City Centre Car Parking Management Plan

Update 2019

City of Greater Geraldton
a vibrant future

CITY CENTRE CAR PARKING MANAGEMENT PLAN (UPDATE 2019) – preamble

The City of Greater Geraldton appointed consultants Cardno to update the previously adopted 2013 *City Centre Car Parking Management Plan*. Cardno's *City Centre Car Parking Management Plan (Update 2019)* was presented to Council on 28 May 2019 where it resolved to endorse the update subject to a number of changes, as follows:

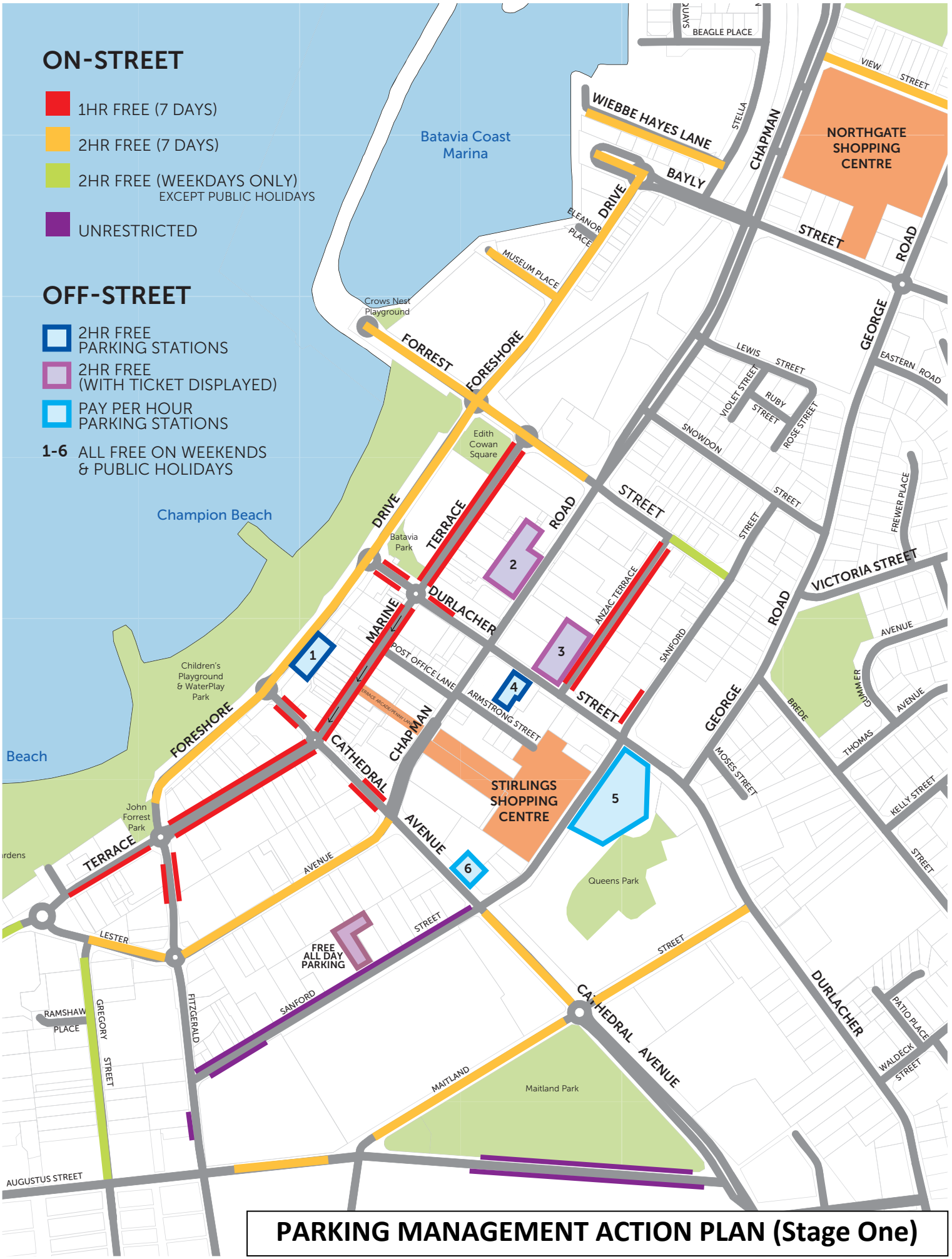
1. *ENDORSE the 'City Centre Car Parking Management Plan' subject to the following changes:*

    a. *Parking stations 1 and 4 to have parking meters removed and revert to a maximum of 2 hours free in alignment with on street parking along foreshore drive;*
    b. *Parking stations 2, 3, 5 and 6 to have a maximum fee based on 8 hours per day and no maximum time limit per day;*
    c. *Remove any reference to development of parking at Lot 601 as this land is not in control of the City of Greater Geraldton, however advocate for the owners to retain it as a free parking site prior to development;*
    d. *Remove any reference to development of parking at the site known as Batavia Marina as this land is not in control of the City of Greater Geraldton, however advocate for the owners to retain it as a free parking site prior to development;*
    e. *Note in the parking management plan the parking station known as Lotteries House parking station (Fig 5-1) as a free all day off street parking station;*
    f. *Note Lots 201 and 203 Lester Avenue (adjacent to Lotteries House parking station) are set aside for future parking requirements by expansion of the existing Lotteries House parking station;*
    g. *No longer charge for parking at any City carparks on weekends; and*
    h. *Not endorse the proposal for on street parking paid parking in the short term future.*

2. *ENDORSE implementation of Stage One of the City Centre Car Parking Management Plan as a trial for the 2019-20 financial year and amend the City's fees and charges accordingly, commencing 1 July 2019; and*

3. *DIRECT the CEO to undertake parking surveys and community consultation at the end of the 2019-20 financial year and then present to Council a further report.*

As a result of the above, section 5.2 of Cardno's *City Centre Car Parking Management Plan (Update 2019)* report should be read in conjunction with the Council resolution of 28 May 2019 and the attached *Parking Management Action Plan (Stage One)* which replaces Cardno's *Figure 5-1* and reflects the Council decision.


ON-STREET
1HR FREE (7 DAYS)
2HR FREE (7 DAYS)
2HR FREE (WEEKDAYS ONLY)
EXCEPT PUBLIC HOLIDAYS
UNRESTRICTED
OFF-STREET
2HR FREE PARKING STATIONS
2HR FREE (WITH TICKET DISPLAYED)
PAY PER HOUR PARKING STATIONS
1-6 ALL FREE ON WEEKENDS & PUBLIC HOLIDAYS
Batavia Coast Marina
Champion Beach
Beach
Crows Nest Playground
Edith Cowan Square
Batavia Park
Children's Playground & WaterPlay Park
John Forrest Park
Queens Park
Maitland Park
NORTHGATE SHOPPING CENTRE
STIRLINGS SHOPPING CENTRE
FREE ALL DAY PARKING
1
2
3
4
5
6
BEAGLE PLACE
WIEBBE HAYES LANE
BAYLY
STELLA
CHAPMAN
VIEW
STREET
ELEANOR PLACE
DRIVE
MUSEUM PLACE
FORRESTFORESHORE
GEORGE
ROAD
LEWIS
STREET
EASTERN ROAD
VIOLET STREET
RUBY
ROSE STREET
SNOWDON
FREWER PLACE
TERRACE
DURLACHER
MARINE
POST OFFICE LANE
ANZAC TERRACE
SANFORD
VICTORIA STREET
AVENUE
SUMMER
BREDE
THOMAS
MOSES STREET
KELLY STREET
CATHEDRAL
ARMSTRONG STREET
LESTER
RAMSHAW PLACE
GREGORY
FITZGERALD
MAITLAND
AUGUSTUS STREET
PATIO PLACE
WALDECK
PARKING MANAGEMENT ACTION PLAN (Stage One)

City Centre Car Parking Management Plan

(Update 2019)

CW1024400

Prepared for
City of Greater Geraldton

March 2019

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Document Information

Prepared for	City of Greater Geraldton
Project Name	(Update 2019)
File Reference	CW1024400-TR-R001-B-Parking_Plan-003.docx
Job Reference	CW1024400
Date	19 March 2019
Version Number	C

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Effective Date	19/03/2019

Approved By:

Jacob Martin
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Date Approved	19/03/2019

Document History

Version	Effective Date	Description of Revision	Prepared by	Reviewed by
A	17 September 2018	Draft	AO	JHM
B	26 February 2019	Following CGG Feedback	AO	JHM
C	19 March 2019	Final Version following client feedback	AO	JHM

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Executive Summary

This update to the *City Centre Car Parking Management Plan* reflects the changes in Geraldton over the past five years and reconsiders the parking needs and issues of the City Centre precincts.

The primary objective of the previous *City Centre Car Parking Management Plan* was to provide adequate short and long-term parking spaces in convenient locations, to ensure urban design is not disrupted, to promote sustainable modes of transport, and to control the demand for and supply of car parking.

The *City Centre Car Parking Management Plan* outlines a range of objectives, issues, technology opportunities, mitigations measures and recommendations. Promotion of alternative modes of transport is assisted through parking technology, flexible parking pricing, parking spaces for special use vehicles, efficient usage of parking capacity and provision of effective pedestrian and bicycle routes.

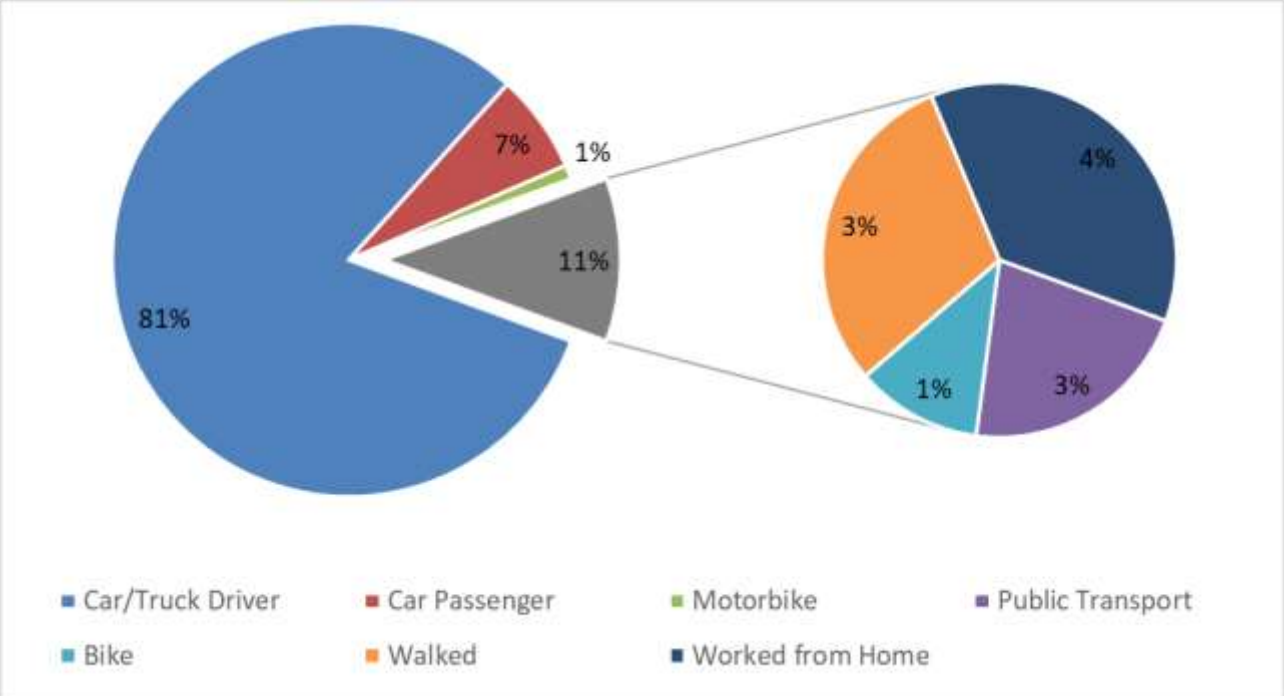
The outcomes of this report are not all that dissimilar to the previous *Plan*, however growth projections for Geraldton have since been scaled down, and the focus has changed somewhat in order to manage existing parking provision as efficiently as possible given the current development conditions.

Advice on progress against the previous recommendations has been sought from the City of Greater Geraldton (CGG) and it has been found that a number of the identified “quick wins” have been progressed, including improvements to Parking Station 5 and the production of a parking information leaflet to educate residents and visitors to Geraldton about parking in the City Centre. As the strategic direction for the CGG has changed since the previous document was published, a number of recommendations are now less appropriate.

This *Plan* summarises the policy direction of the CGG with relation to parking from the following documents:

- City Centre Transport Planning and Car Parking Strategy
- Geraldton City Centre Revitalisation Plan Local Planning Policy
- Geraldton City Centre Master Plan
- Local Planning Scheme No.1
- City Centre Local Planning Policy
- Geraldton City Centre Vibrancy Strategy
- Commercial Activity Centres Strategy.

Recent mode share figures from the 2016 census shows that 81% of employment-based trips require car parking, with additional parking needed for motorcycle and bicycle parking (~1% each).



Only 18% of work trips do not generate some form of parking so it is clear that parking is an important facility to Geraldton residents. As data from the 2010 parking surveys show, there is always parking availability in the City Centre if people are prepared to look. The results are summarised below:

- Total supply of public on- and off-street bays is 1,119 bays
- Peak weekday occupancy (on-street) is 63% and occurs between 11am and 12pm
- Peak Saturday occupancy (on-street) is 62% and occurs between 11am and 12pm
- Peak weekday occupancy (off-street) is 75% and occurs between 12-1pm
- Peak Saturday occupancy (off-street) is 80% and occurs between 12-1pm
- Overall, peak occupancy averages at 68% between 11am and 12pm on weekdays
- Overall, peak occupancy averages at 66% between 11am and 12 pm on Saturday
- Durlacher Street (between Forest Drive and Marine Terrace) consistently has the highest occupancy at 84%
- Parking Station 4 has the highest occupancy of the parking stations at 73%.

During the consultation stage a number of topics have been raised by officers of the CGG and these are summarised and addressed in **Section 3.5** and **Appendix A**. Themes include:

- Operation of specific car parks and areas
- Time restrictions on street
- Enforcement and compliance
- Signage and wayfinding
- Operation of special use bays.

The recommendations of this *Plan* have addressed as many of the themes as its scope allows.

Section 4 provides an outline of the parking principles adopted by this and the previous *Plan*, on which the recommendations have been based. Thes principles are formed from a paradigm shift in parking management practices, as described below:

Parking Management Paradigm Shift	
Old paradigm	Motorists should nearly always be able to find convenient, free parking at every destination. Parking planning consists primarily of generous minimum parking requirements, with costs borne indirectly, through rates, taxes and building rents.
New paradigm	Parking facilities should be used efficiently, so car parks at a particular destination may often fill (typically more than once a week), provided that alternative options are available nearby, and visitors have information on these options. This means, in general, that drivers are given a clear choice between paid parking near to their destination and free (or cheaper) parking a few blocks away. The success of this paradigm requires good walking conditions and effective wayfinding. Parking planning should therefore include shared parking, parking pricing and regulation, parking user information, and improved pedestrian facilities.

Section 5 outlines the concept for parking management in Geraldton, based on the findings from this study within an overarching Parking Management Action Plan (PMAP). The PMAP proposes a two-stage approach to streamlining parking restrictions which will ensure that parking is available to satisfy demand for both short and long stay parking as the City Centre grows. Stage 2 of the PMAP (paid parking on street) will be triggered for specific locations, based on the outcomes of parking surveys. Suitable trigger points are described in more detail in **Section 5.3.1**.

Details of each stage are described below:

- Stage One
  - Place appropriate time restrictions on the street to encourage turnover in locations of high demand (see **Section 5.2.2**)
  - Implement 2 hour free ticket parking at Parking Stations 1-4
  - Parking Stations 5 and 6 will be ticket parking, capped at 8 hours

- Pricing of off-street parking will reduce slightly (capped at $8) to encourage long stay parkers (see **Table 5-1** and **Table 5-2**)
- Charging for Lot 601 in line with parking stations 1 to 4 following its upgrade.

> Stage Two

- The PMAP recommends that the CGG progresses paid parking for on- and off-street public parking facilities when occupancy of bays is regularly over 85% during peak periods
- Paid parking would then be introduced at a street or block level, as well as in any adjacent public off-street parking facility (replacing the free 2-hour parking)
- On-street parking fees should generally be set 15-20% *higher* than equivalent off-street parking charges, to reflect the premium nature of kerbside parking and to encourage drivers to use the off-street facilities. When applying this criterion, consideration should be given to adjacent streets where regular parking demand may rise as a result of the implementation of pay parking, and particularly in areas where demand already exceeds 85%.

Following the implementation of Stage One, and a period of increased enforcement activities, the CGG should undertake a City Centre-wide parking survey. This would update the results of the 2010 survey and allow the CGG to assess any changes and take appropriate action to identify locations where parking charges should be introduced or modified.

The PMAP is supported by a number of associated actions as detailed in **Section 6**. The resulting actions are captured in the following Implementation Plan.

Action	Timeframe (Stage One/Stage Two/Long term)	Fundamental to the Success of the Plan?
Review parking signage and alter in areas affected by changes	Stage One	✓
Review directional signage and provide additional signs to all day parking areas and for RVs	Stage One	✓
Review parking brochure and update to reflect changes in parking restrictions and pricing	Stage One	✓
Undertake a City-wide parking survey (off peak and peak) within 3 months of implementation of Stage One	Stage One	✓
Monitor and enforce parking within the City Centre core on a regular basis until compliance is achieved	Stage One and ongoing	✓
CGG to consider partnerships with private parking owners to support consolidated management and enforcement tasks.	Stage One	
Promote the event parking management plan	Stage One and ongoing	
Review time restrictions to ensure their adequacy in relation to the demand for parking in each area, and the level of demand. Paid parking can be used in combination with time restrictions to ensure turnover. Use regular parking surveys to evaluate demand for parking and as a tool for identifying trigger points for the introduction of paid parking.	Stage One and ongoing	✓
Monitor the use of current payment systems to ensure they continue to be fit for purpose or identify new, more convenient systems as necessary.	Stage One and ongoing	
Increase funding to provide dedicated parking enforcement resources, including technology and personnel.	Stage One and ongoing	
Introduce parking meters in critical locations to increase compliance.	Stage Two – locations depending on findings from parking surveys	
Direct funds from infringements towards the cost of parking technology that links in with monitoring of compliance.	Stage One and ongoing	✓

Implement parking surveys to provide additional data on occupancy, duration of stay and compliance (6 monthly in the City Centre core, and every 2 years on other precincts).	Stage One and ongoing	✓
Results should form evidence to introduce paid parking, or to increase/decrease/retain parking fees, in line with the intent of demand-responsive pricing.	Stage One, Stage Two and ongoing	✓
Regularly audit all parking facilities to ensure they are safe and pleasant to use, and justify any charges.	Stage One and ongoing	✓
Retain existing parking ratios within the near-term development horizon. Review parking ratios as appropriate to reflect long-term development requirements.	Stage One and ongoing	✓
Regularly review planning consent conditions to ensure these continue to align with objectives of the City Centre Transport Planning and Parking Strategy.	Stage One and ongoing	
Consider modifying cash-in-lieu provisions to incentivise shared off-street public parking.	Stage One and ongoing	
Liaise with local business owners to promote the shared use of car parks, using up to date parking survey data to help identify suitable locations.	Stage One and ongoing	
Establish a program for progressive installation of bike racks in public spaces.	Stage One and ongoing	
Produce a Wayfinding strategy for parking, which should feature customer led information including walking distances and times to various nearby destinations.	Stage One and ongoing	✓
Direct parking related funds towards wayfinding infrastructure.	Stage One and ongoing	
Expand current educational materials to incorporate wayfinding and multi-modal access.	Stage One and ongoing	✓
Implement paid parking on-street, starting in areas with the highest demand.	Stage Two and ongoing as appropriate	✓
Establish a Demand Responsive Pricing policy to create the mechanisms to use this tool to maximise parking efficiency.	Stage Two	
Assess when dynamic signage might be appropriate using parking survey data as a way of identifying where high occupancy may be reduced by better information regarding suitable alternative parking locations.	Long Term	
Consider the value of dynamic wayfinding and paid parking integration as part of education and behaviour change.	Long Term	

Recommendations contained in this report have been made to improve the use of parking, making access to retail, entertainment and employment destinations easier. Better management will result in optimisation of parking resources, and will assist in achieving the CGG's strategic planning objectives.

Historic surveys of peak parking occupancy across the Study Area show that the City Centre does not have a ***parking supply*** problem, so much as a ***parking management*** problem. This *Plan* provides an implementation strategy to transition the City Centre towards a more efficient, people-focused parking supply which supports its economic and social objectives.

1 Introduction

1.1 Scope of Work

The City of Greater Geraldton (CGG) has appointed Cardno to update the *City Centre Car Parking Management Plan* (adopted in 2013).

The previous *Plan* was produced at a time where population growth for Geraldton was expected to increase significantly. The strategy for car parking was therefore required to address an associated growth in demand for parking.

However, the anticipated rapid growth in population is now unlikely to occur, and a number of policy documents have been produced which impact the direction and function of car parking within the City Centre. This update to the *Plan* is necessary for alignment with the CGG's strategic objectives.

1.2 Purpose of this Plan

This plan evaluates the following within the Study Area:

- strategic objectives relating to transport and parking
- transport and development characteristics
- parking supply and demand
- parking management mechanisms.

The above elements are set in context against suitable parking principles, taking into account the transport and parking objectives from the *City Centre Transport Planning and Car Parking Strategy* (see **Section 1.3**), recommendations from the previous *Plan*, and outcomes from site visits and consultation with the CGG in order to produce an overarching Parking Management Action Plan (PMAP). The PMAP is supported by a number of supporting actions, which will ensure its success.

This *Plan* concludes with an Implementation Plan (**Section 0**), defining a schedule of works over the next 5-10 years.

1.3 Objectives

The objectives of this *Plan* reflect and build on those of the *City Centre Transport Planning and Car Parking Strategy*, which are to:

a. Provide an adequate supply of short and long term car parking spaces that are conveniently located and are easily accessible to support the desired growth of the City Centre;

b. Develop an integrated public and private car parking network, which is flexible to accommodate changes in car parking demands over time, and is respectful of the environment, traffic and pedestrian needs;

c. Ensure that the provision of car parking facilities does not diminish the urban character, cause a loss of building stock or result in a poor urban design outcome;

d. Ensure that an oversupply of car parking does not occur that discourages alternative forms of transport, and actively promote these other sustainable modes of transport within the City Centre;

e. Control and manage the car parking supply/demand balance through ownership of properties for the establishment of publicly available parking facilities;

f. Actively encourage the minimisation of greenhouse emissions by designing parking and other associated facilities so as to encourage the use of alternative modes of transport (such as public transport, bicycling and walking); and

g. Consider the potential impact of technological change and to provide policy measures in support of a robust, sustainable parking system.

2 Project Background

2.1 Study Area

The Study Area is generally zoned as a “Regional Centre” in *Local Planning Scheme No.1* (LPS1), which identifies it as the largest multi-function centre of activity in the CGG. The parking management area defined in this *Plan* includes the City Centre core and the Fringe and Batavia Coast Marina precincts.

Figure 2-1 shows the three areas as defined for this *Plan*.

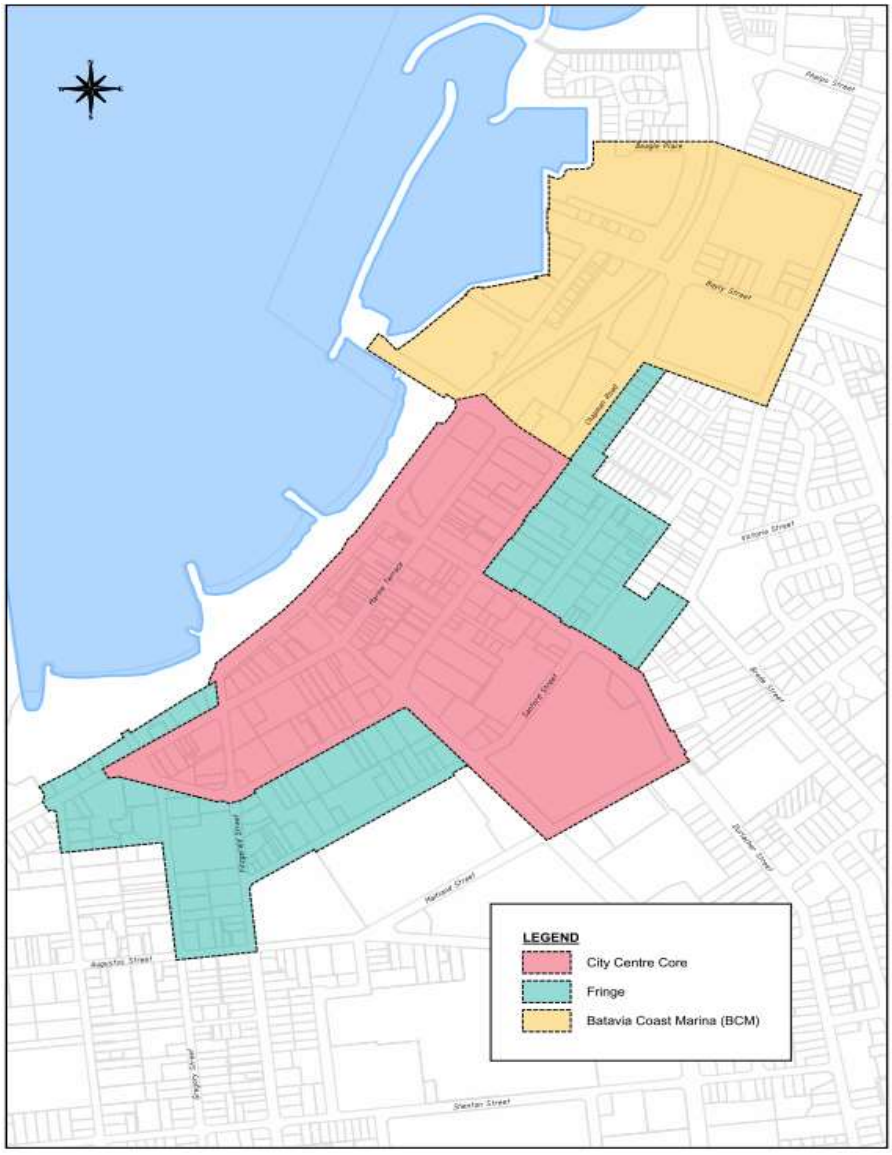


Figure 2-1 Study Area

Within the City Centre core, the *Plan* provides short-term on-street and off-street parking facilities in support of visitor trips. Parking is intended to complement the pedestrian-oriented function of the precinct, and to contribute towards the commercial and retail growth of the City Centre.

Parking in the Fringe precinct is provided in the form of long-stay car parking stations, suitable for employee use, supplemented by short-stay on-street facilities intended for retail, restaurant and residential visitors. This precinct provides the supporting structure required for an intense and active City Centre.

The Batavia Coast Marina area is a destination-focused precinct; requiring parking that is uniquely suited to the type of destinations, which include:

- Short-Stay Accommodation
- Shopping Centre
- Marina
- Museum of Geraldton
- Heritage Centre
- Old Geraldton Gaol.

2.2 City Centre Car Parking Management Plan (2013)

The primary objective of the *City Centre Car Parking Management Plan* was to provide adequate short and long-term parking spaces in convenient locations, to ensure urban design is not disrupted, to promote sustainable modes of transport, and to control the demand for and supply of car parking.

The *City Centre Car Parking Management Plan* outlined a range of objectives, issues, technology opportunities, mitigations measures and recommendations. Promotion of alternative modes of transport was assisted through parking technology, flexible parking pricing, parking spaces for special use vehicles, efficient usage of parking capacity and provision of effective pedestrian and bicycle routes.

Parking signage improvements were recommended to support wayfinding within the City Centre, assisting both route-finding and optimising parking usage.

The plan produced by Luxmoore Parking Consulting, finalised in February 2013, combined current and future car parking needs, with respect to existing technology and sustainable modes of transport, to provide recommendations for parking in the City Centre.

Table 2-1 outlines the progress made against the recommendations from the previous *Plan*.

Table 2-1 Recommendations from the 2013 City Centre Car Parking Management Plan

Summary of recommendation	Status
Expand the scope of the current parking surveys to incorporate duration of stay, and compliance with restrictions. Undertake parking surveys every two years.	Latest parking surveys undertaken in 2010
Amend signage in the CGG car parks to encourage parking outside of restrictions.	Undertaken at the Council's car park to allow parking at evenings and weekends
Encourage shared parking.	Unresolved
Introduce on-street parking fees in high demand areas.	On-street parking is time restricted only
Purchase additional technology for more convenient payment of parking on and off-street.	Considered cost-prohibitive at this stage
Redesign and implement new parking signage.	Unresolved
Introduce wayfinding signage for vehicles and pedestrian.	Unresolved

Consider the purchase of additional land for public parking in the City Centre.	The CGG has recently purchased land on Lester Avenue within the City Centre, which may be used for additional public parking.
Undertake ongoing upgrades of pedestrian walkways within off-street car park.	Unresolved
Amend the cash-in-lieu policy to create more certainty and expand the potential use of its funds potential. Apply the policy to all developments.	Clause 4.15 of LPS1 relates to cash-in-lieu for parking requirements, including the following: *"payments under this clause are to be deposited into a parking fund to be used as expenditure on improvements towards car parking, public transport, pedestrian access, cycling facilities and infrastructure by the local government, especially where these will reduce the demand for parking."* This is reiterated within the City Centre Transport Planning and Car Parking Strategy. The City Centre Local Planning Policy states the cash-in-lieu rates for the City Centre as follows: $32,000 per car bay, $3,600 per motorcycle bay and $650 per two bike bays (clauses 10.2.6, 10.2.7, and 10.2.8).
Develop a plan to identify and prioritise potential sites for construction of deck parking. Commission initial design and feasibility study for identified sites.	Demand not sufficient to justify deck parking
Allocate 2% bays in public off street car parks to motorcycles/scooters.	Unresolved
Provide additional kerbside bicycle parking facilities.	Some progress made
Introduce on-street parking fees.	Currently free parking on-street (time restricted)
Review parking fees every 2 years based on survey results.	Prices have increased: Park all day in 1, 4, 5, and 6 for $1.60/hr $8.40/day Weekly permits for $31.00 Car parks 2 and 3 are currently free (2P)
Review current time restrictions in residential streets near the City Centre.	Time restrictions have been added in Forrest Street, Museum Place and View Street, implementing a 2P restriction where previously there were none
Review existing and potential spillover effects and implement measures to protect residential streets.	Unresolved; needs current parking survey data
Review ranger resources.	Currently 8 rangers. There is no dedicated parking resource which impacts on parking outcomes

	A consistent two hour time restriction in the City Centre assists Ranger Services staff resources, as it allows returns for only one time period instead of multiple
Upgrade Parking Station No. 5 to a high level as an example of good practice.	New and clearer road markings, parking bays repainted, heavy vehicle parking area has been remodelled
Confirm and publicise parking overflow plan for special events.	Included as appendix of the previous car parking management plan (available on the website). Unclear if this is more widely publicised
Establish and regularly communicate a broad education programme on parking and the need to change attitudes.	"Parking in Geraldton Brochure" produced in 2017 and available online and in the CGG public facing offices

It is clear that a number of the identified "quick wins" have been progressed, including improvements to Parking Station 5 and the production of a parking information leaflet to educate residents and visitors to Geraldton about parking in the City Centre.

The cash-in-lieu policy has also been clarified within the *City Centre Transport Planning and Car Parking Strategy* (see **Section 2.3.1**), the *City Centre Local Planning Policy* and LPS1.

It is clear, however, that the strategic direction for the CGG has changed since the previous document was published, in part due to new and lower growth predictions for the Geraldton population. This has meant that a number of recommendations are now less appropriate.

2.3 Relevant Policy

There are a number of policies that support car parking management within the City of Greater Geraldton. These are described in detail below and include:

- City Centre Transport Planning and Car Parking Strategy
- Geraldton City Centre Revitalisation Plan Local Planning Policy
- Geraldton City Centre Master Plan
- Local Planning Scheme No. 1
- City Centre Local Planning Policy
- Geraldton City Centre Vibrancy Strategy
- Commercial Activity Centres Strategy.

2.3.1 City Centre Transport Planning and Car Parking Strategy

The objective of this strategy is to improve the parking and public transport system. It defines a number of strategies, either within a city-wide frame, or specific to individual locations or functions, as follows:

- City Centre Core Intent: Provide short term car parking facilities, both kerbside and in car parking stations, in the pedestrian-oriented core area and to operate in such a manner as to support the commercial and retail viability of the City Centre. All day car parking may be made available to increase occupancy rates
- City Centre Fringe Intent: Provide short term kerbside facilities, long term car parking stations, promote pedestrian access to the City Centre Core, and to restrict long term (non-residential) parking in predominately residential areas
- Priority of use of public car parking areas (short term and long term)
- Optimise car parking supply
- Future car parking supply as a result of new development or redevelopments
- Strategies to provide additional car parking such as cash-in-lieu, specified area rate, user pays charges, fines and penalties, and multi deck car parking.

This *Plan* has considered these strategies as part of an efficient and sustainable approach to parking management.

2.3.2 Geraldton City Centre Revitalisation Plan Local Planning Policy

The *Geraldton City Centre Revitalisation Plan Local Planning Policy* identifies opportunities for Geraldton and for residents and visitors to the CGG area. One of the strategies identified in the policy is to meet employee parking needs by providing consolidated employee parking areas in the mid-block area between Marine Terrace and Fitzgerald Street. The policy also suggests that trialling parking on streets with wide road reserves and significant traffic during off-peak times may help remove demand in the City Centre.

Strategies of the policy include:

- Provision of on-street parking in all streetscape improvements where possible
- Create a policy on cash-in-lieu car parking provisions for the City Centre which clarifies how funds are to be allocated for future transport projects
- Trial the allocation of on-street parking within the road reserve. If successful, then integrate street bays with current streetscape.

These strategies have been considered in the development of this *Plan*.

2.3.3 Geraldton City Centre Master Plan

The *Geraldton City Centre Master Plan* aims to maintain and retain much of the on-street parking provided and upgrade the on-street parking to suit the surrounding amenities. Improving and increasing the on-street car parking spaces is strategized through the reduction of lane widths and reassigning the available space. The Master Plan also mentions providing shade through trees and other means to shelter and to provide protection from Geraldton's strong winds, creating more people-friendly streets and spaces. The area near Foreshore Drive is planned to have paid parking introduced once developed into a mixed-use residential area.

These strategies will be reflected in the actions associated with this *Plan*.

2.3.4 Local Planning Scheme No. 1

LPS1 sets out a number of requirements for parking. These include:

- Parking spaces to be calculated on floor area
- Travel plans required for certain development types
- The CGG may permit the joint use of parking facilities
- Cash-in-lieu (see **Figure 2-2**)
- Parking ratios (minimums).

The parking requirement for all development in the Regional Centre zone (excluding permanent residential accommodation) is set at one space per 35m^2.

4.15 Cash-in-lieu for parking requirements

4.15.1 If the local government is satisfied that adequate parking exists or is to be provided in close proximity to a proposed development, notwithstanding the requirements of this Scheme and any applicable local planning policy, it may accept a cash payment in lieu of the provision of any or all types of parking spaces as required under clause 4.14.

4.15.2 The cash-in-lieu payment shall be:

(a) the estimated cost to the developer of providing and constructing parking spaces as required under clause 4.14; and

(b) 100% of the land value, as estimated by the local government based on valuation advice by a licensed valuer, of that total area of land which would have been occupied by the parking spaces as required under clause 4.14, or such lesser proportion of the land value as set out in any relevant local planning policy.

4.15.3 Payments under this clause shall be deposited into a parking fund to be used as expenditure on improvements towards car parking, public transport, pedestrian access, cycling facilities and infrastructure by the local government, especially where these will reduce the demand for parking.

Figure 2-2 Cash-in-lieu clauses from the Local Planning Scheme No.1 (2015)

2.3.5 City Centre Local Planning Policy

This policy provides guidance with parking and alternative modes of transport. It encourages improving modal shift to walking, cycling and public transport and reduce demands for public parking while increasing parking around the City Centre to reduce the impacts of cars on the malls in the central precinct.

While it is predicted that the City Centre will become more pedestrian oriented, providing an adequate supply of convenient parking (while minimising the land area required) is still important. It is preferred that short term, on-street parking is reserved for retail patrons and long term, off-street parking for people working in the City Centre.

The policy identifies a perceived shortage of car parking spaces in the City Centre but attributes this to their poor location, lack of good pedestrian connection to key destinations, and lack of multi-use opportunities, rather than an actual shortage in supply.

The ultimate transport objectives of the policy are to ensure that:

- Parking spaces are within an acceptable walking distance from activities
- Off-street parking is linked to pedestrian routes
- Desirable on-street parking spaces are reserved for retail patrons and visitors
- Conflict issues at entry/exits of car parks are reduced
- Car parking does not dominate the street frontage.

This *Plan* will be guided by the principles of the policy.

2.3.6 City Centre Vibrancy Strategy

Achieving a vibrant city includes parking and public transport as part of its strategic approach. The *City Centre Vibrancy Strategy* identifies the City Centre parking issues and solutions to such issues through improved management and provision of parking facilities.

The strategy includes establishing movement corridors and understanding behaviour patterns such as origins and destinations, and how these movements impact on the provision and management of on- and off-street parking.

The strategy suggests that increased density within the CGG will necessitate improvements in public transport facilities, which will then assist in releasing pressure on parking and traffic congestion.

Actions identified in the strategy include screening of car parking to improve amenity by landscaping, relocating at-grade parking from the City Centre and providing locations for future car parks.

These strategies are aimed at creating a vibrant City Centre in which parking plays an important role.

2.3.7 Commercial Activity Centres Strategy

With regard to parking, the *Commercial Activity Centres Strategy* aims for an efficient use and supply of car parking by providing an appropriate level of on-street and off-street parking, including opportunities for shared parking.

Suggestions include parking structures located and designed or landscaped so as to not dominate the street frontage and other public spaces, and ensuring that the amount of land allocated for car parking is minimised.

2.4 Mode Share

Figure 2-3 shows the journey to work mode share of Geraldton residents, extracted from the 2016 Census.

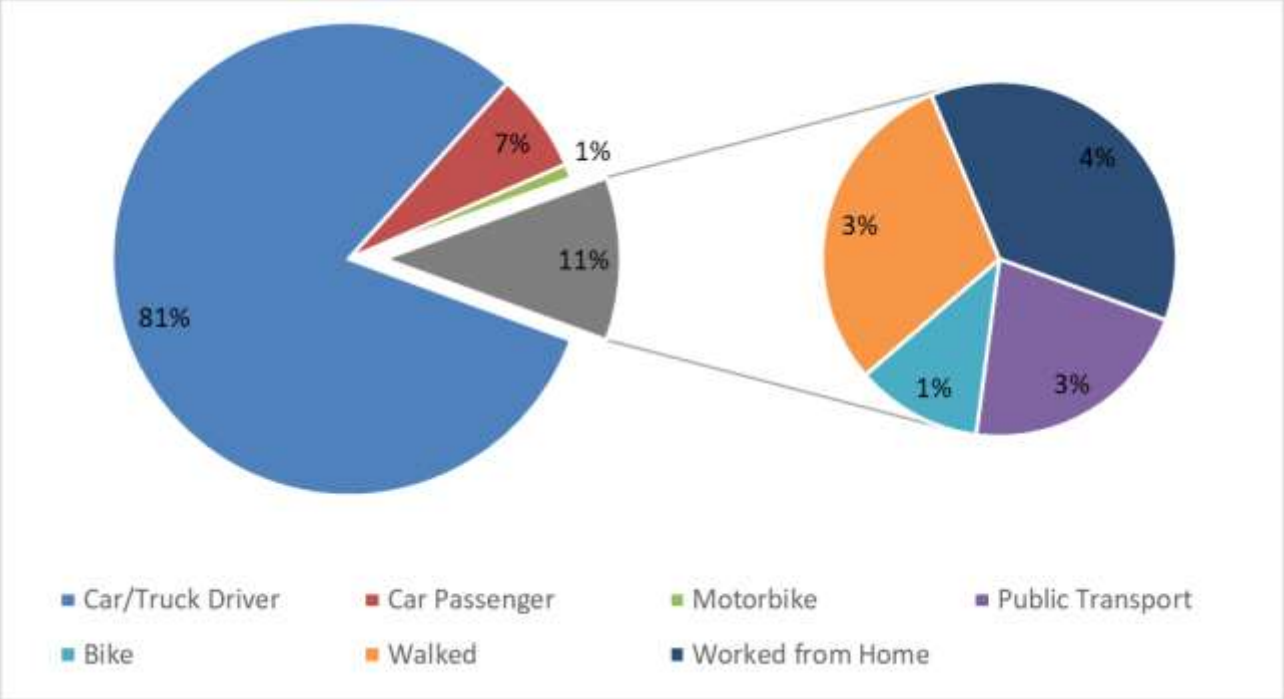


Figure 2-3 Method of Journey to Work (Geraldton, 2016)

This shows that 81% of employment-based trips require car parking, with additional parking needed for motorcycle and bicycle parking (~1% each). Only 18% of work trips do not generate some form of parking.

The high mode share for private vehicle trips reflects the lack of congestion in the City Centre, and the availability of parking. These statistics also show the potential for active travel; the relatively short travel distances for the majority of trips, and the beneficial climate suggest that there are great opportunities to improve walking and cycling trips.

3 Parking in Geraldton - Context

This chapter presents the current and historic transport and context in relation to parking for Geraldton. This, in combination with the parking principles outlines in **Section 0** sets the scene for the Parking Management Action Plan and the key recommendations detailed in the subsequent sections.

3.1 Public Parking Supply

Parking alternatives in the Study Area consist of a range of short-stay and long-stay spaces. Paid parking is available with flexibility to pay per week, per day or per hour.

Specialty parking, including loading zones for commercial and delivery vehicles, parking bays for caravans and trailers, free ACROD parking, motorbike and bicycle parking is also available across the Study Area.

Clear signage is provided to distinguish free parking from ticket parking and the CGG produces a brochure describing where parking is available and how to use the parking machines.

3.2 Parking Surveys

The CGG conducted regular surveys between 2000 and 2010. The previous plan based its findings on the 2008 parking surveys, which indicated that:

- There was a supply of over 1,250 spaces across the Study Area (on-street and off-street)
- Peak demand occurred during the weekday retail peak (Thursday/Friday, 11am-2pm)
- Peak occupancy of the 6 public off-street car parks was 66% (Friday midday)
- Overall, there was a significant surplus of public car parking across the City Centre, even during the highest peak period surveyed.

A subsequent survey was undertaken in February of 2010, the results of which are summarised below:

- Total supply of public on- and off-street bays is 1,119 bays
- Peak weekday occupancy (on-street) is 63% and occurs between 11am and 12pm
- Peak Saturday occupancy (on-street) is 62% and occurs between 11am and 12pm
- Peak weekday occupancy (off-street) is 75% and occurs between 12-1pm
- Peak Saturday occupancy (off-street) is 80% and occurs between 12-1pm
- Overall, peak occupancy averages at 68% between 11am and 12pm on weekdays
- Overall, peak occupancy averages at 66% between 11am and 12 pm on Saturday
- Durlacher Street (between Forest Drive and Marine Terrace) consistently has the highest occupancy at 84%
- Parking Station 4 has the highest occupancy of the parking stations at 73%.

A more detailed summary is provided below.

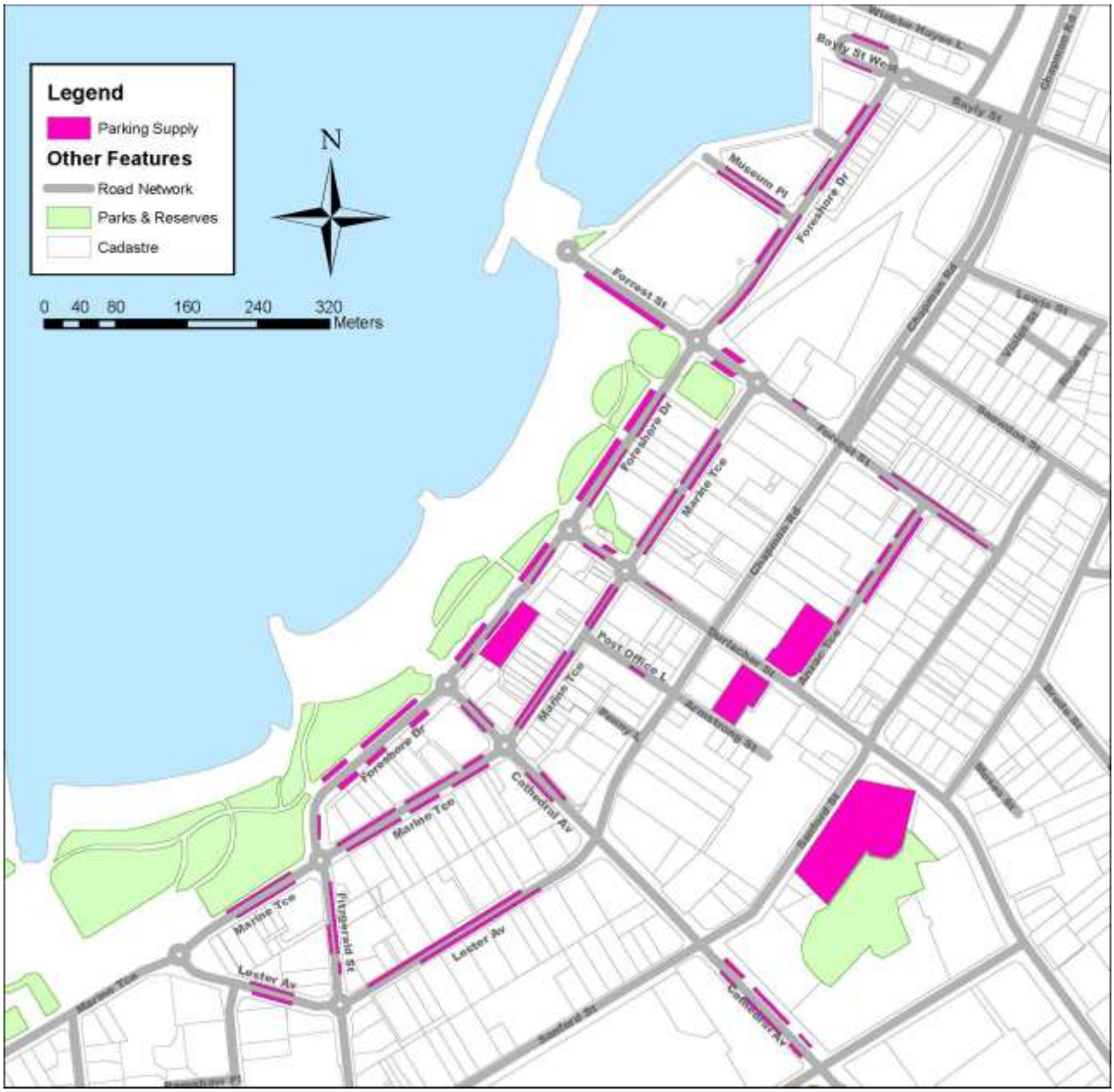


Figure 3-1 Study Area of the February 2010 City Centre parking survey.

The City Centre parking survey of February 2010 recorded parking occupancy of the parking areas shown in **Figure 3-1**. A total of 1,119 available parking bays (see **Table 3-1**) was recorded for both on-street parking and off-street parking (parking stations) across the Study Area (not including private parking areas). The survey data was recorded based on the road section with a total of 32 on-street parking locations were presented. The parking supply for each location ranges from 1 to 75.

The parking restrictions within the study area includes the following:

- Unrestricted parking
- ¼ hour parking
- ½ hour parking
- 10 minute restricted parking
- 15 minute restricted parking
- 2 hour parking

- Long term station parking
- Short term station parking (10 minute restricted)
- Loading zone
- Bus zone.

Following table summarises the number of available on-street/off-street parking bays supplied at the time of the survey.

Table 3-1 On-street/Off-street parking supply across the Study Area

Road Names	Locations	No. of Available Bays
Foreshore Drive	(a) Fitzgerald Street to Cathedral Avenue	75
	(b) Cathedral Avenue to Durlacher Street	50
	(c) Durlacher Street to Forrest Street	75
	(d) Forrest Street to Bayly Street	46
Marine Terrace	(a) Forrest Street to Duralcher Street	40
	(b) Durlacher Street to Cathedral Avenue	46
	(c) Cathedral Avenue to Fitzgerald Street	38
	(d) Fitzgerald Street to Gregory Street	21
Lester Avenue	(a) Gregory Street to Fitzgerald Street	15
	(b) Fitzgerald Street to Cathedral Avenue	39
Anzac Terrace	(a) Forrest Street to Durlacher Street	33
Bayly Street	(a) Foreshore Drive to Batavia Coast Marina	11
Museum Place	(a) Foreshore Drive to Batavia Coast Marina	21
Forrest Street	(a) Sanford Street to Anzac Terrace	9
	(b) Sanford Street to Chapman Road	19
	(c) Chapman Road to Marine Terrace	3
	(d) Marine Terrace to Foreshore Drive	19
	(e) Foreshore Drive to Batavia Coast Marina (Boat Pens)	36
Durlacher Street	(a) Forrest Drive to Marine Terrace	8
	(b) Marine Terrace to Chapman Road	6
Cathedral Avenue	(a) Foreshore Drive to Marine Terrace	6
	(b) Marine Terrace to Chapman Road	11
	(c) Sanford Street to Maitland Street EAST SIDE	16
	(d) Sanford Street to Maitland Street WEST SIDE	13
Fitzgerald Street	(a) Foreshore Drive to Marine Terrace	1
	(b) Marine Terrace to Lester Avenue	18
Post Office Lane	(a) Marine Terrace to Chapman Road	3
	TOTAL	**678**
Parking Stations	(a) Parking Station No. 1 - Foreshore Drive	59
	(b) Parking Station No. 3 - Cnr of Durlacher Street and Anzac Terrace	90
	(c) Parking Station No. 4 - Post Office SHORT TERM	12
	(d) Parking Station No. 4 - Post Office LONG TERM	59

	(e) Parking Station No. 5 - Cnr of Sanford Street and Durlacher Street	221
	TOTAL	**441**
	GRAND TOTAL	**1,119**

The survey recorded hourly occupancy of the on-street/off-street parking bays between 8am and 6pm from Monday to Saturday. Monday to Friday data was summarised into weekday data and compared with Saturday data.

The following chart presents the trend of on-street parking occupancy over time.

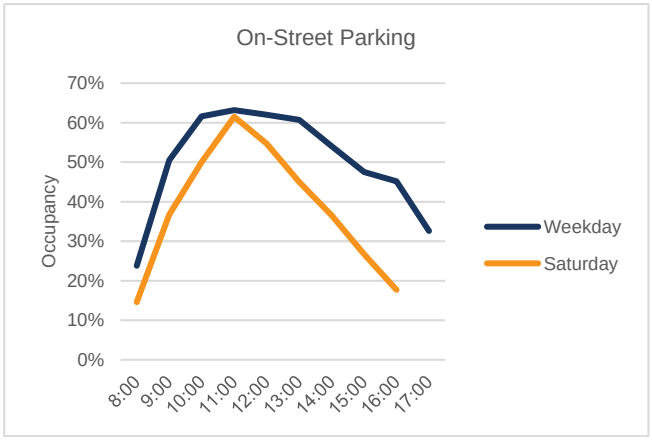


Figure 3-2 Occupancy – on-street

A peak occupancy of 63% was found on-street between 11:00am and 12:00pm on weekdays and 62% at the same time period on Saturday. Durlacher Street (Forrest Drive to Marine Terrace) contributed to the peak occupancy with 98% of utilisation on weekdays and 163% of utilisation on Saturday at the same time period.

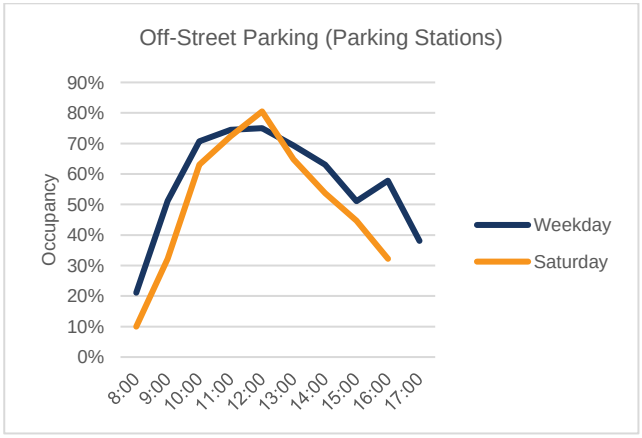


Figure 3-3 Occupancy – off-street

For parking stations, a peak occupancy of 75% occurred between 12:00pm and 1:00pm on weekdays and 80% at the same time period on Saturday. Parking Station No. 4 - Post Office SHORT TERM contributed to the peak occupancy with 100% of utilisation on weekdays and Parking Station No. 5 contributed to the peak occupancy with 103% of utilisation on Saturday.

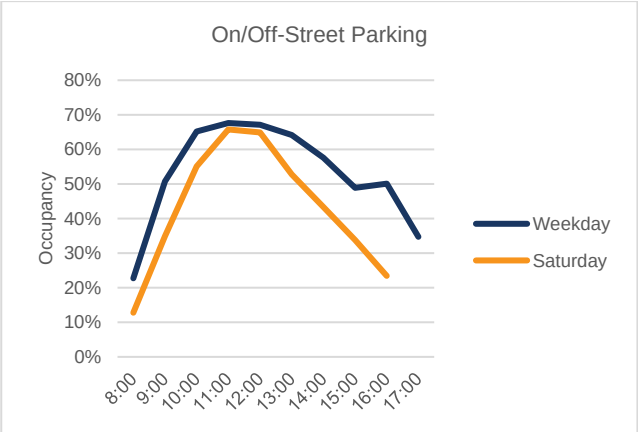


Figure 3-4 Occupancy – on-and off-street combined

Overall, a peak occupancy of 68% was found between 11:00am and 12:00pm on weekdays and 66% at the same time period on Saturday. Durlacher Street (Forrest Drive to Marine Terrace) contributed a peak occupancy with 98% of utilisation on weekdays and 163% of utilisation on Saturday at the same time period.

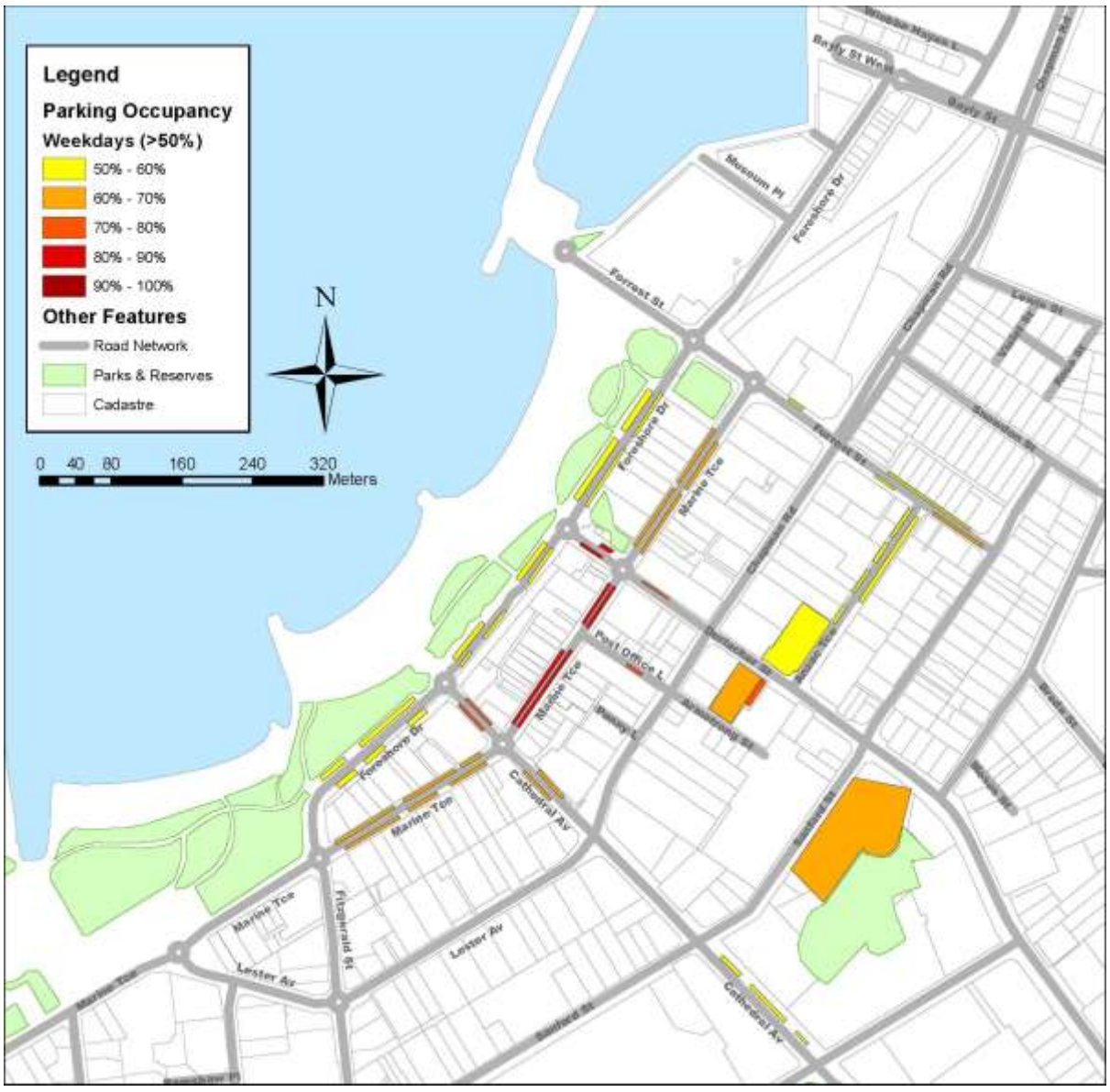


Figure 3-5 On-street/Off-street parking occupancy that is over 50% on weekdays (8am - 6pm).

A total of 20 locations were found having occupancy of more than 50% on weekdays. These parking hotspots can be found on Durlacher Street and Marine Terrace. The highest utilisation of 84% was observed at Durlacher Street (Forrest Drive to Marine Terrace section). A table showing the top ten highest occupancies recorded is presented below.

Table 3-2 Weekday occupancy - top ten

Rank	Road names	Locations	Parking restriction	Utilisation (%)
1	Durlacher Street	(a) Forrest Drive to Marine Terrace	1hr Restricted	84%
2	Marine Terrace	(b) Durlacher Street to Cathedral Avenue	½ hr Restricted	81%
3	Cathedral Avenue	(a) Foreshore Drive to Marine Terrace	¼ hr Restricted	75%
4	Durlacher Street	(b) Marine Terrace to Chapman Road	1hr Restricted	74%
5	Parking Stations	(c) Parking Station No. 4 - Post Office SHORT TERM	10 min Restricted	73%
6	Post Office Lane	(a) Marine Terrace to Chapman Road	1/2 hr Restricted, loading zone	72%
7	Marine Terrace	(c) Cathedral Avenue to Fitzgerald Street	1hr Restricted	68%
8	Parking Stations	(d) Parking Station No. 4 - Post Office LONG TERM	59 bays Ticket Parking	65%
9	Forrest Street	(a) Sanford Street to Anzac Terrace	Unrestricted	63%
10	Cathedral Avenue	(b) Marine Terrace to Chapman Road	½ hr, 1hr and 10 min Restricted	63%

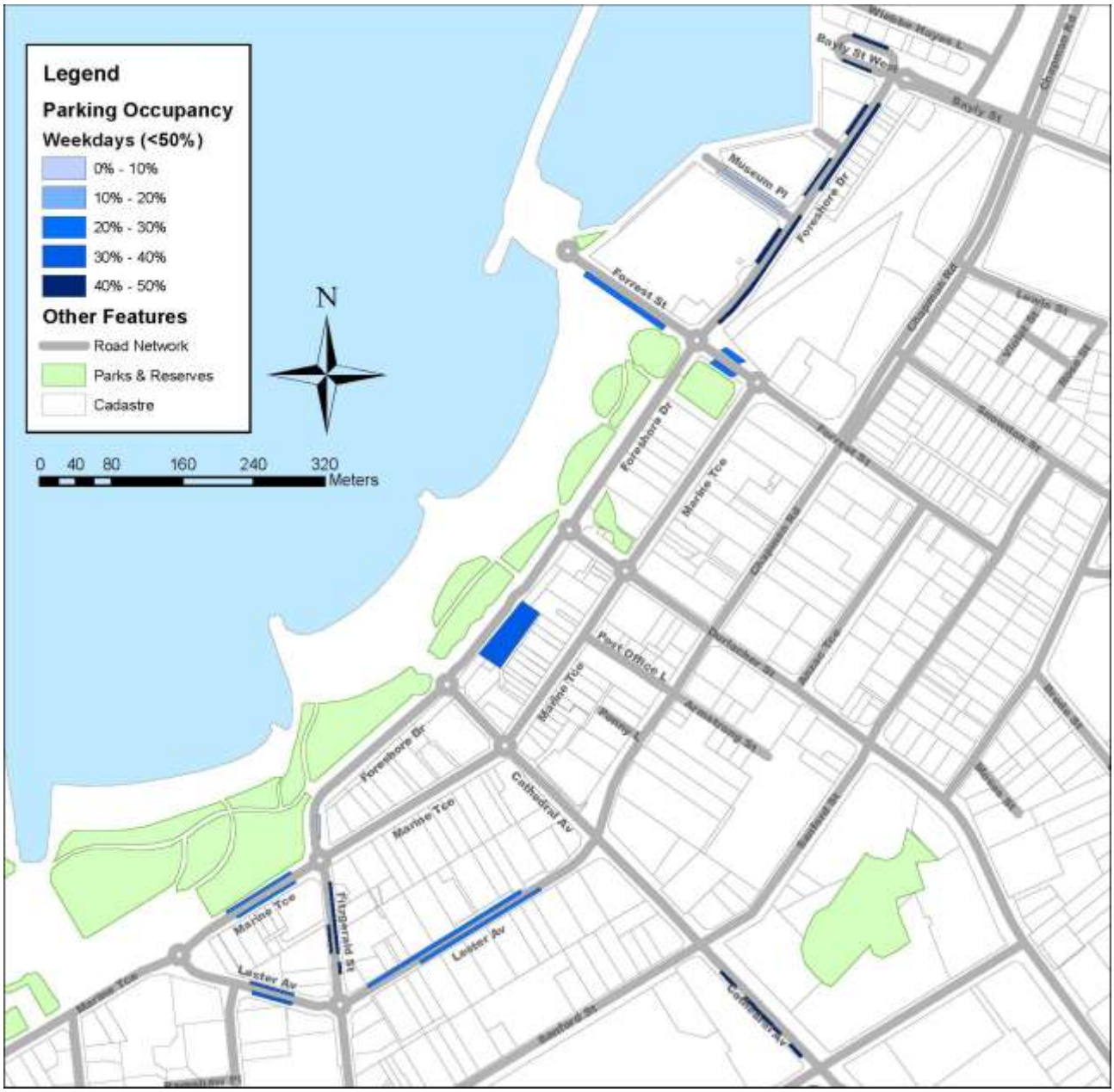


Figure 3-6 On-street/Off-street parking occupancy that is below 50% on weekdays (8am - 6pm).

The remaining 12 locations have occupancy lower than 50% on weekdays. It was observed that most of the parking bays along Foreshore Drive were 40%-60% utilised. A section at Museum Place was found to have one of the lowest occupancies (7%). A small section at Fitzgerald Street presented 0% utilisation since it is a loading zone and bus zone. A table summarising the top ten lowest occupancies recorded is shown below.

Table 3-3 Weekday occupancy (under 50%)

Rank	Road Names	Locations	Parking Restriction	Utilisation (%)
23	Foreshore Drive	(d) Forrest Street to Bayly Street	Unrestricted	44%
24	Fitzgerald Street	(b) Marine Terrace to Lester Avenue	1hr Restricted	42%
25	Lester Avenue	(a) Gregory Street to Fitzgerald Street	2hr Restricted	36%
26	Parking Stations	(a) Parking Station No. 1 - Foreshore Drive	59 bays Ticket Parking	31%

27	Marine Terrace	(d) Fitzgerald Street to Gregory Street	½ hr and 1hr Restricted	28%
28	Lester Avenue	(b) Fitzgerald Street to Cathedral Avenue	2hr Restricted	27%
29	Forrest Street	(d) Marine Terrace to Foreshore Drive	Unrestricted	26%
30	Forrest Street	(e) Foreshore Drive to Batavia Coast Marina (Boat Pens)	Unrestricted	25%
31	Museum Place	(a) Foreshore Drive to Batavia Coast Marina	Unrestricted	7%
32	Fitzgerald Street	(a) Foreshore Drive to Marine Terrace	Loading Zone/Bus Zone	0%

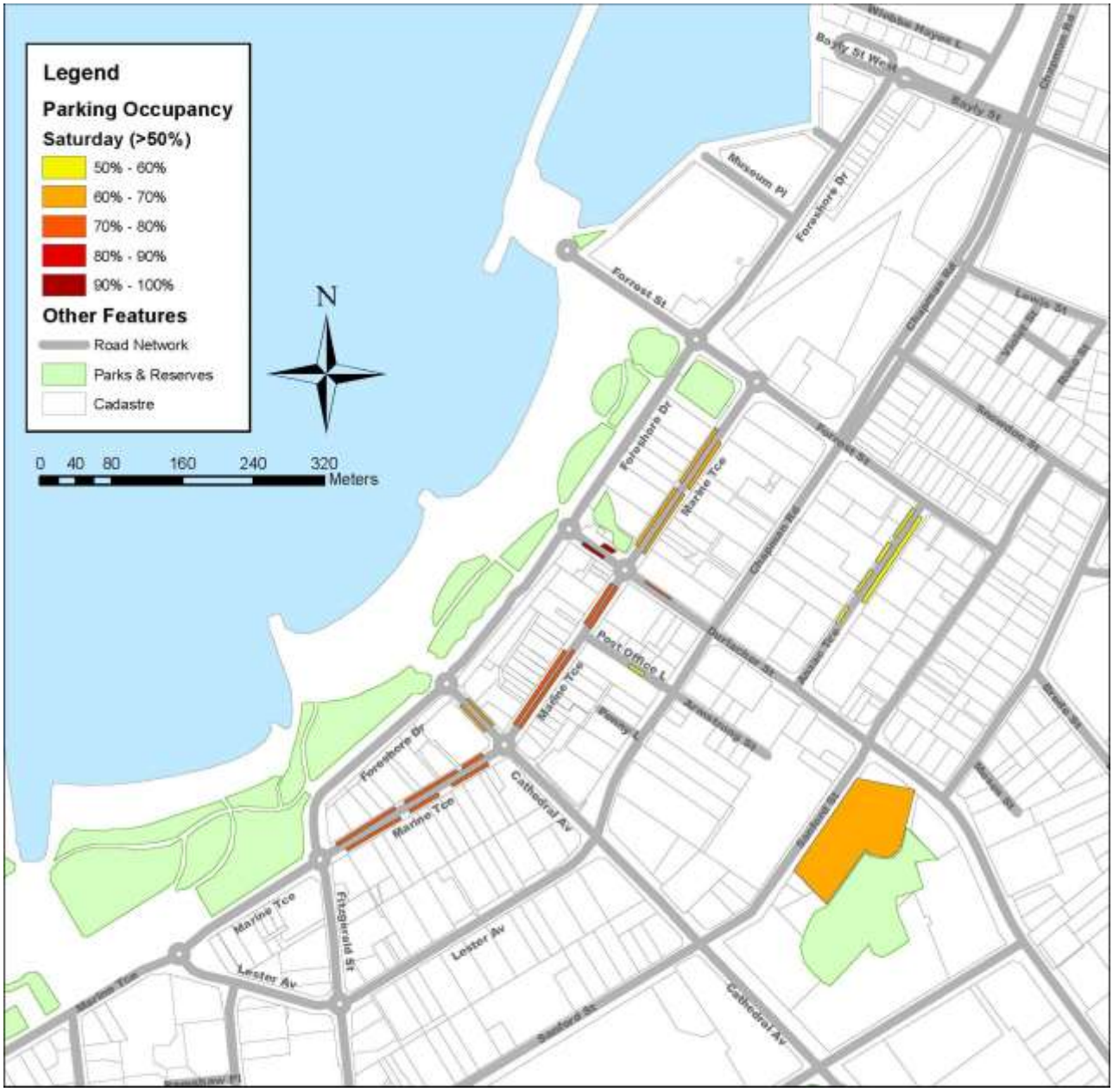


Figure 3-7 On-street/Off-street parking occupancy that is above 50% on Saturday (8am - 6pm).

Saturday data resulted in only nine locations with occupancy over 50%. The parking hotspots were also on Durlacher Street and Marine Terrace. The utilisation reached the very high percentage of 96% at Durlacher

Street (Forrest Drive to Marine Terrace section), compared to its utilisation of 84% on weekdays. A table showing the top ten highest occupancies recorded is presented below:

Table 3-4 Saturday occupancy (top ten)

Rank	Road names	Locations	Utilisation (%)
1	Durlacher Street	(a) Forrest Drive to Marine Terrace	96%
2	Marine Terrace	(b) Durlacher Street to Cathedral Avenue	72%
3	Durlacher Street	(b) Marine Terrace to Chapman Road	72%
4	Marine Terrace	(c) Cathedral Avenue to Fitzgerald Street	71%
5	Cathedral Avenue	(a) Foreshore Drive to Marine Terrace	67%
6	Parking Stations	(e) Parking Station No. 5 - Cnr of Sanford Street and Durlacher Street	67%
7	Marine Terrace	(a) Forrest Street to Duralcher Street	63%
8	Post Office Lane	(a) Marine Terrace to Chapman Road	59%
9	Anzac Terrace	(a) Forrest Street to Durlacher Street	54%
10	Foreshore Drive	(a) Fitzgerald Street to Cathedral Avenue	48%

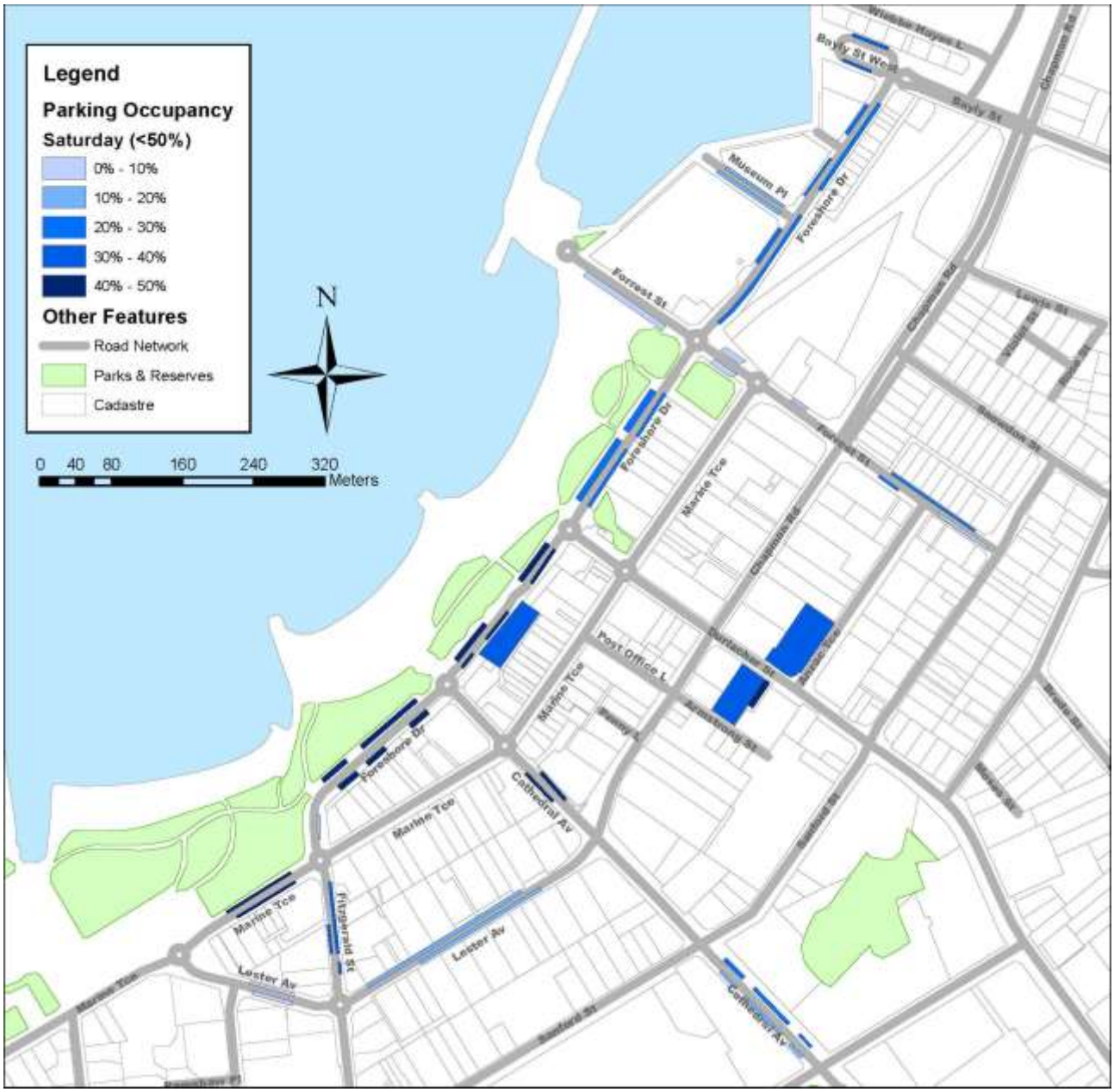


Figure 3-8 On-street/Off-street parking occupancy that is below 50% on Saturday (8am - 6pm).

A total of 23 locations were found to have average occupancy under than 50% on Saturdays. A small section on Fitzgerald Street was again found with 0% occupancy as it is a loading/bus zone. However, three sections at Forrest Street were observed as having occupancy below 10% and all locations at the street were on the top ten of the lowest occupancy lists. A table showing the top ten lowest occupancies recorded is presented below.

Table 3-5 Saturday occupancy – under 50%

Rank	Road names	Locations		Utilisation (%)
23	Forrest Street	(b) Sanford Street to Chapman Road	2hr Restricted	20%
24	Lester Avenue	(b) Fitzgerald Street to Cathedral Avenue	2hr Restricted	19%
25	Cathedral Avenue	(d) Sanford Street to Maitland Street WEST SIDE	2hr Restricted	15%
26	Museum Place	(a) Foreshore Drive to Batavia Coast Marina	Unrestricted	14%
27	Forrest Street	(a) Sanford Street to Anzac Terrace	Unrestricted	10%

28	Lester Avenue	(a) Gregory Street to Fitzgerald Street	2hr Restricted	7%
29	Forrest Street	(d) Marine Terrace to Foreshore Drive	Unrestricted	6%
30	Forrest Street	(e) Foreshore Drive to Batavia Coast Marina (Boat Pens)	Unrestricted	5%
31	Forrest Street	(c) Chapman Road to Marine Terrace	2hr Restricted	0%
32	Fitzgerald Street	(a) Foreshore Drive to Marine Terrace	Loading Zone/Bus Zone	0%

The table below provides a ranked summary of parking occupancy across all on- and off-street locations on weekdays.

Table 3-6 A summary of hourly utilisation rank between 8am and 6pm Monday to Friday (Weekdays)

Rank	Road names	Locations	Utilisation (%)
1	Durlacher Street	(a) Forrest Drive to Marine Terrace	84%
2	Marine Terrace	(b) Durlacher Street to Cathedral Avenue	81%
3	Cathedral Avenue	(a) Foreshore Drive to Marine Terrace	75%
4	Durlacher Street	(b) Marine Terrace to Chapman Road	74%
5	Parking Stations	(c) Parking Station No. 4 - Post Office SHORT TERM	73%
6	Post Office Lane	(a) Marine Terrace to Chapman Road	72%
7	Marine Terrace	(c) Cathedral Avenue to Fitzgerald Street	68%
8	Parking Stations	(d) Parking Station No. 4 - Post Office LONG TERM	65%
9	Forrest Street	(a) Sanford Street to Anzac Terrace	63%
10	Cathedral Avenue	(b) Marine Terrace to Chapman Road	63%
11	Marine Terrace	(a) Forrest Street to Duralcher Street	61%
12	Parking Stations	(e) Parking Station No. 5 - Cnr of Sanford Street and Durlacher Street	61%
13	Parking Stations	(b) Parking Station No. 3 - Cnr of Durlacher Street and Anzac Terrace	59%
14	Foreshore Drive	(c) Durlacher Street to Forrest Street	58%
15	Forrest Street	(c) Chapman Road to Marine Terrace	56%
16	Cathedral Avenue	(c) Sanford Street to Maitland Street EAST SIDE	55%
17	Forrest Street	(b) Sanford Street to Chapman Road	53%
18	Anzac Terrace	(a) Forrest Street to Durlacher Street	52%
19	Foreshore Drive	(b) Cathedral Avenue to Durlacher Street	52%
20	Foreshore Drive	(a) Fitzgerald Street to Cathedral Avenue	51%
21	Bayly Street	(a) Foreshore Drive to Batavia Coast Marina	46%
22	Cathedral Avenue	(d) Sanford Street to Maitland Street WEST SIDE	46%
23	Foreshore Drive	(d) Forrest Street to Bayly Street	44%
24	Fitzgerald Street	(b) Marine Terrace to Lester Avenue	42%
25	Lester Avenue	(a) Gregory Street to Fitzgerald Street	36%
26	Parking Stations	(a) Parking Station No. 1 - Foreshore Drive	31%
27	Marine Terrace	(d) Fitzgerald Street to Gregory Street	28%
28	Lester Avenue	(b) Fitzgerald Street to Cathedral Avenue	27%
29	Forrest Street	(d) Marine Terrace to Foreshore Drive	26%
30	Forrest Street	(e) Foreshore Drive to Batavia Coast Marina (Boat Pens)	25%

31	Museum Place	(a) Foreshore Drive to Batavia Coast Marina	7%
32	Fitzgerald Street	(a) Foreshore Drive to Marine Terrace	0%

The table below provides a ranked summary of parking occupancy across all on- and off-street locations on Saturdays.

Table 3-7 A summary of hourly utilisation rank between 8am and 6pm Saturday

Rank	Road names	Locations	Utilisation (%)
1	Durlacher Street	(a) Forrest Drive to Marine Terrace	96%
2	Marine Terrace	(b) Durlacher Street to Cathedral Avenue	72%
3	Durlacher Street	(b) Marine Terrace to Chapman Road	72%
4	Marine Terrace	(c) Cathedral Avenue to Fitzgerald Street	71%
5	Cathedral Avenue	(a) Foreshore Drive to Marine Terrace	67%
6	Parking Stations	(e) Parking Station No. 5 - Cnr of Sanford Street and Durlacher Street	67%
7	Marine Terrace	(a) Forrest Street to Duralcher Street	63%
8	Post Office Lane	(a) Marine Terrace to Chapman Road	59%
9	Anzac Terrace	(a) Forrest Street to Durlacher Street	54%
10	Foreshore Drive	(a) Fitzgerald Street to Cathedral Avenue	48%
11	Foreshore Drive	(b) Cathedral Avenue to Durlacher Street	48%
12	Parking Stations	(c) Parking Station No. 4 - Post Office SHORT TERM	43%
13	Cathedral Avenue	(b) Marine Terrace to Chapman Road	42%
14	Marine Terrace	(d) Fitzgerald Street to Gregory Street	41%
15	Parking Stations	(b) Parking Station No. 3 - Cnr of Durlacher Street and Anzac Terrace	36%
16	Bayly Street	(a) Foreshore Drive to Batavia Coast Marina	36%
17	Parking Stations	(d) Parking Station No. 4 - Post Office LONG TERM	33%
18	Fitzgerald Street	(b) Marine Terrace to Lester Avenue	31%
19	Parking Stations	(a) Parking Station No. 1 - Foreshore Drive	31%
20	Foreshore Drive	(c) Durlacher Street to Forrest Street	26%
21	Cathedral Avenue	(c) Sanford Street to Maitland Street EAST SIDE	23%
22	Foreshore Drive	(d) Forrest Street to Bayly Street	23%
23	Forrest Street	(b) Sanford Street to Chapman Road	20%
24	Lester Avenue	(b) Fitzgerald Street to Cathedral Avenue	19%
25	Cathedral Avenue	(d) Sanford Street to Maitland Street WEST SIDE	15%
26	Museum Place	(a) Foreshore Drive to Batavia Coast Marina	14%
27	Forrest Street	(a) Sanford Street to Anzac Terrace	10%
28	Lester Avenue	(a) Gregory Street to Fitzgerald Street	7%
29	Forrest Street	(d) Marine Terrace to Foreshore Drive	6%
30	Forrest Street	(e) Foreshore Drive to Batavia Coast Marina (Boat Pens)	5%
31	Forrest Street	(c) Chapman Road to Marine Terrace	0%
32	Fitzgerald Street	(a) Foreshore Drive to Marine Terrace	0%

A scatterplot illustrating the weekday occupancy against Saturday occupancy is shown below. Durlacher Street (Forrest Drive to Marine Terrace) presented both the highest weekday and Saturday parking occupancy.

Fitzgerald Street (Foreshore Drive to Marine Terrace) had 0% average occupancy on both weekdays and Saturday.

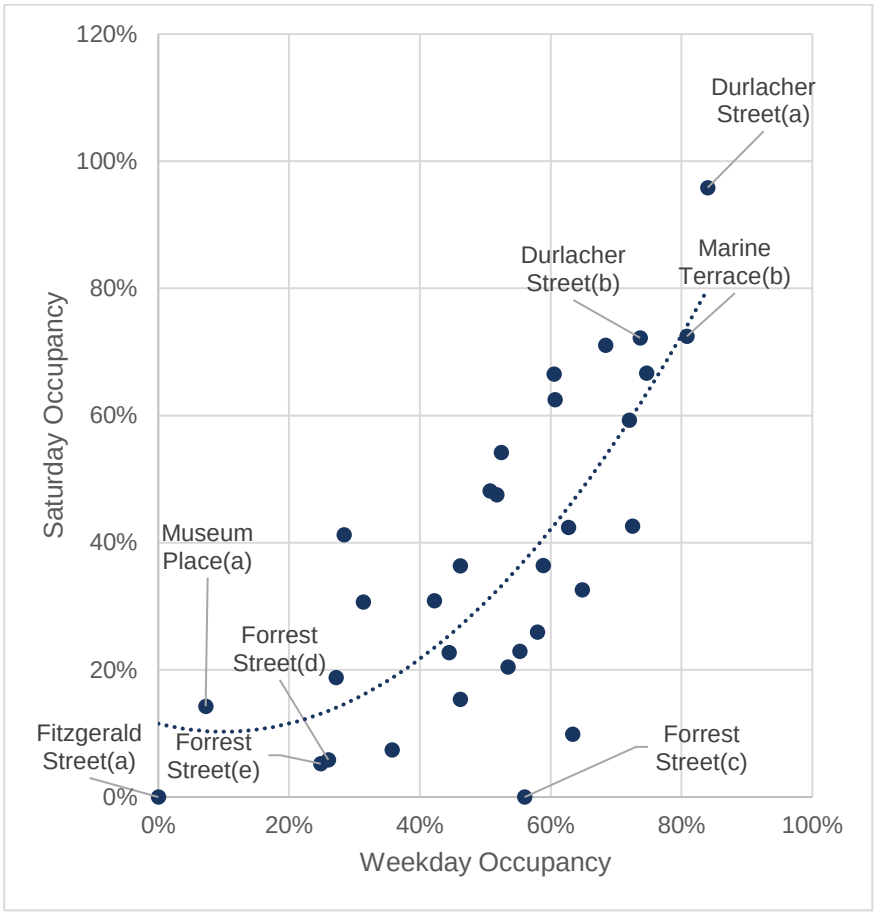


Figure 3-9 Weekday vs Saturday occupancy

The figure below shows average occupancy by parking location.

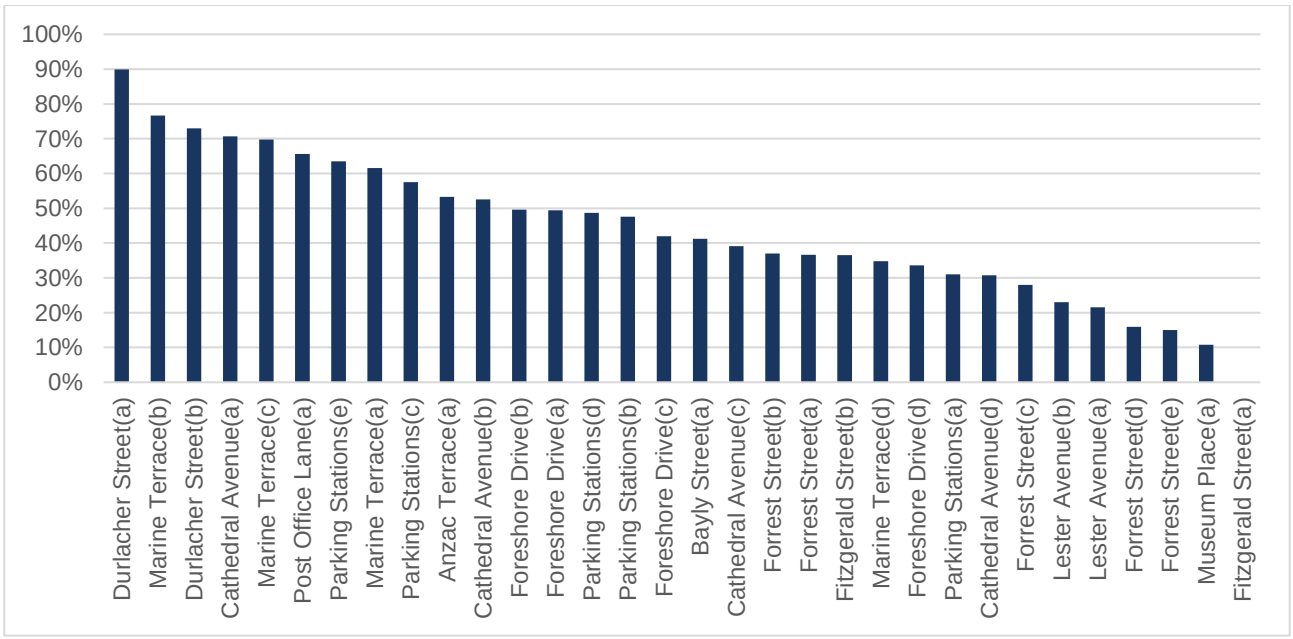


Figure 3-10 Average occupancy by parking location

Table 3-8 shows parking occupancy by day, time and location. Those over 100% occupancy are highlighted.

Table 3-8 Parking occupancy time series

			8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
Foreshore drive	(a)	Weekdays	28%	49%	71%	64%	64%	59%	48%	39%	45%	39%
		Saturday	23%	39%	44%	73%	72%	63%	51%	33%	36%	
	(b)	Weekdays	18%	50%	69%	72%	71%	76%	62%	43%	35%	22%
		Saturday	6%	28%	64%	94%	84%	60%	36%	34%	22%	
	(c)	Weekdays	34%	59%	68%	72%	80%	77%	62%	49%	45%	33%
		Saturday	7%	11%	29%	55%	53%	29%	20%	17%	12%	
	(d)	Weekdays	37%	53%	54%	53%	47%	51%	52%	47%	33%	17%
		Saturday	37%	28%	28%	28%	28%	26%	22%	4%	2%	
Marine terrace	(a)	Weekdays	13%	55%	73%	84%	94%	74%	65%	58%	65%	27%
		Saturday	23%	68%	98%	93%	93%	90%	55%	33%	13%	
	(b)	Weekdays	36%	89%	89%	92%	97%	95%	90%	80%	75%	66%
		Saturday	28%	85%	87%	91%	98%	93%	83%	63%	24%	
	(c)	Weekdays	37%	73%	79%	81%	88%	73%	67%	55%	66%	64%
		Saturday	34%	74%	74%	97%	76%	87%	95%	58%	45%	
	(d)	Weekdays	17%	19%	37%	31%	47%	50%	30%	20%	16%	17%
		Saturday	33%	33%	33%	38%	57%	52%	43%	52%	29%	
Lester avenue	(a)	Weekdays	23%	29%	33%	37%	35%	45%	51%	45%	37%	21%
		Saturday	0%	0%	0%	7%	7%	20%	20%	7%	7%	
	(b)	Weekdays	10%	35%	41%	43%	27%	31%	26%	33%	18%	8%
		Saturday	0%	28%	56%	36%	15%	10%	15%	5%	3%	
Anzac terrace	(a)	Weekdays	14%	44%	61%	67%	64%	68%	50%	50%	65%	41%
		Saturday	6%	76%	85%	100%	82%	27%	55%	48%	9%	
Bayly street	(a)	Weekdays	51%	53%	53%	53%	55%	47%	49%	49%	42%	11%
		Saturday	55%	45%	45%	45%	27%	55%	55%	0%	0%	
Museum place	(a)	Weekdays	0%	1%	10%	13%	8%	10%	12%	10%	4%	5%
		Saturday	0%	0%	10%	43%	14%	24%	10%	19%	10%	
Forrest street	(a)	Weekdays	40%	71%	71%	71%	64%	71%	69%	64%	64%	47%
		Saturday	0%	0%	22%	44%	11%	11%	0%	0%	0%	
	(b)	Weekdays	22%	64%	65%	62%	45%	55%	66%	59%	57%	39%
		Saturday	5%	16%	32%	32%	32%	42%	16%	5%	5%	
	(c)	Weekdays	53%	73%	87%	60%	40%	80%	40%	67%	47%	13%
		Saturday	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	(d)	Weekdays	3%	17%	36%	39%	42%	41%	32%	25%	16%	9%
		Saturday	0%	0%	11%	32%	11%	0%	0%	0%	0%	
	(e)	Weekdays	9%	30%	37%	42%	25%	27%	27%	24%	21%	7%
		Saturday	3%	3%	0%	14%	0%	8%	0%	11%	8%	
Durlacher street	(a)	Weekdays	65%	90%	95%	98%	98%	93%	88%	83%	83%	50%
		Saturday	25%	100%	125%	163%	138%	125%	100%	50%	38%	
	(b)	Weekdays	30%	93%	83%	90%	83%	67%	70%	83%	80%	57%

		Saturday	33%	100%	100%	100%	83%	100%	67%	17%	50%	
Cathedral avenue	(a)	Weekdays	30%	87%	80%	83%	83%	77%	77%	73%	63%	93%
		Saturday	0%	50%	83%	100%	100%	67%	83%	50%	67%	
	(b)	Weekdays	29%	75%	78%	65%	73%	71%	73%	87%	56%	20%
		Saturday	0%	45%	82%	64%	55%	36%	45%	36%	18%	
	(c)	Weekdays	3%	23%	79%	83%	63%	60%	64%	69%	59%	53%
		Saturday	0%	31%	69%	56%	44%	6%	0%	0%	0%	
	(d)	Weekdays	0%	17%	58%	71%	38%	52%	69%	68%	48%	40%
		Saturday	8%	23%	31%	23%	54%	0%	0%	0%	0%	
Fitzgerald street	(a)	Weekdays	0%	20%	0%	20%	20%	20%	0%	20%	20%	100%
		Saturday	0%	0%	0%	0%	100%	100%	0%	0%	0%	
	(b)	Weekdays	32%	52%	39%	39%	46%	48%	36%	27%	50%	54%
		Saturday	0%	33%	56%	44%	28%	28%	0%	39%	50%	
Post office lane	(a)	Weekdays	13%	80%	93%	80%	107%	87%	73%	60%	93%	33%
		Saturday	0%	100%	100%	67%	67%	33%	67%	67%	33%	
Parking stations	(a)	Weekdays	5%	19%	41%	43%	57%	55%	35%	22%	26%	9%
		Saturday	0%	15%	39%	56%	59%	53%	32%	14%	8%	
	(b)	Weekdays	31%	64%	76%	72%	78%	69%	65%	55%	52%	28%
		Saturday	17%	28%	57%	42%	61%	40%	34%	31%	18%	
	(c)	Weekdays	38%	82%	87%	85%	100%	83%	82%	70%	78%	20%
		Saturday	8%	42%	58%	50%	50%	75%	50%	25%	25%	
	(d)	Weekdays	28%	61%	83%	79%	87%	82%	75%	57%	65%	29%
		Saturday	8%	15%	44%	46%	53%	54%	47%	17%	8%	
	(e)	Weekdays	18%	50%	72%	82%	74%	69%	66%	55%	66%	53%
		Saturday	10%	43%	77%	97%	103%	81%	69%	67%	51%	

The results of surveys conducted in 2008 and 2010 show that while parking is well-utilised in some hotspots within the City Centre, there are still a significant number of locations with plentiful availability. Public off-street parking was operating within capacity the majority of the time, and on-street parking locations appear to have been operating close to capacity in key areas.

An updated parking survey is recommended following the implementation of the near-term recommendations from this *Plan.* This will establish the baseline function of the parking supply and allow for incremental changes to maximise the efficiency of the system. The nature of the content of these surveys is provided in **Section 6.6**.

3.3 Fees

Fees are charged at six of the CGG-owned car parks are shown in **Table 3-9**.

Table 3-9 City of Greater Geraldton parking fees – July 2018

Parking Station No.	Fee	1st hour	All day (9 hours)
1, 4, 5 and 6	1.60 / hour		$8.40 $31 per week
2 (Library) and 3	Currently Free (2P)		Time Restricted
On-street	No Charge	15 min free	Time Restrictions
ACROD	Free with unexpired permits		Free with unexpired permits

Lot 601 (between Foreshore Drive and Marine Tce)	Free all day	Free all day

There are a number of additional public or publicly accessible car parks that are subject to various time restrictions, but do not charge for parking.

The large quantum of free public and publicly accessible parking limits the acceptability of parking charges. It is understood that on-street parking meters were installed in the City Centre in 2001, but were removed within a year.

The primary function of parking fees is to improve the efficiency of car parking. Strategic implementation of fee-based parking improves turnover, relocates low-value parkers (e.g. employees parking in prime retail locations) and creates a more attractive environment for adjacent land uses.

Appropriate metered parking systems also reduces management overheads by increasing compliance. Revenue to maintain enforcement is therefore accrued through fees, rather than fines. Modern parking technology, paid for through fee revenue, can greatly assist in this process.

3.4 Parking Management Approach

The current management of parking in Geraldton is consistent with high car use and ample parking supply. However, this creates several detrimental outcomes that are contrary to the CGG's identified objectives, as follows:

- The excess supply of parking reduces the average 'market price' for parking towards zero. Only localised 'hotspots' can sustain a higher price.
- On-street parking bays are generally the most attractive for drivers, due to the ease of access and egress, and the proximity to their destination. Free on-street parking reduces the demand for off-street parking, particularly when the off-street parking is priced.
- Free on-street parking encourages drivers to search for bays, increasing traffic along local streets.
- Where free on-street parking is located adjacent to businesses, employees are incentivised to park there, rather than in off-street car parks. This is particularly true when the alternative long-stay parking is priced. This reduces compliance in adjacent short-stay parking zones.
- The consumption of parking by employees reduces the availability of nearby parking by high-value users (shoppers, visitors and tourists).
- The lack of a price signal for parking in the City Centre reduces the usage and viability of alternative travel modes (public transport and cycling).

This environment creates a perception of a parking shortage, even when there is a low utilisation of parking across the wider area.

3.5 Site Visit and Consultation

During the site visit and consultation with the CGG in May, a number of parking related themes were discussed. These are outlined in the table below.

Table 3-10 2018 Site visit and consultation - themes

Theme		Discussion
Car parks	Lot 601	▪ Five year lease on land ▪ Currently free all-day parking – should it be paid? ▪ It is rarely fully occupied – how can it be made more attractive?
	Parking Stations 2 and 3	▪ Being trialled as free 2P ▪ Will continue as 2P and need to monitor parking data
	Parking Station 5	▪ Currently earns the most revenue
	Marina Car Park	▪ Intended for users of the adjacent State-managed facilities however these are still used at risk by the public
Duration of stay		▪ The average stay in the City Centre is 1 hr 3 minutes, which correlates to the 1P time restrictions in place in some locations. ▪ How can we extend length of stay in the City Centre?

	▪ Marine Terrace has a mix of businesses that have conflicting needs however a consistent restriction will reduce confusion and result in longer average stays in the City Centre
Parklet trials	▪ These will continue with the removal of parking bays in some locations ▪ A clear strategy on this would be helpful
Shopping hours	▪ 7 day trading has commenced since the last surveys took place in 2010
Enforcement	▪ Policing needs to take place to ensure overstays are limited as these rise significantly without enforcement. The current method is Walk and Chalk, and by monitoring the on-street meters – open to alternative methods ▪ Purchases of parking technology has been considered cost-prohibitive ▪ Rangers need more time and a dedicated parking resource to undertake enforcement activities ▪ Private operators issue infringements in private car parks and the CGG collects payments ▪ Infringements are currently $75
Compliance	▪ Businesses are parking in customer bays ▪ Businesses are repeat offenders for overstaying in parking bays while lobbying for more customer parking
Parking ratios	▪ May benefit from a review
Signage and wayfinding	▪ Sign saturation has been identified along Marine Terrace in particular (given the multitude of different restrictions) and there needs to be a review of this in parking stations and on street in conjunction with a wayfinding strategy
Specialist parking	▪ Motorcycles ▪ Short stay RV parking ▪ RVs/Campervans (especially given the competing interests near the boat ramp & GMC areas)

In addition, throughout the course of the project, queries were received from the CGG officers regarding parking issues in specific locations, which have been addressed throughout the report and collated in a table in **Appendix A**.

4 Parking Principles

The *City Centre Car Parking Management Plan* adopted in 2013 identified a number of principles that influenced its strategic direction. Those principles remain valid and are reproduced below, and supplemented where appropriate.

These principles also form the basis from which we have assessed the current situation in Geraldton with regards to transport and parking, and provided relevant actions.

4.1 Paradigm Shift

Modern parking management represents a paradigm shift in the way parking problems are defined and potential solutions evaluated.

Table 4-1 Parking management paradigm shift

Old paradigm	Motorists should nearly always be able to easily find convenient, free parking at every destination. Parking planning consists primarily of generous minimum parking requirements, with costs borne indirectly, through rates, taxes and building rents.
New paradigm	Parking facilities should be used efficiently, so car parks at a particular destination may often fill (typically more than once a week), provided that alternative options are available nearby, and visitors have information on these options. This means, in general, that drivers are given a clear choice between paid parking near to their destination and free (or cheaper) parking a few blocks away. The success of this paradigm requires good walking conditions and effective wayfinding. Parking planning should therefore include shared parking, parking pricing and regulation, parking user information, and improved pedestrian facilities.

Source: Adapted from Victoria Transport Policy Institute, BC, Canada.

4.2 Council's Role in Parking

The CGG provides and maintains parking facilities as a community service to support road, traffic and pedestrian safety, user convenience, and environmental and residential amenity goals. The CGG's current role in parking covers a range of responsibilities that can be broadly categorised, as follows:

- Supplying and maintaining public on- and off-street parking facilities
- Regulating and enforcing the use of this public parking through time limits and pricing
- Regulating and enforcing the use of private parking through management agreements
- Regulating the supply of private parking through the *City Centre Local Planning Policy* and LPS1, which requires developments to provide a certain number of car park spaces.

Through these mechanisms, the CGG can establish an appropriate supply of affordable, secure, convenient and appealing shared public parking that is accessible to all segments of the community.

Supply of public parking should be located in proximity to major generators and be managed according to a predetermined hierarchy of use; such as the hierarchy outlined in the *City Centre Transport Planning and Car Parking Strategy*:

1. Shoppers
2. Tourists and visitors
3. All day parkers and workers.

This hierarchy applies primarily to on-street parking but should be considered with respect to the off-street supply and specific provisions within public and private car parks for high priority users.

The usage of public parking should be monitored to determine hotspots and low utilisation areas so that refinements to parking restrictions can be made. This will ensure a robust system that maximises efficient use of available parking and thereby minimise the capital investment required to accommodate demand.

4.3 Time Restrictions

The management of parking through time restrictions is designed to restrict the supply of parking available to certain groups.

- Short-stay parking (up to 2 hours) is provided for shopping areas and medical and professional suites
- Medium-term parking (between 2 and 4 hours) is provided for district centre parking, sports facilities, entertainment centres, hotels and motels
- Long-stay parking (4 – 24 hours) is provided to cater for tenants, employees, contractors and other drivers

The following principles apply to the implementation of time restrictions for free parking:

- There should be consistency within the duration restrictions used in the area, to improve understanding. (i.e. all parking along both sides of the street)
- 2P is recommended for shopping high streets where paid parking is not suitable. Shorter durations can be used in support of specific uses, however enforcement is more difficult in the absence of parking technology
- Longer durations such as 3P are suitable for the fringes of the City Centre
- Timed restrictions beyond 3 hours should be avoided, as they are difficult to enforce and compliance tends to be low.

4.4 Pricing

The primary role of parking pricing is as a strong tool to manage local demand.

Parking pricing levels should ideally be set such that demand peaks at approximately 85-90% occupancy. Best-practice implementation involves ‘demand responsive’ pricing, which increases or reduces fees based on occupancy. This can involve different fees at different times of day, or different days of the week, and include a mechanism to modify prices on a periodical basis to maximise the utility of the parking. Demand responsive pricing relies on a high degree of good quality occupancy and duration of stay data.

This also means that if parking is unpriced and supply exceeds peak demand, the appropriate fee is zero.

The parking fee structure can be used to preferentially benefit certain target groups, based on the ideal function for a particular car parking location.

For example:

- A one-hour free period supports short trips including shopping and café visits
- A linear per-hour rate effectively penalises long-stay parking while maintaining maximum flexibility for users
- A maximum fee can be used to support employee parking in selected locations – effectively giving them a discount beyond a given duration of stay.

These demand management tools can be used in combination, with restrictions on duration to narrow down the target market.

4.4.1 “Free” Parking

Free parking that is available for all has generally been perceived as an ideal objective for both policy and decision makers, with any proposed measures which have sought to constrain demand or determine priority for access bitterly resisted, often in an emotional and irrational way.

This level of emotional response is related to the availability of parking and its significant role and impact on the ability of private individuals to access employment and the range of services and facilities that the community offers. The attitude of many people has, in the past, been that if parking is not readily available and accessible to services and amenities, they would often make the choice to shop or go elsewhere.

However, all parking has a cost: in space, in opportunity, in construction, maintenance and enforcement. Where parking is provided free of charge to users, the direct financial costs are borne by the CGG and passed on to residents via increased rates, or by businesses and passed onto retailers and consumers through higher rents and prices. The opportunity costs are realised through reduced connectivity (land uses

are further apart), decreased local amenity (pedestrian paths, trees), and a higher economic burden for development (the cost of parking infrastructure results in decreased investment in the area).

4.4.2 Cost of Providing Parking

The costs to provide parking are related both to the actual construction cost, and the opportunity cost of not providing more productive land uses.

If the approximate cost of commercial land in the City Centre is $1,000-$1,250/sq.m, then it is clear that there is a substantial opportunity cost for each space provided.

On-street parking leverages the space available in the public road reserve to reduce the land requirement. However, this parking effectively increases the road reserve width at the expense of additional street trees, landscaping, pedestrian and cycling infrastructure or development.

Off-street parking is less space-efficient due to the need to provide access and circulation. Where this parking is provided in multi-deck facilities, the space per bay increases due to ramping and supporting infrastructure (lifts, stairs, etc.), but the overall land requirement decreases. Conversely, multi-deck parking attracts a high construction cost per bay.

Table 4-2 Costs of parking (per space)

Type	Approx. area consumed	Opportunity Cost (area x land price)	Approx. Construction Cost	Ballpark Cost
On-Street	15sq.m	$15,000-$19,000	$2,000	$17,000-$21,000
Off-Street at-grade	21sq.m	$21,000-$26,000	$3,000	$24,000-$29,000
Off-Street multi-deck	32sq.m		$30,000-$50,000	
	2 levels	$16,000-$20,000	$30,000	$46,000-$50,000
	3 levels	$11,000-$13,000	$40,000	$51,000-$53,000
	4 levels	$8,000-$10,000	$50,000	$58,000-$60,000

4.4.3 Parking Fees

Parking fees, when used as a travel demand management tool, will assist the CGG to achieve the objectives defined by the *City Centre Transport Planning and Car Parking Strategy*. In general, this will be to discourage long term parking close to the City Centre core and other major retail areas, encourage long term parking in peripheral locations and provide incentives to use alternative modes of transport.

On-street kerbside parking is the most convenient parking in any City Centre and, as such, it should be managed to achieve three main objectives:

- To encourage the turnover of parking spaces several times a day
- To encourage users towards cheaper parking in off-street car parks
- To discourage long-stay parking.

This can be achieved through a combination of duration restrictions and fee payment.

Paid parking is one of the most effective ways of influencing parking and travel demand. It can influence parking location, destination, mode, travel time and, in particular, parking duration. The impacts vary depending on the price structure and the relative convenience of alternative parking facilities and modes. If the cost of driving to destinations is increased through the implementation of paid parking and the public transport network becomes serviceable and accessible, then the shift between the use of cars and requirement of parking to public transport theoretically should increase.

Pay parking increases equity by charging users (user pay) for their parking costs and by reducing the parking costs imposed on non-drivers. Paying directly rather than indirectly benefits consumers because it reduces parking and traffic problems and allows individuals to decide how much parking to purchase, giving them an opportunity to save money.

As pay parking generally results in reductions in car use and traffic congestion, among other environmental benefits, it is one of the essential transport measures necessary to ensure the long-term viability of commercial centres.

4.4.4 On-Street Parking Management

The following describes a coherent methodology to determine parking restrictions within the on-street environment. It is suggested that any implementation measures are reviewed and adjusted as required in line with the intent of a Demand Responsive Pricing Policy (see **Section 6.3**). In initial stages of the transition this should take place several times throughout the year and/or as dictated by results from parking occupancy surveys.

4.4.4.1 Free Parking

- **2P Free Parking:** Time restricted 2-hour parking is best used in residential areas, to support visitation throughout the day. This form of parking may also be used where there is moderate commercial/retail visitor demand, to limit use by employees. Where there is a scarcity of employee parking, free 2-hour parking adjacent to business uses may be used illegitimately by employees (reparking their vehicle every 2 hours).
- **4P Free Parking:** Time restricted 4-hour parking supports medium-stay uses such as recreational, visitor/tourist and cultural facilities. However, such parking controls are generally not recommended where these areas are located close to businesses. The incentive for employees and other long-stay users to park in these zones illegitimately (reparking their vehicle as required), is strong.
- **All day Free Parking:** All-day free parking provides the maximum flexibility for users, but is appropriate only when there is ample parking supply to cater for everyone. Where demand begins to approach 85% or more of supply at peak times, alternative controls should be used to differentiate parking areas.
- **Time Restrictions:** It is recommended that all managed parking be restricted to the 8am-6pm period. For the majority of the network this can be retained for Monday-Friday only, but in locations where weekend demand is high, parking restrictions should be set for Monday-Sunday.

Limiting duration restrictions and/or paid parking to daylight hours limits the potential impact on residents and visitors. This is particularly important in areas where there is a mixture of residential density and retail commercial use.

4.4.4.2 Paid Parking

- **1P Paid Parking:** Used in retail areas to support high turnover businesses and to redistribute longer-stay activities to adjacent off-street public and private car parks.
- **2P Paid Parking:** Used in areas adjacent to retail to support business and medical visitors; specifically excludes use by employees and construction workers and all day parking.
- **4P Paid Parking:** Allows a mixture of short-stay uses; specifically excludes all day parking.
- **Capped Fee Parking:** Allows for hourly paid parking up to a set duration, with no additional cost beyond this duration. This is intended to create spaces for employees and construction workers to park in the public realm, while retaining viability for short-stay visitors.
- **First-Hour Free Parking:** Used to promote short-stay uses and encourage rapid turnover of parking. This is particularly valuable as a way to shift parking off-street and away from the prime on-street locations. Private car parks often utilise this form of parking management to shift cars onto their site, ensuring that customers walk through their establishment and an increase in footfall. Its effectiveness can be diminished if there is free parking in close proximity.

First-hour free parking is not considered to provide the same level of advantage in on-street environments, particularly where demand is already high.

4.4.4.3 Residential Parking

- **Residential Parking Permits:** Residential parking permits are considered appropriate where on-site parking supply is low, and where adjacent land uses are likely to consume the bays required for these residents.

New apartment buildings and townhouses are often constructed with a reduced parking supply, as a measure to increase housing affordability. The creation of a residential parking permit scheme to allow residents to own and keep additional vehicles on the street shifts the burden of cost from the owner to the CGG.

Residential parking permit schemes are expensive to maintain, and are generally not priced at a level commensurate with their value. It is therefore recommended that such schemes be avoided unless under exceptional circumstances.

4.4.5 Off-Street Parking Management

The following describes a methodology to determine parking restrictions within the public off-street environment. It is suggested that any implementation measures are reviewed regularly, and adjusted as required.

- **Free Parking:** Off-street parking is an expensive resource, provided by a business or on behalf of the CGG for the community. There are many important reasons to provide parking, for the benefit of social, cultural or economic development. However, where demand for this free resource exceeds the available supply, alternative methods of control are recommended. This may include duration restrictions to increase turnover and relocate long-stay parkers, or the introduction of paid parking to manage demand.
- **2P Paid Parking:** Parking in high-turnover areas to support recreation or retail/restaurant uses; specifically excludes use by all day parkers.
- **4P Paid Parking:** Allows a mixture of short-stay uses and specifically excludes use for park ‘n’ ride, with minimal value for all day parkers.
- **Unrestricted Paid Parking:** Allows use for all purposes but discourages long-stay employees.
- **Capped Fee Parking:** Allows for hourly paid parking up to a set duration cap with no additional cost beyond this duration. This is intended to create spaces for employees and construction workers to park in the public realm, while retaining viability for short-stay visitors.
- **Private/Tenant Parking:** This parking is generally privately owned and outside of the control of the CGG and this *Plan*. It is beneficial for the function of the parking system that all bays are efficiently used. Relocation of parking by employees within the City Centre Core to private tenant bays frees up public spaces for visitors, and privately owned public parking represents a valuable supply located close to attractive destinations.

If the CGG transitions to a paid parking system, and assuming demand for parking on the whole increases, there will be increased pressure on private parking. This may result in a change in management of these private bays, including the introduction of duration restrictions and paid parking.

4.4.6 Hypothecation of Parking Revenue

Paid parking fees are an effective measure of managing parking, by increasing the efficient use of a shared resource. The revenue obtained from this form of parking management is, by definition, used to offset the cost of enforcement and installation. Beyond this maintenance cost, paid parking revenues may be ‘hypothecated’ to improvements in transport and local streetscapes.

This provides direct benefit to the community and additional value over and above the impacts of managed parking alone. International examples show that where revenue is hypothecated to local improvements, patronage of these businesses and land values increase markedly.

It is noted that such a policy is in effect in Geraldton within the *City Centre Transport Planning and Car Parking Strategy* (see **Section 2.3.1**).

4.5 Parking Management

4.5.1 Design and Maintenance

Some of the hypothecated funds from paid parking revenues should be allocated to improvements to the associated car parking, including high-cost improvements such as lighting. Maintaining a high level of presentation for fee-paying public car parks also helps to justify the paid parking regime.

Paid parking can therefore be an effective measure to support safe, attractive streetscapes and car parking areas, for the benefit of the local community.

4.5.2 Special Uses

The principles of shared parking apply equally for loading, to commercial vehicles and for ACROD vehicles, with the exception that spaces need to be designated and conveniently located. Several issues arise.

Firstly, the users of these parking spaces need to be monitored to ensure that only bona fide loading and disabled drivers are using them. Regular enforcement is necessary for both time restrictions and driver types. Loading and commercial spaces should be available to the general public after hours and on weekends. There is no need to preclude the use of these spaces outside of commercial hours.

Where specific spaces are set aside for special users, there are diverse opinions on whether to charge these parkers for parking if they are in a charge parking area. Many councils charge all parkers on the basis of the user pay principle, added to which there is a premium for these drivers having the convenience of a well-located parking space. Other councils provide this parking at a discounted fee or provide the first 15 minutes free of charge. Technology can permit flexibility for the CGG in the charging systems for special users.

4.5.3 Shared Parking

Shared parking takes advantage of the fact that most parking spaces are only used part-time by a particular land use. Parking facilities tend to have a significant portion of unused spaces, with utilisation patterns that follow predictable daily, weekly and annual cycles. However, when shared by multiple land uses, parking resources can be more efficiently managed, reducing the requirements for overall supply.

Parking can be shared among a group of employees or residents, or among different buildings and facilities in an area. Land uses such as offices, professional services, medical facilities and banks typically have weekday peaks, enabling sharing with restaurants and entertainment venues.

4.5.4 Unbundled Parking

The cost of parking for residential and commercial units is usually passed on to the occupants indirectly through the rent or purchase price (bundled) rather than through a separate transaction. This means that tenants or owners are not able to purchase additional parking if required or given the opportunity to save money by reducing their parking demand. Giving the tenants or owners the opportunity to rent or sell the parking spaces separately may also reduce the total amount of parking required for a development. The unbundling of parking can be introduced in several different ways:

- Facility managers can unbundle parking when renting building space
- Developers can make some or all parking optional when selling buildings
- Renters can be offered a discount on their rent for not using some or all of their allocated parking spaces
- Parking costs can be listed as a separate line item in the lease agreement to show tenants the cost and enable them to negotiate reductions.

Providing tenants or owners with the opportunity of unbundled parking is also likely to create a market for available parking spaces. It should be noted that if an unbundled parking policy is introduced, it is important to consider the cost of alternative parking in the nearby area. If there is a supply of free or low-cost parking nearby, there may be an incentive for tenants or owners to find other places to park their cars to avoid the parking charge, potentially resulting in spillover effects.

4.5.5 Decoupled Parking

Decoupling parking from land use allows statutory or operational parking requirements to be fulfilled off-site, potentially in collaboration with multiple land-owners or the CGG. This disassociates the provision of parking from geometric constraints and supports more efficient shared parking outcomes.

Another advantage is that decoupled parking structures are more robust to the impacts of technological change.

4.5.6 Parking Technology

The implementation of parking technology can assist in the efficient distribution of demand, and an improved user-experience. The more convenient it is to pay for parking, the less of a burden it becomes for drivers, and the better the compliance.

Parking technology includes infrastructure such as:

- Active and passive wayfinding signage
- Dynamic parking availability signage
- Parking occupancy/duration counters (pods, video counters, etc.)
- Boom gates and other types of parking controls

> Paid parking technology (pay-by-plate, pay-by-mobile, pay-and-display, etc.).

4.5.7 Compliance and Enforcement

To guarantee that the available supply is equitably shared between all legitimate users, an effective parking compliance and enforcement regime is required. This will be most successful when it is consistent across the whole of the City Centre and is managed by the CGG directly.

Management of an effective system requires standardising and installing good quality signage for all car parks, both public and private, in addition to strong enforcement of parking compliance within these car parks. The resulting system is more transparent, with better assurance for visitors and commuters that parking will be available.

The increase in transparency will also provide a greater understanding of actual (rather than perceived) shortfalls, within various short-stay zones. Monitoring of the parking demand characteristics will assist in the development of future planning modifications to address actual constraints in parking supply, rather than apparent ones.

The cost of effective enforcement is related to the management model for parking. Unmetered parking requires a significant labour force, but minimal capital outlay. Introducing meters significantly reduces the time required for enforcement work, particularly when cloud-based data streaming technology is used (e.g. pay-by-plate technology). However, there is a substantial capital cost for technology, which supports its use only in paid parking areas.

The structure of the CGG parking compliance and enforcement area will be dependent upon the management regime required. Given the size of the City Centre, it is feasible that all parking policy and management tasks remain under a single organisational structure. Ideally, this structure would take the form of an internal parking business unit, dedicated to optimising the function of the CGG's parking supply.

4.5.8 Wayfinding and Signage

The effectiveness of parking is greatly improved through supplying better information to users. This information is typically provided in a range of media, including maps, mobile applications, static and dynamic signage and prominent parking information.

A coherent signage strategy is therefore recommended across the City Centre, identifying off-street car parking supplies and significant on-street parking. This may be implemented through static wayfinding signage displaying route/location and supply numbers, using a design of signage consistent for on-street and off-street. Dynamic signage is available but the CGG is not yet in need of such infrastructure.

4.6 Future of Parking

4.6.1 Trends and Disrupters

As healthcare continues to improve, people are living much longer, and an aging population will have specific needs in terms of transport. In particular, the number of ACROD bays may need to increase to accommodate the proportion of the population that is mobility impaired. Parking areas used primarily for the purpose of healthcare should already be considered in this context, and recreational and commercial sites should consider senior parking bays.

Disrupters such as Ride-Sharing, Electric Vehicles (EVs) and Autonomous Vehicles (AVs) may all have an impact on the need for and nature of parking in the future.

Ride-Sharing is already causing ripples in the transport industry, demonstrating how the sharing of resources can result in more affordable transport (and other items) for all. If ride- and car-sharing reaches its full potential the possibility is that people may not see the need to own their own car, instead opting to jointly own a vehicle with neighbours, friends and family members, or using the services of a car club such as Go Get in preference to traditional ownership models. This would result in the rate of car ownership declining and therefore less of a need for parking bays. Taxi bays and drop off zones will become more important as uptake increases.

As EVs become more prominent there will be a need to provide charging points in many more car parks, particularly those which supply all day parking, such as in residential developments and workplaces. As battery technology improves and faster charging becomes available and affordable, there will also be a demand for charging points at other locations with more frequent parking turnover.

The planners of parking facilities are best advised to allow for this necessary infrastructure in advance, so that retro-fitting of charging facilities can take place easily and economically.

4.6.2 Managing the impacts of change

There is a high potential for autonomous vehicles (AVs) and Mobility-as-a-Service (MaaS) technologies to substantially disrupt the way parking is used. The timeframes for this likely future are not yet resolved, but they may be well within the lifetime of the developments and parking structures we build today.

The expected result of the uptake of AVs and MaaS is a significant decline in demand for parking, particularly within city centres. Where this parking is provided in private facilities, that represents an ongoing cost to residents and business in the form of higher leasing rates and ownership costs.

One policy measure that could address this is to require a proportion of parking to be 'convertible' to other, more productive, uses. This requires careful consideration at the design stage to increase floor-ceiling heights, provide conduits for future services, check column locations, consider future opportunities for natural light, etc. This conversion is not effective in basement parking, and is best employed for podium parking. That means that parking policies will need to be related to design guidelines to establish an appropriate built form that can undergo conversion if required.

Alternatively, parking can be located off-site, either in public facilities funded through developer contributions or cash-in-lieu, or in private facilities with ownership unbundled from the associated development. This form of decoupled parking has the advantage that it can accommodate ongoing future growth as demand declines, or be demolished to make way for new development.

The important part of considering these impacts is that policies need to be put in place now, so that development is robust to the future impacts of technological change.

5 Parking Management Action Plan

5.1 Concept

This section provides an outline of the Parking Management Action Plan (PMAP) for the Geraldton City Centre. These actions are a result of evaluating:

- Project objectives
- Background information (including the 2010 parking survey data)
- Findings from site visit and consultation with officers from the CGG
- Principles of parking management.

The actions described in the following subsections will achieve the desired outcomes of prioritising the utilisation parking for:

1. Shoppers
2. Tourists and visitors
3. All day parkers and workers.

The PMAP proposes a two-stage approach to streamlining parking restrictions which will ensure that parking is available to satisfy demand for both short and long stay parking as the City Centre grows. Stage 2 of the PMAP will be triggered for specific locations, based on the outcomes of parking surveys. Suitable trigger points are described in more detail in **Section 5.3.1**.

Within each stage, details are provided as to the requirement for time restrictions and/or paid parking for on- and off-street parking in the City Centre.

The approach that is described in this section is the overarching direction for the Plan. In order to arrive at this outcome, there are a number of supporting actions that are required. These actions are described in **Section 6**.

5.2 Stage One

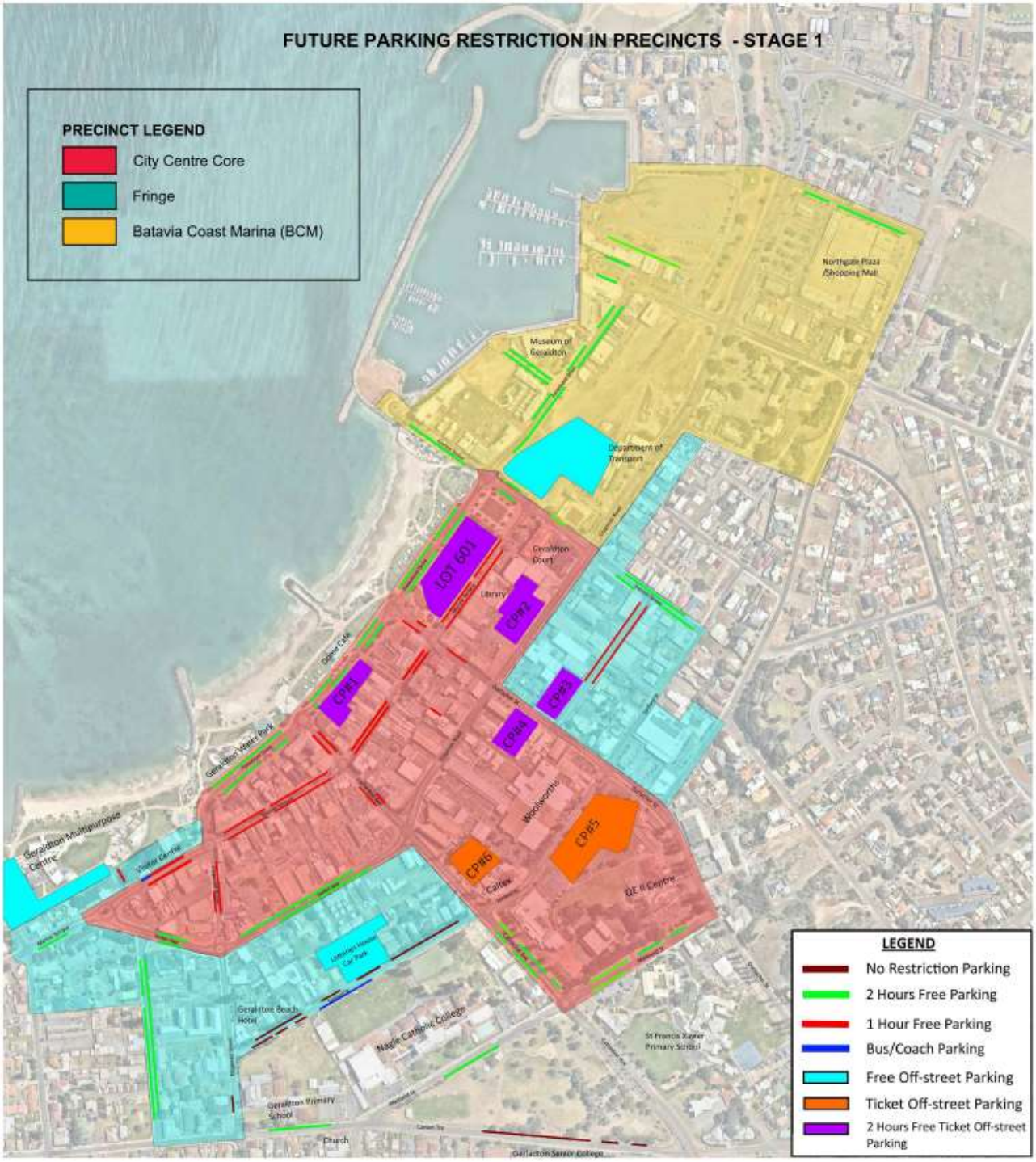


Figure 5-1 Parking Management Action Plan (Stage One)

5.2.2 On-Street Parking

5.2.2.1 1 Hour Free Parking

1-Hour free (1P) Parking would be provided on-street in the areas of highest short-stay demand including:

- City Centre Core:
  - Marine Terrace
  - Fitzgerald Street
  - Cathedral Avenue

- Durlacher Street.

> Fringe:

- Anzac Terrace.

Restricting these high value locations to 1 hour ensures that they experience regular turnover, meaning that they are available for more people, for more of the time. These locations currently have a mixture of time restrictions ranging from 15 minutes to 2 hours, which place an administrative burden on rangers trying to enforce them, confusion for people trying to use the spaces, and frustration for business owners and operators in those areas whose businesses have differing parking needs.

This approach clearly prioritises on-street spaces in high demand locations for shoppers and visitors, allowing them time to go about their business and then vacate the space for shoppers and visitors who come later.

These restrictions should apply 7 days per week in areas with consistently high demand.

5.2.2.2 2 Hour Free Parking

2-Hour free (2P) Parking is provided for shoppers and visitors to the City Centre who require longer periods of time to conduct their business, such as attend appointments or meet friends. These spaces can be located adjacent to higher-value 1P spaces to provide parkers with the option of walking a little further to their intended destination, but parking for longer (while still fee free). This 2P parking would be provided in the following locations:

> City Centre Core:

- Foreshore Drive
- Lester Avenue
- Cathedral Avenue (near the CGG offices)
- Maitland Street (near QEII Community Centre).

> Fringe:

- Marine Terrace (between Lester Avenue and Francis Street)
- Forrest Street
- Gregory Street.

> Batavia Coast Marina:

- All on-street parking locations.

These restrictions should apply 7 days per week in the City Centre Core and the BCM precincts, and Monday to Friday in the Fringe precinct.

5.2.2.3 Unrestricted Parking

There will be some locations which have no parking restrictions, such as:

> Sanford and Fitzgerald Streets (near the schools)

> Other streets outside of the City Centre precincts

> Some off-street parking locations (see **Sections 5.2.3.2** and **5.2.3.3**).

This provides an important supply of parking for all day parkers who are willing and able to walk a little further to their intended destinations, in locations where there is likely to be a low utilisation. Unrestricted parking retains the maximum flexibility of use, and is appropriate so long as there is sufficient parking available to satisfy the immediate needs of the adjacent land uses. Such locations should be promoted and signed to encourage their use, and can remain unrestricted 7 days per week until demand dictates a change in approach (triggered by parking survey findings).

5.2.3 Off-Street Parking

5.2.3.1 Parking Stations

To continue with the theme of streamlining parking restrictions, it is proposed that Parking Stations 1 to 4 set the same fees, with the fee capped to support all-day parking. The table below sets out the proposed fee breakdown.

Table 5-1 Parking Stations 1-4 – Proposed Fees

Duration of Stay	Fee
0-2 hours	Free
2-3 hours	$1.60
3-4 hours	$3.20
4-5 hours	$4.80
5-6 hours	$6.40
All day	$8.00

By implementing a pay scale such as this, users are still able to use the facility free of charge for durations of up to 2 hours. In addition, this proposes a slightly lower all day charge than is currently the case, which will encourage some longer stay users back to the parking stations, and off the street.

Parking Stations 5 and 6 can be maintained as the same fee level as Stations 1 to 4 (for constancy in Stage One). Alternatively, fees can be applied for all lengths of stay, in recognition of existing high demand. The table below sets out the proposed fee breakdown.

Table 5-2 Parking Stations 5 & 6 – Proposed Fees

Duration of Stay	Fee
0-1 hours	$1.20
1-2 hours	$2.40
2-3 hours	$3.60
3-4 hours	$4.80
4-5 hours	$6.00
5-6 hours	$7.20
All day	$8.40

Retaining the use of weekly permits should be at the discretion of the CGG. However, these forms of permit actively dissuade commuters from taking alternative transport. Long term, it is recommended that weekly and monthly permits be removed from circulation.

5.2.3.2 Lot 601

Figure 5-2 Lot 601

Lot 601 is currently an unpaved, unlined, and unsigned area of land between Foreshore Drive and Marine Terrace which has been made available for all day, unrestricted parking in the City Centre. Anecdotal evidence suggests that although this area is well used, it is rarely fully occupied.

If parking is to continue on Lot 601 into the future (prior to development), the location should be upgraded for use as such (see **Section 5.3.3.2**), and charges introduced in line with the other parking stations.

5.2.3.3 BCM2

Figure 5-3 BCM2

This area of land is similar to that at Lot 601 and is unlined, unsigned and unpaved. It is currently owned by Landcorp and intended for future development. It is located on the corner of Forrest Street and Foreshore Drive in the Batavia Coast Marina precinct and is the largest non-restricted area of parking within the City Centre. However, it is relatively remote and not well used.

At this stage it is proposed that no changes (in terms of parking) are required to this facility. However, changes to demand as a result of the proposed Stage One PMAP should be monitored. If long-stay parking demand shifts to this location (in preference to City Centre parking stations), parking restrictions or upgrade of the site may be required, depending on the development timescales for the site.

5.3 Stage Two

5.3.1 Trigger Points

The PMAP recommends that the CGG progresses paid parking for on- and off-street public parking facilities when occupancy of on-street parking bays is regularly over 85% during peak periods.

Paid parking would then be introduced at a street or block level, as well as in any adjacent public off-street parking facility (replacing the free 2-hour parking).

Adjustments to parking management, including paid parking, rely on effective operation of existing regulation. That is, changes should not be made until parking complies with the existing restrictions. Enforcement activities will inform when this is the case.

5.3.2 On-Street Parking

Since parking pricing is a mechanism to induce behaviour change and to create an efficient parking system, the introduction of parking fees should not take place for all on-street bays at once. Regular parking surveys and monitoring of compliance will identify locations which are suitable for parking fees. These will be those which are currently known to have the highest demand, and as fees are introduced, this demand will shift outwards, away from activity generators.

On-street parking fees should generally be set 15-20% *higher* than equivalent off-street parking charges, to reflect the premium nature of kerbside parking and to encourage drivers to use the off-street facilities. When applying this criterion, consideration should be given to adjacent streets where regular parking demand may rise as a result of the implementation of pay parking, and particularly in areas where demand already exceeds 85%.

The introduction of paid parking on street has the potential to result in spillover into neighbouring streets. Spillover parking effects can be addressed through introducing parking regulations and increasing enforcement in the affected locations. Using management, enforcement and pricing to address spillover problems has a varied impact on parking demand, and may result in shifting traffic patterns. Parking management guidance as described in **Section 0** should be used, as appropriate for the location.

Paid parking should generally apply between 8am and 5pm, Monday to Friday. Paid parking on weekends may be appropriate in locations where demand exceeds 85%, such as Durlacher Street (Forest Drive to Marine Terrace – as indicated by the 2010 surveys). 1P and 2P duration restrictions or escalating parking charges could be used to disincentivise these bays, and to redistribute long-stay parking to off-street facilities.

5.3.3 Off-Street Parking

5.3.3.1 Parking Stations

As mentioned in the previous section, parking charges will still apply in parking stations, however these should be set at lower rates than on-street. Ultimately, the desirable outcome is for the majority of medium to long stay parking to take place off-street or in on-street areas of low demand. Parking rates should therefore support the transition from on- to off-street and make parking stations more attractive through lower fees.

5.3.3.2 Lot 601

Redevelopment of Lot 601 into a formal parking station would require parking fees to be applied as in other off-street car parks.

5.3.3.3 Batavia Coast Marina

The conversion of this site into a car park (assuming development has not occurred, or been formally planned) could be considered, subject to occupancy at alternative off-street parking stations regularly exceeding 85%.

5.3.4 Parking Surveys

Following the implementation of Stage One, and a period of increased enforcement activities, the CGG should undertake a City Centre-wide parking survey. This would update the results of the 2010 survey and allow the CGG to assess any changes and take appropriate action to identify locations where parking charges should be introduced or modified.

6 Supporting Actions

This section outlines a number of key supporting actions which will ensure the PMAP is successful. These actions relate back to the objectives cited in **Section 1.3** which are:

a. Provide an adequate supply of short and long term car parking spaces that are conveniently located and are easily accessible to support the desired growth of the City Centre

b. Develop an integrated public and private car parking network, which is flexible to accommodate changes in car parking demands over time, and is respectful of the environment, traffic and pedestrian needs

c. Ensure that the provision of car parking facilities does not diminish the urban character, cause a loss of building stock or result in a poor urban design outcome

d. Ensure that an oversupply of car parking does not occur that discourages alternative forms of transport and actively promote these other sustainable modes of transport within the City Centre

e. Control and manage the car parking supply/demand balance through ownership of properties for the establishment of publicly available parking facilities

f. Actively encourage the minimisation of greenhouse emissions by designing parking and other associated facilities so as to encourage the use of alternative modes of transport (such as public transport, bicycling and walking)

g. Consider the potential impact of technological change and to provide policy measures in support of a robust, economically robust parking system.

6.1 Managing the Existing Parking Supply

6.1.1 CGG Operated Car Parks

The 2010 parking survey counted a supply of 1,119 spaces comprised of 678 on-street, and 441 in public car parks. This parking was generally well utilised, with overflow into informal car parking in or near the City Centre.

Prior to considering the purchase or construction of additional parking capacity, it is important to be aware of the true cost per space and any opportunity cost foregone if the land is used for parking. It is easier and cheaper to make better use of existing parking capacity than to construct more spaces. This can be achieved in many ways including improved enforcement and high quality presentation of car parks. It also includes unifying the management of adjoining small car parks (see **Section 6.1.2**).

Establishing policy mechanisms to fund shared or public car parking will have long term positive impacts on the economic sustainability of the City Centre. However, this need is tied directly to growth projections, and is not considered critical in the near-term.

ACTION

No additional parking supply is considered necessary.

Review parking ratios.

This responds to objectives d and e.

6.1.2 Privately Operated Car Parks

Several privately owned car parks provide separate bays for the various businesses in the centre they service. The boundaries of these various parking areas are not clear to drivers and the signage is confusing. The car parks are not well presented and the fragmentation of parking inevitably means that the available parking is not fully utilised.

Consolidating the management of parking under a single umbrella, managed by the CGG, allows a number of opportunities to be unlocked. Parking management regimes can be modified for the benefit of the precinct, rather than for an individual business; parking signage can be made consistent across the precinct; and the CGG can actively support more effective sharing of the parking, resulting in a perception of increased availability of public parking, etc.

This will result in more confidence of finding a bay, less congestion on the streets and more effective use of total parking supply.

A consistent approach to parking can be achieved by establishing a parking business unit within the CGG structure, which controls both the enforcement resources and parking management. Alternatively, the CGG can outsource enforcement and management to a third party, regulating the supply and demand intent only.

In either case, the CGG could approach the various lot owners to negotiate management of publicly accessible parking. The CGG's rights and obligations will need to be specified and some provision may need to be made for special users. The CGG will also need to expand its enforcement resources.

In exchange for the CGG receiving any infringement or other income that may be generated from these sites, the CGG may agree to reinvest in upgrading all of the sites with signage, lighting and other measures. The upgraded presentation and the consolidation of the management of off-street parking in the will yield benefits for all stakeholders including customers, retail and commercial tenants, landlords, the CGG and the general public.

ACTION

CGG to consider partnerships with private parking owners to support consolidated management and enforcement tasks.

This responds to objectives a and e.

6.1.3 Overflow Parking

The previous *Plan* recommended that the CGG confirm and publicise an overflow parking plan for special events and peak demand periods, and a template was provided (see **Appendix B**). This enables event managers and intense trip generators to identify practical methods of dealing with overflow parking issues, by reducing parking demand, traffic congestion and confusion.

An overflow parking plan requires the establishment and communication and marketing of alternative and remote parking facilities, combined with secure pedestrian access. Costs will include additional staff time, equipment and special services. The additional management and enforcement costs may be offset by increased income from pay parking and fines.

The overflow plan must be supported by effective enforcement systems. Increased enforcement should be applied in certain areas, especially at times or locations which attract crowds, and additional staff resources should be made available as appropriate.

ACTION

Promote the event parking management plan **(See Appendix B**).

This responds to objective f.

6.2 Time Restrictions

Time restrictions should be reviewed following implementation of Stage One and subsequent surveys to ensure that the time restrictions in place at the time are appropriate. Changes should be made and fees introduced or modified according to demand, in conjunction with the trigger points outlined in **Section 5.3.1**.

Time restrictions should be compatible with the land uses in the immediate vicinity and used in order to encourage appropriate turnover.

ACTION

Review time restrictions to ensure their adequacy in relation to the demand for parking in each area, and the level of demand. Paid parking can be used in combination with time restrictions to ensure turnover.

This responds to objective b.

6.3 Pricing

While the CGG wishes to encourage shoppers and visitors to the City Centre to stay for longer periods of time, the provision of free on-street parking in high-demand areas creates an inefficient parking environment and can be detrimental to economic outcomes.

By placing a monetary value on parking, the CGG creates an incentive for its visitors and residents to consider using other transport modes, supporting its objective of actively encouraging the minimisation of greenhouse emissions. This mechanism can also encourage turnover of parkers in high demand areas, supporting the strategy of prioritising public car parking for shoppers, tourists and visitors.

Private sector developers will be more inclined to provide efficient, shared off-site parking facilities if competing locations around them are paid, which reduces pressure on the CGG to fund City Centre parking.

The current level of income generated by paid parking ($392,000 in 2017) does not cover the cost of maintenance, enforcement, security and replacement of parking meters and signage. It is understood that the proposed Stage One measures suggested in this PMAP are likely to reduce this income in the short term. However, the intent of Stage One is to establish a baseline for demand to allow for better implementation of parking restrictions and paid parking over time. Periodic review of parking demand should be used to adjust parking fees, as a lever to achieve optimal parking function.

The introduction of paid parking on-street should be considered when regular peak hour demand is starting to exceed 85%. It is also important that this level of occupancy occurs with compliant parking. Adequate enforcement, therefore, will need to be ensured prior to any decision to implement paid parking. Parking enforcement hours should include all periods of high demand.

If the price of on-street parking is set to keep approximately 10-15% of spaces vacant, drivers will generally always be able to find a space at their destination. Furthermore, implementation of paid parking on-street is designed to save cruising time, reduce traffic, conserve energy, improve air quality and cover the cost of supplying and maintaining parking infrastructure. Ultimately, on-street parking fees should be 15-20% higher than equivalent off-street parking charges to reflect the premium nature of kerbside parking and to encourage drivers to use the off-street facilities.

Conversely, the appropriate price for parking may well be free. Where parking demand remains below 50%, even during the busiest peak periods, parking prices are likely set too high and should be reduced, to as little as $0.

When applying this criterion, consideration should be given to adjacent streets where regular parking demand may rise as a result of the implementation of pay parking in areas where demand already exceeds 85%. This will require regular surveys of parking demand in these areas, as suggested in **Section 6.1**.

This process, of changing the parking fee to achieve an optimal vacancy rate, is known as **demand responsive pricing**. This model is flexible and can permit different parking rates for weekdays and weekends, or by time of day. Generally, a benchmark for fee changes might be:

- When occupancy is 85-100 percent, the hourly rate should be increased
- When occupancy is 50-85 percent, the hourly rate should be retained and not be changed
- When occupancy is less than 50 percent, the hourly rate should be reduced.

Appendix C details how the City of Gold Coast has implemented policies to support Demand Responsive Pricing in Broadbeach and Burleigh Heads.

It is recommended that the CGG undertake a parking survey updating the 2010 survey to assess any changes and take appropriate action, and use the results, supplemented by additional surveys as required, to identify locations where parking charges should be introduced or increased, taking into account the trigger points outlined in **Section 5.3.1**.

ACTION

Use regular parking surveys to evaluate demand for parking, and as a tool for identifying trigger points for the introduction of paid parking.

Implement paid parking on-street, starting in areas with the highest demand. Utilise demand-responsive pricing to maximise parking efficiency.

Monitor the use of current payment systems to ensure they continue to be fit for purpose or identify new, more convenient systems as necessary.

This responds to objectives a, b, d and f.

6.4 Enforcement

The penalties for illegitimate parking are primarily related not to the size of the fine, but to the frequency of infringement. Increasing the level of enforcement has a much greater impact on compliance than increasing the size of the fine.

The CGG's Rangers have responsibility for parking (alongside many other inspectorial duties). They monitor parking using the Walk and Chalk method in non-metered areas which requires them to visit every parking space twice, and is made more complicated in areas with multiple time restrictions. This method is time-intensive and somewhat ineffective, putting additional pressure on Ranger resources.

Measures that improve the efficiency of parking enforcement, to allow rangers to cover more area and patrol more frequently, are extremely beneficial to the function of parking. Technology including number-plate recognition, electronic capture and reporting, occupancy surveillance, and ticket machines all assist to support better parking compliance.

The revenue for infringements should contribute firstly to the management and maintenance of the parking system, and any excess revenue transferred into a separate parking fund, to be used as expenditure on improvements towards car parking, public transport, pedestrian access, cycle facilities and infrastructure, especially where these will reduce the demand for parking.

The CGG would particularly benefit from improved parking enforcement technology, which would permit a more effective use of Rangers. On-street paid parking machines will not only provide revenue to support enforcement activities, but also clearly define duration of stay to improve accuracy. Paid parking ultimately results in a *decline* in revenue from infringements, as compliance improves, offset by direct revenue from parking fees.

ACTION

Increase funding to provide dedicated parking enforcement resources, including technology and personnel.

Introduce parking meters in critical locations to increase compliance.

This responds to objective e.

6.5 Parking Technology

The more convenient it is to pay for parking, the less of a burden it becomes for drivers. The current machines are solar powered and provide options to pay by coin or credit card. When implementing paid parking, the CGG should consider the expansion of current technology, or the installation of new parking technology, if appropriate, which will ensure flexibility in parking fees, provide a quality level of service to parkers, and link in with enforcement procedures to ensure they are available for those who need them.

Beneficial features could include the ability to pay by smart phone, and the integration with hand held enforcement machines which further reduce the time taken to inspect and issue an infringement.

Modern technology permits a variety of methods of calculating fees and charging for parking. Current technologies allow for parking machines to communicate with a central management system. The central management system provides alarms, status messages such as low paper, full cash box, etc., and complete audit facilities. Many recent large scale parking machine installations have opted for the wireless communication option. The benefits of increased up-time and reduced labour costs far outweigh the running costs.

As well as communication systems, best practice is to use solar powered, battery operated machines.

Installation of new machines can be achieved by a tender for a small number of machines, with a supply contract permitting the CGG to purchase additional machines at a fixed price over a three year period. There are several options for funding the purchase, including the supplier leasing the machines to the CGG so that their cost can be funded out of incremental income generated, rather than from the CGG's cash resources.

It is no longer necessary for organisations such as the CGG to allocate funds in advance of the purchase of pay parking meters. Most suppliers will provide finance arrangements whereby the cost of capital can be amortised over several years and paid for from the future income earned by the machines. It is estimated that the pay-back period for new meters in the CGG will be less than two years.

Feasibility studies, locations of machines, functionality of the equipment, various options for payment and key performance indicators for maintenance can all be incorporated into various stages of the tender process. It is recommended that the CGG obtain professional, independent assistance in this important process.

Effective enforcement is an important component of parking management. To be effective, parking enforcement must be frequent, fair and friendly, and fines must be high enough to enforce proper parking behaviour without being so high that they seem excessive.

A review of the enforcement regime as suggested in **Section 6.4** is necessary to ensure that parking is maintained for the use of customers as per the CGG's desired hierarchy. This improved enforcement will result in long-stay vehicles being relocated from the high demand city centre car parks and into more appropriate locations.

ACTION

Monitor the use of current payment systems to ensure they continue to be fit for purpose or identify new, more convenient systems as necessary.

Direct funds from infringements towards the cost of parking technology which links in with monitoring of compliance.

This responds to objective g.

6.6 Parking Surveys

While the CGG Rangers undertake regular patrols, there is no evidence that short term parking areas are not abused by long term parkers. Anecdotally, some retailers have identified that staff park close to their places of work in short term zones.

The CGG requires empirical data to reconcile with anecdotal information about parking demand and supply in the City Centre as well as duration of stay, compliance, and origin or destination of parkers. This data will be useful in many areas, including the development of policy and planning regulations, the determination of where parking supply is critical, and the setting of time and payment controls. In particular, it will assist in responding to many of the parking issues raised by different stakeholders, and identification of trigger points to introduce paid parking on-street in areas of high demand which are currently free.

More detailed surveys will provide additional information on car park and on-street usage, including matching the times of entry and exit of individual vehicles, and the opportunity for the CGG to obtain information on the postcode origin of vehicles using different parking facilities.

Parking surveys should be undertaken every six months by precinct in order to compare changes in demand and supply, wherever paid parking is currently or proposed to be implemented. Outside of the City Centre core area, parking surveys should be conducted at least every two years.

ACTION

Implement parking surveys to provide additional data on occupancy, duration of stay and compliance (6 monthly in the City Centre Core, and every two years on other precincts).

Results should form evidence to introduce paid parking, or to increase, decrease and retain parking fees, in line with the tenets of demand-responsive pricing.

This responds to objectives a and e.

6.7 Quality Parking Service

Parking is a means to an end, not an end in itself. However, parking is usually the first and last point of contact that a customer associates with a visit to the City Centre, and the quality of the service often has a significant impact on the customer's overall experience.

Parking facilities can be designed to be more attractive, with appropriate landscaping and detailing. This can be required in planning schemes or through the provision of incentives to encourage such designs.

Car parks are to be designed to minimise crash risk to vehicles and pedestrians and to provide personal security with appropriate visibility, lighting, patrols and alarms.

Walking routes between off-street parking facilities and key locations such as the City Centre core, community facilities and the foreshore, should be direct, safe and pleasant. Where feasible they should take the pedestrian past active shop frontages.

Where a parking building access crosses a footpath, the design should make it clear that pedestrians have priority over vehicles.

ACTION

Regularly audit all parking facilities to ensure they are safe and pleasant to use, and justify any charges.

This responds to objective c.

6.8 Parking Ratios

There are many different objectives that parking ratios may be trying to achieve.

Several of these different types of parking policies are described below, and discussed in the context of their flexibility and effect.

- Provide sufficient private parking to prevent overspill
- Support shared and public parking to maximise system efficiency
- Provide consolidated land-use standards for parking to reduce evaluation overheads
- Limit private parking supply to help achieve sustainability goals
- Establish parking capacity restrictions to limit impact on road network.

6.8.1 Preventing overspill

Minimum parking ratios are often used to reduce (or even eliminate) the impact of development on the surrounding network and adjacent land uses. By nature, these policies have generous parking standards, designed to accommodate the demand on all but the peak few days.

The resulting environment tends towards an excessive amount of parking. This degrades the economic viability of development by imposing additional land and construction costs, reduces the density of activity and makes the area less pedestrian friendly.

6.8.2 Maximise system efficiency

Parking ratios may be used to maximise efficiency: reducing the number of bays provided by individual lots below the natural demand rate and thereby intentionally generating overspill into more efficient public parking areas. This form of policy relies on available parking in the public realm, or paid parking management to regulate demand.

These parking ratios are assisted by shared, reciprocal and cash-in-lieu clauses to help create the desired framework for communal parking. The extent to which local governments support communal parking can be seen in how favourable these aspects of policy are to development.

Where public parking is at a sufficient level to accommodate the free, unrestrained demand, paid parking remains unviable (i.e. the natural price for parking is $0). However, this form of policy creates opportunities to introduce paid parking, reduce demand and hence construct fewer public spaces.

6.8.3 Reduced evaluation overheads

Parking demand varies greatly across land uses, so it would appear that any statutory parking ratios need to include many different land use categories. This has the advantage that the sufficiency of parking for the purpose of development approval is simple to calculate. However, there is often as much variability between different businesses as between different land uses. Therefore, defining fine-grained land-use categories (e.g. funeral home, vet clinic, etc.) and then prescribing a standard parking ratio can create a false certainty in the sufficiency of parking.

This implies that standardised parking ratios only make sense where there is a large body of evidence to support them, where there are more strategic goals to achieve, and where there are mechanisms to vary the requirements to suit individual needs.

This common goal can be accomplished in many different ways. The simplest, at least from a policy mechanism, is to apply a single parking rate across all land uses. The existing LPS1 has a minimum parking requirement in the regional centre zone of 1 bay per 35m^2 for all non-residential development. This requirement is not necessarily related to any intrinsic demand for parking and therefore may under- or over-supply parking for individual developments.

In this instance, it is possible that large-scale office uses would experience a parking surplus, while high-intensity uses such as restaurants and medical clinics may experience significant shortages. This outcome fits within the intended function of public parking in the Regional Centre. As such, the current 1 bay per 35m^2 parking rate is considered reasonable for the near-term horizon.

ACTION

Retain existing parking ratios within the near-term development horizon.

Review parking ratios as appropriate to reflect long-term development requirements.

This responds to objective d.

6.9 Development Approval Conditions Applying to Parking

Development Approval conditions currently:

- Aim to achieve the objectives of the *City Centre Transport Planning and Car Parking Strategy*
- Require a 'Travel Plan' to be provided
- Require on-site loading, where appropriate, or effective on-street loading can be established
- Require bicycle parking and end-of-trip facilities to be provided and sufficient to accommodate the anticipated need
- Require car parking for people with a disability to be provided in accordance with the Australian Standards.

ACTION

Regularly review Development Approval conditions to ensure these continue to align with objectives of the *City Centre Transport Planning and Car Parking Strategy.*

This responds objective b.

6.10 Cash-in-Lieu

Cash-in-lieu of parking can provide an attractive alternative to developers with regard to parking requirements. This arrangement can also benefit the wider community through the supply of publicly and equitably managed parking for the use of high-value or highest-need parkers. Factors to be addressed by the CGG in considering entering into a cash-in-lieu arrangement include, but are not limited to, the following:

- Consistency with the objectives of LPS1
- Requirements/concerns of commenting agencies
- Consistency with the objectives of the *City Centre Transport Planning and Car Parking Strategy*
- Whether there is an identified local government interest in providing public parking facilities in the immediate area
- The timing for the delivery of the public parking facilities and the adequacy of alternatives to on-site parking until public parking facilities are delivered
- Whether on-site parking deficiencies would result in a hardship for the site or surrounding area
- Ability of the site to accommodate the proposed development, based on the available supply of parking
- The number of spaces proposed to be considered for payment-in-lieu.

The current CGG cash-in-lieu policy requires developers to pay the full cost of the parking bay and land area, which generally results in little or no uptake of the offer. This is because the value of a parking bay which the developers do not own or control has less value than the cost of building one on their own land over which they then have full control.

As an alternative, the CGG could set the cash-in-lieu rate at a portion of the estimated cost of providing a public parking bay. A representative benchmark policy might include the following steps:

1. Identify existing or new locations for public parking infrastructure within reasonable proximity of the development.
2. Assess the cost to the CGG of providing a single car parking bay, under the following criteria:
    a. **At-grade parking:** Land value + surface car parking infrastructure cost (lighting, asphalt, kerbing and linemarking etc.) / # bays
    b. **Decked Parking:** Construction cost of decked structure / # bays
3. Set the developer cost for cash-in-lieu at 75% of the cost to the CGG. This discount is to:
    - Provide a financial incentive for developers to contribute to the creation of strategically located public parking facilities
    - Recognise that the CGG will be able to recover some of the costs through user fees
    - Recognise that parking spaces are not allocated to specific users on a reserved basis, although the general supply will be available to meet demand
    - Recognise that the contributor will not have an ownership interest in the public parking facilities
    - Recognise that the parking may not be as conveniently located to a specific development compared to on-site or other nearby parking facilities
    - Recognise that all or a portion of the parking may not be constructed at the same time as the development
    - Recognise that the developer will not have any control over parking fees and use regulations.

It is important to note that the success of cash-in-lieu parking arrangements can be substantially compromised if the CGG approves parking concessions in order to relieve owners from their obligation to provide car parking according to the planning requirements. Concessions should only be approved where the applicant can clearly demonstrate that the parking requirement exceeds the likely generation of the development.

Should the CGG approve a concession because it is technically justifiable, the CGG may still allow developers to use the cash-in-lieu program to further reduce the amount of parking required on-site.

The decision to accept cash-in-lieu should remain at the discretion of the CGG and not become an automatic right. This will allow the CGG to ensure that if it accepts cash-in-lieu payments there is a reasonable expectation that municipal parking is ***already*** available to serve the development, or that the CGG will be able to provide a supply increase in the short term.

It is also necessary to ensure that planning for the provision of future parking structures is transparent and that contributors to the cash-in-lieu fund are given clear indication as to what their payments are funding. This will ensure that developers continue to see benefits in contributing towards public parking, over the intrinsic advantages visible on-site.

ACTION

Consider modifying cash-in-lieu provisions to incentivise shared off-street public parking.

This responds to objective b and g.

Regardless of the mechanism for funding, either through developer contributions, parking fees and fines or other public monies, it is important that the revenues and costs from parking-related activities be accounted for under one umbrella, out of which the planning, upgrading and management of car parking facilities would be funded (see **Section 0**). This allows for reasonable modifications to the management structure, pricing regimes, infrastructure and maintenance, enforcement and compliance activities to be resolved in a transparent system with full accounting of the costs and benefits provided. This will then form the foundation for assessment of the requirements for cash-in-lieu payments by developers as well as determining and varying parking restrictions and pricing schemes based upon location, time of day and seasonal factors.

Accounting for all financial aspects of parking will enable a much greater appreciation for the real costs of providing this service to the community.

6.11 Shared Parking

There are a number of pockets of off-street parking in Geraldton which are not well utilised due to restrictive management. These bays may be restricted for use by individuals, tenants, employees or business-specific customers, but overall the result is a reduction in the functional supply of parking in the City Centre.

Improving the use of such car parks can be achieved by allowing public use outside of peak operating hours, supported by clear signage, access and parking guidance.

This form parking management mechanism relieves pressure on commercial tenants and the CGG to provide additional parking.

ACTION

Liaise with local business owners to promote the shared use of car parks, using up to date parking survey data to help identify suitable locations.

This responds objective b and e.

6.12 Special Uses

6.12.1 Motorcycle parking

The previous *Plan* recommended that public car parks initially assume that 2% of vehicles are motorcycles or scooters. It is not clear yet whether this provision has been rolled out across the City Centre's parking facilities, however future parking surveys should identify the total available bays for motorcycles so that the CGG can prioritise locations where provision should be increased based on demand. Where demand requires, preference should be given to converting motor car spaces to motorcycle or scooter parking.

6.12.2 Tourist Vehicles

On-street locations for long vehicles, as well as designated off-street bays, are necessary to support and promote Geraldton as a tourist destination. These locations should be identified on tourist brochures and clearly marked by parking and wayfinding signage.

6.12.3 Bicycle parking

LPS1 outlines that for all development in the Regional Centre zone, there should be 1 bike parking bay for every 10 car parking spaces. This is generally considered to be an appropriate benchmark, provided facilities are constructed to meet the needs of the target group (visitors, tourists, employees, etc.).

Public bicycle parking is important to ensure that the City Centre is accessible by active modes. In this instance, a demand-driven response is recommended. Wherever bike parking demands exceed the number of racks, expand the provision by installing new ones. U-rails are cheap, space efficient and easy to install.

ACTION

Establish a program for progressive installation of bike racks in public spaces.

This relates to objective f.

6.13 Wayfinding and Signage

The effectiveness of parking is greatly improved through supplying better information to users. This information is typically provided in a range of media, including maps, mobile applications, static and dynamic signage and prominent parking information.

In locations where parking is hidden from view, information regarding its location, access route, price and availability allows drivers to better choose the best spot for their needs.

A coherent signage strategy is therefore recommended across the City Centre, identifying off-street car parking supplies and significant on-street parking. This may be implemented in stages:

- **Stage 1**: Static wayfinding signage displaying only route/location and supply numbers, design of signage consistent for on-street and off-street.

- **Stage 2**: Dynamic signage which leverages real-time information from 'pods' or entry sensors to inform drivers of parking spaces available (including price where applicable).
- **Stage 3**: Mobile application directing drivers to specific locations based on price, availability, location and duration information.

Dynamic signage and mobile applications both require a great deal of infrastructure and it is arguable whether demand in the City Centre warrants the investment in such infrastructure at present, as they need a density of real-time data to function. However, the collection of this data is consistent with the concept of Demand Responsive Pricing, which creates an environment for highly efficient parking function and should be considered for the future as demand dictates.

ACTION

Produce a Wayfinding strategy for parking, which should feature customer led information including walking distances and times to various nearby destinations.

Assess when dynamic signage might be appropriate using parking survey data as a way of identifying where high occupancy may be reduced by better information regarding suitable alternative parking locations.

Direct parking related funds towards wayfinding infrastructure.

This responds to objective f.

6.14 Education

The broader environmental, economic and social impacts of parking are rarely understood or appreciated by motorists. The clamour for 'more parking' has been allowed to develop without any communication of its negative effects and growing unsustainability. An improved and ongoing campaign of communication on the unsustainability of current parking practices and on the benefits of parking management is required.

Everyone who drives a car is a stakeholder. The education program needs to be aimed at all stakeholders including planners, developers, designers, retailers, tenants, elected officials and council officers, business and community groups, schools, residents, visitors, commuters, and the general public.

It is recommended that education on the need for and benefits of managing parking demand should be available and regularly communicated in the CGG publications. As a minimum, it should deal with the following issues:

- Drivers cannot expect unlimited parking close to their destination
- Unlimited supply has environmental, social and economic drawbacks
- The principle of user pay, as free parking has a high direct and indirect cost
- Need for sustainability planning
- The provision of long term employee parking away from the inner core of high activity centres
- Benefits of improved compliance
- Options for reinvestment of income from parking services and cash-in-lieu into improving transport infrastructure.

The CGG can also offer to enforce parking regulations on private property, allowing the CGG to collect additional income and be reimbursed the costs of the necessary additional resources. In order to provide this regularly requested service and to improve parking compliance generally, it is recommended that the CGG dedicate additional resources for parking inspection and enforcement.

Another option involves the provision of information on parking availability and price using signage, brochures and maps, websites, and parking information incorporated into general marketing materials. There may also be opportunities to provide real-time information on the location of available parking spaces although providing this information can be difficult to obtain and expensive. However, good parking information tends to reduce motorist delay and frustration and increase the satisfaction of drivers parking in an area.

This is a strategy that is planned to be implemented in Geraldton – with parking and wayfinding directional signage installed on the approaches to the City Centre and a brochure developed to detail the parking restrictions. Both the signage and printed information need to be reviewed and parking information provided through the CGG website. Also, the development of multi-modal access guides (to provide concise

directions to a particular destination by walking, cycling, driving and public transport and including details on parking availability and price) should be developed for all CGG venues and printed on the back of business cards, included with event invitations and available on the CGG website.

ACTION

Expand current educational materials to incorporate wayfinding and multi-modal access.

Consider the value of dynamic wayfinding and paid parking integration as part of education and behaviour change.

This relates to objective f.

6.15 Future Parking Provision

As with all cities, Geraldton has a large quantum of parking located in less convenient places and insufficient parking within certain 'hotspot' locations. The implementation of paid parking will assist to disperse the demand across a wider area, increasing the efficiency of the parking system.

The provision of multi-level public parking facilities is not considered to be warranted in the short or medium term (1-10 years), based on current usage and development projections.

However, in the event that parking demand increases as a result of development, the redevelopment of at-grade car parking to a public multi-deck facility would allow for demand growth while retaining a level of robustness to accommodate a potential future 'demand-collapse' scenario.

ACTION

No additional parking supply is considered necessary.

This relates to objective d, e and g.

7 Implementation Plan

The following table provides an outline of the actions proposed within this *Plan*. These actions are intended to form part of an integrated plan to minimise the use of the private vehicle and to inform the Geraldton community of the opportunities and benefits of alternatives.

It is envisaged that the implementation of these actions will result in increasing the use of alternative modes of transport, improving the turnover of parking spaces, and ensuring sustainable access to the City Centre.

Table 7-1 Implementation Plan

Action	Timeframe (Stage One/Stage Two/Long term)	Fundamental to the Success of the Plan?
Review parking signage and alter in areas affected by changes.	Stage One	✓
Review directional signage and provide additional signs to all day parking areas and for RVs.	Stage One	✓
Review parking brochure and update to reflect changes in parking restrictions and pricing.	Stage One	✓
Undertake a City-wide parking survey within 3 months (off peak and peak) of implementation of Stage One.	Stage One	✓
Monitor and enforce parking within the City Centre core on a regular basis until compliance is achieved.	Stage One and ongoing	✓
The CGG to consider partnerships with private parking owners to support consolidated management and enforcement tasks.	Stage One	
Promote the event parking management plan.	Stage One and ongoing	
Review time restrictions to ensure their adequacy in relation to the demand for parking in each area, and the level of demand. Paid parking can be used in combination with time restrictions to ensure turnover. Use regular parking surveys to evaluate demand for parking, and as a tool for identifying trigger points for the introduction of paid parking.	Stage One and ongoing	✓
Monitor the use of current payment systems to ensure they continue to be fit for purpose or identify new, more convenient systems as necessary.	Stage One and ongoing	
Increase funding for parking enforcement resources, including technology and personnel.	Stage One and ongoing	
Introduce parking meters in critical locations to increase compliance.	Stage Two – locations depending on findings from parking surveys	
Direct funds from infringements towards the cost of parking technology which links in with monitoring of compliance.	Stage One and ongoing	✓
Implement parking surveys to provide additional data on occupancy, duration of stay and compliance (6 monthly in the City Centre core, and every 2 years on other precincts).	Stage One and ongoing	✓
Results should form evidence to introduce paid parking, or to increase/decrease/retain parking fees, in line with the intent of demand-responsive pricing.	Stage One, Stage Two and ongoing	✓
Regularly audit all parking facilities to ensure they are safe and pleasant to use, and justify any charges.	Stage One and ongoing	✓
Retain existing parking ratios within the near-term development horizon. Review parking ratios as appropriate to reflect long-term development requirements.	Stage One and ongoing	✓

Regularly review planning consent conditions to ensure these continue to align with objectives of the *City Centre Transport Planning and Car Parking Strategy*.	Stage One and ongoing	
Consider modifying cash-in-lieu provisions to incentivise shared off-street public parking.	Stage One and ongoing	
Liaise with local business owners to promote the shared use of car parks, using up to date parking survey data to help identify suitable locations.	Stage One and ongoing	
Establish a program for progressive installation of bike racks in public spaces.	Stage One and ongoing	
Produce a Wayfinding strategy for parking, which should feature customer led information including walking distances and times to various nearby destinations.	Stage One and ongoing	✓
Direct parking related funds towards wayfinding infrastructure.	Stage One and ongoing	
Expand current educational materials to incorporate wayfinding and multi-modal access.	Stage One and ongoing	✓
Implement paid parking on-street, starting in areas with the highest demand.	Stage Two and ongoing as appropriate	✓
Establish a Demand Responsive Pricing policy to create the mechanisms to use this tool to maximise parking efficiency.	Stage Two	
Assess when dynamic signage might be appropriate, using parking survey data as a way of identifying where high occupancy may be reduced by better information regarding suitable alternative parking locations.	Long Term	
Consider the value of dynamic wayfinding and paid parking integration as part of education and behaviour change.	Long Term	

8 Conclusions

This update to the *City Centre Parking Management Plan* reflects the changes in Geraldton over the past 5 years and reconsiders the parking needs of issues of the City Centre. Recommendations have been made to improve the use of parking, making access to retail, entertainment and employment destinations easier.

Throughout this *Plan* the focus is on better using the existing supply of on-street and off-street parking, employing parking pricing as a travel demand measure to increase the efficiency of parking, and to ensure better availability for retail and visitor parking in the City Centre core.

Parking acts as a facilitator for vehicle transportation; car parks are not a destination in themselves. Parking management must therefore consider the needs of employees, retailers, residents, visitors and other groups, to assist in their travel to activities and their access to services. Planning for parking should consider the allocation of space for loading zones, bus stops and taxi ranks, people with diabilities, motorcycles and bicycles.

The supply of parking comes at a considerable cost to the community, through the space consumed and the opportunity costs in terms of reduced pedestrian-scale amenity and development potential. The provision of parking also has a direct and indirect economic cost, which must be borne by residents, tenants, employees and visitors.

Parking issues may be resolved through supply or demand measures. Supply-side interventions deal with determining the number of spaces available, and must contend with the expectation that organisations provide ever-more parking. Demand-side interventions deal with improving the efficiency and effectiveness of parking. Better management will result in optimisation of parking resources, and will assist in achieving the CGG's strategic planning objectives.

Historic surveys of peak parking occupancy across the Study Area show that the City Centre does not have a ***parking supply*** problem, so much as a ***parking management*** problem. This *Plan* provides an implementation strategy to transition the City Centre towards a more efficient, people-focused parking supply which supports its economic and social objectives.

APPENDIX

A

PARKING QUERIES FROM CGG OFFICERS

Item	Comment
Turning all car parks into 2 hrs free to encourage shoppers to stay longer in the City Centre.	All parking stations are 2 hrs free ticket parking with the exception of 5 & 6 if required.
Only applying the above initiatives into certain carparks used by shoppers, however excluding Carpark 5 & 6 remain as full fee paying.	
Changing on-street parking in Marine Terrace to a consistent two hours free (currently a mix of 30 mins and 1 hour in different sections).	This plan proposes a 1 hour free parking restriction along the entirety of Marine Terrace
Some restrictions on street are the result of adjoining business pressure.	Restrictions should be as a result of findings from parking surveys which seek to identify the parking hotspots and encourage appropriate use of parking facilities. 1 hr free on-street parking in hotspots will create a level playing field for businesses; when the time is right for paid on-street parking customers will seek out the parking that best suits their needs.
We believe policing of the parking still needs to occur as we have found when resources are limited for enforcement overstays rise significantly and lead to adjoining business complaints but open to suggestions/ alternatives.	Enforcement is fundamental to managing parking effectively.
Marine Terrace has a mix of businesses that have conflicting needs e.g. cafes/ restaurants like longer parking times, unless they do a lot of takeways, Chemists etc. prefer 30mins	It is proposed that the whole of Marine Terrace is subject to 1 hour parking during stage one, to encourage a high level of turnover, and to reduce confusion.
Changing the hours at one carpark can have a detrimental impact on immediate surrounding business e.g. temporary all day free parking on Station 3 increased its use to near on 100% use but for all day parkers and local restaurants claim it impacted significantly on their trade as customers had nowhere to park. And Foreshore Drive parking on Ocean side as for visitors to the foreshore but no restrictions initially saw it used for all day parking.	Stage one of the PMAP is structured in order to encourage particular parking behaviour in particular locations. Parking without restrictions should be located at the fringes of the City Centre to cater for all day parkers, whereas more desirable bays in the heart of the City Centre should be designed to have higher turnover, whether this is through shorter durations of stay or the implementation of paid parking.
Parking needs to be holistically examined to assess the impacts both locally and across the City Centre, Lot 601 getting significant use for all day parking defeating the intention to assist Marine Terrace traders and customers.	The availability of free and unrestricted parking at Lot 601 is undermining the official car parking facilities in the City Centre. It is proposed that following its upgrade, parking at Lot 601 is paid, as with parking stations 1 to 4.
Some business operators/ workers seem more concerned to get a closer bay for themselves that the needs of customers (parking infringements verify this thinking with repeat offenders from those businesses yet complain about lack of parking for their business).	Increasing the frequency of enforcement will have a much greater impact on compliance and all day parking will shift to appropriate locations, particularly when paid parking is introduced.
Review of walk & chalk process maybe seeking some guidance on current effective alternatives elsewhere.	Consider parking enforcement technology such as pay-by-plate, mobile pay, ANPR, electronic capture and reporting, occupancy surveillance and ticket machines all assist to support better parking compliance.
Review of City signage both in carparks and with on street (the latter to look at legal options to be able to enforce but decrease signage saturation currently in the City Centre (ties in nicely with vibrancy?).	This is out of the scope of this report but the CGG would certainly benefit from a review of signage in the City Centre, as proposed in the previous Plan.
Parklets any suggestions/ criteria	In agreement with policies referenced within the Revitalisation Plan.
Motorcycle friendly concepts especially around MC parking.	The previous *Plan* recommended that public car parks initially assume that 2% of vehicles are motorcycles or scooters. It is not clear yet whether this provision has been rolled out across the City Centre's parking facilities, however future parking surveys should identify the total available bays for motorcycles and the CGG can prioritise

	locations where provision should be increased based on demand. Where demand requires, preference should be given to converting motor car spaces to motorcycle or scooter parking.
Any thoughts you may have on RV's/ Wicked campervan parking they may have picked up on their investigations elsewhere (this is optional given Council's direction but would be good to have some informed comment especially given the competing interests near the boat ramp & GMC areas.	On-street locations for long vehicles, as well as designated off-street bays, are necessary to support and promote Geraldton as a tourist destination. There is existing oversize vehicle provision in parking station 5 and in the Francis Street Car Park. BCM2 could be considered for RV parking at times of high demand. Directional signage to such parking should be provided at key points on the road network. These locations should be identified on tourist brochures and clearly marked by parking and wayfinding signage.
The loading bay for the Visitor Centre is in front of Stingers Fish & Chip shop, can this be returned to normal (short term?) on-street parking bays to offset item below	1 hr parking in line with parking on Marine Tce.
Can a couple of the parking bays immediately out front of the Visitor Centre be changed to dedicated bus / coach parking only	Done.
The bays in location 3 currently have no time restrictions, can these be changed to short term Visitor Centre parking only in line with the wider City Centre parking.	Done – 1 hr parking.
Post office lane currently provides a one way link from Marine Terrace to Chapman Road that also provides access to a business, the Telstra yard and a couple of parking bays. As this will become primarily a pedestrian space, is there a better traffic management option given that access for the business and Telstra must remain as a minimum?	Turn it into a Shared Space with appropriate signage denoting the low speed nature of the laneway and concentrate on making pedestrian spaces attractive and comfortable.
The Rocks laneway will essentially provide a pedestrian connection from the art gallery to the breakwater. Is there anything we can do in the CCPMP to incentivise parking at the foreshore and the back of the gallery to help activate and encourage use of this laneway space?	Short stay parking prices in parking stations 1 to 4 (in the vicinity of the laneway) will be more attractive for shorter stays than other parking stations.

APPENDIX

B

EVENT MANAGEMENT PLAN

Background

Event parking management plans reduce parking demand and traffic congestion and confusion. They are particularly appropriate at any location where peak parking demands create problems.

They require the establishment, communication and marketing of alternative and remote parking facilities, combined with secure pedestrian access. Costs will include additional staff time, equipment and special services.

The CGG needs to establish and clearly communicate clear rules to inform drivers where and when they may or may not park. This requires not only clearer signage, but also advance notification of nearby options (wayfinding signage and maps).

Any event management parking plan requires the allocation of sufficient resources for both the planning and the implementation stages. These include not only labour and supervision, but signage, liaison with other organisations (e.g. the police), technology for communications, and prior dissemination of information in the media to those attending the event as well other persons or businesses that may be affected by traffic and parking management associated with the event. The cost of additional resources should be recoverable wherever possible from the event organisers.

Overview

This Plan provides a checklist of the issues that need to be addressed by specific procedures by which transportation and parking issues related to large events in the City of Greater Geraldton will be handled. It will describe how vehicular and pedestrian activity in the vicinity of the event will be controlled, and also the methods of minimising traffic and parking impacts in the neighbouring communities.

Drivers coming to and departing from the event will be encouraged to use specific routes and preferred parking facilities. This goal will be achieved through a combination of pre-selling parking spaces, permanent signage, changeable message signs, media releases, and mass marketing programs designed to inform the public and event attendees about these travel routes and parking facilities.

The use of various temporary traffic control devices, in conjunction with the deployment of traffic police close to the venue, will give priority to the established travel routes, thereby minimising traffic and parking impacts on the neighbouring communities.

The following issues should be considered for all major events which will have an impact on parking and traffic in the precinct.

1. **Constraints**

The Plan is subject to the following constraints:

No access from …… (specify the routes)

Keep existing public transit routes open.

Avoid sending traffic into streets which are already congested during weekend/evening hours and also have a large number of pedestrians.

Minimise vehicle/pedestrian flow conflicts as much as possible. Large numbers of pedestrians and vehicles will be arriving and leaving the event at the same time. To protect pedestrians and to keep traffic flowing, areas of conflict should be kept to a minimum.

Direct traffic away from streets which pass through adjacent neighbourhoods. Event-related vehicular usage of these streets will be discouraged.

Discourage or prohibit event attendees from parking on-street in surrounding communities.

2. **Geographic and timeframe definitions**

The Plan will focus on traffic and parking impacts in several areas. Insert a detailed map of the area and its boundaries.

3. **Resources**

Determine the staff and external support required and ensure staff are:

- Uniformed, identifying them as a parking and traffic officer
- Trained, particularly what to do in an emergency
- Have suitable communication equipment

- Are made aware of other staff and other organisations, such as traffic police and ambulance officers, that are on duty at the event.

4. **Parking supply**

Detail the number of on- and off-street parking spaces available.

5. **Parking zones and times**

Define the zones and the applicable times for the event.

6. **Preferred access routes**

Detail these for both inbound and outbound traffic.

7. **Traffic flow & control – inbound**

The CGG is to implement comprehensive and intensive public information programs to educate all event attendees about the options for driving to the event area.

8. **Traffic flow & control – outbound**

Immediately following an event, there will be a large number of pedestrians departing and moving toward their cars, buses, and downtown businesses. The dispersal of pedestrians into the commercial streets will be a significant factor in minimising the number of pedestrian/vehicle conflict points. In the first minutes at the end of an event, when the greatest numbers of attendees are departing, some streets immediately surrounding may need to be closed to vehicular traffic to facilitate this dispersal.

9. **Pricing**

Wherever possible, parking should be paid for in advance at a fixed fee for the duration of the event and for at least 3 hours thereafter. If meters are used, their normal per hour fee structure should be adjusted for the event. Payment should be simple, convenient and easy to understand (e.g. $10).

Payment for parking will recover some of the additional costs incurred in managing the event.

10. **Public information program**

The event organisers are to ensure that the general public and ticket holders are fully informed regarding all features of the transportation and parking plan for the venue.

A public information plan will utilise the event organisers' communications resources to inform and educate the public. Major features of this program will include printed materials, on-line information, media exposure (print, radio and television) and other information sources.

10.1 Printed materials

The organisers are to produce printed materials detailing information regarding parking and transportation for the venue. Information to be included will be locations of available parking facilities modes of public transit, suggested vehicular and recommended pedestrian ingress and egress routes. Printed information will also present maps, parking prices and costs for the various modes of transportation.

The printed materials will be widely distributed well in advance of the event. In addition, they will be available to the general public and be mailed to all season ticket holders and other ticket purchasers as necessary.

10.2 Online information

The event organisers are to make transportation and parking information for the venue available on the associated web page through a variety of links, including but not limited to their home page.

10.3 City of Greater Geraldton home page

This is to include a Traffic Information Page. Addresses for online links will be listed on event organisers' printed materials as they relate to transportation and parking.

10.4 Radio/television

The event organiser is to use both television and radio to communicate information regarding the venue and parking transportation and parking.

Television may be used to promote the key messages of the transportation and parking plans for the event as well as promoting available modes of transportation with clear instructions on how this information may be obtained. Radio/SMS may be used to assist by relaying real time information and current traffic reports.

11. **Information at the event**

A comprehensive communication program will also include messages at the venue to keep the public informed. Screens are to be located inside and around the venue providing transportation-related information.

Scoreboard/stage messages and public address announcements may be used to communicate messages specific to parking operations.

Finally, the event organiser is to employ trained and supervised ‘Customer Assistance Officers’ throughout the nearby areas and at the venue to answer questions and offer assistance regarding transportation and parking.

APPENDIX

C

DEMAND RESPONSIVE PRICING IN THE CITY OF GOLD COAST

3.3 Demand Responsive Pricing Policy

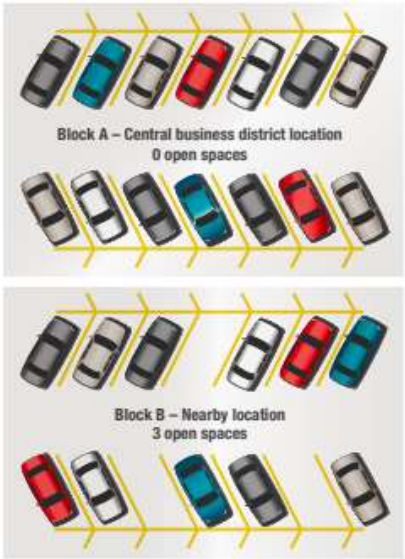
3.3.1 Background

The practice of managing and pricing on-street parking according to actual demand is known as 'demand responsive pricing' (DRP). DRP utilises the real time/place demand data from new technologies to create a legible, equitable and consistent pricing mechanism to maximise parking space turnover and improve parking availability.

DRP shifts some vehicles to cheaper and quieter streets to make more parking available in busier streets and adjusts pricing according to demand through the day or week. Achieving an occupancy rate of between 60 and 80 per cent of car parking in the street ensures that one or two car parks are available on the block at any one time.

DRP programs are increasingly used in urban centres similar to Gold Coast centres. An ongoing in San Francisco centres uses real-time/place demand data to set prices for two or three hour blocks according to the demand for parking in those times and places (see Figure 12). For example one centre may require high turnover, short term parking for busy lunch times, evenings and weekends while another centre may have a stronger office function and rely on longer term parking and short-term visitor parking. Parking demand is variable across a centre, time, week and/or season and variable pricing is an effective way to manage this demand.

Before demand responsive pricing



After demand responsive pricing

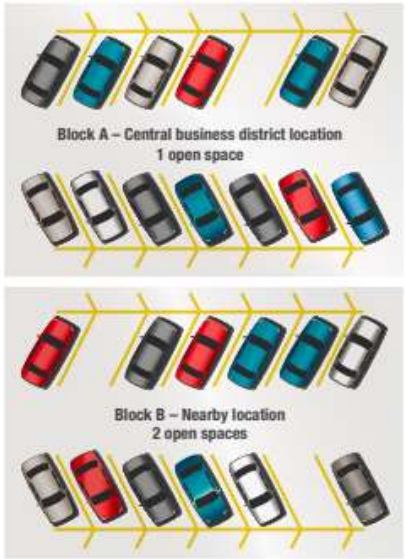


Figure 12 – Goal of the right price for parking

3.3.2 Interim DRP Framework and Pilots

The demand responsive pricing policy will ensure:

- the price of on-street parking locates the right type of parking in the right location by being:
  - location-based (on a precinct or street-by-street basis)
  - time of day responsive (morning, afternoon and evening rates)
  - seasonal (summer/spring vs. winter/autumn).
- Paid on-street parking will be introduced into a centre when 80 per cent occupancy is consistently reached in peak periods, based on data and evidence.

The policy will be implemented via the PICS and supported by detailed demand data provided by integrated parking technologies and the parking investment policy.

Case Study – SF Park, San Francisco

"SF Park" sought to increase parking convenience in centres. The pilot used wireless, real-time parking technologies to provide detailed parking demand data that was used to adjust regulation and/or the parking price on a block-by-block basis.

A June 2014 evaluation reported that:

- Even as the economy, population and overall parking demand grew, parking availability improved dramatically. Target parking occupancy (60 to 80 per cent) increased by 31 per cent in pilot areas, compared to a six per cent increase in control areas.
- The level of availability in paid parking areas nearly doubled.
- The phased process of price change involved parking demand data being reviewed every three months. Where parking demand in a block section exceeded 80 per cent, in a time band, the price of parking was increased by 25 cents. Over time, parking demand in that block dropped below the 80 per cent point ensuring that parking redistributed across the area and high demand parking spaces were available for others.
- Where the data showed that demand for parking was lower than 60 per cent, the price of parking would decrease and in turn the demand for that space would increase. The bottom line benefit for the public was to have increased convenience of parking in the centre.

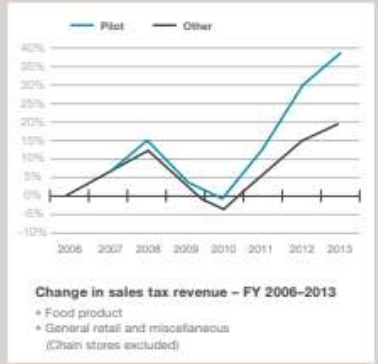


Figure 13 – Impact of demand responsive pricing on search time and visitor spending. Source: SFMTA, 2014

Key action: Demand Responsive Pricing Policy		Indicative implementation timeframe					
		2014–15	2015–16	2016–18	2018–20	Lead	Support
9	**Setting the right price** **Ensure that the parking price locates the right type of parking in the right location:**						
a.	Review parking prices in Fees and Charges Schedule to reflect aggregated demand data by suburb (or precinct)					City Planning Branch	HR & LS, Transport & Traffic Branch, Community Venues & Services Branch
b.	Undertake PICS pilot in Broadbeach and Burleigh Heads for 24 months from July 2015 to trial Demand Responsive Pricing and review after 12 and 24 months to ensure the policy outcomes are appropriate. PICS pilots parking fees are to increase or decrease no more than $0.20 per quarter (supported by actions 4 and 11)						
c.	Review DRP policy via the PICS Pilots to ensure policy outcomes are appropriate						
d.	Explore alternative pricing mechanisms such as progressive pricing, seasonal adjustments and event price overlays						
e.	Price off-street parking assets according to commercial requirements						
f.	Review the value of subsidies/gifts from City owned parking.						
Paid parking will be introduced into a centre when 80 per cent occupancy is reached in peak periods, based on data and evidence.							