and nexus between new development and the need for infrastructure can be accurately defined. DCP typically apply across an entire development area, in recognition that almost all new development creates demand for new infrastructure.

As per Schedule 9B of TPS 6, community benefit contributions are voluntary, being only applicable where development is proposed above the primary building height and/or plot ratio.

The key difference between the benefit items within this CBCF and those contained within a DCP is the ‘need and nexus’ of those items. The community benefit framework will not replace the developer’s responsibility to fund infrastructure otherwise ordinarily required as a result of redevelopment.

The contributions provided under the ACP are also not relied upon to fund the provision or upgrade of essential infrastructure or facilities which are driven by demand from population growth and new development. Community benefit contributions will be used in the public realm to fund works which are supplementary/additional to the ‘like for like’ replacement and/or standard provision of infrastructure which is funded by the local government.

There are aspects of SPP 3.6 that have been taken into account in the preparation of the CBCF as a matter of orderly and proper planning, as set out in Table 2:

**Table 2 – SPP 3.6 Principles and CBCF application**

Principle	Description in draft SPP 3.6	Application for CBCF
<b>Need and the nexus</b>	<i>The need for the infrastructure must be clearly demonstrated (need) and the connection between the development and the demand created should be clearly established (nexus).</i>	<ul style="list-style-type: none"> <li>Community benefit contributions are required where development is proposed above the primary height and/or plot ratio limits.</li> <li>Community benefit contributions may be delivered on-site or provided as a monetary contribution to the City for expenditure within the ACP area.</li> <li>A community needs analysis has been prepared to determine items that are ‘needed’ as a result of population growth to justify that the item will deliver a wanted community benefit for the ACP area.</li> </ul>
<b>Transparency</b>	<i>Both the method for calculating the infrastructure contribution and the manner in which it is applied should be clear, transparent, and simple to understand and administer.</i>	<ul style="list-style-type: none"> <li>The method for calculating the community benefit monetary contribution is clearly established in Schedule 9B of TPS6.</li> <li>The CBCF provides a clear decision-making framework for applying/investing monetary contributions in community benefits and assessing community benefits proposed on-site as part of development.</li> </ul>



Principle	Description in draft SPP 3.6	Application for CBCF
<b>Equity</b>	<i>Infrastructure contributions should be levied equitably from identified stakeholders within a contribution area, based on the relative contribution to need.</i>	<ul style="list-style-type: none"> <li>The community benefit monetary contribution is levied relative to the scale of a proposed development.</li> <li>The CBCF provides a framework where investment in 'community benefit' is over and above the expected maintenance, upgrades and services that have established funding systems (i.e. normally funded by the local government).</li> </ul>
<b>Certainty</b>	<i>The scope, timing, and priority for delivering infrastructure items, and the cost of infrastructure contributions and methods of accounting for escalation, should be clearly identified.</i>	<ul style="list-style-type: none"> <li>The collection of the CBCF monetary contribution is by nature, uncertain, given it relies on development to occur over and above the 'primary' requirements as set out in Schedule 9B.</li> <li>The CBCF seeks to provide clarity in regard to scope, timing and priority of community benefit investment.</li> </ul>
<b>Efficiency</b>	<i>Contribution should be justified on a whole-of-life capital cost basis consistent with maintaining financial discipline on service providers by precluding the over-recovery of costs.</i>	<ul style="list-style-type: none"> <li>Contributions will fund the initial capital requirements of the benefit item only, and not ongoing maintenance or operating costs.</li> <li>With regard to placemaking initiatives, contributions are towards the life of the project.</li> </ul>
<b>Consistency</b>	<i>The system for infrastructure contributions for apportioning, collecting and spending contributions should be consistent, efficient and transparent.</i>	<ul style="list-style-type: none"> <li>The calculation of the monetary contribution is apportioned relative to the additional development sought and is applied consistently throughout the ACP area.</li> <li>Given the uncertain nature of monetary contribution value and timing, a number of pathways are offered for allocating contributions from community benefits to provide efficiency and transparency.</li> </ul>
<b>Accountable</b>	<i>That there is accountability in the manner in which infrastructure contributions are determined, collected and expended.</i>	<ul style="list-style-type: none"> <li>The CBCF provides accountability for the City to report on its decision-making process in regard to community benefit investment and expenditure.</li> </ul>

Further to the principles outlined in SPP 3.6, the supporting SPP 3.6 Infrastructure Contributions Guidelines (Guidelines) provide some general considerations for formulation of a DCP. The considerations relevant to the CBCF are outlined in the table below.

**Table 3 – SPP 3.6 Guidelines – considerations for DCPs and CBCF application**

Heading	Relevant considerations for DCPs	Application for CBCF
<b>Need and the nexus</b>	<i>There must also be a clear and sound basis for the proposed infrastructure with linkages to the local government's strategic and financial planning processes, with all assumptions documented and justified.</i>	<ul style="list-style-type: none"> <li>The Literature Review that formed part of the CBCF preparation, reviewed infrastructure and projects identified in studies over the ACP area from 2012 to present. The CBCF has compiled projects and improvements that have been identified by the City but have not yet secured funding and are relevant to the CBCF.</li> <li>The Community Needs Analysis provides additional justification for community infrastructure items within the CBCF.</li> </ul>
<b>Beneficiary pays</b>	<i>Additional funding and revenue sources need to be considered in addition to funding from the DCP to fund the proportion of infrastructure costs that cannot be recovered through the DCP (existing and future demand).</i>	<ul style="list-style-type: none"> <li>Given the uncertain nature of monetary contributions, additional funding mechanisms for projects have been identified such as supplementary funding from the City (i.e. as proposed for streetscape upgrades) or partnership with a State Government agency or private proponent.</li> </ul>
<b>Timing of infrastructure provision</b>	<i>Items of infrastructure identified as being needed by the community should align with the DCP timeframe. Consideration should be given to the type of infrastructure needed and the development context in which it will be delivered.</i>	<ul style="list-style-type: none"> <li>Given the uncertain nature of the monetary contributions within the CBCF, the project prioritisation will assist to coordinate delivery of projects.</li> <li>All funds collected by the CBCF should be expended within 8 years of receipt of funds.</li> </ul>
	<i>Alternative funding contingencies should be considered to ensure timely provision of infrastructure if sufficient infrastructure contributions are not collected.</i>	<ul style="list-style-type: none"> <li>Given the uncertain nature of the monetary contributions within the CBCF, additional funding mechanisms for projects have been identified such as supplementary funding from the City (i.e. as proposed for streetscape upgrades) or partnership with a State Government agency or private proponent.</li> </ul>







## 5. Literature Review

A literature review was undertaken by **element** to capture the relevant recommendations from 19 City documents consisting of previous literature, research, community engagement outcomes, strategic reports and plans that considered the ACP area from 2012 to present; as well as other documents currently under preparation.

The literature review:

- Identified potential community benefits projects and items included in the reviewed literature that were assessed for their inclusion in the CBCF;
- Acknowledged where any documents, projects and strategies have superseded one another to provide a more cohesive understanding for strategic planning in the area; and
- Identified any key considerations for development of the CBCF.

The literature review provided clarity as to how the CBCF would complement existing strategic plans, public projects and infrastructure upgrades. The following documents were included in the literature review.

**Table 4: Literature Review**

#	Document	Organisation	Year of Publication
<b>PART ONE: Pertinent documents to the review</b>			
1	South Perth Foreshore – Strategy and Management Plan	Urbis	2015
2	Place and Design Report – South Perth Peninsula	Roberts Day	2017
3	Community Needs Assessment – Community Infrastructure and Services South Perth Station Precinct and Surrounding Areas and Canning Bridge Activity Centre	Dave Lanfear Consulting	2019
4	Draft South Perth Activity Centre Plan	CoSP, Roberts Day	2019
5	South Perth ACP PBC Community Feedback	CoSP	2019
6	Draft Landscape Design Guidelines – South Perth Activity Centre	CoSP	2020
<b>PART TWO: Remaining documents (in chronological order)</b>			
7	Review of Scheme and Policy Requirements – South Perth Station Precinct	Cardno	2016
8	Connect South Mends Street – Concept Design	Place Lab and IPH Architects	2017
9	Strategic Community Plan 2017 – 2027	CoSP	2017
10	LPP No.316 – Developer Contribution for Public Art and Public Art Spaces	CoSP	2017
11	LPP No.101 – Public Art	CoSP	2018
12	Movement Network Report – South Perth Activity Centre Plan	Flyt	2018
13	Joint Bike Plan	Aurecon	2018
14	The Old Mill Masterplan	CoSP	2018
15	Sports Oval Floodlighting Plan	CoSP	2018



#	Document	Organisation	Year of Publication
16	Community Recreation Facilities Plan	CoSP	2019
17	Cultural Plan 2019 – 2023	CoSP	2019
18	Draft Perth Water Buneenboro Precinct Plan	element	2020
19	Public Toilet Plan	CoSP	2020

## 5.1 Key findings and implications

### Streetscape Upgrades:

- Co-locating upgrades with development that occurs on the same street was suggested, particularly for streetscape upgrades.
- Streetscapes, particularly main streets and major roads within the ACP area, were generally assessed as dated and degraded, with the built fabric, footpaths and street furnishings in poor condition. In addition, street frontages were described as 'eroded' due to piecemeal upgrades and development. This has ultimately resulted in a loss of identity and inactive streets creating a poor pedestrian experience.
- Many of the recommendations in the earlier reports have been endorsed/completed by the City and/or superseded by another document. In particular, the draft Landscape Design Guidelines supersedes all the streetscape and intersection improvements identified in previous documents. The draft Landscape Design Guidelines provide specific guidance on function, design and materials to implement Plan 2 Street Type Plan of the ACP.
- Intersection upgrades were identified as a long term/low priority upgrade due to the need for other infrastructure upgrades (smaller rubbish trucks and/or a local rubbish collection point).

### Infrastructure upgrades:

- With the exception of the Local Planning Policies, all document reviews identified infrastructure upgrades and maintenance needs within the ACP area.
- Identified upgrades to services such as stormwater, potable water and sewer fall under the responsibility of the City, service providers and/or developers. Power upgrade works are completed by Western Power supported by funding contributions from developers.
- In relation to the South Perth Foreshore Area, a number of infrastructure issues were identified. These included high water usage, aging reticulation infrastructure, turf management, lack of biodiversity and deteriorating river walls. These infrastructure items will not be included in the CBCF as they are more suitably funded by the City.
- Although produced in 2015 with aspects superseded, the South Perth Foreshore Strategy and Management Strategy is a key strategic document which identifies a range of infrastructure and servicing needs coupled with action and management plans. The document provides limited detail on infrastructure priority/short-long term projects, instead it recommends undertaking a study to identify infrastructure priorities. Only part of the Management Strategy applies to the ACP area.
- Upgrades to jetty infrastructure at Mends Street was a high priority identified in many of the strategic documents to encourage ferry usage and welcome visitors to the ACP area. The CBCF will be investigated in the future to include benefits intended to support patronage of ferry services.

### Movement and transport:

- From the online community survey completed July 2019, improvements to the public transport system within the City (predominantly linked to a new heavy train station) was voted as the number one priority for community benefit contributions. The CBCF will be investigated in the future to include benefits intended to support a future heavy rail station.
- Streetscapes and public realm upgrades, as well as upgrades to public open spaces were also high priorities for survey respondents.
- Improving movement and connectivity in the precinct was a key theme throughout the review. This was primarily recommended to be through enhanced public transport, active transport, reducing motor vehicle speeds and greening streetscapes.

### Community facilities:

- The Community Facilities Recreation Plan provides details on upgrades to recreational facilities within the Study Area

(Mends Street Jetty, Richardson Reserve, Heritage House, Windsor Park and South Perth Bowling Club) and includes recommended priorities and a timeframe of completion. In addition, the document uses a decision-making process for determining the prioritisation of facility works and uses a series of principles to assess facilities.

- The amount and location of existing toilets within the ACP area is considered sufficient however some are in need of upgrading/replacing.

## 5.2 Identified Community Benefit Contribution Projects

A number of projects were identified from the literature review as potential community benefit items. The project list was then rationalised based on pre-established funding sources, whether the projects has been completed or were in part completion, and the estimated cost of the projects. A total of 45 projects were identified across the four character areas which met the considerations of the ACP to be included within the Community Benefit Contribution Project List (Project List).





Peel Street Pocket Park, VIC. Source - TimeOut



Wellington Square Playground, WA. Source - BbKido



## 6. Community Needs Analysis

A Community Needs Analysis (CNA) was subsequently undertaken by **element** to address some of the existing gaps in the CBCF around social and community benefits, through undertaking a recognised Community Needs Analysis approach.

The CNA identifies the type of community facilities, education and learning facilities and open space that the ACP area and broader suburb of South Perth is experiencing demand for currently. It also considered whether forecast population growth would increase or change demand for these facilities/space in the future.

The CNA identified a number of additional community benefit projects for inclusion in the Project List. These included a skate park, youth centre / space, basketball court, playgroup, outside school hours care (oshc) and pocket parks. The skate park and pocket park projects have been included in the Project List, with the remaining projects subject to future review, being triggered by population growth anticipated in 2041.

The CNA is contained within Appendix 2.





Londsdale Street Redevelopment, VIC. Source - ArchDaily



Mary Street Pocket Park, WA. Source - Open House Perth



## 7. Community Benefit Contribution Projects

A final list of community benefit items is contained within Appendix 1 - Community Benefits Contribution Framework Project List (Project List).

The Project List comprises a list of projects which are to be funded by community benefit contributions. The Project List identifies:

- The relevant category of 'community benefit' as identified in 7.3 of the ACP;
- The character area applicable to the community benefit;
- The project details;
- The estimated cost; and
- The relevant source of the project.

## 8. Assessment Criteria for Unlisted Community Benefits

This CBCF does not limit the provision and/or funding of items that are not identified in the Project List, that otherwise align with the requirements of the ACP.

Table 5 specifies the guiding parameters to determine the appropriateness of an item as a community benefit contribution:

**Table 5 – Assessment criteria for unlisted community benefits**

<b>1 - The proposed community benefit should meet all of the following criteria:</b>	<ul style="list-style-type: none"> <li>a) Does not relate to a component of a development such as façade quality, street activation, landscaping (including landscaping of the verge) etc. that is otherwise required for all developments within the ACP area;</li> <li>b) Does not relate to a 'commercial' tenancy including a café, child care centre or gym etc.;</li> <li>c) The benefit is publically accessible with no membership or entry fees; and</li> <li>d) Supported by a Community Needs Analysis prepared by an appropriately qualified consultant, to the satisfaction of the City. The CNA must demonstrate or provide evidence for existing or future 'need/demand' within the ACP area for the proposed contribution item.</li> </ul>
<b>2 - And should adhere with all of the following conditions:</b>	<ul style="list-style-type: none"> <li>a) Is located within the ACP area;</li> <li>b) Is not included in the City's planned works for the next 5 years; and</li> <li>c) Is not already funded;</li> <li>d) Appropriate conditions are applied to ensure public access and perpetuity of use.</li> </ul>

The CNA identified a gap in the provision of cultural and social infrastructure, such as performance halls, rehearsal rooms, art galleries, maker spaces/studios and a community (men's and/or women's) shed. As no standards of provision apply to these types of community facilities, any development proposal seeking to include these facilities as part of a community benefit contribution offer must provide sufficient evidence supporting their provision including size, function and location within the ACP area.

The CBCF Fund should not be used to replace established appropriate funding mechanisms for essential infrastructure. The CBCF is intended to identify and fund items that will benefit the stakeholders of the ACP area over and above the maintenance or upgrade of essential infrastructure.

The CBCF Fund should not be used to fund on-going maintenance. The City and other agencies are responsible for maintaining public facilities and infrastructure, including in response to projected population increases. Items funded by the CBCF Fund should be planned and designed to minimise the ongoing maintenance burden to the relevant agency as much as possible.

## 9. Project Prioritisation

The CBCF supports implementation of the community benefit provisions contained in Schedule 9B of TPS 6 by providing guidance in relation to:

- **Priority:** when funding is received, what projects should be funded
- **Funding:** the amount of funding that will be received, and therefore could be allocated to CBCF projects that do not have established funding sources;
- **Timing:** when any funding might be received, and therefore when projects could potentially receive investment; and

The evaluation tools used to consider the relative priority, funding and timing of projects are discussed below.

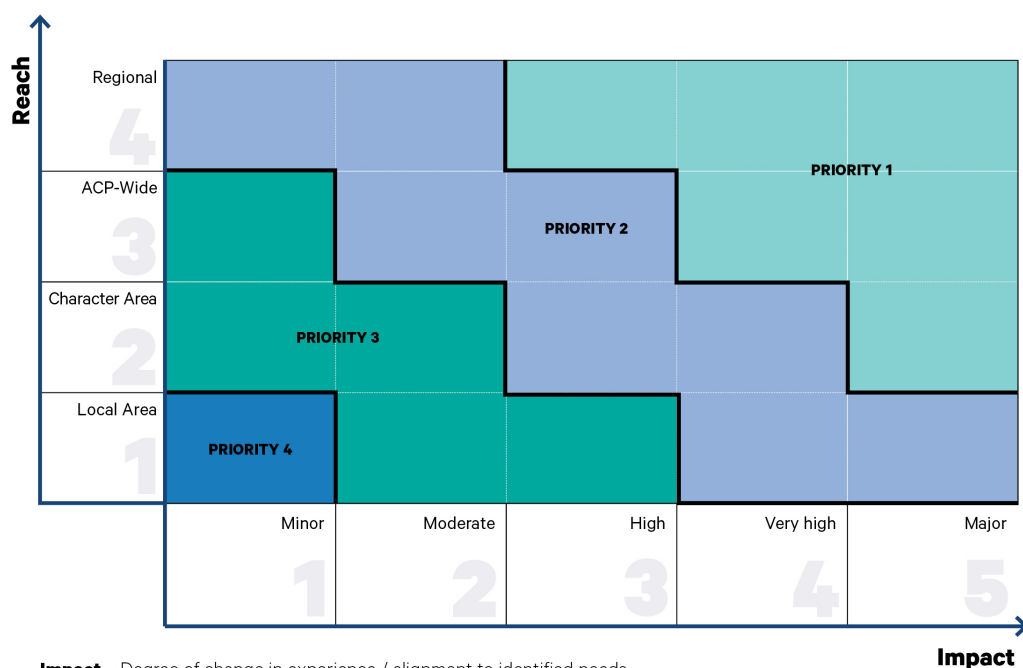
### 9.1 Value Assessment Matrix

A value assessment matrix has been created to assist in determining the priority for investment of identified projects or non-identified projects within the ACP area. The matrix will assist in determining the priority of a project based on its relative 'community benefit'.

There are two primary criteria to consider the relative community benefit of a project:

- **Reach** - the number of people who will be positively affected or benefited by the project (*i.e. a project that benefits a larger number of people is more desirable*); and
- **Impact** - the degree to which a project will increase the benefit of an experience or area (*i.e. the greater the change that can be created by a project the more desirable*). The impact may also consider the degree to which a project has a demonstrated need, particularly through the improvement in the current level of service offer/infrastructure, or where a comparative service/infrastructure offer does not exist.

The matrix can be used to assist in the decision making for investment. An identified project can be assessed as to its relative 'reach' and 'impact', which will locate it within a Priority 1, 2, 3 or 4 band.



**Impact** - Degree of change in experience / alignment to identified needs

**Reach** - Number of people positively affected / benefitted

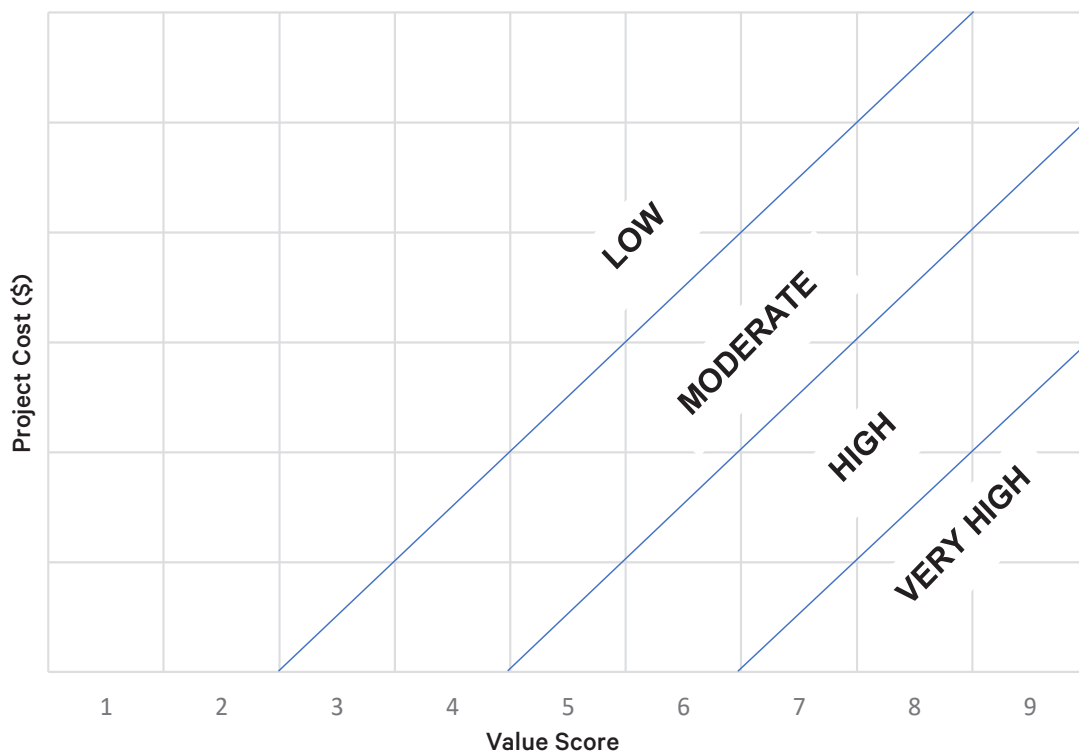
Figure 1. Value Assessment Matrix



### 9.1.1 Value for Money

To guide which projects get funded, the City must also consider the cost of the project. The process for calculating value for money follows the below process:

- A 'value score' is generated based on the cumulative score of 'reach' and 'impact' from the Value Assessment Matrix (i.e. the combined score of each evaluation)
- This score is plotted against the dollar value to construct the project, which excludes the 'like for like' capital replacement cost which will be sourced from municipal funds. This enables assessment of the added value provided by the Community Benefit Contribution.
- The priority and recommendation in accordance with value for money is the resulting portion of the graph, as demonstrated below:



\*The above matrix is for illustrative purposes only.

## 9.2 Location of investment

The location of the investment of CBCF funds is preferable within the same ACP character area as the origin of the development that provided the funds. This is particularly important for smaller contributions, where the investment is likely to have a more localised effect. Location will be given regard by the local government when determining prioritisation of projects at the time of budgeting.

## 9.3 Streetscape / public realm / intersection upgrades

Many of the current projects identified in the CBCF relate to the upgrade of streetscapes and the corresponding public realm components of these road reserves.

Where possible, if a streetscape upgrade is recommended for funding, it will ideally be for the upgrade of the street to which the development that provided the funding corresponds. Not only will this benefit the street being upgraded through a new development, but it may also provide opportunities to coordinate infrastructure provision and servicing upgrades simultaneously.

Given there is a significant number of streetscape and intersection upgrades listed in the identified projects (for the majority of the ACP area), all of which require significant funding, streetscape upgrades will only be funded in part by CBCF funds. Given many components of streetscape upgrades would also typically be funded through a capital works program, streetscape upgrades will in part funded by the CBCF and in part through the City's capital works program.

## 9.4 Strategic considerations

The CBCF lists projects individually however in some cases priority should be considered more holistically. Some notable examples are:

- Upgrades to all major entry points to the ACP will enable the City to implement the 40km/hr speed limit across the ACP, which will significantly improve safety.
- New cycle routes (not just upgrades to existing pathways) should be completed in their entirety and link destinations to function effectively.

The triggers and conditions listed in the Project List highlight interdependencies for project delivery and coordination. These matters will be assessed when a project is considered for delivery.

## 9.5 Engagement Outcomes

Engagement feedback from the community will also be considered when prioritising projects for delivery. As part of preparation of the CBCF, the City invited community feedback on the Community Benefit Contribution Project List through an online survey. The survey was used to understand the community's priorities for each project type within each character area. 87 people participated in the survey exercise. The survey required participants to rank the project types in a list from highest priority to lowest (with 1 being highest priority). The following tables show the results from the survey exercise and list the community's priorities for each character area.

### Hillside Character Area

Priority	Aggregate Score (lower number = higher rank)	Project Type	Description
1	195	Mid-Block Link/link through developments	Publicly accessible pedestrian connections provided through private developments.
2	210	Pocket Park	A small park or plaza within a private development that is accessible to the general public. Functions of the space could include a place to sit or relax, play, meet friends, take a lunch break, read a book, walk the dog, or for neighbourhood gatherings.
3	221	Local Street Upgrades	Upgrades to the street including widened footpaths, cycle friendly roads (with painted cycling symbol), street furniture and wider landscaped verges.
4	243	Foreshore Upgrades	Upgrades including new footpaths, seating, shaded areas and flexible event spaces to host community performances.
5	259	Connector Road Upgrades	Introduce traffic calming road treatments.

### Mends Character Area

Priority	Aggregate Score (lower number = higher rank)	Project Type	Description
1	202	Foreshore Upgrades	Improvements to foreshore facilities including provision of new footpaths, seating, and shaded areas.
2	252	Local Street Upgrades	Upgrades to the street including widened footpaths, cycle friendly roads (with painted cycling symbol), street furniture and wider landscaped verges.
3	305	Playground Upgrades	Upgrades to existing play spaces (including seating and landscaping) when existing infrastructure reaches the end of its serviceable life.
3	305	Community Facility Upgrades	Improvements to existing community facilities to provide for additional services and improved technologies (Old Mill Theatre, Heritage House, public toilets)

Priority	Aggregate Score (lower number = higher rank)	Project Type	Description
4	314	Intersection Upgrades	Reduce road widths at intersections to improve pedestrian and cycle crossings, additional verge planting, and extension to footpaths.
5	363	Local Park Upgrades	Park upgrades including public art, improvements to paths, wayfinding, furniture and improved interface to adjoining facilities.
6	387	Pocket Park	A small park or plaza within a private development that is accessible to the general public. Functions of the space could include a place to sit or relax, play, meet friends, take a lunch break, read a book, walk the dog, or for neighbourhood gatherings.

### Mill Point Character Area

Priority	Aggregate Score (lower number = higher rank)	Project Type	Description
1	282	Cycle Infrastructure	Upgrade of cycle infrastructure
2	293	Mid-Block Link/link through developments	Publicly accessible pedestrian connections provided through private developments to improve access to open spaces and to the wider precinct.
3	343	Pocket Park	A small park or plaza within a private development that is accessible to the general public. Functions of the space could include a place to sit or relax, play, meet friends, take a lunch break, read a book, walk the dog, or for neighbourhood gatherings.
4	363	Foreshore Upgrades	Improvements to foreshore infrastructure including provision of shelters and lighting to improve the recreation experience
4	363	Intersection Upgrades	Reduce road widths at intersections to improve pedestrian and cycle crossings, additional verge planting, and extension to footpaths.
5	366	Local Street Upgrades	Upgrades to the street including widened footpaths, cycle friendly roads (with painted cycling symbol), street furniture and wider landscaped verges.
6	461	Connector Road Upgrades	Introduce traffic calming road treatments
7	476	Community facility upgrades	Improvements to existing community facilities to provide for additional services and improved technologies (Old Mill Education Centre, Public toilets).
8	510	Local Park Upgrades	Upgrade of existing open space to introduce dog exercise facilities.

### Richardson Character Area

Priority	Aggregate Score (lower number = higher rank)	Project Type	Description
1	202	Shared Paths	Provision of new shared cycle and pedestrian paths
2	262	Recreation/Playground facilities	Provision of new and upgrades facilities and play equipment for youth e.g. skate park, playground expansion
3	301	Local Street Upgrade	Upgrades to the street including widened footpaths, cycle friendly roads (with painted cycling symbol), street furniture and wider landscaped verges.
3	301	Pocket Park	A small park or plaza within a private development that is accessible to the general public. Functions of the space could include a place to sit or relax, play, meet friends, take a lunch break, read a book, walk the dog, or for neighbourhood gatherings.

Priority	Aggregate Score (lower number = higher rank)	Project Type	Description
4	328	Toilet upgrade	Improvements to existing toilet and changing facilities to provide for universal access and additional users.
5	338	Connector Road Upgrade	Introduce traffic calming road treatments.
6	362	Intersection Upgrade	Reduce road widths at intersections, additional verge planting, and extension to footpaths. New signalised intersections (traffic lights).





Richmond Terrace Park, VIC. Source - Landscape Australia



Visual Public Realm Design Concept, WA. Source - City of South Perth.



## 10. Funding and Timing

The scenarios that may occur with regard to funding and timing uncertainty and the respective options or pathways that the City may pursue are listed in the table below.

**Table 6 – Funding and timing Scenarios**

Scenario	Response	Available pathways
When a project has been identified as a priority or desirable however only a portion of the funding required to support it is received or in the fund	Utilising other funding mechanisms to supplement the gap in funding required	<ul style="list-style-type: none"> <li>Supplementary funding from the City (i.e. as proposed for streetscape upgrades)</li> <li>Partnership with a State Government Agency or private proponent to provide the remaining funds</li> </ul>
When funds are received but the priority or desirable projects are not at a point where they can or should reasonably be funded within the funding cycle.	Funds re-allocated to next priority project; or funds may be retained until the project is ready to be funded (only where it is within the timeframe of 8 years of receipt of the funding)	<ul style="list-style-type: none"> <li>Allocate project to 'on-hold'</li> <li>Review project for funding eligibility after 12-month period</li> </ul>
Where no projects can be identified for funding within the CBCF funding cycle.	Extension of funding eligibility for investment	<ul style="list-style-type: none"> <li>Council to extend eligibility of funds for a further 12 months</li> </ul>
Where no funds are received during the budgetary cycle.	Consider reviewing the CBCF	<ul style="list-style-type: none"> <li>Review to be undertaken in accordance with Section 10.</li> </ul>
Where a project is identified as a priority or preferred project (with sufficient funding), however there is an interdependency with another upgrade or project that has not yet occurred.	Funds re-allocated to next priority project; or funds may be retained for the identified project if the interdependency can be resolved before the funds expire (ideally in next 5 years)	<ul style="list-style-type: none"> <li>Allocate project to 'on-hold' and prioritise the required upgrade or project</li> <li>Review project for funding eligibility after 12-month period</li> </ul>
The City's cost contribution within the community benefit contribution matrix (Appendix 1) is based on replacement of the asset at 'end of life'. There will be instances where a project is prioritised to be funded by the CBCF prior to the end of life of the asset.	Review the amount the City can contribute to the project based on asset condition.	<ul style="list-style-type: none"> <li>Evaluate how long the asset reasonably has until 'end of life' and if over 8 years, follow the process below (as CBCF funding would otherwise expire). If within 8 years, check if the City is prepared to match (or upgrade to) 'end of life' funding to facilitate investment of the CBCF funds in the project before diverting to another project.</li> <li>Re-calculate the 'value for money' of the project based on the amount of funding required from the CBCF based on the updated contribution from the City and assess new priority.</li> </ul>

## 11. Review of the CBCF

The Project List will be reviewed annually to ensure that the document is current and all listed projects are accurately valued. The review should identify:

- Projects that have been completed and should be removed from the Project List; and
- Projects that have been partially completed and therefore need to be updated in the Project List.

A more comprehensive review of the entire CBCF should occur on a 5-yearly basis. The purpose of the review will be to confirm that the benefits embodied in the project list continue to reflect the aspirations for the planning area, as determined by an updated Community Needs Assessment; engagement with the community; and subsequent evaluation of this data by the City. The review will also present the City with an opportunity to consider how the CBCF might be used to enact the recommendations of other strategic planning projects, such as future iterations of the City's Local Open Space Strategy

Review of the Community Needs Assessment will also present opportunity to ensure benefits are contemporary, and utilise new technologies and innovations where applicable. Examples may include the provision of public electric vehicle charging infrastructure, or an e-bike sharing system.

Cost sharing options for community benefits that support future public transport projects, will also be investigated as part of future review of the CBCF.

Appendix 1 – Community Benefits Contribution Framework Project List

No.	Upgrade Type						Project Information			Estimated Cost			Value			Timing
	Community facilities	Streetscape and public realm	Street trees and landscaping	Upgrades to public open space	Transport infrastructure	Placemaking initiatives	Project	Project description	Document or source	Approximate community benefit contribution	Approximate municipal capital funding (like for like asset replacement cost)	Approximate Total Cost	Reach (1=local & 4= regional)	Impact (1=minor & 5= major improvement)	Value Score (sum of criteria )	Triggers
Hillside Character Area																
							Parker Street - Local Streetscape Upgrade	Upgrades to the street including widened footpaths, cycle friendly roads (with painted cycling symbol), street pocket park (seating/small play space), landscaped verges, new street bins.	Draft Landscape Design Guidelines	\$316,620	\$79,290	\$395,910	1	5	6	
							Ray Street - Local Streetscape Upgrade	Upgrades to the street including wider footpaths for both pedestrians and cyclists, wider landscaped verges.	Draft Landscape Design Guidelines	\$495,540	\$100,000	\$595,540	2	3	5	
							Mill Point Road South (between Labouchere Road and Onslow) - Connector Road Upgrade	Upgrade of the road with asphalt colouring and line markings to enforce new 40km/hr limit, widening of the footpath around bus stops.	Draft Landscape Design Guidelines	\$72,000	\$360,000	\$432,000	4	4	8	<b>Condition</b> Asphalt at end of serviceable life <b>Civic Heart</b> Completion of Civic Heart development
							East Mindeerup Foreshore Upgrade	Upgrade of the East Minderup Foreshore as part of the City's 'Connect South' project. Framed open lawn area for use as a flexible event space, new footpaths, seating, shaded areas and a small stage to host community performances.	Connect South Mends Street	\$500,000	\$0	\$500,000	4	3	7	<b>Shade and Vista Analysis</b> Completion of shade and vista analysis



No.	Upgrade Type						Project Information			Estimated Cost			Value			Timing
	Community facilities	Streetscape and public realm	Street trees and landscaping	Upgrades to public open space	Transport infrastructure	Placemaking initiatives	Project	Project description	Document or source	Approximate community benefit contribution	Approximate municipal capital funding (like for like asset replacement cost)	Approximate Total Cost	Reach (1=local & 4= regional)	Impact (1=minor & 5= major improvement)	Value Score (sum of criteria )	Triggers
Mends Character Area																
							Mends Street (North) - Local Streetscape Upgrade	Upgrades to the street to create a shared pedestrian space which will slow traffic and improve the pedestrian experience. Roads to be narrowed to enlarge footpaths, shrub planting to green the street, paving thematics to be extended up the street and alfresco areas, street furniture, bike parking and lighting to be introduced to activate the street.	Connect South Mends Street	\$1,180,000	\$120,000	\$1,300,000	4	3	7	<b>Civic Heart</b> Completion of Civic Heart development
							Mends Street (South) - Local Streetscape Upgrade	Upgrades to the street to tie in with Civic Heart streetscape upgrades. Upgrades include new street furniture, landscaping and footpath treatments.	Connect South Mends Street	\$80,000	\$100,000	\$180,000	3	3	6	<b>Civic Heart</b> Completion of Civic Heart development
							Harper Terrace - Local Streetscape Upgrade	Streetscape upgrades including widened footpaths, landscaping, traffic-calming street treatments.	Connect South Mends Street	\$675,000	\$100,000	\$775,000	3	4	7	<b>Development</b> Completion of major developments on the street
							Harper Terrace & South Perth Esplanade Street Intersection Upgrade	Reduce road widths at intersections to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$524,000	\$115,000	\$639,000	2	3	5	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							West Mindeerup Foreshore Upgrade	Upgrade of the West Minderup Foreshore as part of the City's 'Connect South' project. Framed open lawn area adjacent to the existing beach, new footpaths, seating, and shaded areas to support users of the beach and foreshore. The area will support casual activities such as lounging, sunbathing and picnicking and can also host small pop-up events such as yoga classes and outdoor movies.	Connect South Mends Street	\$400,000	\$0	\$400,000	4	3	7	<b>Shade and Vista Analysis</b> Completion of shade and vista analysis
							Mindeerup playground	Upgrades to existing play space on the foreshore, including additional animal themed play equipment, parental seating, planting.	Connect South Mends Street	\$700,000	\$100,000	\$800,000	3	4	7	<b>Condition</b> Existing playground reaches the end of its serviceable life
							Windsor Park	Upgrades to improve park interface with heritage buildings, outdoor activity areas, interpretive signage and public art; improvements to the existing path and enhanced wayfinding to the zoo, themed public art furniture; upgrades to the zoo forecourt, laneway activation to the theatre and a beer garden for the bowling club.	Connect South Mends Street	\$900,000	\$0	\$900,000	3	4	7	<b>Perth Zoo</b> Perth Zoo reorientating entrance as per Perth Zoo masterplan
							Windsor Park toilet	Internal refit	Draft Public Toilet Plan	\$30,000	\$30,000	\$60,000	3	1	4	
							Upgrade of Old Mill Theatre	Upgrade of the theatre hall and lounge area and allow better technology i.e. sound system, lights control etc.	Community Recreation Facilities Plan 2019 - 2033	\$350,000	\$0	\$350,000	3	3	6	
							Upgrade of Heritage House	Upgrade the Heritage house to an Art Gallery and Visitors Centre (subject to Old Mill Education Centre not proceeding), installation of external lighting features.	Community Recreation Facilities Plan 2019 - 2033	\$250,000	\$0	\$250,000	3	3	6	<b>Development</b> Old Mill Education Centre upgrade does not proceed.

No.	Upgrade Type						Project Information			Estimated Cost			Value			Timing
	Community facilities	Streetscape and public realm	Street trees and landscaping	Upgrades to public open space	Transport infrastructure	Placemaking initiatives	Project	Project description	Document or source	Approximate community benefit contribution	Approximate municipal capital funding (like for like asset replacement cost)	Approximate Total Cost	Reach (1=local & 4= regional)	Impact (1=minor & 5= major improvement)	Value Score (sum of criteria )	Triggers
Mill Point Character Area																
							South Perth Esplanade Cycle Infrastructure	Provide a dedicated cycle pathway which connects to the greater cycle network; separated pedestrian footpaths adjacent to cycle path. Provision of new cycle infrastructure such as bicycle pump/ repair stations, water fountains, e-bike charging stations and secure sheltered and unsheltered bike parking facilities.	Draft Landscape Design Guidelines and Joint Bike Plan	\$294,300	\$63,000	\$357,300	4	5	9	
							Mill Point Road North & Queen Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$524,000	\$115,000	\$639,000	3	4	7	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							Mill Point Road North & Stirling Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$524,000	\$115,000	\$639,000	3	4	7	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							Mill Point Road North & Scott Street Intersection Upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$524,000	\$115,000	\$639,000	3	4	7	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							Scott Street & Stone Street Intersection Upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$500,000	\$115,000	\$615,000	1	3	4	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							Scott Street & Melville Parade Intersection Upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$500,000	\$115,000	\$615,000	1	3	4	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							Melville Parade & Stirling Street Intersection Upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$500,000	\$115,000	\$615,000	1	3	4	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							Stone Street - Local Streetscape Upgrade	Upgrades to the street including widened footpaths, cycle friendly roads (with painted cycling symbol), street pocket park (seating/small play space), landscaped verges, new street bins.	Draft Landscape Design Guidelines	\$703,600	\$176,200	\$879,800	2	5	7	
							Stirling Street - Local Streetscape Upgrade	Upgrades to the street including widened footpaths and verge landscaping improvements.	Draft Landscape Design Guidelines	\$291,000	\$122,000	\$413,000	1.5	5	6.5	
							Mill Point Road North - Connector Road Upgrade	Upgrade of the road to include traffic calming treatments to facilitate shared use for vehicles and bikes (e.g. Safe Active Street treatment). Widening of footpaths with retention of existing street trees.	Draft Landscape Design Guidelines	\$36,000	\$410,000	\$446,000	3	1.5	4.5	<b>Condition</b> Asphalt at end of serviceable life
							Freeway Entrance On-ramp Beautification	Planting and landscaping at the entrance to the precinct to reinforce local green and leafy character.	Place and Design Report South Perth Peninsula	\$200,000	\$100,000	\$300,000	4	2	6	
							Melville Parade North Reserve Dog Park	Upgrade of existing grassed reserve to provide for off-leash dog recreation area.	Draft Landscape Design Guidelines	\$300,000	\$0	\$300,000	2	2	4	<b>Development</b> Slowdown of development in precinct (the area is currently used for parking of construction vehicles
							South Perth Esplanade West Foreshore	Improved shade and shelter facilities (whilst maintaining vistas), provision of new lighting infrastructure to improve safety and amenity.	South Perth Foreshore Strategy and Management Plan	\$706,700	\$0	\$706,700	4	5	9	<b>Shade and Vista Analysis</b> Completion of shade and vista analysis

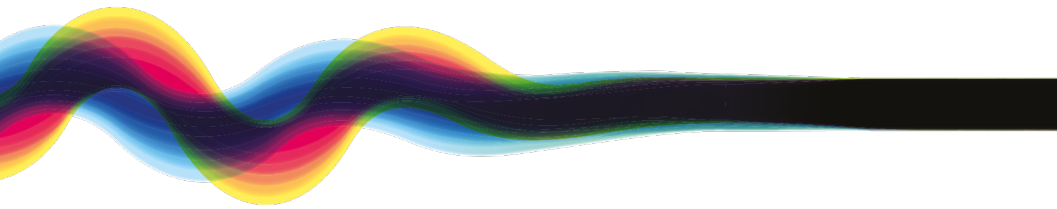
No.	Upgrade Type						Project Information			Estimated Cost			Value			Timing
	Community facilities	Streetscape and public realm	Street trees and landscaping	Upgrades to public open space	Transport infrastructure	Placemaking initiatives	Project	Project description	Document or source	Approximate community benefit contribution	Approximate municipal capital funding (like for like asset replacement cost)	Approximate Total Cost	Reach (1=local & 4= regional)	Impact (1=minor & 5= major improvement)	Value Score (sum of criteria )	Triggers
							Narrows Toilet Upgrade	Upgrade the public toilet and include change & shower facilities and Universal Access Toilet (UAT).	Disability Access & Inclusion Plan 2017-2021	\$300,000	\$100,000	\$400,000	3	2	5	
							Upgrade of Old Mill Education Centre	Upgrade of the Old Mill Education Centre to multi-story building to allow for a visitor centre/ multi-purpose education hall.	Community Recreation Facilities Plan 2019 - 2033	\$500,000	\$0	\$500,000	3	3	6	

No.	Upgrade Type						Project Information			Estimated Cost			Value			Timing
	Community facilities	Streetscape and public realm	Street trees and landscaping	Upgrades to public open space	Transport infrastructure	Placemaking initiatives	Project	Project description	Document or source	Approximate community benefit contribution	Approximate municipal capital funding (like for like asset replacement cost)	Approximate Total Cost	Reach (1=local & 4= regional)	Impact (1=minor & 5= major improvement)	Value Score (sum of criteria )	Triggers
Richardson Character Area																
							Melville Parade South Shared Path	Provision of a new shared cycle and pedestrian path along the western side of the road linking to the wider cycle network.	Draft Landscape Design Guidelines	\$200,000	\$0	\$200,000	3	2	5	
							Richardson Park Skate Park / Outdoor Youth Space	Provision of an abilities skate park.	Community Needs Assessment	\$650,000	\$0	\$650,000	3	5	8	<b>Acoustic Assessment</b> Completion of acoustic impact assessment by a qualified professional
							Richardson Park Playground Expansion	Expansion of existing playground facilities.	Draft Landscape Design Guidelines	\$200,000	\$0	\$200,000	3	4	7	<b>Condition</b> Existing playground reaches the end of its serviceable life
							Charles Street - Local Streetscape Upgrade	Upgrades to the street including widened footpaths, cycle friendly roads (with painted cycling symbol), street pocket park (seating/small play space), landscaped verges, new street bins	Draft Landscape Design Guidelines	\$1,055,400	\$264,300	\$1,319,700	3	5	8	
							Bowman Street - Local Streetscape Upgrade	Upgrades to the street including widened footpaths, cycle friendly roads (with painted cycling symbol), street pocket park (seating/small play space), landscaped verges, new street bins	Draft Landscape Design Guidelines	\$844,320	\$211,440	\$1,055,760	2.5	5	7.5	
							Lyll Street - Local Streetscape Upgrade	Upgrades to the street including wider footpaths for both pedestrians and cyclists; wider landscaped verges.	Draft Landscape Design Guidelines	\$715,780	\$230,000	\$945,780	3	4	7	
							Labouchere Road (north of Angelo Street) - Connector Road Upgrade	Upgrade of the road with asphalt colouring and line markings to enforce new 40km/hr limit and provide additional median strip.	Draft Landscape Design Guidelines	\$150,400	\$752,000	\$902,400	4	4	8	<b>Civic Heart</b> Completion of Civic Heart development <b>Condition</b> Asphalt at end of serviceable life
							Melville Parade & Lyall Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$500,000	\$115,000	\$615,000	1	3	4	
							Melville Parade & Bowman Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$500,000	\$115,000	\$615,000	1	3	4	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							Melville Parade & Hardy Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$500,000	\$115,000	\$615,000	1	3	4	<b>Small Garbage Truck</b> Introduction of local rubbish collection point and/or small rubbish trucks
							Labouchere Road & Bowman Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$150,000	\$0	\$150,000	4	3	7	<b>Civic Heart</b> Completion of Civic Heart development
							Labouchere Road & Charles Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$150,000	\$0	\$150,000	4	3	7	<b>Civic Heart</b> Completion of Civic Heart development
							Labouchere Road & Richardson Street intersection upgrade	Provision of a new signalised intersection (traffic lights) with pedestrian phases.	Draft Landscape Design Guidelines	\$150,000	\$800,000	\$950,000	4	5	9	<b>Station</b> Confirmation that the Train Station will proceed and more details regarding the planned bus route



No.	Upgrade Type						Project Information			Estimated Cost			Value			Timing
	Community facilities	Streetscape and public realm	Street trees and landscaping	Upgrades to public open space	Transport infrastructure	Placemaking initiatives	Project	Project description	Document or source	Approximate community benefit contribution	Approximate municipal capital funding (like for like asset replacement cost)	Approximate Total Cost	Reach (1=local & 4= regional)	Impact (1=minor & 5= major improvement)	Value Score (sum of criteria )	Triggers
							Labouchere Road & Lyall Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$150,000	\$0	\$150,000	4	3	7	<b>Civic Heart</b> Completion of Civic Heart development
							Labouchere Road & Hardy Street intersection upgrade	Reduce the width of the road at the intersection to improve pedestrian crossings, additional verge planting, extension to footpaths.	Draft Landscape Design Guidelines	\$150,000	\$0	\$150,000	4	3	7	<b>Civic Heart</b> Completion of Civic Heart development
							Labouchere Road & Angelo Street intersection upgrade	Provision of a new signalised intersection (traffic lights) with pedestrian phases.	Movement Network Report	\$900,000	\$100,000	\$1,000,000	4	4	8	<b>Civic Heart</b> Completion of Civic Heart development
							Richardson Reserve - toilet and change facilities at WCG Thomas Pavilion	Upgrade existing toilet and change rooms to include gender neutral facilities to accommodate female sports; Universal Access Toilet (UAT) & shower facilities.	Community Recreation Facilities Plan 2019 - 2033	\$150,000	\$50,000	\$200,000.00	3	2	5	
Any Character Area																
							Pocket Park	A small park or plaza within a private development that is accessible to the general public. Functions of the space could include a place to sit or relax, play, meet friends, take a lunch break, read a book, walk the dog, or for neighbourhood gatherings. Pocket Parks opportunities are identified by Plan 5 – Public Realm Plan and are subject to development requirements under Part 6.3 of the ACP.	Community Needs Analysis (element)	\$150,000	\$0	\$150,000	1	3	4	
							Mid-Block Link	Publicly accessible pedestrian connections provided through private developments to improve access to open spaces and to the wider precinct. Connections are to be highly landscaped, easily accessible, and comfortably surveilled. Private Mid-Block Link as identified by Plan 5 – Public Realm Plan of the ACP	South Perth Activity Centre Plan	TBD	\$0	TBD	2	3	5	

## Appendix 2 - Community Needs Analysis



# Stage One. Community Needs Analysis

*For inclusion in the South Perth Activity Centre Community Benefit Contribution Framework*

July 2021

Document ID:					
Issue	Date	Status	Prepared by	Approved by	
			Name	Name	Signature
1	03.06.2021	DRAFT	Tilly Chaney Bronwyn Slater	Bronwyn Slater	BS
2	16.06.2021	DRAFT	Tilly Chaney Bronwyn Slater	Bronwyn Slater	BS
3	23.06.2021	DRAFT	Tilly Chaney Bronwyn Slater	Ben Kent	BK
4	21.07.2021	FINAL	Tilly Chaney	Ben Kent	BK

This report has been prepared for the exclusive use of the Client, in accordance with the agreement between the Client and Element Advisory Pty Ltd (**element**) ('Agreement').

**element** accepts no liability or responsibility whatsoever in respect of any use of or reliance upon this report by any person who is not a party to the Agreement or an intended recipient.

In particular, it should be noted that this report is a qualitative assessment only, based on the scope and timing of services defined by the Client and is based on information supplied by the Client and its agents.

**element** cannot be held accountable for information supplied by others and relied upon by **element**.

Copyright and any other Intellectual Property arising from the report and the provision of the services in accordance with the Agreement belongs exclusively to **element** unless otherwise agreed and may not be reproduced or disclosed to any person other than the Client without the express written authority of **element**.

This document is in a draft form and not a final issued form. **element** reserves the right, at any time with or without notice, to amend, modify or retract any part or all of this document including any opinions, conclusions, or recommendations contained therein. Unauthorised use of this draft document in any form whatsoever is strictly prohibited. To the maximum extent permitted by law, **element** disclaims any responsibility for liability whatsoever arising from or in connection with this draft document.



# Contents

1. Introduction .....	1
1.1 South Perth Activity Centre Community Benefit Contribution Framework (CBCF) .....	1
1.2 Scope of the Community Needs Analysis (CNA) .....	1
2. Social Research Analysis .....	2
2.1 Key Demographic Trends .....	2
2.2 Trends in the Provision of Facilities .....	2
3. Review of Existing Community Infrastructure .....	5
3.1 Audit of Community Facilities and Assets .....	5
3.2 Community Facilities and Assets Map .....	8
4. Benchmarking Community Facilities .....	9
4.1 Defining Community Benefit .....	9
4.2 Standards of Provision .....	9
5. Gap Analysis .....	12
5.1 Community Facilities without Recommended Standards of Provision .....	14
6. Key Findings and Recommendations .....	15
6.1 Summary .....	15
Appendix A. Mapping Assets by Category .....	17

This page has been left blank intentionally.

# 1. Introduction

## 1.1 South Perth Activity Centre Community Benefit Contribution Framework (CBCF)

In 2020, the City of South Perth (the City) developed a draft South Perth Activity Centre Community Benefit Contribution Framework. The draft CBCF includes:

- A comprehensive literature review of previous documents, studies, assessments and plans (spanning from 2012-2020) for the South Perth Activity Centre (SPAC) area.
- A list of all projects, items and upgrades identified for the SPAC that provide 'public benefits', as specified in the literature review.
- Identification of gaps in the list and an assessment of the listed items for their inclusion in the CBCF, noting where items have existing, or a committed funding source(s) established.
- High-level costings (cost per metre) of street typology types for the Draft Landscape Design Guidelines.
- A project report detailing the methodology for the above processes, outlining gaps in the public benefits identified, remaining knowledge gaps in the operation and management of the CBCF itself and suggested prioritisation criteria.
- Definition of the draft CBCF against the then Draft State Planning Policy 3.6 – Infrastructure Contributions – Guidelines.

## 1.2 Scope of the Community Needs Analysis (CNA)

The CNA addresses some of the existing gaps in the CBCF around social and community benefits, through undertaking a recognised Community Needs Analysis approach.

The CNA identifies the type of public benefit items that the ACP area and broader suburb of South Perth is experiencing demand for currently and based on projected forecasts, where they are likely to see that demand increase.

The outcomes of the CNA justify the public benefit items listed within the CBCF as being 'needed' to support that these items will deliver a wanted public benefit for the ACP area.

The CNA also provides additional justification for other community type benefits that were not previously identified through the literature review exercise.

## 2. Social Research Analysis

This chapter contains analysis of the current and projected demographic profile of the project study area, which has been defined as the suburb of South Perth. This section contains essential information about “who” the community infrastructure in the South Perth Activity Centre will ultimately service and support.

### 2.1 Key Demographic Trends

Analysis of information available through *idcommunity* identified the following key demographic trends that will impact the demand for community facilities over the next two decades to 2041<sup>1</sup>:

- From 2011 to 2016, South Perth's population decreased by 63 people (0.5%). This represents an average annual population change of -0.1% per year over the five-year period.
- The estimated resident population (ERP) for 2021 for South Perth is 14,313. This is forecast to grow to 20,331 by 2041, an increase of 42.05%. In comparison, the City of South Perth is forecast to increase from 46,703 to 65,842 by 2041, with a change of +40.98%.
- Analysis of the service age groups of South Perth in 2016 compared to the broader City of South Perth area shows that there was a lower proportion of people in the younger age groups (0 to 17 years) and a higher proportion of people in the older age groups (60+ years).
- The largest changes in the age structure in this area between 2011 and 2016 indicate that South Perth is experiencing a rapidly ageing population. The prevalent changes were as follows:
  - Tertiary education and independence (18 to 24) (-328 people)
  - Seniors (70 to 84) (+240 people)
  - Empty nesters and retirees (60 to 69) (+164 people)
  - Older workers and pre-retirees (50 to 59) (-105 people)

### 2.2 Trends in the Provision of Facilities

The following trends in the provision of community facilities have been drawn from:

- Literature;
- Experience of similar projects;
- Case study research;
- Stakeholder conversations; and
- Experience specifically within the Western Australian context.

When reviewing relevant trends, the context for this CNA is an important consideration, given this area is subject to significant redevelopment and population growth within a medium to high density urban setting. Solutions to address community needs will vary from that of a more suburban context.

Table 1. Current community facility trends relevant to South Perth

Trend	Details
<b>Scale and Size</b>	In recent years the trend in community facility provision is to co-locate a variety of amenities and facilities into a single multi-purpose community hub. Similar to a retail shopping mall including an entertainment outlet such as a cinema, community centres are now combining a multitude of amenities. All under the one roof, community hubs comprise meeting spaces, function spaces, libraries, playgrounds, early years facilities for infant health clinics, playgroups, and childcare as well as arts studios and senior's activity and respite centres. A factor in this trend is consideration given to asset management and operational efficiencies by local governments who are mostly responsible for on-going costs.
<b>Location and Access</b>	Over a number of years, the provision of single purpose standalone facilities has shifted to assets being better located in centres. Clustered alongside similar or complementary activities, transport and access plays a strong role in the location of facilities with transit networks, bicycle, pedestrian

<sup>1</sup> <https://forecast.id.com.au/south-perth/about-forecast-areas?WebID=150>



	and vehicle accessibility being crucial to providing suitably diverse access options. By locating the services/amenities close to other commercial, education and areas where people regularly congregate, overall trip generation is reduced.
<b>Flexibility and Adaptability</b>	In areas subject to growth and change, services and facilities need to be responsive and adaptable to meet increasingly complex and diverse community needs. Successful, well-attended community facilities tend to be those offering a diversity of services, programs and activities. This diversity requires various and flexible spaces and amenities, capable of being multipurpose and accessible. A limit to standalone tenants or lessees of spaces is also a means to enable a variety of user groups to access and use a facility.
<b>Technology</b>	The fast pace of technological change continues to alter the ways people participate in, play and see sport and recreation activities and their involvement in community. The attractiveness of new technological innovations is readily recognised. Any new community amenity development would require the latest technology to ensure it is relevant. This is particularly true of fitness centres and libraries, as well as in the materials used to construct facilities.
<b>Climate Matters</b>	Growing awareness of climate factors such as the urban heat island effect and extreme weather events are increasingly relevant. Perth's already high temperatures cause us to seek out indoor facilities, and more accommodation is made for passive energy systems. Increased costs for power and water are also major drivers for conservation leading to design considerations for spaces, such as use of green cooling systems, water sensitive vegetation and solar outdoor lighting for night-time activity.
<b>Participation and physical inactivity</b>	Physical activity participation rates remain unacceptably low for a large proportion of the WA community and the current generation of young people spend more time indoors than any other generation in history. The challenge is to continue to develop bold initiatives to motivate the community to live active lifestyles. This includes providing readily accessible opportunities for physical activity, often tied to indoor and high-tech options.
<b>Open Spaces</b>	<p>The provision of additional open spaces in high density areas presents a significant challenge for recreation opportunities. In-line with the on-going concern around physical inactivity and the significant cost and burden to the broader community this represents, a number of areas are being identified for more dense urban areas within Australia. In summary these are:</p> <ul style="list-style-type: none"> <li>• Dual purposing transit corridors for recreation and travel/commuting.</li> <li>• Recognising foreshore, waterways as credible recreation areas.</li> <li>• Locating green spaces within less dense areas to alleviate high costs for land assembly within centres.</li> <li>• Linking small spaces together to maximize usage (combined with improved way finding).</li> <li>• Allow dual use of public car parks (e.g. schools) for hard surface recreation/use.</li> <li>• Reclaiming road surface areas adjacent riverfronts to enhance active areas.</li> <li>• Formalise foreshore areas for relevant recreation activities.</li> <li>• Increase the use of 'green' gyms, volleyball, basketball areas.</li> <li>• Include roof top parks and community gardens.</li> <li>• Create green spaces adjacent commercial opportunities such as cafes, etc.</li> <li>• Opportunities for future piazzas and spaces for public art.</li> </ul>
<b>Governance and Partnerships</b>	Local governments are traditionally responsible for community facilities and development, however, more and more there is a need to form partnerships with other service providers, community groups and agencies to meet community need in a particular area. These facilities do not necessarily have to be owned by local government, for example schools, churches, etc, however the role of local government remains as an important facilitator, 'space broker' or manager.
<b>Volunteers</b>	Volunteers underpin the delivery, sustainability and culture of the clubs and associations in our community. Volunteers require significant ongoing training, support and development, and the means and structures to invite, engage and retain them is crucial. The availability of local meeting spaces as headquarters to gather volunteers is important. Establishing a meeting place for use by agencies such as Volunteers WA or offering it to local community groups prevents groups needing to use a kitchen table for a board room.
<b>Place Focussed Events/Activation</b>	<p>'If you build it, they will come' is no longer relevant in a world that better understands community development, place making and activation as critical to human health, economic prosperity and social cohesion. Our communities are changing, particularly around the need to accommodate higher densities, access to recreation, jobs, transport, entertainment and a much broader diversity of services to meet the needs of a multigenerational and multi-cultural community.</p> <p>More than ever, we are exploring different pathways to meet community's needs, either through facility provision, services, however more often through place management and activation. Place</p>

activation supports the use of well-designed spaces and places, aimed at building strong relationships and social networks between residents and local community. When considering community need, the tangible infrastructure requirements should be considered concurrently with activities and events that will be of benefit to target residents and the local community.

As with any curated or programmable activities it is important to start small, with a series of activation initiatives to strengthen and support community networks, leverage the developments' location and existing facilities, and establish positive two-way communication with residents/purchasers, local community and the developer. Achievable and sustainable events/activities should include quick wins to gain momentum and engage the community.

The relationship between the spaces within the building and the semi-public and public spaces nearby will also determine the success of the activation. Spaces that are openable to outdoor and public places, which are multi-purpose will allow for a much wider variety of opportunities to occur, than single purpose spaces.

Similarly, the location of all these activities will be important to encourage inclusion and attract non-residents. For example, a visible and publicly accessible community space is likely to be more attractive to the general community compared to an insular space within the building. Also, it is our experience that larger fewer regular events are far more successful.

## 3. Review of Existing Community Infrastructure

### 3.1 Audit of Community Facilities and Assets

From a number of online information and City of South Perth (City) sources, an audit was undertaken to assess existing facilities and infrastructure within the suburb of South Perth. Each of these assets were identified and sorted into three categories: community, education and learning, or open space.

For the purpose of analysis, we have mapped the following types of facilities:

- Arts, Culture and Tourism
- Community
- Leisure and Recreation
- Childcare
- Education and Training
- Active Open Space
- Passive Open Space

A gap analysis was not conducted for faith-based facilities, leisure and recreation clubs and schools, due to the fact that they are not facilities commonly provided by developers. They have however been included in the facilities audit to gain a comprehensive understanding of the community facilities within South Perth as these assets are commonly used by various community groups.

Table 2. Community facilities

Facility	Address	Sub-Category	Service Provider	Land Ownership
Old Mill Theatre	Mends St, South Perth WA 6151	Arts, Culture and Tourism	Community	State of Western Australia
Old Mill	Melville Pl, South Perth WA 6151	Arts, Culture and Tourism	Council	State of Western Australia
Perth Zoo	20 Labouchere Rd, South Perth WA 6151	Arts, Culture and Tourism	State Government	State of Western Australia
Heritage House Cultural Centre	111 Mill Point Rd, South Perth WA 6151	Arts, Culture and Tourism	Community	State of Western Australia
South Perth Library	Cnr South Tce & Sandgate St, South Perth WA 6151	Community	Council	City of South Perth
St Columbas Catholic Church	30 York St, South Perth WA 6151	Community	Private	Private
Anglican Parish of South Perth	9 Ridge St, South Perth WA 6151	Community	Private	Private
St Joseph's Convent	23 York St, South Perth WA 6151	Community	Private	Private
South Perth Baptist Church	2 Lawler St, South Perth WA 6151	Community	Private	Private
South Perth Bahai Centre	27 Lawler St, South Perth WA 6151	Community	Private	Private
South Perth Uniting Church	2 Sandgate St, South Perth WA 6151	Community	Private	Private

Rotary Club of Mill Point	20 Labouchere Rd, South Perth WA 6151	Community	Community	Private
South Perth Community Centre	South Tce & Sandgate St, South Perth WA 6151	Community	Council	City of South Perth
John McGrath Hall	97 Hensman St, South Perth WA 6151	Community	Council	City of South Perth
Collins Street Centre	2 Collins St, South Perth WA 6151	Community	Council	City of South Perth
Mends Street Jetty	South Perth WA 6151	Leisure and Recreation	Council	State of Western Australia
South Perth Bowling Club	2 Mends St, South Perth WA 6151	Leisure and Recreation	Private	State of Western Australia
Hensman Park Tennis Club	Anstey St, South Perth WA 6151	Leisure and Recreation	Private	State of Western Australia
Como Bowling and Recreation Club	99 Hensman St, South Perth WA 6151	Leisure and Recreation	Private	State of Western Australia
South Perth Cricket Club	1 Amherst St, South Perth WA 6151	Leisure and Recreation	Private	State of Western Australia
WASP Hockey Club	LOT 900 Amherst St, South Perth WA 6151	Leisure and Recreation	Private	State of Western Australia
Wesley Sports Club	96 Angelo St, South Perth WA 6151	Leisure and Recreation	Private	Private
Royal Perth Golf Club	Labouchere Rd, South Perth WA 6151	Leisure and Recreation	Private	State of Western Australia
Seido Karate Perth	2 Sandgate St, South Perth WA 6151	Leisure and Recreation	Private	Private

Table 3. Education and learning facilities

Facility	Address	Sub-Category	Service Provider	Land Ownership
South Perth Playgroup	97 Hensman St, South Perth WA 6151	Childcare	Community	City of South Perth
Wesley Family Playgroup	Cnr Coode St & Angelo St, South Perth	Childcare	Private	Private
Little Scientist Playgroup	46 Hensman St, South Perth WA 6151	Childcare	Private	State of Western Australia
Collins Street Centre Playgroup	2 Collins St, South Perth WA 6151	Childcare	Community	City of South Perth
Studio 64 Child Care Centre	64 Mill Point Rd, South Perth WA 6151	Childcare	Private	Private
South Perth Early Childhood Centre	2 Sandgate St, South Perth WA 6151	Childcare	Private	Private
South Perth Early Learning School	Level 1, 96 Mill Point Rd, Cnr Harper Terrace, South Perth WA 6151	Childcare	Private	Private
Mosaic Early Learning Centre	2 Lawler St, South Perth WA 6151	Childcare	Private	Private
South Perth Senior Citizens Centre	53 Coode St, South Perth WA 6151	Education and Learning	Council	City of South Perth
South Perth Primary School	51 Forrest St, South Perth WA 6151	Education and Learning	Community	State of Western Australia
Hensman Street Elementary	46 Hensman St, South Perth WA 6151	Education and Learning	Private	State of Western Australia
St. Columba's Catholic Primary School	30 York St, South Perth WA 6151	Education and Learning	Private	Private
Wesley College	Coode St &, Angelo St, South Perth WA 6151	Education and Learning	Private	Private
South Perth Learning Centre	96 South Tce, South Perth WA 6151	Education and Learning	Community	City of South Perth
South Perth Out of School Centre	Forrest St, South Perth WA 6151	Education and Learning	Community	State of Western Australia



Korean Language & Cultural Education	South Perth Learning Centre, South Tce & Sandgate St, South Perth WA 6151	Education and Learning	Private	City of South Perth
Kumon South Perth Education Centre	South Perth Learning Centre, South Tce & Sandgate St, South Perth WA 6151	Education and Learning	Private	City of South Perth

Table 4. Open space

Facility	Address	Sub-Category	Service Provider	Land Ownership
Richardson Reserve	Amherst St, South Perth WA 6151	Active Open Space	Council	State of Western Australia
Ernest Johnson Reserve	78 South Tce, South Perth WA 6151	Active Open Space	Council	City of South Perth
Windsor Park	South Perth WA 6151	Active Open Space	Council	State of Western Australia
Mill Point Reserve	South Perth WA 6151	Passive Open Space	Council	State of Western Australia
Clydesdale Reserve	Mill Point Rd & Witcomb Pl, South Perth WA 6151	Passive Open Space	Council	City of South Perth
Shaftsbury Street Reserve	South Perth WA 6151	Passive Open Space	Council	City of South Perth
South Perth Foreshore	South Perth WA 6151	Passive Open Space	Council	State of Western Australia
Sir James Mitchell Park	Mill Point Rd, South Perth WA 6151	Passive Open Space	Council	State of Western Australia
Narrows Parklands	Mill Point Rd, South Perth WA 6151	Passive Open Space	Council	State of Western Australia
Richardson Park Playground	Amherst St, South Perth WA 6151	Passive Open Space	Council	State of Western Australia
South Perth Park	South Perth Esplanade, South Perth WA 6151	Passive Open Space	Council	State of Western Australia
Point Belches	LOT 921 Mill Point Rd, South Perth WA 6151	Passive Open Space	Council	State of Western Australia
Scented Garden	South Perth Foreshore South Perth WA 6151	Passive Open Space	Council	State of Western Australia
Millers Pool	3 Mill Point Cl, South Perth WA 6151	Passive Open Space	Council	State of Western Australia
Brandon Darling Reserve	20 Brandon St, South Perth WA 6151	Passive Open Space	Council	City of South Perth
Meadowvale Reserve	4 Meadowvale Ave, South Perth WA 6151	Passive Open Space	Council	City of South Perth
Milyu Nature Reserve	South Perth WA 6151	Passive Open Space	Council	State of Western Australia
Collins Street Centre Open Space	2 Collins St, South Perth WA 6151	Passive Open Space	Council	City of South Perth
Melville Parade Open Space	Melville Pde, South Perth WA 6151	Passive Open Space	Council	State of Western Australia
Hensman Street Open Space	46 Hensman St, South Perth WA 6151	Passive Open Space	Council	State of Western Australia
Mill Point Road Open Space	Mill Point Rd, South Perth WA 6151	Passive Open Space	Council	City of South Perth
Swanview Terrace Open Space	Swanview Tce, South Perth WA 6151	Passive Open Space	Council	City of South Perth







## 4. Benchmarking Community Facilities

### 4.1 Defining Community Benefit

Defining 'community benefit' and what this means for each place or community varies. In the context of a place that is facing significant change and redevelopment, decision making authorities will typically forecast how this change will impact on the use of and demand for a range of community related infrastructure that is intrinsically linked to population growth and shifts in demographic profile. As growth occurs, the pressures will increase and therefore there is a need to accommodate additional community facilities and infrastructure.

It is important to note 'community' is not limited to the local residential population but also includes local workers, business owners, students and visitors.

### 4.2 Standards of Provision

Standards of provision for infrastructure (which are often described as benchmarks or rates of provision) provide a basis to assess the need for facilities as a population changes. This standard of provision helps to identify the catchment area and likely demand for a community facility or conversely what might be needed.

These standards of provision are generally expressed as a rate of facilities per head of population or age group. This aims to ensure equitable outcomes across a different geographic area, whilst the community are being provided adequate and equitable levels of community facilities within either their local service catchment or neighbourhood, as well as for the entire Local Government Area or region.

Unlike some types of core infrastructure (such as road, drainage, water and sewer which have well established industry standards), levels of provision for community facilities need to be flexible to accommodate population demographics, community identity, social outcomes, local constraints (land, etc.) and trends in participation. Consequently, there is no single 'industry accepted standard' across WA.

The most comprehensive industry guide for community facility provision has been prepared by Parks and Leisure Australia WA (PLAWA), a peak member-based industry body. The 'Western Australia Guidelines for Community Infrastructure' (July 2020) publication provides recommendations for the rate of provision and means of considering future community facility needs. The guidelines cover most community facilities and offer a population range at which point the need for a community facility is triggered. It should be noted there are other mechanisms to population milestones for determining community need.

The projected population for the suburb of South Perth in 2041 is 20,331, therefore the facility types in *Table 1* have been chosen based on their population trigger being at or less than 21,000. Due to South Perth being an inner-city suburb, we have limited our analysis to relevant facility types.

We have not conducted a gap analysis for large district-sized sporting ovals or open space due to the limit of available land to provide such a facility. However, sporting facilities such as netball and basketball courts have been included because these are possible to provide in a more urban public realm or on podiums/rooftops. Additional community facilities (not assigned a Standard of Provision by PLAWA), such as art galleries, art studios, men's/women's sheds, community gardens and social support services have also been included for analysis and discussion.

Table 5. Parks and Leisure WA Community Facility Guidelines

Facility Type	Hierarchy	Definition	Provision Ratio	Preferred Delivery Model
<b>Community</b>				
Multi-functional Branch Library	District	Various configurations of library space, which may include student study lounge, community meeting and activity space, education-related community office space, toy library, community gallery/display space to meet diverse community hub, activity and learning needs.	1:20,000 – 50,000	A library business case should be based on ten-year population projects for the local government area, or its relevant catchment subdivisions and changing services and delivery needs of the community.
Community Centre	District	Multi-functional building or group of buildings for the social, cultural and educational activities of a neighbourhood or entire community.	1:15,000 - 25,000	Need and evidence is required to establish a business case. The design scope and catchment to be determined through local research and community need. Indicative building requirements of approximately 900m <sup>2</sup> of community meeting/activity space.
	Neighbourhood	Small local meeting rooms and activity spaces that can be used by local organisations for activities such as dance, fitness and outreach work. Various gross floor area configurations of approximately 300m <sup>2</sup> to serve immediate community.	1:7,500	Determined by local need and research; size and design should reflect the unique local conditions and be integrated/co-located where possible within a local sports pavilion and sports space, or other active space serviced well by public transport.
Youth Centre/Youth Space	District	A centre providing leisure activities and advisory support for young people. To provide space for a youth worker, employment training programs, drop in areas, formal areas and outreach programs.	1:20,000 – 30,000	A diversity of youth infrastructure not competing with independent youth service providers, to address aged 12-25 or part thereof. District level – spaces made available within a district centre facility.
Skate Park	District	Formal skate park facility generally within established public open space.	1:10,000 – 25,000	2km local catchment population.
	Neighbourhood		1:5,000 – 10,000	
Netball Courts	District	Indoor and outdoor hard flat surface requiring 30.5m by 15.25m with minimum run-off of 3.05 or 3.65 between courts. This does not include multi-use court provision, but facilities which are principally dedicated to the delivery of netball.	1:5,000 – 8,000 (outdoor) for training purposes. 1 dedicated court: 8,000	7+ courts within a 5km population catchment for district facilities.
	Neighbourhood			1-6 courts within a 5km population catchment for neighbourhood facilities.
Basketball Courts (indoor and outdoor)	District / Sub-Regional	A flat hard surface 28m by 15m free from obstructions. Indoor provision requires 7m internal ceiling space and minimum run-off by 2m. Minimum number of indoor dedicated courts to suit the level of provision. Multi-marked outdoor courts with the capability of providing for basketball training and competition.	1:3,000 – 4,000 (outdoor)	4-8 dedicated indoor courts for district/sub-regional centre within a 5km catchment.
	Neighbourhood			1-4 dedicated courts for neighbourhood level provision within a 5km catchment.
Tennis Multi-Surface Hard Courts and Grass	District	Rectangular synthetic surface preferred 23.77m by 10.97m with 6.4m depth of baseline. Orientation of courts should be north-south. Club facilities, rather than stand-alone single, double or triple court facilities. Club floodlit courts to be available for public booking uses.	1:15,000 - 30,000	8 court minimum club/district facility within a 5km catchment.
Art Gallery	Local	Exhibition space dedicated to the presentation of 2D and 3D artwork. May also host artist talks, presentations and gatherings such as opening nights.	Area / location and need specific.	Either delivered by public, private or not-for-profit entities, or through a partnership approach.



Facility Type	Hierarchy	Definition	Provision Ratio	Preferred Delivery Model
Maker Space	Local	Maker spaces provide a venue for individuals and groups to practice creative pursuits including large-format arts production, and workshop style activities.	Area / location and need specific.	Either delivered by public, private, or not-for-profit entities, or through a partnership approach.
Artist Studios	Local	Artist studios are dedicated spaces for individuals or small groups to practice creative pursuits. Generally, for small scale arts production.	Area / location and need specific.	Either delivered by public, private, or not-for-profit entities, or through a partnership approach.
Men's Shed / Women's Shed	Local	A community facility for sharing and developing trade skills, while improving mental and physical health outcomes. They can include workshops, kitchen spaces and a meeting room (from 200m <sup>2</sup> to 1,000m <sup>2</sup> ).	Area / location and need specific.	Typically provided through local government strategic community plans.
Community Garden	Local	Community gardens bring people together as a way of educating children and adults in the horticultural environment. They have a significant role in connecting communities and enhancing individual's health and wellbeing.	Area / location and need specific.	Typically provided through local government strategic community plans.
<b>Education and Learning</b>				
Play Group	Local	Diverse activities for child carers which include baby groups and first-time parents, toddler playgroups, three to four-year-old playgroups, fathers' groups, children with a disability, grandparent groups, home playgroups and supported playgroups.	1:4,000 – 6,000	Integrated within schools, neighbourhood or district community centres.
Outside School Hours Care	Local	Outside School Hours Care (OSHC) services provide care before an/or after school and/or during vacation time. Some services may also provide care on pupil free days during the school term.	1:4,000 – 6,000	Incorporated within long day care centres or schools.
Child Care Centre (Long Day Care) 0–4-year old's	Local	Centre for the care of children in early stage of growth/development. Normally by private sector providers, although some local governments invest in facilities, particularly where their commercial viability is questionable.	1:4,000 – 8,000	Within broader community care and education-based infrastructure.
Occasional Care	Local	Centre-based short-term form of childcare. OCC is generally operated out of long day care facilities, usually by private sector providers.	1:12,000 – 15,000	Incorporated in long day care centres or community centres.
Seniors Centre	District	A place where older adults can congregate to fulfil many of their social, physical, emotional and intellectual needs. Seniors' activity should be part of an integrated service offering within a community hub.	1:20,000 – 30,000	Dedicated seniors' facilities are not supported and should be co-located within a community centre.
<b>Open Space</b>				
Play Space	District	A developed component within an area of public open space or building for play. Generally designed for children aged 6 months to 12 years of age.	1:8,000 - 10,000	
	Neighbourhood		1:2,000	
Park	Neighbourhood	Neighbourhood parks are the basic unit of the park system and serve as the recreational and social focus of the neighbourhood. Focus is on providing informal, active and reflective recreational options for all ages. Unique site character helps create a sense of place for the neighbourhood. Includes children's playground, paved games courts, unstructured open play areas for practice or pickup games, low impact recreation options.	1:5,000	Between 1ha and 5ha. 800m population catchment.
Local Open Space	Local	Serve broader purpose than neighbourhood parks. Focus is on meeting community-based recreation and gathering needs.	1:1,000	Between 0.4ha and 1ha. 400m population catchment.

## 5. Gap Analysis

This section compares the existing provision of community facilities in South Perth against the PLAWA Guidelines recommended ratio of provision. Additional requirement is then calculated based on the forecast population growth to determine whether additional facilities would be required by that year.

The PLAWA Guidelines cover most community facilities and offer a population range at which point the need for a community facility is triggered. It must be noted however that population milestones are only one mechanism for determining need. The CNA also applies the relevant background information and factors identified in previous sections, then compares to current service provision to identify any current or future gaps.

Table 6. South Perth (Suburb) Population Projections

Year	Projected Population
2021	14,313
2026	15,001
2031	16,517
2036	18,408
2041	20,331

Source: id.community – City of South Perth

The following table presents key community facilities and existing provision sourced as part of the CNA. It should be noted that the numbers of facilities under the heading of 'Additional Requirement' are non-accumulative, and the 'Total Facilities Needed by 2041' column should be considered as final tallies.

Table 7. Comparison of PLAWA Guidelines Against Population Forecasts

Facing Demand | No Additional Facilities Required

PLAWA Facility	Population Guideline	Current Nearby Provision (South Perth - Suburb)	Meets Current Need 2021	Additional Requirement					Total Facilities Needed by 2041
				2026	2031	2036	2041		
<b>Community</b>									
Multi-functional Branch Library	1:20,000 – 50,000	<b>1 existing facility</b> South Perth Library	✓ (+1)	0	0	0	0	0	0
Community Centre	1:7,500 Neighbourhood	<b>3 existing facilities</b> Collins Street Centre John McGrath Hall South Perth Community Centre	✓ (+1)	0	0	0	0	0	0
Youth Centre / Space	1:20,000 – 30,000	<b>None present</b>	✓ (0)	0	0	0	+1	1	1
Skate Park	1:5,000 – 10,000 Neighbourhood	<b>None present</b>	X (-3)	0	0	0	+1	4	4
Netball Courts	1:5,000 – 8,000 (outdoor) for training purposes. 1 dedicated court: 8,000	<b>None present</b>	X (-3)	0	0	0	+1	4	4
Basketball Courts	1:3,000 – 4,000	<b>5 existing courts</b> Wesley College Sports Club (Minimum of 2 outside courts and 3 indoor courts)	✓ (0)	0	0	+1	0	1	1

PLAWA Facility	Population Guideline	Current Nearby Provision (South Perth - Suburb)	Meets Current Need 2021	Additional Requirement				Total Facilities Needed by 2041
				2026	2031	2036	2041	
Tennis Multi-Surface Hard Courts and Grass	1:15,000 - 30,000	<b>2 existing facilities</b> Hensman Park Tennis Club (8 hard courts, 9 grassed courts) Wesley College Sports Club (7 courts)	✓ (+1)	0	0	0	0	0
<b>Education and Learning</b>								
Play Group	1:4,000 – 6,000	<b>4 existing facilities</b> Collins Street Centre Playgroup Little Scientist Playgroup South Perth Playgroup Wesley Family Playgroup	✓ (0)	0	+1	0	0	1
Outside School Hours Care (OSCH)	1:4,000 – 6,000	<b>5 existing facilities</b> South Perth Out of School Centre South Perth Early Learning School South Perth Primary School OSCH St Columba's Catholic School OSCH Wesley College OSCH	✓ (+1)	0	0	0	+1	1
Child Care Centre (Long Day Care) 0–4-year old's	1:4,000 – 8,000	<b>4 existing facilities</b> Mosaic Early Learning Centre South Perth Early Childhood Centre South Perth Early Learning School Studio 64 Child Care Centre	✓ (0)	0	+1	0	0	1
Occasional Care	1:12,000 – 15,000	<b>1 existing facility</b> Studio 64 Early Learning School	✓ (0)	0	0	0	0	0
Seniors Centre	1:20,000 – 30,000	<b>1 existing facility</b> South Perth Senior Citizens Centre	✓ (0)	0	0	0	0	0
<b>Open Space</b>								
Play Space	1:2,000 Neighbourhood	<b>8 existing facilities</b> Brandon Darling Reserve Ernest Johnson Reserve Meadowvale Reserve Richardson Park Playground Scented Garden Shaftsbury Street Reserve Sir James Mitchell Park Playground South Perth Foreshore Playground	✓ (+1)	0	0	+1	+1	2
Park	1:5,000 Neighbourhood	<b>7 existing facilities</b> Clydesdale Reserve Mill Point Reserve Millers Pool Richardson Reserve Scented Garden South Perth Park Windsor Park	✓ (+4)	0	0	0	0	0
Local Open Space	1:1,000	<b>11 existing facilities</b> Brandon Darling Reserve Collins Street Centre Open Space	X (-3)	+1	+1	+2	+2	9

PLAWA Facility	Population Guideline	Current Nearby Provision (South Perth - Suburb)	Meets Current Need	Additional Requirement				Total Facilities Needed by 2041
			2021	2026	2031	2036	2041	
		Hensman Street Elementary Open Space Meadowdale Reserve Melville Parade Local Open Space Milyu Nature Reserve Mill Point Road Open Space Narrows Parklands Point Belches Shaftsbury Street Reserve Swanview Terrace Local Open Space						

## 5.1 Community Facilities without Recommended Standards of Provision

There appears to be a gap in the provision of cultural and social infrastructure, such as performance halls, rehearsal rooms, art galleries, maker spaces/studios and a community (men's and/or women's) shed. These facilities can sometimes be accommodated within community centres, provided that sinks are available within appropriately sized rooms, however, are commonly present in some urban settings as stand-alone facilities.

While there are no standards of provision to apply, we recommend that cultural facilities providing community benefit are identified as desirable on-site contributions to developers. Given the lack of cultural infrastructure, it is reasonable to perceive that there would be demand within an inner-city suburb for these facilities, however, further investigation is required to determine reasonable demand and a current analysis of any community groups. One possibility to address this gap is by requiring additional analysis be provided by a proponent of a Development Application, should applications propose any of the above facilities as a contribution. However, the additional work could deter applicants from providing these facilities overall.

Additionally, social support services provide community benefit by helping improve quality of life and sustaining communities by creating employment opportunities and targeting issues such as homelessness, mental health and family support. Due to their different targets and operational systems, social support services have proven difficult to measure, however we would recommend considering the provision of these within the CBCF as part of a future review.



## 6. Key Findings and Recommendations

### 6.1 Summary

This section assesses the identified gaps in community infrastructure from section 4 against the City's provision (forecast or existing) or those able to be provided by the private sector. The provision has been divided into three overarching categories for the purpose of analysis, these are community facilities, education and learning, and open space which aligns with the analysis of facilities in section 2.

Based on the high-level analysis of population forecasts and the facilities available for assessment under the PLAWA Guidelines, the table below identifies which community facilities appear to be undersupplied or require further supply into the future, based on the population projections for the suburb of South Perth.

The key takeaways from the table below are as follows:

- South Perth is currently facing demand for skate parks, netball courts and local open space.
- By 2031, the suburb will require an additional play group and childcare centre.
- By 2036, there will be demand for an additional basketball court and play space.
- By 2041, South Perth will need an additional youth centre/space and out of school hours care facility.

We have also provided recommendations for each of these facilities by considering the role of the Community Benefit Contribution Framework (CBCF) for the South Perth Activity Centre in providing infrastructure that is 'above and beyond' standard provision of facilities and infrastructure.

Table 8. Key Findings from the Gap Analysis

Category	Facility Type	Key Findings and Discussion	CBCF Recommendations
Community	Multi-functional Branch Library	No additional libraries will be required by 2041 and the existing South Perth library should be able to service the catchment.	We recommend that libraries not be included in the CBCF.
	Community Centre	No additional community centres will be required by 2041. With three existing community centres the area is well serviced.	We recommend that community centres not be included in the CBCF.
	Youth Centre/Youth Space	No youth centres or spaces are currently present in South Perth. In order to service the projected population, one additional facility or space will be required by 2041.	We recommend one youth centre or space be considered for inclusion in the CBCF; however, this could be a longer-term provision given it isn't triggered until 2041 and current population projections show an ageing population.
	Skate Park	South Perth is currently facing demand for a skate park, given there are no existing facilities. According to the PLAWA Guidelines, four additional skate parks will be required by 2041. However, based on the existing demographics (the significantly older population and decline in those aged between 18-24), the demand is unlikely to be this high in reality. There is one existing Skate Park located north of South Perth, along the foreshore at McCallum Park in Victoria Park. This asset is able to service some of the existing demand in the neighbouring suburb.	We recommend one skate park considered for inclusion in the CBCF which should be located to service a catchment outside of the McCallum Park facility.

	Netball Courts	There are currently no netball courts in South Perth. According to the Standards of Provision, four courts will be required by 2041. Further investigation may be required to determine the demand for netball courts, local teams and competitions within South Perth and the usage patterns. This demand may be serviced by existing school facilities whilst not being open to the public.	We recommend that further investigation is required to determine demand for netball courts, particularly given as this would be a facility typically provided by local government to meet recreation demand.
	Basketball Courts	One additional court will be required by 2041. The existing provision of basketball courts are located within Wesley Sports Club on privately owned land. Although these facilities are hireable by the public, they may not be perceived to be publicly accessible and are not free to access.	We recommend that a publicly accessible basketball court (without hiring fees) be considered for inclusion in the CBCF. If provided as a multi-marked court, it may also be able to service the apparent demand for netball courts.
	Tennis Multi-Surface Hard Courts and Grass	No additional tennis courts (hard courts or grass) will be required by 2041.	We recommend that tennis courts not be included in the CBCF.
<b>Education and Learning</b>	Play Group	One additional play group will be required by 2031, to service the projected population.	We recommend that one playgroup be considered for inclusion in the CBCF.
	Outside School Hours Care (OSHC)	One additional OSHC facility will be required by 2041.	We recommend that one OSCH facility be considered for inclusion in the CBCF. Consideration of this facility should include that many OSHC are run by private providers.
	Child Care Centre (Long Day Care) 0-4-year old's	One additional childcare centre will be required by 2031. Childcare centres are commonly privately provided and therefore are not suitable for inclusion in the CBCF.	We recommend that child care centres be excluded from the CBCF on the basis that they are demand driven and delivered by private providers.
	Occasional Care	No additional occasional care facilities will be required by 2041.	We recommend that occasional care not be included in the CBCF.
	Seniors Centre	No additional seniors' centres will be required by 2041.	We recommend that seniors' centres not be included in the CBCF.
<b>Open Space</b>	Play Space	Two additional play spaces will be required to service the projected population by 2041. Publicly accessible play spaces are suitable for rooftops and pocket parks associated with private developments, and therefore are relevant to the CBCF.	We recommend including two play spaces in the CBCF.
	Park	No additional neighbourhood parks will be required by 2041.	We recommend that neighbourhood parks not be included in the CBCF.
	Local Open Space	Based on the PLAWA Guidelines the current provision of local open space is insufficient for the existing population. Nine additional local open spaces (0.4 – 1.0ha) will be required by 2041. Due to the proximity of the South Perth Foreshore and Sir James Mitchell Park, there is an abundance of regional open space. The presence of these spaces, means that fewer local open spaces could be required to meet the demand for public open space within a 400m population catchment.	We recommend including local open space in the CBCF, in the form of pocket parks, plazas and squares to suit the space availability within the activity centre and more urban environment that will emerge through redevelopment.

As identified earlier, while there are no standards of provision to apply, we recommend that cultural facilities and social support services providing community benefit be identified in the CBCF as desirable on-site contributions. Developers should include justification to the City that there is sufficient demand for the facilities proposed. We recommend that further research is undertaken in future to determine appropriate benchmarks for these types of facilities for an inner-city suburb.

## Appendix A. Mapping Assets by Category





Figure 2. Community Facilities





Figure 3. Education and Learning Facilities





Figure 4. Open Space



# Appendix 3 - Community Benefit Contribution Procedural Guide

# South Perth Activity Centre Plan

## Community Benefit Contribution Procedural Guide

September 2021



We acknowledge the custodians of this land,  
the Whadjuk Nyoongar and their Elders past,  
present and emerging.

We wish to acknowledge and respect their  
continuing culture and the contribution they  
make to the life of this city and this region.

# Contents

1. Introduction	1
2. Community Benefit Contribution Requirements	1
3. Contract Sum	1
4. Community Benefit Contribution Offer	1
5. Process for a Monetary Community Benefit Contribution	2
6. Forecast Contract Sum and Valuation of Onsite Community Benefit(s)	3
7. Development Approval Conditions and Advice Notes	4
8. Management of Funds	5
9. Period of Operation	5
10. Review and reporting requirements	6



## 1. Introduction

- 1.1 The purpose of the Community Benefit Contribution Procedural Guide (Procedural Guide) is to outline the process associated with the proposition and delivery of community benefit contributions in accordance with Element 8 of Schedule 9B of Town Planning Scheme No.6 (TPS 6) and the South Perth Activity Centre Plan (ACP). The Procedural Guide addresses:
- (i) Information to be submitted with a development application seeking building height and/or plot ratio above the primary limits;
  - (ii) Calculation and payment of community benefit contributions;
  - (iii) Conditions and advice notes to be applied to development that enable building height and/or plot ratio above the primary limits;
  - (iv) Management of the Community Benefits Contributions Fund by the City of South Perth (the City);
  - (v) Delivery of the benefit items by a proponent or the City; and
  - (vi) Review and reporting requirements for the Community Benefits Contribution Fund."

## 2. Community Benefit Contribution Requirements

- 2.1 Element 8.3 of Schedule 9B sets out the method for calculating public benefit contributions as follows:

*Where a public benefit contribution is to be paid to the City in accordance with 8.2.4(a), the amount payable shall be in accordance with whichever of the following formula that yields the greatest contribution amount:*

- a.  $(3\% \times \text{total contract sum}) \times (\text{Number of storeys above the Primary standard} \div \text{total number of storeys})$ ; or
- b.  $(3\% \times \text{total contract sum}) \times (\text{m}^2 \text{ of plot ratio area above the Primary standard} \div \text{m}^2 \text{ of total plot ratio area})$ .

## 3. Contract Sum

- 3.1 For the purposes of Clause 8.3 of Schedule 9B of TPS 6, 'contract sum' shall include all contractors' preliminaries, fees, overhead and profit, trade contract values, provisional sums and contingency/risk amounts. The contract sum shall be inclusive of all contracts including early/forward/enabling/third party works and/or subsequent contracts required to complete the development.
- 3.2 Notwithstanding Part 4.1, the contract sum must not include the monetary value of any community benefit contribution provided onsite as part of a development. In this regard, valuation of any onsite community benefit contribution does not include the valuation of land (including for development of a mid-block links or pocket parks).

## 4. Community Benefit Contribution Offer

- 4.1 As part of a development application which proposes building height and/or plot ratio above the primary limit, a written offer of a community benefit contribution shall be made to the local government. The offer shall be made using the following procedure:
- 4.1.1 Together with a development application, a document shall be submitted specifying whether the community benefit contribution is to be:
    - (i) A monetary offer in accordance with Clause 8.2.4(a) of Schedule 9 of TPS 6 and calculated as per Clause 8.3(a) or (b); or
    - (ii) Delivered onsite in accordance with Clause 8.2.4(b) of Schedule 9 of TPS 6; or
    - (iii) Delivered in-part as an onsite contribution and in-part as a monetary offer.
  - 4.1.2 To the extent that the applicant's proposal comprises or includes a monetary offer, the document shall include a statement committing to a monetary payment prior to submission of an occupancy permit application.
  - 4.1.3 To the extent that the applicant's proposal comprises or includes (a) community benefit contribution(s) proposed to be delivered onsite, the document shall include the following details and be accompanied with associated supporting documents to demonstrate the following:
    - (i) describing what the onsite contribution(s) is/are proposed to comprise, including drawings, artist's



impression and any other information that the City may require to enable an understanding of what the contribution will comprise;

- (ii) describing how the proposed onsite contribution(s) aligns with the Community Benefit Contribution Framework (CBCF) contained within Appendix 7 of the ACP;
- (iii) the applicant's forecast of what the development's contract sum will be, in accordance with Part 5 of this Procedural Guide, reconciled against a valuation of the proposed onsite contribution(s) by an appropriately qualified Quantity Surveyor.
- (iv) a statement acknowledging that in the event that the final value of the proposed onsite contribution(s) is assessed as less than the required contribution amount, following a final valuation, then the balance must be paid by the applicant as a monetary contribution prior to submission of an occupancy permit application. The final valuation is determined prior to submission of an occupancy permit application.

4.2 Acceptance of the offer, described above, is at the discretion of the local government and will form part of its broader consideration of the development application.

4.3 The City shall reject any offer to deliver a community benefit contribution on site that is deemed to be inconsistent with the ACP. Where a proposal is deemed to be inconsistent with the ACP the application will be recommended for refusal.

## 5. Process for a Monetary Community Benefit Contribution

- 5.1 Following development approval and prior to submission of a building permit application, the applicant shall provide information to the City to verify the contract sum in accordance with Part 4 of this Procedural Guide. The contract sum should be evidenced by submitting the executed construction contract including contract sum breakdown.
- 5.2 The City, as part of the review of the valuation of the contract sum, may seek the services of an independent third party to verify its value. In such cases, all costs and expenses will be borne by the applicant. Following the review, the City will issue the applicant with a letter stating a provisional community benefit contribution amount.
- 5.3 Prior to submission of an occupancy permit application the applicant shall submit information to the City to verify the final contract sum. Such information may include the final account statement between the applicant/owner and the contractor. The City will consider the information provided by the applicant and issues the applicant with the final community benefit contribution amount.
- 5.4 The contract sum may exclude non-residential tenancy fit out costs and variations to the contract associated with purchaser/owner upgrades/changes.
- 5.5 Payment of the contribution shall also be made to the City prior to submission of an occupancy permit application.

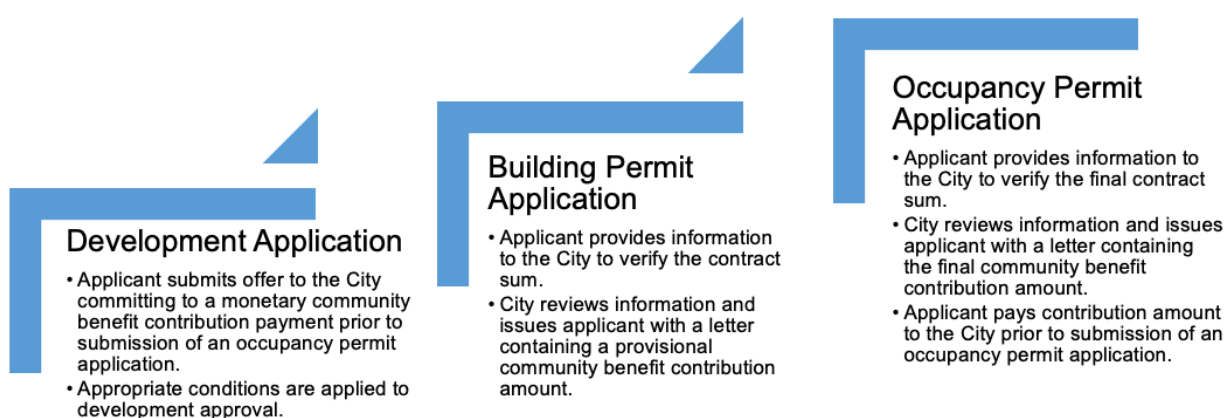


Figure 1 – Monetary Contribution Process Summary

## 6. Forecast Contract Sum and Valuation of Onsite Community Benefit(s)

- 6.1 Where a community benefit contribution is proposed to be delivered onsite, a 'forecast contract sum' is required to be submitted as part of the development application to determine the monetary contribution which would otherwise be required under Clause 8.2.4(a) of Schedule 9B of TPS 6.
- 6.2 Where the proposed onsite item(s) is of a lesser value than the total required community benefit contribution calculated in accordance with Clause 8.3 of Schedule 9B, the balance must be provided as a monetary contribution, paid prior to submission of an occupancy permit.
- 6.3 A 'forecast contract sum' is an estimate of the amount that the contract sum will ultimately be, having regard to Part 4 of this Procedural Guide.
- 6.4 The forecast contract sum and onsite community benefit item(s) proposed must be accurately valued, to the satisfaction of the City by an appropriately qualified Quantity Surveyor, registered with the Australian Institute of Quantity Surveyors, or with demonstrated equivalent qualifications.
- 6.5 The City, as part of the review of the valuation of the forecast contract sum, may seek the services of an independent third party to verify its value. In such cases, all costs and expenses borne by the City in determining the value of the contract sum will be paid for by the applicant.
- 6.6 Prior to submission of an occupancy permit application, the final contract sum is to be submitted to the City with a final valuation of the onsite benefits that were delivered. The contract sum may exclude non-residential tenancy fit out costs and variations to the contract associated with purchaser/owner upgrades/changes.
- 6.7 The City, as part of the review of the valuation of the final contract sum and valuation of delivered onsite benefits, may seek the services of an independent third party to verify its value. In such cases, all costs and expenses will be borne by the applicant.
- 6.8 Where the proposed onsite item(s) is of a lesser value than the total required community benefit contribution the City will issue a letter stating the final community benefit contribution amount to be paid to the City prior to submission of an occupancy permit application.

### Development Application

- Applicant submits offer to the City comprising a community benefit contribution to be delivered onsite.
- Applicant provides City with evidence of contract sum and valuation of onsite community benefit.
- Applicant commits to a monetary payment where final valuation of onsite benefit is less than required contribution.
- City reviews information and accepts or rejects offer.

### Occupancy Permit Application

- Applicant provides information to the City to verify the final contract sum and valuation of onsite benefits.
- City reviews information and issues applicant with a letter confirming final community benefit contribution amount required (if applicable).
- If required, applicant pays contribution amount to the City prior to submission of an occupancy permit application.
- Applicant fulfills all other development approval conditions associated with approved onsite community benefit.

Figure 2 – Onsite Community benefit Contribution Process Summary

## 7. Development Approval Conditions and Advice Notes

Where approval of building height and/or plot ratio above the primary limits is recommended, the following conditions will be placed on the approval. The wording of these template conditions and advice notes may be modified as required, at the City's discretion.

### 7.1 Where a Monetary Contribution is Imposed

#### 7.1.1 The following condition and advice note shall be applied to the approval.

Condition:

1. *A community benefit contribution, calculated in accordance with Clause 8.3 of Schedule 9B of Town Planning Scheme No. 6, shall be made by way of monetary payment to the local government prior to the submission of an occupancy permit application.*

Advice note:

1. *For the purposes of Clause 8.3 Schedule 9B of TPS 6, guidance is given as to the calculation of the 'contract sum' within Appendix 8 - Community Benefit Contribution Procedural Guide of the South Perth Activity Centre Plan.*

### 7.2 Where Requirement of Onsite Community Benefit Contributions is Imposed

#### 7.2.1 Conditions of development approval will be prepared as needed where onsite items are to be proposed. To meet the requirements of the ACP and CBCF, conditions are required to ensure all community benefits delivered onsite are done so in perpetuity and are appropriately open and accessible to the public. This is to be achieved through a management plan and an easement in gross on the title.

#### 7.2.2 Conditions will be specific to the community benefit item(s) to be provided, generally as per the following:

1. *Prior to the submission of an occupancy permit application, a Community Benefits Management Plan shall be developed, for the **\*insert community benefit item(s)\***, addressing the following matters:*

- i. *The hours of public accessibility;*
- ii. *The manner that these benefits are made available to the public and South Perth community in perpetuity for the life of the development; and*
- iii. *Identifying the precise portions of cubic space:*
  - (a) *on which the community benefit item(s) will be located;*
  - (b) *which the public are to have access to in order to enjoy the community benefit items; and*
  - (c) *which are to comprise the means of access within the development to areas (a) and (b) (collectively **Public-Benefit-Related Cubic Space**);*

- iv. *Any other matter deemed relevant by the City.*

*The Plan shall be submitted to the City of South Perth for approval. No strata plan should be prepared or lodged, and the landowner from time to time acknowledges that no strata plan will be supported by the local government, which proposes any part of the Public-Benefit-Related Cubic Space to be located otherwise than on common property of the strata plan. The strata company for the subject site shall be responsible to ensure that the approved community benefits management plan is implemented and adhered to all times to the satisfaction of the City of South Perth. In the event that, or for so long as, that the development does not take the form of a strata subdivision, the owner(s) of Public-Benefit-Related Cubic Space, shall be liable (and in the case of more than one such owner, jointly and severally liable) to ensure that the approved community benefits management plan is implemented and adhered to all times to the satisfaction of the City of South Perth.*

2. *Prior to the submission of an occupancy permit application, the owner shall register on the Certificate of Title for the lot(s), which shall be carried over on to any future Certificate of Title in the event the development becomes the subject of a Strata Plan, a public access easement in gross granted to the local government burdening the Public-Benefit-Related Cubic Space.*

*The easement shall be prepared in such manner that it shall carry over and bind the Public-Benefits-Related Cubic Space. The easement is to state:*

- i. *Details of the community benefit;*
- ii. *The operation of the approved community benefit is subject to an approved community benefits management plan that shall be implemented and adhered to all times.*

*Notice of this restriction is to be included on the diagram or plan of survey (deposited plan). The easement is to be registered at the owner's expense, to the satisfaction of the City of South Perth.*

3. Unless the community benefit item(s) approved under condition \_\_\_\_ is/are assessed by the local government as equally or exceeding the amount otherwise calculated under Clause 8.3 of Schedule 9B of TPS 6, a community benefit contribution, calculated in accordance with that clause, shall be paid to the local government prior to the submission of an occupancy permit application. The amount of the contribution is to be finalised by the local government following reconciliation by the local government against the value of the community benefit contribution items provided as part of the development being **\*insert community benefit item(s)\***. Such reconciliation is to occur in accordance with the South Perth Activity Centre Plan Community Benefit Contribution Procedural Guide. The valuation of approved onsite benefits is to be at the expense of the applicant/owner.

## 8. Management of Funds

### 8.1 Community Benefits Fund

- 8.1.1 The City will establish and maintain a dedicated South Perth Activity Centre Contribution Fund and all community benefit contributions shall be deposited into this fund.
- 8.1.2 The South Perth Activity Centre Community Benefit Contribution Fund is a reserve account in accordance with the *Local Government Act 1995*. All community benefit contributions within the South Perth ACP Area shall be paid from it. The purpose of this reserve account and the use of money in it is limited to the application of funds for delivery of community benefits within the ACP area in accordance with the provisions of the ACP.
- 8.1.3 Interest earned on contributions credited to the South Perth Activity Centre Community Benefits Fund reserve account may only be applied in the ACP Area.

### 8.2 Projects Funded from the Community Benefits Fund

- 8.2.1 All projects funded from the Community Benefits Fund must be identified in Appendix 2 of Part 1 of the ACP or justified in accordance with the relevant sections of the ACP.
- 8.2.2 Projects will be selected to be funded and approved by Council as part the City's Capital Works Program and annual budgeting process from time to time.

### 8.3 Projects Funded from Multiple Sources

- 8.3.1 Projects may be funded entirely from the Community Benefits Fund or by co-funding from multiple sources.
- 8.3.2 Sources of funding for individual projects will be decided on a case-by-case basis depending on the availability of funds and the needs of the project. Wherever possible the City will identify complementary funding sources to leverage the Community Benefit Contribution Fund to deliver the maximum possible community benefit.
- 8.3.3 For projects that have established funding sources, the Community Benefits Fund is not intended to replace that established funding source(s). For example, the City funds streetscape renewal (like for like replacement) through the City's Capital Works Program. Therefore, the extra cost for supplementary upgrades such as improved materials, kerb realignment, additional or improved lighting, planting and/or landscaping could be funded by the Community Benefits Contribution Fund.

### 8.4 Criteria for Investment

- 8.4.1 The timing and amount of community benefit contributions is dependent on development and is therefore irregular and uncertain. The ACP is designed to manage the Community Benefits Contribution Fund in a flexible way with regular review and update.
- 8.4.2 Prioritisation criteria have been established within the ACP to help determine which projects should receive funding from community benefit contributions. The prioritisation criteria within the ACP is to be considered by the City when determining funding allocation.

## 9. Period of Operation

- 9.1 Funds received as community benefit contributions should be expended as soon as practical and within 8 years of receipt of payment.



## 10. Review and reporting requirements

### 10.1 Review of the Community Benefit Contributions Formula

- 10.1.1 Following approval of the ACP, the City shall review the community benefit framework including provisions contained within Schedule 9B of TPS 6, to review the effectiveness of the framework. The timing of the review shall be dependent on the uptake of development and receipt of community benefit contributions.

### 10.2 Community Benefit Contributions Register

- 10.2.1 The City will maintain an accurate and up to date register of all community benefit contributions. The register shall detail:
- (i) development approvals that contain a condition requiring a community benefit contribution;
  - (ii) Where the development is located, including the address and the character area within the ACP;
  - (iii) The amount of the monetary contribution received or details of the onsite community benefit contribution approved;
  - (iv) The date the payment was received and when it needs to be invested by.

- 10.2.2 The register will be made available for public viewing on the City's website.

### 10.3 Community Benefit Contributions Reporting

- 10.3.1 In accordance with Element 8.4 of Schedule 9B of TPS 6, the City of South Perth shall publish an annual statement that provides information about expenditure of the community benefit contribution.
- 10.3.2 The South Perth Activity Centre Community benefit Contribution Fund will also be reported as part of the Annual Financial Report.





