



Catani
Gardens and
Southern
Foreshore
Management
Plan . . .

Management Plan
March 2010





fitzgerald
frisby
landscape
architecture

*Cover photograph, and
other unreferenced
photographs except historic
and aerial photographs by
FFLA.*

executive summary

The City of Port Phillip (CoPP) appointed a consortium of specialist planning consultants to develop a Management Plan for Catani Gardens and the Southern Foreshore.

The Management Plan will be used to provide Council with operational guidance on the future use, maintenance and management of the reserve precinct as well as longer term direction on strategic development where appropriate. Critical to the Management Plan is the recognition of the heritage significance of the site (particularly Catani Gardens) and development of operational directions to enhance the maintenance and preservation of key features.

The Catani Gardens and Southern Foreshore precinct services local residents, whilst also fulfilling a broader regional role as an iconic tourist destination (i.e. St Kilda beach). The area is synonymous with the character of the region and responds to people's need for places to rest, recreate and be inspired. The Management Plan will therefore reinforce the importance of the site in terms of its contribution to the character of the City (Port Phillip and Melbourne) and respond to regional tourism and recreational pressures.

The project brief describes the study area as follows:

The Catani Gardens are located in St Kilda along the foreshore of Port Phillip Bay, extending from St Kilda Pier to the south, with Beaconsfield Parade on the east and north boundaries and Pier Road on the west boundary. The Southern Foreshore area comprises of the reserve south of St Kilda Pier, bounded by Jacka Boulevard to the east and extending to Brooks Jetty.

The following strategic objectives for the project were identified:

- Guide use, maintenance and management of the precinct to create a balance between local community needs and the regional tourism role of the St Kilda Foreshore area.
- Manage and enhance the foreshore as an important tourism asset which appeals to local, national and international visitors.
- Enhance management practices to have a positive impact on the public realm.
- Enhance leisure opportunities and experiences through improved management practices.
- Maintain views and vistas.
- Balance commercial events on public land with needs of residents and visitors.
- Ensure open space and facilities are accessible for use by people of all ages and abilities.
- Support environmental sustainable tourism services and facilities.

The Catani Gardens are of historical, aesthetic, architectural and scientific (horticultural) importance to the state of Victoria. Catani Gardens is a registered 'heritage place' on the Victorian Heritage Register (registration # H1805). The palms, arranged in rows and grand avenues along principal axes of the Gardens, with secondary promenades of Monterey Cypress are highly significant. The combination of open lawns, pathways, specimen planting, walls, monuments and garden furniture are all significant elements of the Gardens.



The project methodology has included a comprehensive review of background reports, documents and strategies. Along with the heritage registration of Catani Gardens, the preeminent guiding documents for the precinct are the Municipal Strategic Statement (MSS) and St Kilda Urban Design Framework (UDF).

Other key documents/proposals that are likely to influence the Management Plan include the CoPP Open Space Strategy, St Kilda Triangle, Fitzroy Street Streetscape Plan and St Kilda Pier/Marina/Ferry/Safe Harbour developments, to name a few. Key findings from these documents are discussed in Section 3. The existing site conditions and precinct usage in discussed in Section 4.

It is acknowledged that St Kilda is a popular tourist destination, attracting high levels of visitation from throughout Melbourne, Victoria, interstate and overseas. The St Kilda Foreshore is recognised as one the highest use areas within Hobson and Port Phillip Bay's. As such, Catani Gardens and the Southern Foreshore play an integral role in catering for high visitation numbers in addition to local resident demands.

In accordance with the original design intent, Catani Gardens are primarily used by the community for promenading and other forms of informal recreational use. However they are also used year-round by a number of personal trainers for exercise classes and activities. Furthermore, Catani Gardens are strategically important for the role that they play in hosting major events.

Despite the event based use, which generally occurs during the summer months only (i.e. Nov-March), anecdotal and observational evidence suggests that the overall levels of use within Catani Gardens is quite low, particularly given the prominent position of the Gardens, surrounding high density residential areas and proximity to the St Kilda Foreshore.

Notwithstanding the relatively low levels of use, the importance of Catani Gardens in providing open space relief, aesthetic qualities and a venue for informal recreation and contemplation cannot be overstated for their contribution to the character of St Kilda and environs.

The Southern Foreshore area consists of layers of design, extending from historical to modern, including the recently updated foreshore promenade, decking and shared paths. The Southern Foreshore also includes a number of areas retaining elements of Catani's design, including the Catani Arch Footbridge, lava rock walls, areas of open lawn, plantings of botanical significance, original paths, strong boundary plantings, memorials and structures. The area also includes a modest playground.

Uses of the precinct primarily revolve around foreshore related activities (e.g. swimming, sun bathing) and use of the shared promenade for walking, jogging, cycling, skating and other similar activities. The large grassed area south of the Sea Baths (i.e. South Beach Reserve) and promenade areas are also used to assist staging the annual St Kilda Festival and other contemporary events. The areas are used for temporary staging, concerts, vendors and event specific activities.

The Plan recognises the strategic context for each reserve including their heritage significance, contribution to the City's character and their broader role in catering for high levels of tourism and visitation consistent with the iconic nature of St Kilda. The precinct is highly valued by residents and the City of Port Phillip for the contribution that the area makes to the economic, environmental and social well being of the municipality.

The Management Plan seeks to reinforce the importance and character of the precinct, whilst improving the capacity of the City to manage the area. This project has identified a number of key themes and provided management direction to address the identified issues within each. The key themes identified are:

- Precinct Usage,
- Event Management,
- Precinct Design,
- Heritage Management,
- Potable Water Use,
- Tree Management,
- Landscaping,
- Infrastructure Management, and
- Other Matters (e.g. Climate Change, Possums, Waste Management and Signage, to name a few).

Implementation of the recommendations included in this report (summarised in a prioritised Implementation Schedule in section 6).

can largely be undertaken within existing staff and operational resources; however there are also a number of opportunities to improve the design and

functionality of the precinct. Draft preliminary design options for key areas have been included in this report to address specific issues. Further design resolution and consultation in relation to these design options is recommended prior to eventual implementation.

In summary, this report should be used to guide the future use, management and maintenance of the precinct so that it can continue to be enjoyed, preserved and enhanced for future generations.

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1 . I n t r o d u c t i o n

The City of Port Phillip (CoPP) appointed a consortium of specialist planning consultants led by Insight Leisure Planning to develop a Management Plan for Catani Gardens and the Southern Foreshore.

The Catani Gardens and Southern Foreshore precinct services local residents, whilst also fulfilling a broader regional role as an iconic tourist destination (i.e. St Kilda beach). The area is synonymous with the character of the region and responds to people's need for places to rest, recreate and be inspired. The Management Plan will therefore reinforce the importance of the site in terms of its contribution to the character of the City (Port Phillip and Melbourne) and respond to regional tourism and recreational pressures.

The Management Plan will be used to provide Council with operational guidance on the future use, maintenance and management of the reserve precinct as well as longer term direction on strategic development where appropriate. Critical to the Management Plan is the recognition of the heritage significance of the site (particularly Catani Gardens) and development of operational directions to enhance the maintenance and preservation of key features. Consideration will also be given to existing usage pressures and overall levels of use within the study area. Opportunities to improve operational management of the site, including management of events, activities and informal community use will be considered. Where appropriate this may lead to infrastructure improvements or changes in management

practices to enhance the long-term sustainability of the site. Key considerations will include potable water use, vegetation management, future planting plans and structural assessment of historic features (e.g. lava rock walls).

The Management Plan will maintain the historical use of the Catani Gardens and Southern Foreshore area as a focus of recreational activity, including traditional relationship with the esplanade.

1.1 Study Area

The following extract is taken from the original project brief.

The Catani Gardens are located in St Kilda along the foreshore of Port Phillip Bay, extending from St Kilda Pier to the south, with Beaconsfield Parade on the east and north boundaries and Pier Road on the west boundary. The Southern Foreshore area comprises of the reserve south of St Kilda Pier, bounded by Jacka Boulevard to the east and extending to Brooks Jetty.

Catani Gardens is the core of the Management Plan and contains the most significant landscape elements. The southern foreshore consists of layers of design, extending from historical to modern. The Management Plan shall focus on areas retaining elements of Catani's design, including the Catani Arch Footbridge, lava rock walls, areas of open lawn, plantings of botanical significance, original paths, strong boundary plantings, memorials and structures. This area does not include the building and land within the Sea Baths development or other leased areas.

The project focuses primarily on the land based

activities within the areas described above, as opposed to the immediate foreshore (beach) interface. Furthermore, the study area does not include the St Kilda Pier, Marina or Safe Harbour.

1.2 Strategic Aims and Objectives

The following strategic aims and objectives (i.e. key tasks) were identified in the original project brief. The Catani Gardens & Southern Foreshore Management Plan shall provide strategic direction and principles for management, maintenance and use, specifically;

Management:

The plan shall provide the principles and regime for future management. Identification of future water source/s to sustain the landscape is intrinsic to Catani Gardens future management.

Maintenance:

The plan shall provide the principles and regime for future maintenance. Identification of future water source/s to sustain the landscape is intrinsic to Catani Gardens future maintenance.

Use:

The plan shall provide the principles and regime for future use. Identification of future water source/s to sustain the landscape is intrinsic to future contemporary use.

In addition, the following strategic objectives for the



FIGURE 1

project were identified:

- Guide use, maintenance and management of the precinct to create a balance between local community needs and the regional tourism role of the St Kilda Foreshore area.
- Manage and enhance the foreshore as an important tourism asset which appeals to local, national and international visitors.
- Enhance management practices to have a positive impact on the public realm.
- Enhance leisure opportunities and experiences through improved management practices.
- Maintain views and vistas.
- Balance commercial events on public land with needs of residents and visitors.
- Ensure open space and facilities are accessible for use by people of all ages and abilities.
- Support environmental sustainable tourism services and facilities.

1.3 Report Structure

The report is presented in accordance with the following structure:

Introduction & background

Strategic context

Existing management principles and directions

Existing conditions

Common themes

- Precinct usage
- Event management
- Precinct design
- Heritage management
- Potable water use
- Tree management
- Landscaping
- Infrastructure management
- Other matters

Issue description

Recommendations

- Management
- Maintenance
- Use

Implementation plan

Conclusion

References

Water assessment

Tree assessment

Asset assessment

Planting plans

1.4 Acknowledgements

Insight Leisure Planning would like to acknowledge the input and direction provided throughout this project by a number of key Council staff (i.e. Project Steering Committee), specifically:

- Chris White, Coordinator Open Spaces (Project Manager),
- Cheryl Handby, Project Administrator (Events),
- Rebecca Doherty, Senior Project Officer (St Kilda Urban Design Framework),
- Chris Lewis, Project Leader (Open Space), and
- David Shephard, Coordinator Youth and Recreation.

We would also like to acknowledge the professional expertise and input proved by our project partners:

- Fitzgerald Frisby Landscape Architecture,
- Aurecon,
- John Horan and Associates, and
- Tree Logic.

2 . S t r a t e g i c c o n t e x t

The following section provides an overview of the strategic context for development of the Management Plan, including heritage status and demographic influences.

2.1 Heritage Context

This section includes a brief overview of the historic development of the precinct, followed by a more detailed description of the elements that are registered as heritage places.

2.1.1. Historic overview

The St Kilda foreshore area has a rich and interesting history, and the development of the Catani Gardens and Southern Foreshore area reflects this.

Prior to European settlement, the area was the traditional land of the Boonerwung or the Kulin Nation. No ceremonial or other sites of significance to the original inhabitants of the land have been recorded in the St Kilda foreshore area. The area included higher ground wooded with red gum, wattle and sheoak, as well as sand dunes and associated tea tree vegetation to the lower areas.

Following European settlement of Melbourne in 1835, St Kilda quickly established itself as a seaside resort. During the gold rush years this was primarily for the rich. After Melbourne's economic depression of the early 1890s the area developed as a widely popular tourist resort.

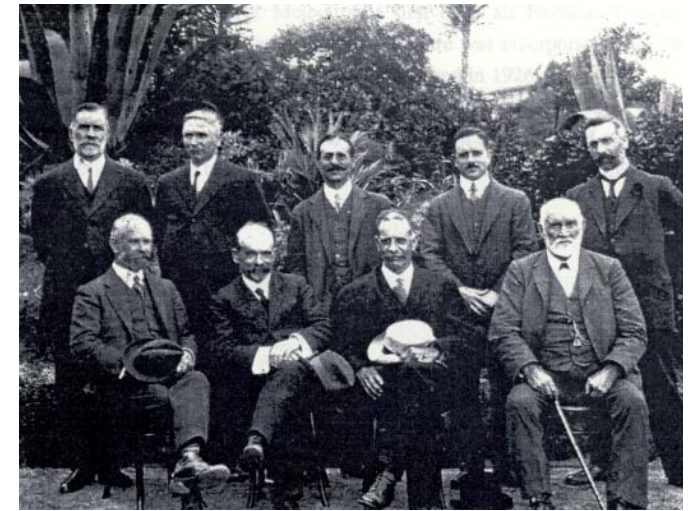
Through the post war period the resort character of the area declined and this enabled a greater majority of those on lower incomes to reside in the area. The entertainment function of the area degenerated and St Kilda became better known for prostitution and vice. In recent decades the recreation and entertainment uses have been steadily increasing.

The following brief development timeline is largely based upon information obtained from the *Conservation Analysis & Management Plan for Catani Gardens, St Kilda*, (Jason Pilcher & Stephen Smith 1993).



- 1835 European settlement of the Melbourne area
- 1853 The St Kilda Pier and Jetty Company was formed and a small jetty was built.
- 1854 Captain William Kenny established his sea baths north of the Pier.
- 1890 The area which is now Catani Gardens had been prone to silting up. Reclamation works had commenced by 1890 with the construction of a temporary wall, consisting of rubble, extending north from the Pier to the southern boundary of Captain Kenny's Sea Bath.
- 1895 The St Kilda Yacht Club was given land by the Crown, a site just north of the Pier, and a wooden Club shed was erected in 1896. This was the first area to be reclaimed and was then known as Pier Lawns which later became part of Catani Gardens.

- 1899 Bluestone pitchers, taken from a 1857 embankment along the Lower Esplanade, were used to replace the original retaining wall. The construction of this wall provided a solid foundation for the rest of the filling to be carried out around the Club house, as exists today.
- 1905 The new St Kilda Yacht Club two storey wooden club house formally opened.



- 1906 The St Kilda Foreshore Trust Committee first meet. The committee includes Carlo Catani. The object of the Foreshore Committee was to proceed with the work of reclamation and beautification along the foreshore. Revenue received from renting sites on the foreshore for amusement purposes, was to provide necessary funds, supplemented by government and council grants and private donations.
- 1911 The initial work of the St Kilda Foreshore Trust Committee was to continue the construction of the bluestone foreshore wall to shield further reclamation work from the encroaching sea. The length of this wall extended from the southern side of Captain Kenny's Sea Bath towards Cowderoy Street in the north. It was completed in June, 1911, when the sea bath was demolished. The Sali Cleve drinking fountain was installed at this time.



1913 By 1913 reclamation work on the greater area north of the St Kilda Yacht Club had begun. The intention of the gardens as stated at the time, was; *Generally, the plan adopted will follow that of the National Park at Naples, Italy, with broad avenues, and plenty of shade trees, ample seating accommodation, paddling pools and shell sheds for the little ones, gymnasiums for adults, up-to-date playgrounds for different classes of sport, and a long promenade for the summer girl to display her figure and dainty garments.*



1914 Captain Cook statue unveiled. An ambition of the St Kilda Foreshore Trust Committee was to assemble an array of statuary to embellish the Gardens by representing the naval heroes of the British race, although this did not eventuate. The gardens at the time were known as the Captain Cook Lawns. By this stage many gravel pathways and lawns were beginning to be laid down along with many hundreds of plants. This included palms, conifers, figs, flowers, tea tree and banksias. This landscape work commenced at the beach end of Fitzroy Street and progressed northward over time. The rock work, including seats set into a lava rock wall were also installed at this time.

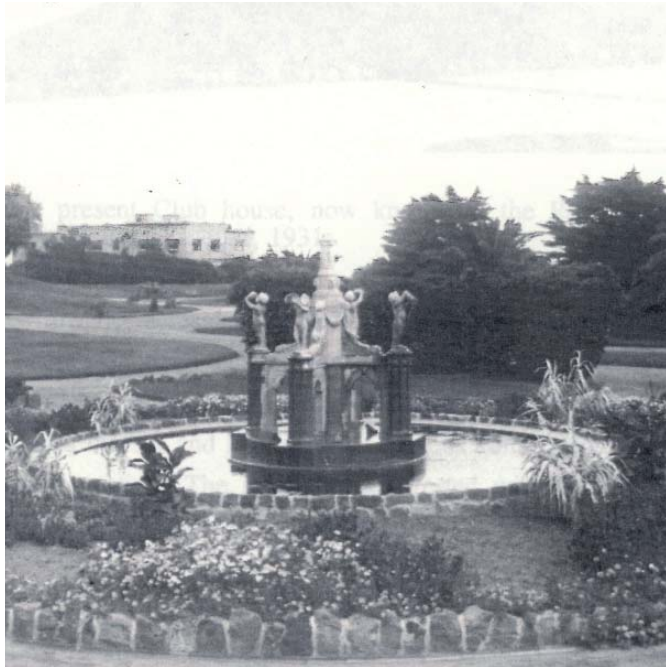


1916 The Catani Arch Footbridge built, forming an entrance from the beach to the shelters and lawns in the near vicinity.

1918 Carlo Catani dies in St Kilda, 20 July 1918, with his vision for the gardens largely completed. It was his last major work, having previously undertaken other large scale projects including the draining of the Koo-Wee-Rup Swamp, Yarra River flood mitigation and widening works, and roads to Mt Donna Buang, Arthurs Seat and Mt Buffalo.

1920s Lava rock drinking fountains were installed, including some which remain today. Electric lights were also introduced into the Gardens around this stage.

1926 Extensive remodelling of the St Kilda Yacht Club club house undertaken.



1930 A feature fountain (pictured above) was placed in the area of the Gardens previously occupied by the Pierrots open air theatre, which had leased this site for a number of decades.

1933 Catani Gardens considered for the placement of Captain Cook's cottage (instead placed at Fitzroy Gardens).

1950s In the 1950s and 1970s particularly, many paths within the Gardens were grassed over attempting to reduce maintenance costs. This was also a reflection of changing recreational needs at that time. The result was the filling in of some of the intricate paths around the original location of the statue of Captain Cook to the present layout of the Gardens.

1960s The feature fountain installed in 1930 was removed because of its poor state of repair.



1961 The St Kilda Yacht Club amalgamated with the St Kilda Sailing Club to become the Royal Melbourne Yacht Squadron.

1970s A section of the Catani Gardens south-eastern boundary was removed for the purpose of widening Beaconsfield Parade. Within this area were thirty-five palms, some of which were removed and relocated in the Gardens whilst others were distributed to reserves throughout St Kilda.



1988 The statue of Captain Cook, originally installed in 1914, was relocated to its present site south of the Yacht Squadron to make way for the construction of a rotunda that was an Australian bicentenary project.

1990s St Kilda Sea Baths redeveloped as a commercial hub on the foreshore.

2008 St Kilda foreshore promenade redevelopment along the Southern Foreshore, including removal of sea walls and extensive decking to provide an improved transition between sand and paving areas.

2.1.2 Heritage status

Catani Gardens is a registered 'heritage place' on the Victorian Heritage Register (registration # H1805). The palms, arranged in rows and grand avenues along principal axes of the Gardens, with secondary promenades of Monterey Cypress are highly significant. The combination of open lawns, pathways, specimen planting, walls, monuments and garden furniture are all significant elements of the Gardens. The following extracts have been taken from the Victorian Heritage Register (VHR) which outlines the significance of the site.

What is significant?

Catani Gardens comprise approximately 6 hectares of landscaped garden developed on foreshore reclaimed in the period from 1890 to c1916. The St Kilda Foreshore Trust Committee, set up in 1906 to reclaim and beautify the entire St Kilda foreshore, appointed Carlo Catani to design the Gardens as part of a larger foreshore plan extending to Point Ormond. The main landscaping and planting were completed by the late 1920s. The prime landscape feature of the Gardens is its extensive use of palms arranged in rows and grand avenues along principal axes of the Gardens, with secondary promenades of Monterey Cypress, and smaller pathways and specimen plantings (including the indigenous Coastal Tea Tree, Coastal Banksia, and She-Oak) adding interest and intimacy. Palms, lawns and paths dominate the Gardens, with horticultural displays apparently never an important feature. The planted lava rock retaining wall on the west side supports an embanked lawn, with bays of inbuilt bench seats facing the sea. Other early park furniture includes lava rock drinking fountains. Monuments in the Gardens include the Sali Cleve Drinking Fountain

(1911), Captain Cook Monument (1914), and Cenotaph (1925).

How is it significant?

The Catani Gardens are of historical, aesthetic, architectural and scientific (horticultural) importance to the state of Victoria.

Why is it significant?

The Catani Gardens are historically important for their association with Italian born Public Works Department engineer Carlo Catani, who achieved widespread public recognition for his visionary schemes of public works including the Alexandra Gardens, Alexandra Avenue, and Lake Catani at Mount Buffalo. The Gardens also have historical significance as the major work in a foreshore development scheme which cast St Kilda as a fashionable seaside resort in the Continental manner. The European resort character of Catani's original design concept sets the Gardens apart from other foreshore schemes. The layout, planting and monuments evoke St Kilda's heyday as a resort for promenading, reflecting both Edwardian formality and the festivity of a seaside resort. The Gardens also have significance for pioneering a multi-government Trust purely for the purposes of foreshore beautification and leisure, paving the way for similar schemes, notably at Geelong's Eastern Beach Reserve.

Catani Gardens have scientific (horticultural) significance for their outstanding collection of palms including three intact avenues of uniform sized Phoenix canariensis, and an exceptional stand of Washingtonia robusta. The Phoenix canariensis are believed to represent the greatest concentration of palms in a Victorian public garden. Catani Gardens are of aesthetic significance for their

seaside location, both reflected and enhanced through the extensive use of palms. Catani's palm landscape has since been extended, and palms have become a major theme throughout St Kilda. The combination of open lawns, pathways, vistas, specimen planting, walls, monuments and garden furniture all contribute to the aesthetic significance. The monuments have historical and aesthetic significance. The Cenotaph, designed by GH Alsop and JC Aisbett with models by Paul Montford, memorialises those locals who served and died in World War I and expresses the trauma of those events. It is a notable example of the distinctive war memorial design deriving from British architect Sir Edwin Lutyens and distinguished by high quality craftsmanship, subtle design and setting. The Sali Cleve Drinking Fountain has aesthetic significance as a delightful folly and rare example of the Beaux-Arts style. It is the only known public piece in bronze by noted architectural designer and artist CA Irwin. The Captain Cook statue, a replica of the Sir John Tweed statue in Cook's birthplace Whitby, has historical significance as the major Victorian monument to Cook at that time.

2.1.3 Management Plan Implications

Historic overview

There are a number of key points that can be drawn from the historic overview, relevant to the management plan direction;

- It can be seen from the historic overview that the development of the Catani Gardens and Southern Foreshore area has been almost continuous since European interest was first taken in the area. Perhaps partly due to the strength of the original Catani vision for the site, the character has been retained despite the modifications over time. As stated in the 1993 *Conservation Analysis & Management Plan for Catani Gardens, St Kilda* (Pilcher & Smith, 1993);

For most historic gardens a 'pure' restoration (to their precise condition in a specific period) is neither justified or desirable, even where it is possible.

The key is that the modifications to the place are made in accordance with heritage requirements and with the heritage values of the place in mind, and that the modifications being made are intentional rather than in response to unplanned deterioration, as has occurred during certain periods.

- The original vision for the Catani Garden included a strong focus upon active recreation ('gymnasiums for adults, up-to-date playgrounds for different classes of sport') as well as passive recreation ('broad avenues, and plenty of shade trees, ample seating accommodation'). The site was also extensively used for entertainment purposes in the early years, including open air theatre structures.

The contemporary use of the site for structured sporting and entertainment events could be seen as a continuation of these historic precedents, rather than an intrusion upon a historic landscape.

Heritage status

A permit will be required from Heritage Victoria for any works or modifications that may impact on the heritage value of the site.

However, permit exemptions exist for any works that do not affect the cultural heritage significance of the Gardens. Exempted activities include:

- The process of gardening, hedge clipping, removal of dead plants, emergency and safety works and landscaping in accordance with the original concept.
- The replanting of plant species to conserve the landscape character.
- Management of trees in accordance with Australian Standard, Pruning of amenity trees AS 4373.
- Removal of plants listed as Noxious Weeds in the Catchment and Land Protection Act 1994.
- Repairs, conservation and maintenance to hard landscape elements, gravel paths and roadway, edging, fences and gates and gravel driveway.
- Installation, removal or replacement of garden watering and drainage systems.
- Demolition, removal, repairs and alteration to modern playground equipment, barbeques and toilet facilities.
- Maintenance and repairs to drinking fountains.
- Roadwork maintenance and repairs to Pier Road.
- Maintenance and repairs to seawall.

The Burra Charter¹, suggests that *places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences. They are historical records that are important as tangible expressions of Australian identity and experience. Places of cultural significance reflect the diversity of our communities, telling us about who we are and the past that has formed us and the Australian landscape. They are irreplaceable and precious.*

Catani Gardens is a registered site of cultural significance which must be conserved for present and future generations. The Burra Charter advocates a cautious approach to change. That is, do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained.

¹ The Burra Charter: The Australia ICOMOC Charter for Places of Cultural Significance 1999.

2.2 Demographic and Population Trends

(Source: City of Port Phillip Profile ID at <http://profile.id.com.au/25/8/09>)

The City of Port Phillip is located in Melbourne's inner southern suburbs, between 2 and 8 kilometres from the Melbourne GPO. The City of Port Phillip includes the suburbs of Albert Park, Balaclava, Elwood, Middle Park, Port Melbourne (part), Ripponlea, South Melbourne, St Kilda, St Kilda East (part), St Kilda West and part of the St Kilda Road area.

The estimated resident population of the City as at June 2008 was 93,752 people, which has increased from approximately 80,552 people in June 2001. The population of the City is expected to reach around 100,605 people by 2016.

The estimated enumerated population of St Kilda, which includes overseas visitors on Census night, was 19,674 people according to the 2006 Census, which is up from 18,815 people in 2001.

Analysis of the age structure of St Kilda in 2006 compared to the Melbourne Statistical Division shows that there was a smaller proportion of people in the younger age groups (0 to 17) as well as a smaller proportion of people in the older age groups (60+). Overall, 7.5% of the population was aged between 0 and 17 years, and 11.9% were aged 60 years and over, compared with 22.9% and 17.0% respectively for the Melbourne Statistical Division.

The major differences between the age structure of St Kilda and the Melbourne Statistical Division were:

- A larger percentage of 25 to 34 year olds (33.3% compared to 14.9%);
- A larger percentage of 35 to 49 year olds (26.8% compared to 22.7%);
- A smaller percentage of 5 to 11 year olds (2.6% compared to 8.8%), and;
- A smaller percentage of 12 to 17 year olds (1.9% compared to 7.8%).

Comparing Household types between St Kilda and the Melbourne Statistical Division in 2006 reveals a smaller proportion of Family households, but a larger proportion of lone person households. Family households accounted for 31.9% of total households in St Kilda while lone person households comprised 41.8%, (68.6% and 22.7% respectively for the Melbourne Statistical Division).

Analysis of the types of dwellings of the households in St Kilda in 2006 compared to the Melbourne Statistical Division shows that 7.7% occupied a separate house; 31.3% occupied a medium density dwelling; while 49.0% occupied high density dwellings, compared with 66.1%, 19.6%, and 5.7% respectively in the Melbourne Statistical Division.

According to the St Kilda Urban Design Framework (UDF),

St Kilda is one of the most densely settled urban areas in Australia and a successful model for apartment living. Recent interest in medium-density development in the area continues to reinforce this role and has brought in yet more residents keen to combine the benefits of

urban life and a seaside ambience.

2.2.1 Management Plan Implications

Implications from the demographic profile and population trends that will be considered in the Management Plan include:

- High levels of demand for access to public open space attributable to high density, apartment living which provides minimal private open space.
- High levels of demand for spaces and activities that cater for 25-49 years olds as this age group dominates the resident profile of the community. This is likely to translate into demand for access to public open space for a range of active recreation pursuits, activities and organised sports, as well as areas for passive recreation, contemplation and relaxation.
- Relatively low levels of demand for activities and spaces that cater for young children and adolescents (i.e. under 17 years). However, given the role of the precinct as a premier tourism destination in Melbourne, the capacity to cater for all age groups will remain important.
- It is acknowledged that the precinct will also be required to cater for high levels of tourism visitation and use, including the capacity to cater for a range of events, festivals, functions and activities in order to reinforce the role of the area as a premier tourism destination in Melbourne.
- Catani gardens and Southern Foreshore is recognised for its regional significance and facilities to support people of all ages and abilities.

3. Existing Management Principles & Directions

The project team has reviewed a number of background reports, plans and strategies that relate to the site. A list of references reviewed is included in Reference 8.6, however along with the heritage registration of Catani Gardens, the preeminent guiding documents for the precinct are the Municipal Strategic Statement (MSS) and St Kilda Urban Design Framework (UDF). A comprehensive summary of the main objectives and, strategies and proposals identified in the UDF that will influence the Management Plan directions and recommendations is included in this section along with key information from the MSS.

Other key documents/proposals that are likely to influence the Management Plan include the CoPP Open Space Strategy, St Kilda Triangle and St Kilda Pier/Marina/Ferry/Safe Harbour developments. Key directions from a sample of these documents / proposals are also highlighted in this section.

3.1 Municipal Strategic Statement (MSS)

Clause 21.04-5 of the Port Phillip Planning Scheme (Municipal Strategic Statement - MSS) relates to Public Open Space and Foreshore. The MSS identifies a number of generic issues facing open space in the City which are directly relevant to this project, including:

- Desire to optimise existing spaces in order to cater for demand generated by a growing population;
- Desire to improve access for all abilities; and
- Challenges associated with balancing cultural heritage significance and contemporary leisure needs; to name a few.

Port Phillip's vision for open space is "A City where public open space defines the City's character and responds to its people's need for places to rest, recreate and be inspired."

A sample of relevant objectives and strategies identified in the MSS to help achieve this vision include:

- To create a public open space network that caters for a diverse range of users and is accessible to all.
 - Ensure that public open space offers a diversity of functions and experiences and continues to host a range of leisure, tourism, recreation, cultural, social and sporting activities to meet the needs of all users.
 - Maximise public safety within all public open space areas, through applying Crime Prevention Through Environmental Design (CPTED) principles.
 - Encourage appropriate information and signage.
 - Support and establish new linkages and connections.
- Protect and enhance the physical and cultural heritage values, and environmental attributes of public open space.

- Protect the identified significant heritage features and qualities.
- Protect environmentally sensitive sites.
- Support innovative and environmentally sustainable design approaches (including plant selection and water use initiatives).
- Retain and enhance the established mature trees.
- Achieve a sustainable balance between preserving public open space, including foreshore, and meeting the needs of users.
 - Ensure that new uses make a positive contribution to the public open space area and offer a net community benefit.
 - Consider competing demands.
- To protect, manage and enhance the foreshore as an important natural, recreational and tourism asset.
 - Facilitate widespread use and visitation along the foreshore.
 - Ensure use and development on the foreshore:
 - Maintains access.
 - Supports year-round use/activity.
 - Compliments and enhances the prevailing land uses.
 - Does not increase traffic congestion, parking, pedestrian or cyclist circulation problems.
 - Enhances the physical environment.
- To recognise the economic value and contribution of the foreshore to both the local and regional economy.
 - Manage and enhance the foreshore as an important tourism asset.
 - Support environmentally sustainable tourism services and facilities.

3.2 St Kilda Foreshore Urban Design Framework (UDF)

The St Kilda Urban Design Framework (UDF) was established in March 2002 and revised in December 2003. The UDF

gives direction to areas in need of repair or undergoing change. It identifies the potential to achieve broad strategic goals and create places that reflect community values (p1).

The UDF provides an integrated planning document which focuses on improving the public domain and interface between public and private realm throughout the St Kilda Foreshore. The UDF has been developed having regard to Council's Municipal Strategic Statement, Planning Scheme and a range of other background reports, plans and strategies.

The UDF therefore provides a single consolidated reference point which responds to identified issues and opportunities within the study area. Along with the heritage registration of Catani Gardens, the UDF can therefore be considered the preeminent planning document influencing strategic directions within the Catani Gardens and Southern Foreshore precinct.

The following section provides a number of key extracts from the UDF which help inform the strategic context for the Catani Gardens and Southern Foreshore area, culminating in a summary of the key Objectives, Strategies and Proposals that relate to, or influence, the development of this Management Plan.

Background information

- The foreshore precinct is much loved and valued highly (nationally and internationally) as one of Melbourne's favourite places.
- The CoPP Municipal Strategic Statement aims to provide the following features throughout the municipality:
 - High quality parklands and open space.
 - Improved public transport and enhanced cycle and pedestrian facilities.
 - Protection of heritage places.
 - Protected foreshore, preventing overshadowing.
 - Vibrant tourism industry.
 - New development on the foreshore which does not lead to increased traffic and parking problems, reduce the net volume of public open space, contribute to pollution, or in any other way threaten the natural environment.
- The CoPP Planning Scheme identifies St Kilda as a residential hub and a major visitor area and aims to:
 - Protect, manage and enhance the foreshore as an important natural, recreational and tourism asset and as the premier stretch of foreshore in inner Melbourne.
 - Achieve a sustainable balance between preserving the physical and environmental attributes of the foreshore, meeting the needs of users and minimising adverse amenity impacts.
 - Maximise enjoyment, use of and access to the foreshore by the community.
- Establish a management and maintenance regime for the foreshore based on sound environmental principles and designed to ensure that the foreshore is kept clean and safe.
- Ensure all development within the view of the foreshore is designed to respect the established cultural heritage, recreational and environmental values of the foreshore public realm.
- Urban design principles for St Kilda Foreshore:
 - Create an equitable balance between residents' everyday needs and tourist attractions.
 - Manage through traffic, particularly on Jacka Boulevard and residential streets.
 - Reposition St Kilda for the future based on its threefold seaside residential, leisure and entertainment, and marine recreation uses.
- Ensure the continued provision of both exposed and secluded viewing places along the beachfront.
- Improve linear interconnectivity between existing public spaces by ensuring pedestrian permeability, attractiveness and visual guidance at key locations (including around the Sea Baths and the end of Fitzroy Street, between Catani Gardens and West Beach and between Marina Reserve and St Kilda Beach).
- Concentrate activities at the key nodal points— West Beach north end, West Beach Pavilion area, end of Fitzroy Street (Royal Melbourne Yacht Squadron area), St Kilda Pier entry area, Sea Baths, St Kilda Triangle site, VegOut and Marina Reserve — and retain the functional and visual simplicity of the Foreshore paths between them.

- Minimise pedestrian conflicts with other modes of transport by:
 - downgrading car park access from Pier Road south end and recreating it as an inviting pedestrian-focused entry to St Kilda Pier;
 - downgrading the vehicular and parking role of Pier Road (whilst considering RMYS access and bump in/out of events) and recreating it as a safe route for pedestrians, recreational cyclists and skaters and
 - redeveloping the beachfront promenade to minimise hazards for people moving on Foreshore Promenade and across it, particularly children.

Design Objectives and strategies²

Objective 1: *To maintain the culture and heritage of St Kilda.*

Strategies:

- 1.1. Maintain the diversity and urban intensity of St Kilda.
 - 1.1.1. Enhance and promote spaces and buildings at night.
- 1.2. Improve the attractiveness of places that embody the cultural heritage of St Kilda and ensure the continued viability of existing iconic buildings, spaces, landmarks and attractions.
- 1.3 Encourage a mix of mutually supportive attractions.
 - 1.3.3 Promote opportunities and facilities that encourage activity across the seasons.
 - 1.3.4 Provide public facilities that complement

and support existing uses.

Objective 2: *To respect and enhance the ‘St Kilda-ness’ of the Foreshore – its sense of place.*

Strategies:

- 2.1 Reinforce the linearity of Foreshore spaces.
- 2.2 Maintain and enhance views and vistas.
- 2.3 Conserve buildings and places of heritage significance.
- 2.4 Reinforce the role of iconic buildings and elements.
- 2.5 Promote design excellence in buildings, structures and spaces.

Objective 3: *To enhance the quality of public open space.*

Strategies:

- 3.1 Recover and reinforce established landscape themes.
 - 3.1.1 Revitalise the original ethos of public parkland design and resort ambience by :
 - restoring historically significant park components, and
 - reinterpreting original landscape concepts and themes via contemporary translation and augmentation.
 - 3.1.2 Continue the use of bold canopy trees in formal avenues and boulevard plantings.
 - 3.1.3 Increase the use of local native shrubs, groundcovers and trees where practical and appropriate.
 - 3.1.4 Ensure large grass covered areas are retained and that they can be used for passive recreation, festivals and events.
 - 3.1.5 Restore and manage landscape areas to

improve the character of the Foreshore.

- 3.2 Improve public spaces.
 - 3.2.1 Maintain a variety of quiet contemplative spaces in Catani Gardens, Marina Reserve, St Kilda Pier and Alfred Square.
 - 3.2.2 Provide a balance of activity nodes and quiet places for rest and contemplation.
 - 3.2.3 Create spaces that support social activity, have active edges and can accommodate street performers, evening films, theatrical performances, markets, carnivals and parades.
 - 3.2.4 Build in versatility, so that people from different cultural or age groups, including children, elderly people and people with disabilities, can equitably use the spaces.
- 3.3 Coordinate street furniture and street design details:
 - 3.3.1 Develop a consistent palette of paving types, lighting fixtures, signs, furniture items and tree planting themes for application across the Foreshore.
 - 3.3.2 Conserve heritage items and use them in the thematic development of new coordinated street furniture.
 - 3.3.3 Remove superfluous and obsolete street furniture and items to establish a visual logic, with clear messages for pedestrians, cyclists and drivers.
 - 3.3.4 Remove overhead wires where possible.

²Design objectives and strategies that are likely to influence the Management Plan have been presented in this section. Please refer to the St Kilda UDF for comprehensive details regarding overall objectives and strategies. Reference numbers are as presented in the St Kilda UDF.

- o 3.3.5 Improve signage and, overall, minimise the need for signs, barriers and the like by designing spaces so that the functions of their parts are clear.
- o 3.3.6 Use asphalt as the primary consistent pavement material. In high profile, high exposure localities use high quality pavement materials, such as stone.
- o 3.3.7 Provide consistent quality lighting.
- o 3.3.8 Apply good quality, genuine, natural and durable materials and simple, elegant detailing to all public infrastructure.
- 3.4 Preserve and commission public art where appropriate.
- 3.5 Improve public amenities:
 - o 3.5.1 Improve the safety of existing facilities by providing better lighting and by increasing activity in their surroundings.
 - o 3.5.2 Upgrade existing facilities to improve their appearance and ease of maintenance.
- 3.6 Improve the maintenance of buildings and places:
 - o 3.6.1 Undertake a maintenance review and audit to identify and register buildings, objects and spaces that are of poor quality and maintenance.
- 4.2 Improve pedestrian paths and connections, including:
 - o 4.2.1 From the Esplanade to St Kilda Pier and from Fitzroy Street to the Beach, between Catani Gardens and West Beach, between Marina Reserve and St Kilda Beach and between the Sea Baths and Catani Gardens, and around the Sea Baths.
 - o 4.2.2 Design and implement paths and spaces that minimise conflicts between pedestrians, cyclists, rollerbladers and any service access, particularly in relation to the Foreshore Promenade and the St Kilda Pier Entry space. Area-specific solutions could include separating conflicting user groups for example by providing separate paths.
- 4.3 Reinvigorate the Foreshore Promenade
 - o 4.3.1 Reconfigure Pier Road as a pedestrian and recreation oriented route, with service vehicle access and parking only, a designated cycle–skating route and additional width for pedestrians either on a wider footpath, or on a new boardwalk along the sea wall.
- 4.4 Improve personal safety and sense of security
 - o 4.4.1 Install new lighting in poorly lit streets and spaces.
 - o 4.4.2 Maintain sightlines and avoid creating entrapment spots.
 - o 4.4.3 Encourage active frontages and uses near open space.

Objective 4: *Improve pedestrian circulation and integrated transport.*

Strategies:

- 4.1 Create a network of safe, distinctive and engaging spaces.

Objective 5: *To promote integrated transport.*

Strategies:

- 5.1 Improve bicycle paths and facilities.
- 5.2 Improve public transport access and facilities.
- 5.3 Provide alternative parking.
- 5.4 Promote water based transport.
- 5.5 Balance the needs of cars and pedestrians.

3.3 City of Port Phillip Open Space Strategy (2009 updated)

The following section provides a summary of key findings and/or management directions identified in the City of Port Phillip Open Space Strategy that are relevant to this project. The City of Port Phillip Vision for Public Open Space was identified as follows:

A city where public open spaces define the city's character and respond to its people's need for places to rest, recreate and be inspired.

The Vision is supported by the following principles relevant to this project (in summary) which are intended to guide future decisions regarding open space supply and management across the City.

Principle 1: Optimum provision of open space:

- i.e. Increase the amount of useable open space, improve urban design outcomes and connections between open spaces to improve functionality.

Principle 2: Commercial events in public open space:

- i.e. Ensure commercial events provide net community benefit. Monitor community access implications.

Principle 4: Safe Access to Public Open Space:

- i.e. Use of appropriate lighting to enhance user safety, facilitate public transport connections.

Principle 5: Access for all:

- i.e. Diversity of functions and experiences, and be accessible to all.

Principle 6: Streetscapes as public open space:

- i.e. Design and treatment of streetscapes to promote community use.

Principle 7: Public Open Space managed by others:

- i.e. Work with other public authorities as managers of public open space to achieve high quality spaces for all residents.

Principle 8: Supply of Public Open Space:

- Parkland is a highly valued community asset. Protect and preserve existing open space.

Principle 9: Sustainable open spaces

- Sustained drought conditions have had an adverse impact on open space. To respond to this change in climate, environmentally sustainable design features will need to be considered in the management and renewal of open space. Examples of this could include the use of drought tolerant plants, warm season grasses, low energy public lighting, alternative water sources and water sensitive urban design.

A summary of recommendations from the Open Space Strategy that are directly relevant to this project include:

- Enhance existing open spaces to deliver greater diversity of activity especially for youth and young adults.
- Continue to manage conflicting uses in open space particularly at popular destinations such as the foreshore.
- Provide opportunity for casual sport at more locations across the city.
- The distinctive and unique cultural heritage, built form character and environmental setting

of the St Kilda Foreshore Area is to be retained and enhanced, in order to reinforce the locality's threefold role: seaside residential, leisure and entertainment, and marine recreation.

- Implement St Kilda Edge Project for the St Kilda Foreshore including:
 - Foreshore promenade and Pier entry upgrades (completed).
 - West Beach Pavilion redevelopment (completed).
 - St Kilda Harbour.
 - Repairs to rock walls at Catani Gardens.
 - Upgrade playground and facilities at Catani Gardens (completed).

3.4 Existing Development Proposals

There are a number of existing proposals for, and in the vicinity of the subject site. Although these are proposals only, they do provide an indication of the vision and directions that some have for the area which may help to inform the management plan. Significant development proposals include The Fitzroy Street Streetscape Plan, and the St Kilda Harbour Concept Plan. A structure plan is required for the St Kilda Triangle site to provide a vision that aligns with community needs following the termination of a previous proposal for the site.



FIGURE 2

3.4.1 Fitzroy Street Streetscape Plan

This plan (Tract Consultants, Consultation Draft July 2009) is 'intended to provide a 'high level' urban design and landscape vision for the Fitzroy Street public realm', and to 'guide future renewal works within the Fitzroy Street Precinct'. Aspects of the proposals shown in the Fitzroy Street Streetscape Plan have already been undertaken, or are underway. This includes the reconfigured pedestrian links into Catani Gardens. The study area also includes the Royal Melbourne Yacht Squadron, the Cenotaph, and the open space surrounding these structures.



Legend of proposals relating to the study site shown on Fitzroy Street Streetscape Plan documents

1. Proposed pedestrian links
2. New/reconfigured garden beds
3. New/reconfigured lawn areas
4. New path system
5. Relocation of artworks/monuments
6. New tree planting

FIGURE 3

3.4.2 St Kilda Harbour Concept Plan

This plan (prepared for Parks Victoria by Site Office/ Jackson Clements Burrows, undated), proposes a concept plan including modifications to the St Kilda Pier, a new boat repair and storage yard and a public forecourt/plaza in front of the RMYS building, as shown in the diagram on this page. The concept plan reflects the objectives of the St Kilda Foreshore Urban Design Framework to develop a vibrant working harbour in harmony with ecological processes, and to provide opportunities for all to participate in maritime activities and encourage contact with the water.

Parks Victoria launched the St Kilda Harbour concept plan in 2009 for public feedback.

3.4.3 St Kilda Triangle

The St Kilda Triangle development site is located across Jacka Boulevard from the Southern Foreshore reserve. A structure plan is required for the St Kilda Triangle site to provide a vision that aligns with community needs following the termination of a previous proposal for the site.

Legend of proposals relating to the study site shown on St Kilda Harbour Concept Plan documents

1. Northern wave attenuator
2. 600 berth marina
3. Penguin observation and protection boardwalk
4. New St Kilda Pool and sea pool
5. Wave protection/swimming island
6. All access swimming ramp
7. Inner harbour
8. RMYS public forecourt/plaza
9. Boat repair and storage yard
10. Events beach



FIGURE 4

4. Existing Conditions and Uses

4.1 Existing conditions - precincts

The study site stretches along the St Kilda foreshore covering both the Catani Gardens and the Southern Foreshore. These two spaces are comprised of a variety of spaces with different physical attributes and character. The following section identifies precincts being areas with similar conditions or characteristics, which help in understanding the role that different areas can or do play. Each precinct is identified in map form as well as through photographs capturing the key elements.

Legend of study area precincts

CATANI GARDENS

- 1. Northern lawn
- 2. Central lawn
- 3. Pier Road
- 4. Royal Melbourne Yacht Squadron lawn
- 5. Pier lawn

SOUTHERN FORESHORE

- 6. Southern foreshore promenade
- 7. South Beach Reserve
- 8. Catani Arch precinct
- 9. Jacka Boulevard promenade



FIGURE 5



FIGURE 6



Central Lawn

Rotunda

Public toilets

FIGURE 7



FIGURE 8



RMYS Lawn & Pier Lawn

Royal Melbourne Yacht Squadron

Captain Cook Monument

Kiosk

FIGURE 9



Southern foreshore promenade

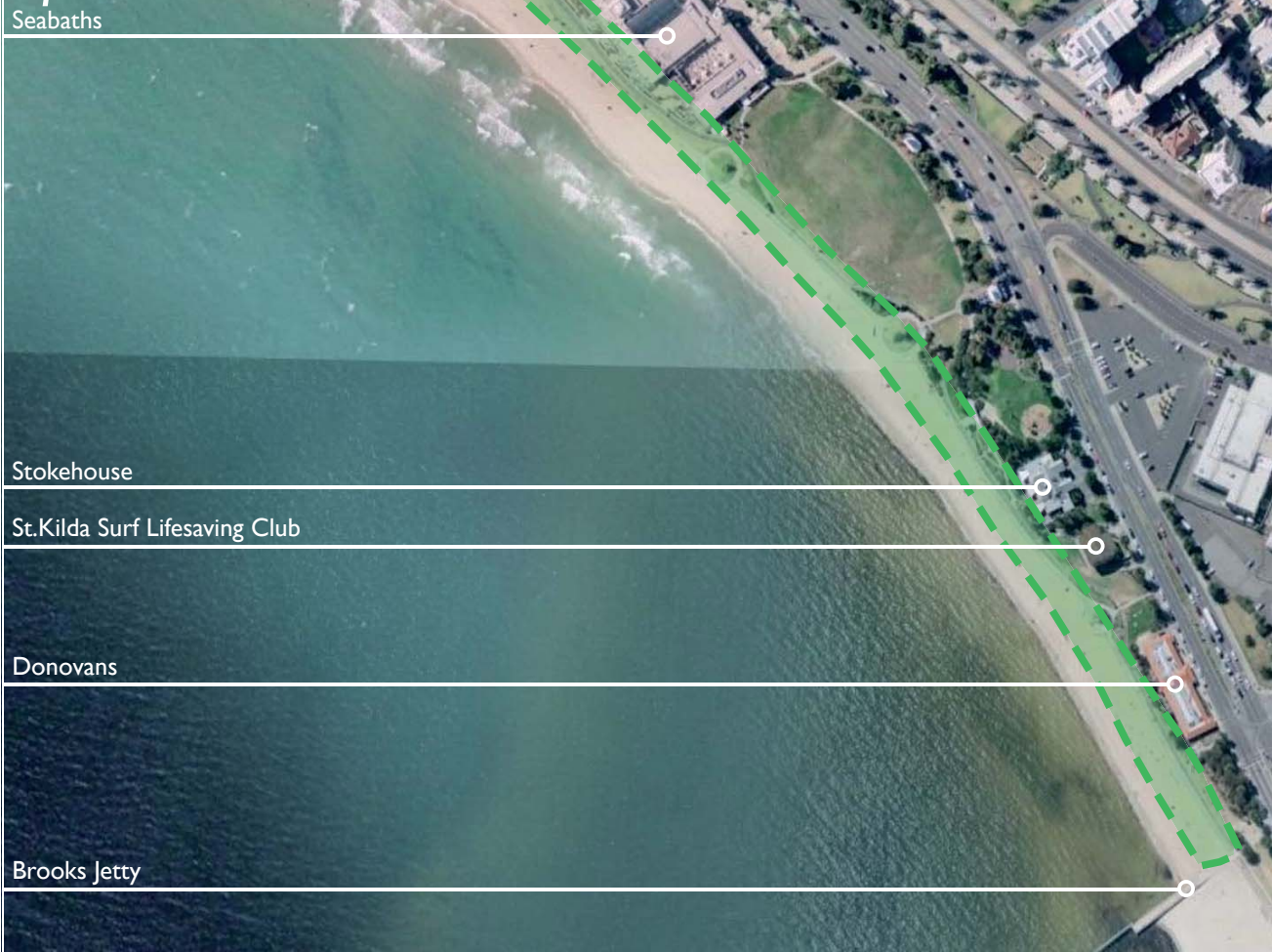


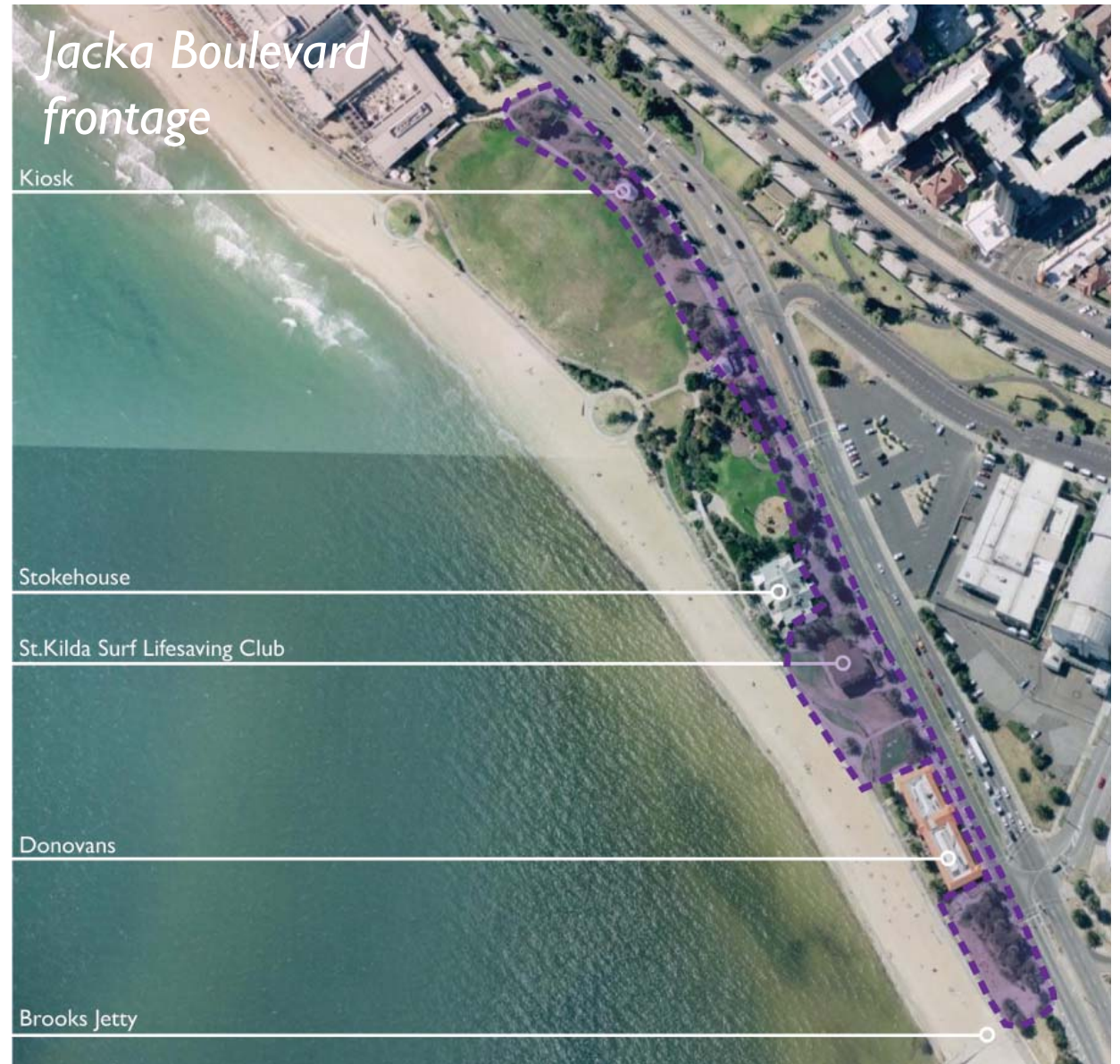
FIGURE 10



South Beach Reserve & Catani Arch precinct



FIGURE 11



Jacka Boulevard frontage

Kiosk

Stokehouse

St.Kilda Surf Lifesaving Club

Donovans

Brooks Jetty

FIGURE 12

4.2 Existing use overview

It is acknowledged that St Kilda is a popular tourist destination, attracting high levels of visitation from throughout Melbourne, Victoria, interstate and overseas. The St Kilda Foreshore is recognised as one of the highest use areas within Port Phillip Bay. As such, Catani Gardens and the Southern Foreshore play an integral role in catering for high visitation numbers in addition to local resident demands.

Catani Gardens contains a number of structures with registered heritage significance, specifically;

- Captain Cook Memorial.
- Sali Cleve Drinking Fountain.
- Cenotaph, including granite steps and retaining wall.
- Bluestone Retaining Wall.
- Lava Rock Wall with inbuilt seats.
- Lava Rock Drinking Fountain.
- Bicentennial Rotunda.

In addition, many of the existing trees, including the grand avenues along the principal axes of the Gardens, with secondary promenades of Monterey Cypress, and paths are of heritage significance. The Gardens also contain public toilets, playground (recently installed), 'picnic' shelter and park seating.

In accordance with the original design intent, the Gardens are primarily used by the community for promenading and other forms of informal recreational use. However the Gardens are also used year-round by a number of personal trainers for exercise classes and activities. Furthermore, the Gardens are strategically important for the role that they play in hosting up to six major³ events per year. These currently include:

- Pride March,
- Susan's Women's Fun Run,
- St Kilda Festival,
- Weet-Bix Kids Triathlon, and
- Corporate Triathlons (x2).

Despite the event based use, which generally occurs during the summer months only (i.e. Nov-March), anecdotal and observational evidence suggests that the overall levels of use within Catani Gardens is quite low, particularly given the prominent position of the Gardens, surrounding high density residential areas and proximity to the St Kilda Foreshore (which is recognised as one of the highest use areas on Port Phillip Bay).

Notwithstanding the relatively low levels of use, the importance of Catani Gardens in providing open space relief, aesthetic qualities and a venue for informal recreation and contemplation cannot be overstated for their contribution to the character of St Kilda and environs.

The Southern Foreshore area consists of layers of design, extending from historical to modern, including the recently updated foreshore promenade, decking and shared paths.

The Southern Foreshore also includes a number of areas retaining elements of Catani's design, including the Catani Arch Footbridge, lava rock walls, areas of open lawn, plantings of botanical significance, original paths, strong boundary plantings, memorials and structures. The area also includes a modest playground.

Within this area, although not included in the scope of this project are a number of leased facilities including the Sea Baths, Life Saving Club, Café/Kiosk (x2) and restaurants (e.g. Stokehouse and Donovan's). Council is currently in the process of reviewing the feasibility, future use and options for the existing Lifesaving Club site, however at the time of writing this report future direction are yet to be confirmed.

Uses of the precinct primarily revolve around foreshore related activities (e.g. swimming, sun bathing) and use of the shared promenade for walking, jogging, cycling, skating and other similar activities. The Southern Foreshore / St Kilda beach precinct is one of the highest use zones around the entire Port Phillip and Hobson Bay areas.

The large grassed area south of the Sea Baths (i.e. South Beach Reserve) and promenade areas are also used to assist staging the annual St Kilda festival and other contemporary events. The areas are used for temporary staging, concerts, vendors and event specific activities.

Apart from patches of native coastal vegetation at West Beach, St Kilda foreshore public spaces are defined by introduced species and cultivated planting patterns.

³In accordance with CoPP classifications, *Major* events are those that are likely to attract in excess of 500 people.

4.2.1 Management Plan Implications

The Management Plan will reinforce the strategic importance of Catani Gardens as a venue to support selected appropriate events whilst protecting and preserving the heritage significance of the site. The Management Plan will also reinforce the importance of the site as a venue for informal community use and aesthetic contribution to the character of St Kilda and environs.

Management Plan recommendations will be designed to protect and preserve the elements of Catani's original design throughout the Southern Foreshore whilst providing contemporary management and maintenance direction to support ongoing high levels of community and event use within the precinct.

The level and standard of asset development, infrastructure and ongoing maintenance will need to reflect the status of the precinct as one of Melbourne's premier tourist destinations. Importantly, this will include appropriate spaces for events, festivals, promenading and other tourism activities, including enhanced relationships and connections to neighbouring precincts, commercial facilities and support amenities.

4.3 Asset Condition Assessment

As a part of this study, assets within the study area were visually inspected by a structural engineer.

The findings of this work, along with aesthetic considerations and issues and opportunities associated with individual assets and asset groups are contained in the Asset Assessment report, contained in Reference 8.3.

5. Key Themes & Recommendations

The following section provides a summary of the key issues and themes identified as a result of the research and consultation undertaken to date, including interviews with a range of Council staff and selection of key stakeholders and outlines recommended strategic management actions to address each.

The themes and recommendations attempt to provide a balance between local community needs and the regional tourism role of the St Kilda Foreshore area. The historic context of the site is respected whilst providing a venue for a selection of major community events and activities.

The key themes identified are:

- Precinct Usage,
- Event Management,
- Precinct Design,
- Heritage Management,
- Potable Water Use,
- Tree Management,
- Landscaping,
- Infrastructure Management, and
- Other Matters.

Section 6 presents each recommendation within an overall prioritised implementation framework.



5.1 Theme: Precinct Usage

5.1.1 Issues

The original design intent for Catani Gardens reinforced the role of the area for a range of active and passive recreational pursuits, including promenading, picnicking and community gatherings to name a few. However, the research and consultation has identified that there may be strategic gaps in management direction for the precinct within a contemporary context.

It is acknowledged that there may be different management principles and directions required for Catani Gardens and the Southern Foreshore which

recognise the different roles that each of these reserves play in servicing resident, visitor and tourism needs. Furthermore, it would appear that there may be a lack of direction/policy in relation to commercial uses of the precinct, including Café's, vendors, services and personal trainers.

It is also acknowledged that the precinct may attract unintended uses, including use by people who may be experiencing homelessness. The City already has a sound policy and process for responding to homelessness and it is appropriate that this continue to be applied within the precinct.

5.1.2 Recommendations

Management:

It is recommended that the following role statement and principles/objectives be used to guide the future use and management of each respective reserve:

a) Catani Gardens:

- Role Statement:
 - Catani Gardens is a highly valued heritage listed open space reserve which is used to support a range of active and passive recreation and leisure pursuits.
- Principles and Objectives:
 - Protect and conserve the heritage value, integrity, character and (heritage) listed assets within the park.
 - Maintain and enhance open views and vistas (including from passing traffic).
 - Ensure the large grass areas are retained and that they can be used for passive recreation, festivals and events.

- o Maintain a variety of quiet contemplative spaces.
- o Whilst maintaining the heritage integrity of the park, provide facilities and infrastructure (e.g. BBQ's, Bocce rink etc) that support use by people from a range of cultural backgrounds, age groups and all abilities.
- o Improve personal safety and appeal by providing better lighting and promoting (formal and informal) activity throughout the park.
- o Ensure commercial events provide net community benefit and minimise potential long-term impacts on the park.
- o As far as practicable, events and festivals should enhance recreation opportunities for residents and visitors, whilst minimising negative amenity impacts on the park.

b) Southern Foreshore:

- Role Statement:
 - o The Southern Foreshore is a vibrant, dynamic and iconic tourist destination within the State (i.e. St Kilda beach). The precinct should continue to be used and developed to support a range of commercial spaces and activities that sustain the high volume of resident and tourism uses within a contemporary open space setting.
- Principles and Objectives:
 - o Recognise and protect heritage assets and features within the precinct (e.g. rock walls, Catani Arch).
 - o Promote opportunities and facilities that encourage activity across all seasons.
 - o Provide public facilities that complement and support existing uses.

- o Maintain and enhance views and vistas.
- o Promote contemporary design excellence in buildings, structures and spaces.
- o Ensure the large South Beach Reserve lawn area is retained for passive recreation, festivals and events.
- o Create/maintain spaces that support social activity and can accommodate street performers and/or other contemporary uses that enhance visitor experiences.
- o Ensure commercial events provide net community benefit.

Maintenance:

c) Ensure maintenance standards (as defined in relevant service specifications) and resultant work practices support the identified role and objectives for each respective reserve.

Use:

d) Encourage appropriate uses that are consistent with the role and objectives identified for each reserve.



The research and consultation undertaken has identified a number of issues associated with event use of the precinct, including:

- Inadequate Council policy regarding the number of events, type of events and areas suitable for event use within the precinct. (NB: Council's 2003 Events Policy is currently being reviewed).
- Opportunities to improve basic infrastructure to support event uses, particularly access to appropriate power, water and sewer connection points.
- Opportunities to improve internal management processes for event and reserve bookings. (e.g. avoid unnecessary duplication of roles)
- Requirement to retain and improve event bump-in and out access via Pier Road.
- Opportunities to identify heavy vehicle access points across the precinct (having regard to infrastructure implications).
- Desire to improve grass types and/or durability in the Southern Foreshore to better accommodate summer events and peak crowds.
- Desire to improve asset service levels pre and post events, particularly turf management in order to proactively manage impacts.

5.2 Theme: Event Management

5.2.1 Issues

Catani Gardens and the Southern Foreshore areas are considered strategically important for the role that they play in hosting up to six major events per year, currently all staged within the peak November-March period. These currently include:

- Pride March,
- Sussan's Women's Fun Run,
- St Kilda Festival,
- Weet-bix Kids TRYathlon, and
- Corporate Triathlons (x2).

5.2.2 Recommendations

Management:

a) Revise Council policy to guide future event use of the precinct (under development). The policy should be consistent with the following preliminary aims, objectives and guiding principles/direction.

- Policy Aim:
 - To provide an appropriate balance between informal community use and 'major' event use of the precinct.
- Policy Objectives:
 - To support a range of annual 'major' events in Catani Gardens and Southern Foreshore which provide demonstrable community recreation and leisure benefits.
 - To support events which contribute to the marketing, profile and positioning of the City of Port Phillip.
 - To support a selection of events which contribute to the economic and social well being of the community.
- Guiding Principles/Direction:
 - Restrict the total number of 'major' events to a maximum of six (6) between 1st November – 30th March each year, with not more than two events scheduled within a single four-week period. Continue to maintain establish an annual Calender of 'major' events to ensure a balance between use and open space management.

- o Exceptions to support more than six major events during the summer period, may be considered on a case by case basis, however only where extra-ordinary community and social benefit can be demonstrated. Requests to stage additional events (beyond the normal six) should be referred to the full Council for resolution.
- o Although demand is likely to be significantly lower, scheduling events between 1st April – 31st October should be permissible, however greater care may need to be taken in order to minimise potential negative impacts on grassed areas, particularly after heavy rain and having regard to the grass dormancy during this period (which will increase recovery time required). Therefore, no more than one (1) event per month during this period should be supported.
- o Pending National event scheduling requirements, endeavour to allow at least a two week break between each event (in order to facilitate adequate landscape recovery and informal community use of the precinct).
- o NB: The ‘generic event overlay’ plan (under development) provides additional direction on areas suitable for event infrastructure, recommendations on areas available for use, possible locations for additional permanent infrastructure and heavy vehicle access points/restrictions.

b) Review internal CoPP departmental responsibilities and processes for event management and reserve bookings with a view to streamlining processes and improving coordination/integration of activities, including compulsory use of Council’s corporate software (Pathway) to record licensing and permits (this will improve opportunities for by-laws enforcement and control of activities).

- c) Establish a City-wide CoPP Events Manual which provides direction on (amongst other things):
- Areas available within the City for outdoor events;
 - Individual site issues, constraints, infrastructure available and suitability for various event/booking types;
 - Event booking procedures and requirements;
 - Event bump-in and bump out requirements, including site rectification;
 - Procedures for pre and post event inspections and remediation responsibilities (as required);
 - Dispute resolution;
- o Sustainability requirements/expectations, including waste management, carbon emissions etc.
- Fees, charges and bonds.

(NB: Refer to the Sydney Harbour Foreshore Authority, Sydney Centennial Parklands Trust and City of Melbourne for comparable event manuals which may be able to used as appropriate models for CoPP).

Maintenance:

d) Facilitate a meeting with Council’s relevant open space maintenance contractors prior to the ‘event season’ (i.e. prior to November each year) to discuss the annual Calender of events and other significant reserve bookings in order to proactively plan for an appropriate schedule of maintenance and remediation works throughout the precinct. This is likely to require seasonal variations to ‘normal’ specifications and should be considered in the open space contract review to allow for:

- Increased litter collection,
- Increased public amenity cleaning,
- Increased turf management, potentially including a proactive program incorporating fertilisation, aeration, top-dressing, irrigation (assuming access to non-potable water) and potentially allowance for turf replacement in high impact areas.

e) The use of the reserve for events primarily during the summer period fits well with the use of warm season grasses (which grow in warmer conditions and will be able to repair themselves after intensive use, but are relatively dormant in cooler weather), which is also recommended from a water use perspective (refer to Section 5.5 relating to potable water use). Warm season grasses such as Couch and Kikuyu are already present in a good proportion of Catani Gardens and the Southern Foreshore. The continuation of the use of these species should be continued and expanded throughout the entire study area.

Event overlay plans Catani Gardens

Single phase power available in every second light on St Kilda foreshore



Pier Lawn



Southern Foreshore



-  Main Event Spaces
-  Tree Protection Zones
(refer to tree protection zone requirements in arborist report)
-  Event exclusion zone
(Centotaph Precinct and Playground / Picnic Area)
-  Heavy Duty Paths
-  Heavy Vehicle Access Points
-  Existing Power Source
-  Existing Water Source
-  Portaloo Zone
(Potential sewer dump infrastructure location)

Use:

NB: Refer to figure 13 which provides additional direction of areas suitable for event infrastructure, recommendations on areas available for use, possible locations for additional permanent infrastructure and heavy vehicle access points/restrictions.

While small scale non-sport events (such as weddings) generally prefer spaces with high aesthetic qualities, they require relatively little space and can be accommodated in many parts of the study area. It may be preferable that such events utilise multiple locations throughout the study area in order to distribute the associated wear and tear more evenly. The key constraints for the location of small scale events is ensuring that such events do not block key circulation and access routes, and that they avoid areas that may be sensitive to intensive use (such as areas of foreshore remnant vegetation or revegetation).

The space required to accommodate larger scale events makes the location of these more restricted. Such events require large open spaces, without excessive vegetation, furniture or other infrastructure that prevents the erection of marquees or bicycle racks, or blocks views. South Beach Reserve, located on the Southern Foreshore is a good example of this kind of event space. While the Catani Gardens is more encumbered by trees and furniture, the larger spaces available and the character afforded by these 'encumbrances' still makes it suitable for staging many types of events.

The proximity to the water (from Catani Gardens) is also a key element in the suitability of the spaces for some events, particularly triathlons.



5.3 Theme: Precinct Design

5.3.1 Issues

Despite recent significant redevelopment and upgrade of the Southern Foreshore precinct, there remains a number of inherent design deficiencies and issues across the site, these include:

- Poor physical and visual connection between Catani Gardens/St Kilda Pier forecourt and to/from Fitzroy Street.
- Poor connection/linkages to West Beach from Catani Gardens and Pier Road.
- Whilst Pier Road provides important service, maintenance and user access to the RMYs, St Kilda Pier and St Kilda Marina, the area is (for the most

part) an underutilized space which disconnects Catani Gardens from the foreshore.

- There may be opportunities to improve pathways and improve loops and connections throughout the precinct, this may involve possible rationalisation of the number of paths/routes.
- The physical ‘address’ of the RMYs to the park could be improved, e.g. additional landscaping, lighting, pedestrian access and vehicle drop-off points.
- There may be opportunities to improve personal safety through the provision of additional lighting and maintaining vegetation at a low height.

5.3.2 Recommendations

Management:

- All detailed precinct design should consider safety of users as a high priority, including the retention of sight lines and other CPTED principles, and the provision of adequate lighting levels to pedestrian areas.
- The preliminary design responses in this section provide strategic management direction for the future development of a number of key locations. The design responses show:

- A proposed re-working of the RMYs forecourt and surrounding precinct, to provide better pedestrian access through this space, and to better integrate the space with it’s surrounds. This includes the reintroduction of garden beds to the RMYs building frontage (for which there are historic precedents), and a more direct pathway from the Cenotaph to Pier Lawn. In concert with recent works to Fitzroy Street and the pedestrian crossings, these works are intended to provide clearer access between

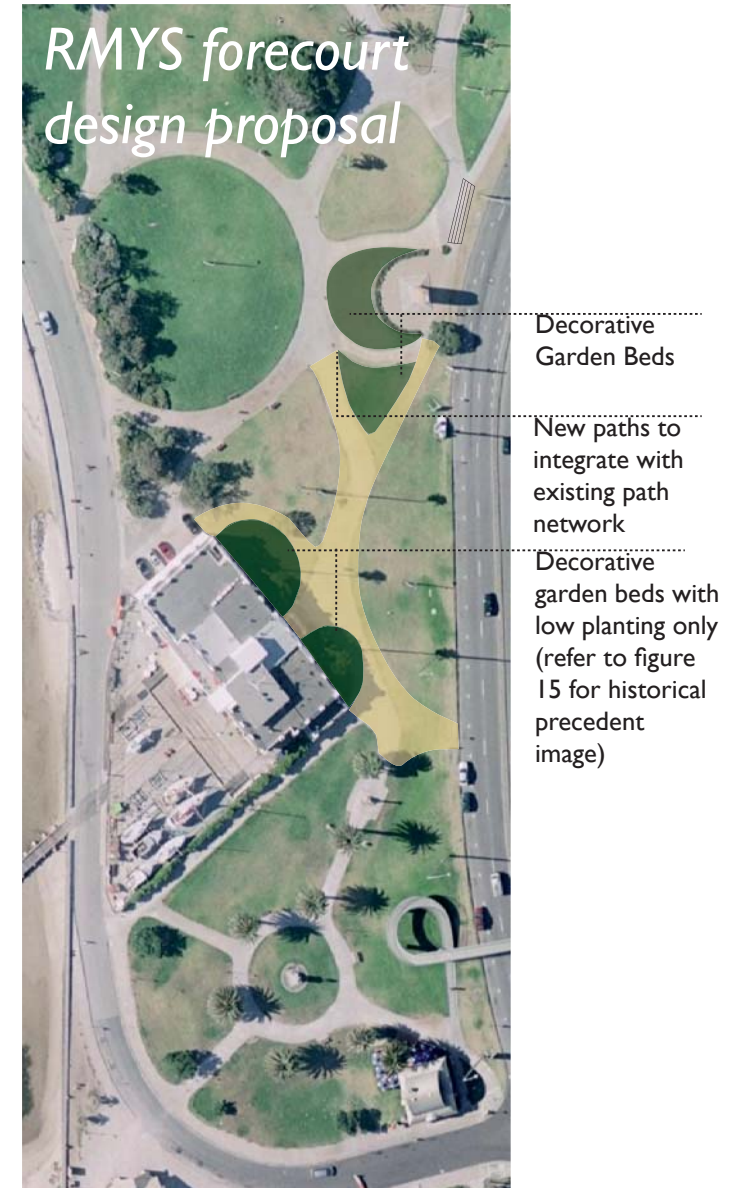


FIGURE 14



FIGURE 15

Fitzroy Street and the foreshore. Also in this vicinity, the location of the existing toilet block could be reviewed in the future, possibly being relocated in a location which has better 24 hour surveillance, and associated with other built form, rather than being a prominent stand-alone building standing isolated in parkland.

- A proposed re-working of Pier Road, in line with the direction proposed in the St Kilda Foreshore UDF. This includes the re-prioritisation of the space to better accommodate both passive pedestrian usage (along the Catani Gardens side of Pier Road, encouraging use of the seating provided within the historic stone wall), and more active uses (including jogging, cycling and skating) on the beach side of Pier Road. It is proposed that the use of low planting be continued to soften the large expanses of paved area. It is proposed that the increased pedestrian priority in this zone will open opportunities for better pedestrian access beyond the site to the west, including to West Beach and the beachside path.



FIGURE 16

Maintenance:

- c) Maintain each respective area consistent with the proposed design intent encapsulated in the attached plans.
- d) Ensure maintenance activities support design objectives regarding personal safety, including the management of vegetation as required to maintain sight

lines.

Use:

- e) The proposed design responses seek to improve the usability and functionality of each respective area for a range of informal and event uses.

Reconfigured vehicle and pedestrian spaces with the aim of maximising pedestrian flow and amenity, while also maintaining vehicle access and with a preference for maintaining parking.

Widened footpath abutting lava wall seats (passive recreation zone)

Additional softening with planting



5.4 Theme: Heritage Management

5.4.1 Issues

Catani Gardens is recognised for its heritage significance (refer to Section 2.1). In addition to its overall heritage listing, the site contains a number of individual items and assets of specific heritage value, including trees, monuments, memorials and original design features (e.g. lava rock walls).

The City already has a number of strategic documents to guide future management of heritage assets, including:

- Memorials and Monuments Policy 2008
- Memorials and Monuments Procedures and Practice Notes 2009

- City of Port Phillip Collection Management Policy 2009 – 2011 (NB: Currently under review)
- Catani Gardens Cultural Heritage Management Plan (1996)

Despite this, there remain a number of key issues that have been identified as part of this planning project which require further resolution, including:

- Maintenance and strategic management of heritage listed trees.
- Strategic direction on the preferred location for heritage assets (including the Mirka Mora sculpture).
- Opportunities for improved interpretive information.
- Maintenance, management and potential replacement of declining assets eg. the heritage listed lava rock walls. A structural engineer assessed the park assets as a part of this study (the full report is attached as Reference 8.4). This visual assessment suggested that ‘minor collapses of sections of the (lava) wall will be inevitable’ due to the design and footings not meeting current standards, and due to the action of tree roots and the pressure from retained soils. There is evidence of repatching of the mortar in this wall over a long period of time, so it is obvious that ongoing maintenance has been occurring and will need to continue unless more substantial measures are taken to arrest the decline.

5.4.2 Recommendations

Management:

- Ensure ongoing management and maintenance of heritage assets is consistent with Council’s adopted strategies and policies (including those listed above) and

where practical ensure consistency with the principle of leaving/returning statues and monuments in their original locations.

(NB: It is acknowledged that in some instances it may not be possible to return or retain heritage items in their original locations, this may occur where existing development has already occurred; where contemporary usage patterns may have changed; and/or when personal safety or asset protection requires. The latter is relevant to the Mirka Mora sculpture which may require slight alteration to the original location so as to avoid possible asset damage from vehicles. (Please refer to attached plan indicating the current location of heritage listed elements and if appropriate (and known) their original location).

b) Individual plant species, and more particularly groups of plantings (such as the palm avenues of Catani Gardens) play a very important role in the character of the area and the heritage of the place. Some of these species are reaching the end of their useful life span (e.g. cypresses), while garden bed planting has become degraded over time. Recommendations relating to these issues are found under the themes of Tree Management and Landscaping which follow this section.

Maintenance:

- Implement the tree maintenance tasks identified for selected heritage listed trees as identified in the Tree Logic report/s (refer to Reference 8.2).

d) The lava rock walls were reviewed as a part of a structural engineer's assessment undertaken as a part of this study. The maintenance implications of this (refer to Reference 8.4 for the full report) involve continuing to patch the wall to address the immediate risk of rock fall, or to commit to rebuilding of walls (in consultation with Heritage Victoria).



1. Bicentennial Rotunda
2. Cenotaph
3. Sir William Cresswell Memorial (bust missing)
4. Sali Cleve drinking fountain (current and former locations - relocated to allow for road widening)
5. Captain Cook Memorial (current and former locations - relocated from site of current Rotunda)
8. Catani Arch
10. Bluestone sea wall
11. Lava rock wall
12. Lava Rock drinking fountains

FIGURE 17



5.5 Theme: Potable Water Use

5.5.1 Issues

Like many other open space areas throughout Melbourne, the precinct has suffered from the prolonged drought and below average rainfalls experienced throughout Victoria over the last ten years. The Tree Logic report confirms evidence of drought stress may be a contributing factor to the poor performance and poor health of many of the existing trees.

In addition, the large grassed areas that are characteristic of the precinct, have also suffered from a lack of water (particularly in light of water restrictions which prevent irrigation using potable water), which

is exacerbated by the high volumes of use, pedestrian traffic and events over the summer period.

Council's Water Plan and Open Space Water Management Plan have identified the following strategies/objectives for open space:

- Ongoing water efficiency measures for parks, gardens and trees.
- Stormwater harvesting for open space.
- Application of water sensitive urban design.

The draft targets for potable water savings and improvements to stormwater quality are:

- Potable Water: 70% reduction in Council use by 2020.
- Supply from alternative water sources: 50% of future ideal irrigation demand (or approx. 80ML).
- Stormwater quality reductions in mean annual pollutants:
 - 19% reduction in total suspended solids.
 - 15% reduction in total phosphorous.
 - 10% reduction in total nitrogen.

Preliminary investigations into possible alternative (non-potable) water sources to service irrigation demands across the precinct and to contribute to achieving Council's Water Plan objectives have been undertaken as part of this project by Aurecon Australia. A copy of the Aurecon report is included as Reference 8.1.

A range of possible alternative water sources were considered, including:

- Rainwater,
- Stormwater,
- Treated wastewater,
- Ground water,
- Sea water (desalination), and

- Built facilities, specifically the St Kilda Sea Baths and Royal Melbourne Yacht Squadron (RMYS) (i.e. rainwater collection and grey water).

The Aurecon report indicates that stormwater harvesting from two main drains that run below Catani Gardens is likely to provide the most viable option to service the majority (i.e. up to 75%) of irrigation demand for the main lawn, tree and garden bed areas in Catani Gardens and Southern Foreshore. Including the lawn areas traditionally used to support hosting major events.

However, significant storage volumes will be required (i.e. 2ML to achieve 75% replacement of potable water loads). In order to avoid negative visual impacts from potential water storage of this magnitude, it is likely that sub-surface storage under existing lawn areas will be required. The capital cost of such storage can be significant, potentially in the order of \$1 million. Furthermore, additional investigation is required to confirm dry season flow rates from the proposed drains to be harvested which may further influence storage requirements.

Pre-treatment of the stormwater prior to reuse is advisable to help prevent clogging of the existing irrigation system and ensure its longevity. As such, a gross pollutant trap upstream of the storage will be required. Preliminary research indicates that isolator rows within subsurface storages can also act effectively to reduce levels of sediment and pollutants within stormwater flows.

At-source treatments such as rain gardens may be constructed within the larger upstream catchment area to improve the quality of stormwater before it

is conveyed through the drainage network to Catani Gardens, especially if additional budget is available within road rehabilitation or landscaping works being undertaken elsewhere in the upstream catchment. Other water saving measures that may be implemented throughout Catani Gardens and the Southern Foreshore that can act to either reduce the demand or increase the supply of available water may include:

- Water efficient fixtures and fittings.
- Irrigation system upgrades for improved efficiencies.
- Warm season grasses.
- Drought tolerant plantings.
- Reduced areas of irrigation.
- Capture of surface stormwater flows from adjacent roads.

5.5.2 Recommendations

Management:

a) Commission additional investigation and monitoring of dry season flows from the two selected drains in Catani Gardens in order to confirm possible water storage requirements.

b) Pending outcomes from the additional monitoring (as above) implement the recommendations from the Water Assessment Report (refer to Reference 8.1) in order to establish a sustainable non-potable water source for irrigation of Catani Gardens and the Southern Foreshore.

Maintenance:

c) Investigate options to reduce overall water use requirements throughout the precinct through implementation of the 'other potential water saving measures' identified in the Water Assessment Report, in particular water efficient fixtures and fittings in

public buildings, irrigation system upgrades/monitoring to improve efficiencies, additional use of warm season grass species (such as Couch and Kikuyu), use of drought tolerant plantings (as recommended in the planting plans associated with the Landscaping theme following) and possible reduction in the areas requiring irrigation (the prioritised irrigation diagram makes note of potential areas for reduction in lawn area, without impacting upon use and function).

d) Implement maintenance regimes that ensure simple water saving measures, such as adequate provision of mulch to garden beds and trees, and the cutting of grass to a height that provides an acceptable balance between use requirements and water loss.

Use:

e) The usage requirements of the study area, along with other factors such as heritage vegetation and character help to dictate the irrigation priorities. The accompanying diagram details a prioritised irrigation zones plan, which should be used to help determine which areas most require irrigation water.




- Highest irrigation priority
(due to intensive summer event usage, heritage values and presentation requirements)* 
- Medium irrigation usage* 
- Lowest irrigation priority
(due to grades making areas unsuitable for many lawn-based activities. Opportunity to assess these areas for inclusion of garden beds or other surfaces to reduce irrigation load)* 



FIGURE 18



5.6 Theme: Tree Management

5.6.1 Arboricultural assessment

Tree Logic was engaged as a sub consultant to Insight Leisure Planning to undertake an assessment of selected trees within the Catani Gardens and the Southern Foreshore. Given the distinct differences between the two areas in terms of planting styles and site conditions / land use, separate reports have been produced for each site. Copies of each report are included in Reference 8.2.

The intent of the arboricultural assessment was to assess the condition of selected trees and provide relevant information that will assist in their long term maintenance and management. The following section provides an overview of critical findings and recommendations, however each tree assessment report should be reviewed in its entirety in order to fully comprehend the directions provided.

Catani Gardens

A total of forty-three individual trees were assessed in Catani Gardens representing a minority of the total number of trees present. In accordance with Council instructions, the formal avenues of Canary Island Date Palms (*Phoenix canariensis*) were excluded from the assessment process as previous assessments of these have recently been undertaken by the City.

This assessment demonstrated that the palms are in good health, with regular visual inspections undertaken for signs of stress, fusarium wilt and other pests and diseases. All palms are pruned annually.

Few of the trees assessed were significant as individuals in terms of their size, age or botanical nature. Eight trees were of High arboricultural value, seventeen of Moderate arboricultural value, eleven individual trees of Low arboricultural value⁴, and the remaining three trees, attracted No arboricultural rating.

Maintenance treatments to abate hazards and improve the health and structural condition of assessed trees were identified for twenty six specimens. Common maintenance tasks recommended include mulching,

irrigation, crown modification, pruning and preventing mower damage to base/ roots. In addition, four trees were recommended for removal (refer figure 21) and a further seven trees identified for 'consideration of removal' (refer figures 19 & 20) due to their age, health, structure and/or condition.

It is further recommended that testing the site for the presence of soil borne fungal pathogens, including *Armillaria* sp. and *Phytophthora* sp. should be undertaken as a matter of priority. Monitoring and if necessary addressing soil moisture deficit stress should also be considered.

Tree protection zones have also been identified in the assessment report (Reference 8.2) and general recommendations for protecting trees in and around construction sites (i.e. during event bump-in and out) included.

Southern Foreshore

A total of two hundred and eighty-three individual trees were assessed throughout the Southern Foreshore subject site. No individual trees within the study group were identified as significant for their size, age or botanical nature. However, twenty-four trees were of High arboricultural value, eighty-eight of Moderate arboricultural value, one hundred and twenty-eight individual trees of Low arboricultural value, and the remaining eleven trees attracted No arboricultural rating. Thirty-two trees appearing on site survey plans had been removed prior to this study being undertaken.

⁴Extract from Tree Logic report: An arboricultural rating has been allocated to individual trees or tree groups that represents a summary of the interpretation of a combination of objective assessment criterion. This rating also conveys an amenity value relating to biological, functional and aesthetic characteristics within the built environment. Whether the trees are retained or not is often not solely dependent on arboricultural considerations, therefore this is a guide to assist in decisions relating to tree management.

Twenty one trees were recommended for removal (refer to figure 22) and a further twelve trees identified for 'consideration of removal' (refer to figure 23) due to their age, health, structure and/or condition.

Relatively few discrete maintenance tasks were identified for individual trees. Clearance pruning, removal of dead, dying and structurally defective trees that present a risk were the most common. Matters concerning broader maintenance and management considerations were more apparent.

Health deficiencies affecting trees in the southern foreshore appear to be a combination of biotic factors (eg disease, predation and parasitism) and abiotic factors (e.g temperature range, pH levels, water availability, pollutants). The most severe symptoms occurred in the recent installations of Coast Banksia and Sheoaks.

High winds experienced within the precinct, particularly combined with salt spray, are also known to have a deleterious impact on tree establishment, growth and overall health. Such conditions are characteristic of the area, therefore careful consideration of tree species selection, location and protection during infancy/

establishment will be required.

Palm Wilt fungus (*Fusarium oxysporum* f. sp. *canariensis*) is still a current threat to Canary Island Date Palms in the City of Port Phillip. Installation of terrestrial mammal guards (possum and rat guards) should be considered for the Canary Island Date Palms within Southern Foreshore reserve.

With guards having been installed on Canary Island Date Palms in the nearby Catani Gardens to prevent access to palm crowns by potential vectors (possums and rats) of Palm Wilt Fungus, installing guards on Palms in the Southern Foreshore Reserve is a logical extension of this undertaking.

The latter will however, most likely result in increased browsing activity among unprotected trees further increasing tree mortality within the Reserve.

Maintenance treatments that could be considered for application on a broader scale include monitoring of and if necessary alleviating seasonal soil moisture deficits (drought stress). Prolonged periods of below average rainfall (drought) such as Melbourne has experienced over the last decade gradually diminish available water, causing a loss of vigour that

may ultimately lead to death, particularly if other stress factors are present. Drought stress could be contributing to the poor performance of some species. Furthermore, adopting work practices that avoid mechanical impact damage to the trunks of trees is a basic principle to maintain tree health. Avoiding damage reduces wound sites available for insect or pathogen entry and avoids trunk cambial tissue damage that can reduce plant performance.

Present levels of infrastructure damage to decking and paving by palm root growth did not present a significant risk, but can be expected to worsen with time and will likely require attention in the short to medium term. The small clearance provided to palms and trees in the promenade paving could similarly prove problematic, however there is scope to increase plot sizes overtime to accommodate growth by selective pavement or decking modification as required (which has been considered in the design of these elements).

5.6.2 Issues

The tree assessments undertaken by Tree Logic identify a number of opportunities for operational management improvements, particularly in relation to:

High = Tree of high quality in good to fair condition. Generally a prominent arboricultural feature. Tree is capable of tolerating changes in its environment. These trees have the potential to be a medium- to long-term component of the landscape if managed appropriately. Retention of these trees is highly desirable.

Moderate = Tree of moderate quality, in fair or better condition. Tree may have a condition, and or structural problem that will respond to arboricultural treatment. Tree is capable of tolerating changes in its environment. These trees have the potential to be a medium- to long-term component of the landscape if managed appropriately. Retention of these trees is generally desirable.

Low = Tree of low quality and/or little amenity value. Tree in poor health and/or with poor structure. Tree unlikely to respond positively to changes in its environment and does not warrant design modification to preserve it. Tree is not significant for its size and/or young. These trees are easily replaceable. Tree (species) is functionally inappropriate to specific location and would be expected to be problematic if retained. Retention of such trees may be considered if not requiring a disproportionate expenditure of resources for a tree in its condition and location.

None = Tree has a severe structural defect and/or health problem that cannot be sustained with practical arboricultural techniques and the loss of tree would be expected in the short term. Tree whose retention would be unviable after the removal of adjacent trees (includes trees that have developed in close spaced groups and would not be expected to acclimatise to severe alterations to surrounding environment – removal of adjacent shelter trees) Tree has a detrimental effect on the environment, for example, the tree is a woody weed. These trees should be removed on the basis of sound arboricultural management.

- Establishing Tree Protection Zones (TPZ), and
- A range of tree treatments that will promote tree health and minimise identified tree related risks.

Furthermore, the assessment reports suggested that the possible causes of poor tree performance throughout the precinct may be due to the presence of disease, fungal infections or pathogens. This is a significant concern which could potentially severely influence the ongoing health, condition and management of the existing tree stock.

The condition of the assessed stock varied markedly, though most were showing some level of stress that reduced plant vigour, particularly within the Southern

Foreshore area.

Other issues raised during consultation included a desire for direction on:

- Management options to address ongoing root compaction and damage to trees from events (i.e. implementation of the recommended tree protection zones).
- Future management of the Palms in the event that they are struck by disease.
- A suitable program to inform tree replacement to address natural senescence and/or damage to selected trees.
- Strategic direction on appropriate maintenance

cycles and tasks for selected trees (i.e. as per tasks identified in the Tree Logic reports).

5.6.3 Recommendations

Management:

- Immediately undertake an investigation into the cause/s of stress and ill health among the trees. Should a readily transmittable soil borne fungus be affecting tree health then management of this problem should precede and influence all other management considerations.
- Given the above, consideration should be given to

*Precinct by precinct diagrams showing trees recommended for removal (shown in red) or to be considered for removal (shown in yellow) following the arboricultural assessment. Refer to References for the full report and detailed plans - **these diagrams are not to be used for removal purposes.***



FIGURE 19



FIGURE 20

adopting appropriate precautionary interim bio-security measures until the cause of the stress is identified, including but not limited to the suspension of all works involving soil movement or excavation and no non-urgent tree removals.

c) Depending on the results of the above recommended investigation, monitor and if necessary alleviate seasonal soil moisture deficits (i.e. drought stress), through the reinstatement of irrigation (potentially using non-potable water).

d) Installation of terrestrial mammal (possum and rat) guards should be considered for all Canary Island Date Palms to provide consistency with the management of Canary Island Date Palms in the adjacent Catani

Gardens, undertaken in response to the threat of Palm Wilt Fungus (*Fusarium oxysporum* f. sp. *canariensis*).

e) Implement monitoring of the development of “Pencil pointing” / trunk constriction in palms.

f) Investigate the source of the drill holes in Palm No. AR70000129, and monitor palm condition if necessary.

g) Undertake regular arboricultural assessment of tree stock in the study area to ensure that any outbreaks of disease or the occurrence of other deleterious impacts are detected as early as possible and prompt action can be taken, minimising the numbers of specimens likely to be impacted upon.

h) Where trees are assessed by an arborist and

required to be removed due to poor health, structure or safety issues, the preference should be for the replacement of the tree with like species.

i) Avoid any planting not associated with a clear strategy.

Maintenance:

j) Develop a maintenance strategy/response to address infrastructure related damage and the creation of trip hazards by palm and tree root growth displacing paving / decking.

k) Adopt work practices that avoid mechanical impact damage to the trunks of trees in order to maintain tree health.



FIGURE 21



FIGURE 22



FIGURE 23

l) Implement the individual treatments identified to abate hazards and improve the health and structural condition of assessed trees (refer to each respective Tree Logic report for Catani Gardens and Southern Foreshore). Common maintenance tasks recommended include mulching, irrigation, crown modification, pruning and preventing mower damage to base/ roots. Maintenance treatments that could be considered for application on a broader scale include monitoring of and if necessary, alleviating seasonal soil moisture deficits (i.e. drought stress).

m) Implement recommendations for tree removal and/or remediation works due to poor health and/or structural consideration in accordance with the Tree Logic report (as shown on the accompanying diagrams), specifically:

- Catani Gardens: Four trees are recommended for removal (shown red on figure 21) and a further seven trees identified for 'consideration of removal' (shown yellow on figures 19 & 20) due to their age, health, structure and/or condition.
- Southern Foreshore: Twenty one trees are recommended for removal and a further twelve trees identified for 'consideration of removal' due to their age, health, structure and/or condition.

For removed trees, the replacement strategy shall depend upon the nature of the tree being removed. Where removed trees are clearly part of a designed planting scheme (such as those prepared as a part of this project and included in Reference 8.5), replacement with the same species is likely to be the most appropriate action, first ensuring that the cause of the

demise of the tree is not likely to be repeated upon the replacement (eg. disease, inappropriate conditions for the species, inadequate water/irrigation allowance, etc).

Use:

n) Ensure future event use of the precinct considers the recommended Tree Protection Zones for individual trees as identified in the Tree Logic reports, i.e. ensure event permit conditions protect and reinforce the recommended tree protection zones (e.g. for ease of application, consider enforcing tree protection zones extending to the extent of the drip-line of all individual trees).

o) Ensure future construction works, including event bump-in and out, considers and implements the general recommendations for protecting trees in and around construction sites (refer to Tree Logic reports for specific guidelines, these should be incorporated into future event permit conditions).



5.7 Theme: Landscaping

5.7.1 Issues

In addition to the tree assessment reports which have been completed for Catani Gardens and the Southern Foreshore, as discussed in Section 4.1, a number of broader issues have been identified during the planning process. Specifically there is a need to establish specific planting plans for the rock wall areas (Catani Gardens) which respect the heritage significance of the site whilst avoiding densely planted areas that may attract people who may be sleeping rough.

The planting plans for these areas should seek to improve the visual connection to the foreshore, whilst maintaining adequate shelter from prevailing winds.

In addition, there may be opportunities throughout the precinct to consider options for demonstrating indigenous coastal vegetation and drought tolerant plants where appropriate.

Furthermore, whilst the focus of this project is on the landward side of the foreshore, it is acknowledged – particularly in light of climate change and rising sea levels – that there may be additional opportunities to increase foreshore rehabilitation areas, including areas for dune fencing and revegetation. Once established, such areas may help minimise or slow the potentially destructive impacts from rising sea levels on landward infrastructure.

5.7.2 Recommendations

Management:

- a) Refer to the planting plans prepared as a part of this study for the lava rock wall areas within Catani Gardens and Southern Foreshore.
- b) Avoid any planting not associated with a clear strategy.

Maintenance:

- e) The existing and proposed garden bed plantings are not showy and are relatively low maintenance, being a backdrop to the strong forms of the palm and tree plantings that dominate Catani Gardens, and to the sea views in the Southern Foreshore area. Future planting should align with this principle.

Use:

- f) Planting can provide benefits that impact upon usage patterns. These benefits generally relate to shelter and

shade. The use of shade trees should be considered around areas such as playgrounds, ensuring that these tree locations and species also align with a broader planting strategy.



5.8 Theme: Infrastructure Management

5.8.1 Issues

A number of issues have been identified in relation to existing infrastructure management throughout the precinct, these include:

- A need to define areas that are suitable for heavy vehicle access to prevent ongoing damage to paths and associated infrastructure.
- Opportunities to improve consistency in designs and styles for regular infrastructure elements (e.g. park furniture).
- There is a lack of appropriate precinct signage and community information points.

- There is a lack of adequate provision for bicycle parking throughout the precinct.
- There is a need to improve processes for new asset data collection and subsequent inclusion on maintenance schedules/service contacts.
- There are opportunities to improve disability access throughout the precinct.
- There may be opportunities to improve the appeal of the picnic shelter area in Catani Gardens, including measures to discourage permanent use by people who may be experiencing homelessness and to support ease of maintenance.
- There are opportunities to improving lighting throughout the precinct (for personal safety, security and aesthetic appeal).

5.8.2 Recommendations

Management:

- a) Figure 23 identifies preferred heavy vehicle access points for maintenance access and to help facilitate event bump-in and out. Path infrastructure in these locations may need to be reviewed in order to ensure capacity to sustain vehicle loads.
- b) Improve the consistency in design and styles for regular infrastructure elements (e.g. park furniture) throughout the precinct. Both the Catani Gardens and Southern Foreshore have furniture styles that have been adhered to in recent installation works, and these should determine the style of a new furniture installed, and older non-heritage furniture should be progressively removed. There are only a couple of cases where a critical review of the existing furniture style is warranted, being;

- the timber slatted, metal framed park seats in Catani Gardens (many of which are showing signs of decay in this harsh sea-side environment)
- the bollards throughout the site, which are currently a mix of many different types, making it unclear what the current style is, and
- the light fittings to Catani Gardens, which are aged and show evidence of extensive damage, which may be alleviated by the choosing of a more durable lighting type.

c) Review management processes to improve mechanisms and requirements for new asset data capture/collection and subsequent inclusion on maintenance schedules or service contacts.

d) Undertake an audit of all signage throughout the precinct, develop a strategy and style guide (consistent with broader CoPP corporate identity and objectives) to improve precinct signage and information (including interpretive, regulatory and directional information).

Maintenance:

e) Review existing maintenance contracts and departmental roles to ensure adequate clarity regarding asset maintenance responsibilities for all asset classes/types evident within the precinct, particular attention should be paid to piers, boardwalks, structures, rock walls and lighting (NB: the review may lead to requirements for additions/modification to existing contracts, or even the established of new specialist service contracts e.g. lighting).

f) Review existing lease documents to ensure appropriate clarity regarding internal and external maintenance requirements (including buildings and

landscaping within leased areas). Ensure City of Port Phillip responsibilities are accurately reflected in relevant maintenance contracts and work schedules.

g) Improve the appeal and ease of maintenance of the picnic shelter in Catani Gardens by:

- Improving natural lighting through installation of laser light (or similar) to sections of the roof.
- Install a hard surface (concrete or asphalt) surround around the perimeter of the building (to minimise dirt and muddiness in the immediate vicinity).
- Install information signage inside the building indicating regular cleaning schedules and regimes (thereby encouraging removal of personal belongings to avoid possible damage from cleaning/hosing).

h) Ensure the open space contract review considers additional maintenance to support areas of historical and regional tourism significance.

Use:

i) Review available bicycle parking facilities available throughout the precinct and supplement with additional facilities at key activity nodes and destination points, for example St Kilda Pier entry, Catani Gardens (rotunda, playground, areas used by personal trainers), and the Sea Baths.

j) Undertake a disability access audit of the precinct and implement reasonable rectification and improvement works, particularly modifications that will address event access requirements on a permanent basis.

k) Undertake an audit of existing lighting throughout the precinct (including styles, condition and effectiveness) with the objective of developing a comprehensive lighting strategy which aims to improve personal safety, security, ease of maintenance, environmental efficiencies and aesthetic appeal, including feature lighting for key assets, trees and activity nodes.



- ➡ Heavy Vehicle Access Point
- Entrance and Route to Access Point

(Refer to Figure 13, page 34 for additional detail regarding heavy vehicle access points)

FIGURE 24



5.9.2 Recommendations

Management:

a) Climate change and rising sea levels will impact on all Bayside municipalities and therefore potential remediation strategies will need to be considered at a more strategic (and integrated) level than this individual project. Much of the site is relatively well protected, being within a bay environment (rather than facing open sea where the potential for storm-related damage is likely to be higher) and behind a sheltered marina. Catani Gardens is also located behind a significant stone sea wall and heritage lava walls that provide an element of protection between the site and the water. However, with the United Nations Intergovernmental Panel on Climate Change suggesting that sea levels are likely to rise about 80 centimetres by 2100, the site could well be subject to periodic inundation in the next century. The species existing in the gardens are relatively salt tolerant (they currently receive wind-borne salt spray), however few plants beyond inter-tidal or salt lake specialist species would be able to survive extended periods or regular inundation by sea water. Therefore, the site specific solutions proposed here do not provide solutions to the problem of sea level rise or the full extent of its potential impacts, but instead propose measures to ensure the potential site exposure to such impacts is not worsened, and provide potential for the situation to be improved during the life span of this document.

Site specific responses should include;

- Retention of the existing foreshore sea walls to help buffer possible impacts from sea level rises and storm surges.

- Retention and potential reinforcement of existing lava stone walls along Pier Road to help buffer Catani Gardens from storm surges.
 - Consider the addition of additional salt-tolerant indigenous foreshore planting to help to stabilise the foreshore in the short to medium term.
 - Due to the high profile nature of the site, consider an element of sea level rise education on the site (through interpretive signage or art installations, for instance) to alert visitors to the potential impacts of sea level rise and help to trigger broader responses and action.
 - Avoid locating new buildings or other elements in areas most likely to be affected by sea level rise or storm surges, such as in relatively low lying areas.
 - While the long term impacts upon vegetation on the site may be significant, many new species likely to be planted over the coming decade will have life spans that mean they will not encounter the worst sea level rise predictions. Even for long-lived specimen trees, specimens planted now could provide decades of useful life before being impacted by sea level rise.
- b) Council should continue to proactively manage negative impacts from possums within the precinct through ongoing implementation of existing works, including vegetation protection, in line with the Guidelines for Managing Damage Caused by Common Brushtail Possums in Municipal Parks prepared by the Department of Sustainability and Environment.
- c) In consultation with relevant specialists, Council may need to establish a management policy and strategy for minimising potential negative impacts from Indian Minor Birds and rats throughout the precinct.

5.9 Theme: Other Matters

5.9.1 Issues

A number of 'other' issues have been identified, including:

- There may be a need to consider the potential impacts of climate change on the precinct.
- Management of possums, Indian Minor Birds and rats remains a significant issue across the precinct.
- The precinct houses installations as part of the Melbourne Solar System Art Project, greater recognition and information about this project may be required.
- There may be opportunities to improve waste management throughout the precinct.

Maintenance:

d) Review the existing contract for waste management services in order to ensure best practice industry standards are currently being applied and appropriate seasonal variations and event management strategies are in place. There may be opportunities to improve recycling initiatives and infrastructure improvements (e.g. design/styles of rubbish bins to prevent pest/animal access or litter distribution via wind).

Use:

e) Explore opportunities to improve interpretive information and signage (as part of a broader signage/information strategy for the precinct as a whole) regarding the Melbourne Solar System Art Project.

6. Implementation Schedule

The following section provides a prioritised implementation schedule for all recommendations as well as direction on responding to new or unforeseen requests.

6.1 Prioritised Recommendations

The table below provides a summary of all recommendations within a prioritised implementation schedule.

#	Rec. Ref.	Issue	Summary Description	Priority Short Term, Medium, Long Term
1.	5.1.2 (a) & (b)	Precinct Usage	Adopt the role statement and principles/objectives to guide the future use and management of each respective reserve (i.e. Catani Gardens and Southern Foreshore).	Short
2.	5.2.2 (a)	Event Management	Review Council policy to guide future event use of the precinct. The policy should be consistent with the aims, objectives and guiding principles/direction outlined in this document (refer to Section 5.2.2).	Short
3.	5.2.2 (b)	Event Management	Review internal CoPP departmental responsibilities and processes for event management and reserve bookings with a view to streamlining processes and improving coordination/integration of activities.	Short
4.	5.2.2 (c)	Event Management	Establish a City-wide CoPP Events Manual.	Short
5.	5.4.2 (c)	Heritage Management	Implement the tree maintenance tasks identified for selected heritage listed trees as identified in the Tree Logic report/s.	Short
6.	5.5.2 (a)	Potable Water Use	Commission additional investigation and monitoring of dry season flows from the two selected drains in Catani Gardens in order to confirm possible water storage requirements.	Short
7.	5.5.2 (b)	Potable Water Use	Pending outcomes from the additional monitoring (as above) implement the recommendations from the Water Assessment Report (refer to Reference 8.1) in order to establish a sustainable non-potable water source for irrigation of Catani Gardens and the Southern Foreshore.	Short
8.	5.5.2 (c)	Potable Water Use	Investigate options to reduce overall water use requirements throughout the precinct through implementation of the 'other potential water saving measures' identified in the Water Assessment Report.	Short

#	Rec. Ref.	Issue	Summary Description	Priority Short Term, Medium, Long Term
9.	5.6.2 (d)	Tree Management	Installation of terrestrial mammal (possum and rat) guards should be considered for all Canary Island Date Palms within the Southern Foreshore to provide consistency with the management of Canary Island Date Palms in the adjacent Catani Gardens, undertaken in response to the threat of Palm Wilt Fungus.	Short
10.	5.6.2 (f)	Tree Management	Investigate the source of the drill holes in Palm No. AR70000129, and monitor palm condition if necessary.	Short
11.	5.6.2 (l)	Tree Management	Implement the individual treatments identified to abate hazards and improve the health and structural condition of assessed trees.	Short
12.	5.6.2 (m)	Tree Management	Implement recommendations for tree removal and/or remediation works in accordance with the Tree Logic report (as identified graphically within this report)	Short
13.	5.8.2 (c)	Infrastructure Management	Review management processes to improve mechanisms and requirements for new asset data capture/collection and subsequent inclusion on maintenance schedules or service contacts.	Short
14.	5.8.2 (e)	Infrastructure Management	Review existing maintenance contracts and departmental roles to ensure adequate clarity regarding asset maintenance responsibilities for all asset classes/types evident within the precinct, particular attention should be paid to piers, boardwalks, structures, rock walls and lighting (NB: the review may lead to requirements for additions/modification to existing contracts, or even the established of new specialist service contracts e.g. lighting).	Short
15.	5.8.2 (f)	Infrastructure Management	Review existing lease documents to ensure appropriate clarity regarding internal and external maintenance requirements (including buildings and landscaping within leased areas). Ensure City of Port Phillip responsibilities are accurately reflected in relevant maintenance contracts and work schedules.	Short
16.	5.8.2 (j)	Infrastructure Management	Undertake a site specific disability access audit of Catani Gardens (already completed for the Southern Foreshore) and implement reasonable rectification and improvement works, particularly modifications that will address event access requirements on a permanent basis. Ensure the audit is consistent with Council's Disability Action Plan.	Short

#	Rec. Ref.	Issue	Summary Description	Priority Short Term, Medium, Long Term
17.	5.8.2 (k)	Infrastructure Management	Undertake an audit of existing lighting throughout the precinct (including styles, condition and effectiveness) with the objective of developing a comprehensive lighting strategy which aims to improve personal safety, security, ease of maintenance, environmental efficiencies and aesthetic appeal, including feature lighting for key assets, trees and activity nodes.	Short
18.	5.9.2 (d)	Other Matters – Waste Management	Review the existing contract for waste management services in order to ensure best practice industry standards are currently being applied and appropriate seasonal variations and event management strategies are in place.	Short
19.	5.8.2 (d)	Infrastructure Management	Undertake an audit of all signage throughout the precinct, in accordance with the CoPP open space signage strategy (currently under development) in order to develop a style guide (consistent with broader CoPP corporate identity and objectives) to improve precinct signage and information (including interpretive, regulatory and directional information).	Medium
20.	5.9.2 (e)	Other Matters – Signage	Explore opportunities to improve interpretive information and signage (in accordance with the CoPP open space signage strategy (currently under development) regarding the Melbourne Solar System Art Project.	Medium
21.	5.3.2 (a)	Precinct Design	Consider implementation and detailed designs for the 'draft design responses' for improved connections to/from Fitzroy Street, West Beach, Pier Road, pathways and the RMYS forecourt as identified in this plan.	Medium
22.	5.4.2 (d)	Heritage Management	The lava rock walls were reviewed as a part of a structural engineer's assessment undertaken as a part of this study. Refer to the detailed maintenance recommendations in the resultant report (Reference 8.4).	Medium
23.	5.6.2 (c)	Tree Management	Monitor and if necessary alleviate seasonal soil moisture deficits (i.e. drought stress), through the reinstatement of irrigation (potentially using non-potable water).	Medium

#	Rec. Ref.	Issue	Summary Description	Priority Short Term, Medium, Long Term
24.	5.7.2 (a)	Landscaping	Implement the attached planting plans for the lava rock wall areas within Catani Gardens and Southern Foreshore.	Medium
25.	5.8.2 (g)	Infrastructure Management	Improve the appeal and ease of maintenance of the picnic shelter in Catani Gardens.	Medium
26.	5.8.2 (h)	Infrastructure Management	Ensure the open space contract review considers additional maintenance to support areas of historical and regional tourism significance.	Medium
27.	5.8.2 (i)	Infrastructure Management	Review available bicycle parking facilities available throughout the precinct and supplement with additional facilities at key activity nodes and destination points, for example St Kilda Pier entry, Catani Gardens (rotunda, playground, areas used by personal trainers), and the Sea Baths.	Medium
28.	5.9.2 (a)	Other Matters – Climate Change	Implement identified site specific responses and consider inclusion of community educational information.	Medium
29.	5.9.2 (c)	Other Matters – Indian Minor Birds and Rats	In consultation with relevant specialists, Council may need to establish a management policy and strategy for minimising potential negative impacts from Indian Minor Birds and rats throughout the precinct.	Medium
30.	5.8.2 (b)	Infrastructure Management	Improve the consistency in design and styles for regular infrastructure elements (e.g. park furniture) throughout the precinct.	Long
31.	5.8.2 (a)	Infrastructure Management	Figure 24 identifies preferred heavy vehicle access points for maintenance access and to help facilitate event bump-in and out. Path infrastructure in these locations may need to be reviewed in order to ensure capacity to sustain vehicle loads.	Ongoing

The following recommendations are considered operational and/or policy based in nature and are to be implemented on an ongoing basis, within existing staff/departmental resources.

#	Rec. Ref.	Issue	Summary Description
32.	5.1.2 (c)	Precinct Usage	Ensure maintenance standards and practices support the identified role and objectives for each respective reserve.
33.	5.1.2 (d)	Precinct Usage	Encourage appropriate uses that are consistent with the role and objectives identified for each reserve.
34.	5.2.2 (d)	Event Management	Facilitate a meeting with Council's relevant open space maintenance contractors prior to the 'event season' (i.e. prior to November each year) to discuss the annual Calendar of events and other significant reserve bookings in order to proactively plan for an appropriate schedule of maintenance and remediation works throughout the precinct. (NB: Planned remediation works may require additional financial resources – to be determined).
35.	5.2.2 (e)	Event Management	Warm season grasses such as Couch and Kikuyu are already present in a good proportion of Catani Gardens and the Southern Foreshore. The continuation of the use of these species should be continued and expanded throughout the entire study area.
36.	5.3.2 (b)	Precinct Design	Maintain each respective area consistent with the proposed design intent encapsulated in the draft designs for each area.
37.	5.3.2 (c)	Precinct Design	The proposed design responses (as outlined in this report) seek to improve the usability and functionality of each respective area for a range of informal and event uses.
38.	5.4.2 (a)	Heritage Management	Ensure ongoing management and maintenance of heritage assets is consistent with Council's adopted strategies and policies and where practical ensure consistency with the principle of leaving/returning statues and monuments in their original locations.
39.	5.5.2 (d)	Potable Water Use	Implement maintenance regimes that ensure simple water saving measures, such as adequate provision of mulch to garden beds and trees, and the cutting of grass to a height that provides an acceptable balance between use requirements and water loss.
40.	5.5.2 (e)	Potable Water Use	Figure 18 details a prioritised irrigation zones plan, which should be used to help determine which areas most require irrigation water.
41.	5.6.2 (e)	Tree Management	Implement monitoring of the development of "Pencil pointing" / trunk constriction in palms.
42.	5.6.2 (g)	Tree Management	Undertake regular arboricultural assessment of tree stock in the study area to ensure that any outbreaks of disease or the occurrence of other deleterious impacts are detected as early as possible and prompt action can be taken, minimising the numbers of specimens likely to be impacted upon.
43.	5.6.2 (h)	Tree Management	Where trees are assessed by an arborist and required to be removed due to poor health, structure or safety issues, the preference should be for the replacement of the tree with like species.
44.	5.6.2 (i)	Tree Management	Avoid any planting not associated with a clear strategy.

#	Rec. Ref.	Issue	Summary Description
45.	5.6.2 (j)	Tree Management	Develop a maintenance strategy/response to address infrastructure related damage and the creation of trip hazards by palm and tree root growth displacing paving / decking (NB: remediation works are likely to require a modest annual budget allowance).
46.	5.6.2 (k)	Tree Management	Adopt work practices that avoid mechanical impact damage to the trunks of trees in order to maintain tree health.
47.	5.6.2 (n)	Tree Management	Ensure future event use of the precinct considers the recommended Tree Protection Zones for individual trees as identified in the Tree Logic reports.
48.	5.6.2 (o)	Tree Management	Ensure future construction works, including event bump-in and out, considers and implements the general recommendations for protecting trees in and around construction sites.
49.	5.7.2 (b)	Landscaping	Avoid any planting not associated with a clear strategy.
50.	5.7.2 (e)	Landscaping	The existing and proposed garden bed plantings are not showy and are relatively low maintenance, being a backdrop to the strong forms of the palm and tree plantings that dominate Catani Gardens, and to the sea views in the Southern Foreshore area. Future planting should align with this principle.
51.	5.7.2 (f)	Landscaping	The use of shade trees should be considered around areas such as playgrounds, ensuring that these tree locations and species also align with a broader planting strategy.
52.	5.9.2 (b)	Other Matters - Possums	Council should continue to proactively manage negative impacts from possums within the precinct through ongoing implementation of existing works, including vegetation protection, in line with the Guidelines for Managing Damage Caused by Common Brushtail Possums in Municipal Parks prepared by the Department of Sustainability and Environment.

6.2 Responding to New or Unforeseen Requests

It is foreseeable that there may be issues or capital requests which emerge after the Management Plan has been adopted by Council. Should this arise, development or usage requests should be assessed against their contribution to, or consistency with the Management Aims and Principles for each reserve as outlined in Section 5.1.2. Requests that are deemed to be in line with the aims, objectives and management principles for the each reserve, and are compatible with (or complementary to) existing uses may be considered appropriate by Council.

7 . C o n c l u s i o n

The Catani Gardens and Southern Foreshore Management Plan has been developed to provide operational and strategic direction for the ongoing management, maintenance and use of each respective reserve.

The Plan recognises the strategic context for each reserve including their heritage significance, contribution to the City's character and overall open space network, as well as their broader role in catering for high levels of tourism and visitation consistent with the iconic nature of St Kilda. The precinct is highly valued by residents and the City of Port Phillip for the contribution that the area makes to the economic, environmental and social well being of the municipality. The Management Plan seeks to reinforce the importance and character of the precinct, whilst improving the capacity of the City to manage the area. This project has identified a number of key themes and provided management direction to address the identified issues within each. The key themes identified are:

- Precinct Usage,
- Event Management,
- Precinct Design,
- Heritage Management,
- Potable Water Use,
- Tree Management,
- Landscaping,
- Infrastructure Management, and
- Other Matters (e.g. Climate Change, Possums, Waste Management and Signage, to name a few).

Implementation of the recommendations included in this report can largely be undertaken within existing staff and operational resources; however there are also a number of opportunities to improve the design and functionality of the precinct. Draft preliminary design options for key areas have been included in this report to address specific issues. Further design resolution and consultation in relation to these design options is recommended prior to eventual implementation. In summary, this report should be used to guide the future use, management and maintenance of the precinct so that it can continue to be enjoyed, preserved and enhanced for future generations.

8 . R e f e r e n c e s

- 8.1 **Sustainable Water Management Plan
Catani Gardens and Southern Foreshore
(prepared by Aurecon)**
- 8.2 **Arboricultural Assessment
Catani Gardens
(prepared by Tree Logic)**
- 8.3 **Arboricultural Assessment
Southern Foreshore
(prepared by Tree Logic)**
- 8.4 **Plant Health Investigation
(prepared by Tree Logic)**
- 8.5 **Asset Assessment
(prepared by Fitzgerald Frisby Landscape
Architecture)**
- 8.6 **Catani Gardens Management Plan,
Structural Assessment of Assets
(prepared by John Horan & Associates)**
- 8.7 **Planting Plans to designated areas
(prepared by Fitzgerald Frisby Landscape
Architecture)**
- 8.8 **Community Consultation
(prepared by City of Port Phillip)**