



Adelaide Botanic Garden Masterplan Review

March 2021

In the production of this Masterplan Review, T.C.L has collaborated intensely with key staff at the Botanic Gardens and State Herbarium of South Australia. T.C.L would like to acknowledge the critically important inputs of Director Dr Lucy Sutherland, Deputy Director Collections Dr Leonie Scriven, Cultural Collections Manager Tony Kanellos, and Major Projects and Assets Manager Andrew Carrick. We also acknowledge the invaluable contributions of all Gardens staff who participated in the early workshop phase of the Review.

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Introduction 1



1. Introduction

PURPOSE OF THE MASTERPLAN

The purpose of the Masterplan is to provide the guiding principles and a strategic framework for long-term decision making. By identifying future projects and setting priorities, the Masterplan provides a basis for infrastructure planning and investment.

While the Board of the Botanic Gardens and State Herbarium's (the Board) *Strategic Plan 2017-22* provides a vision and strategic framework for the institution, the Masterplan translates this framework into infrastructure requirements for the Adelaide Botanic Garden.

The Botanic Gardens and State Herbarium (BGSH) manages three gardens and an experimental field site – the Adelaide Botanic Garden (including Botanic Park), Mount Lofty Botanic Garden, Wittunga Botanic Garden and the Botanic Reserves under the *Botanic Gardens and State Herbarium Act (1978)*. The *Botanic Gardens of Adelaide Masterplan Report* (July 2006) presented a plan for Adelaide Botanic Garden and Botanic Park, as well as Mount Lofty Botanic Garden. This Masterplan supersedes the 2006 Masterplan in relation to Adelaide Botanic Garden.

Adelaide Botanic Garden is one of the State's most visited and loved institutions. Established in 1855, the Garden has developed with the city, providing a rich array of leisure, tourism, cultural and scientific opportunities for the community and visitors. The Garden has significant cultural heritage values.

STRUCTURE OF THE STUDY

This Masterplan sets out a contextual basis through a review of the 2006 Masterplan and operating parameters of Adelaide Botanic Garden, and the history and physical attributes of the site. Following this Introduction, Section 2 of the study specifically reviews the overall purpose of the Garden and the current management and policy framework under which the institution operates.

Section 3 presents new emerging considerations taking into account the changes over the past decade within the Adelaide CBD and the precinct surrounding Adelaide Botanic Garden.

Section 4 covers site analysis, using a graphic format, and reviews areas such as surrounding land use, recent and planned developments, existing waterways, existing landscape structure, heritage, current user movement patterns and existing collections and displays. Section 5 of the study presents a summary of the status of the projects and actions since 2006 arising either directly from the previous Masterplan, or undertaken independently.

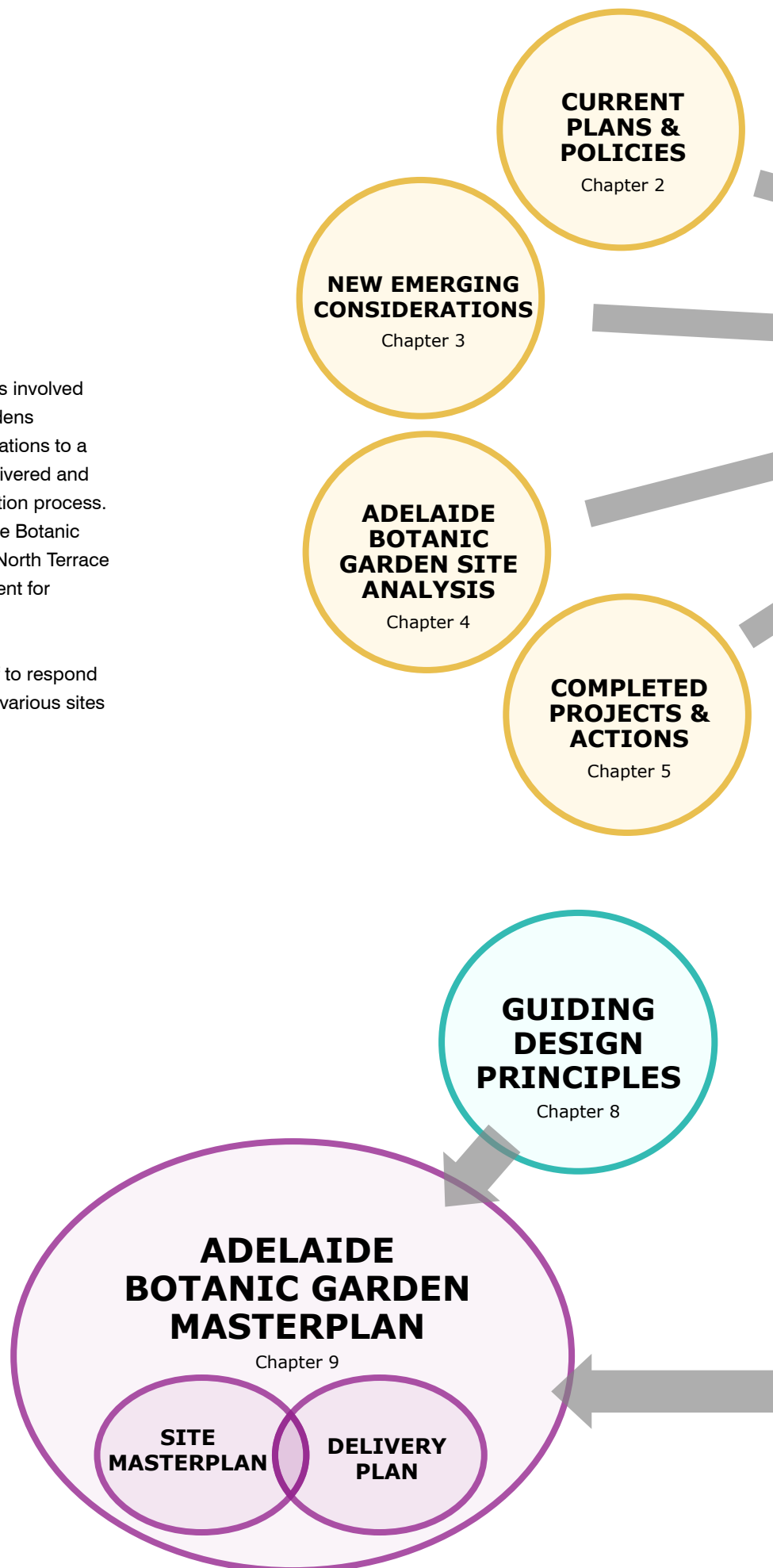
In Section 6 of the study, issues for the Masterplan are grouped into three categories and a number of subcategories, with an Objective stated for each subcategory. These Objectives are the basis for the preparation of a set of Strategic Responses that form the framework of Section 7. Each Strategic Response describes broad directions for future actions within the Garden; the actions are subsequently listed.

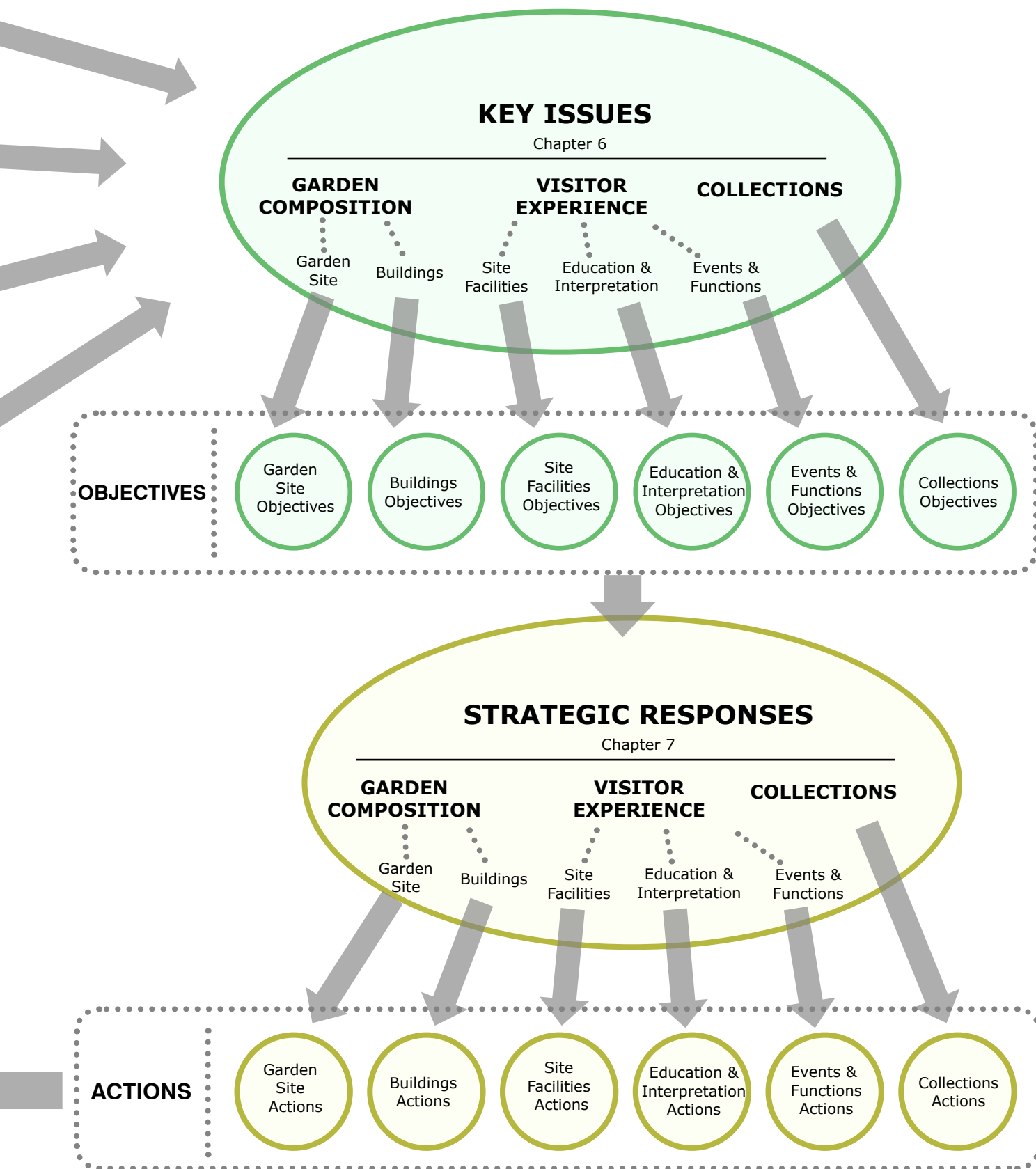
The final two sections (8 and 9) illustrate the development of a revised Adelaide Botanic Garden Site Masterplan, through conceptual analysis of key site planning determinants, before arriving at a final recommended Site Masterplan, a concentrated list of actions for the critical priority projects, and finally a full Delivery Plan to realise the Masterplan.

PROCESS

The preparation of a revised Masterplan has involved extensive consultation with the Board, Gardens management and staff. In addition, presentations to a broad range of stakeholders have been delivered and input has been sought during this consultation process. This consultation included the Friends of the Botanic Gardens of Adelaide, the City of Adelaide, North Terrace Cultural Institutions, Zoos SA, the Department for Environment and Water and Renewal SA.

Several consultation sessions enabled staff to respond to draft analysis and actions developed for various sites within Adelaide Botanic Garden.





Current BGSH Plans and Policies 2



2. Current BGSH Plans and Policies

2.1 Strategic Plan 2017 - 2022

The Board's first Strategic Plan, developed for the 2002-2005 period, immediately preceded the 2006 Masterplan for Adelaide Botanic Garden and Mount Lofty Botanic Garden. Since that time, four consecutive plans have been produced (2007-2009, 2009-2012, 2012-2017, 2017-2022), each plotting a course for strategic growth and detailing priorities for the organisation as a whole and for BGSH's three Garden sites.

The focus of the current *Strategic Plan 2017-22* is to develop BGSH as a global destination through focusing on three key areas: "creating destination gardens", "deepening science", and "facilitating lifelong learning and engagement".

Taken one-by-one, the activities to address these focus areas at the Adelaide Botanic Garden over the next five years include:

Creating Destinations Gardens

- Undertake a formal review and update of the 2006 Adelaide Botanic Garden Masterplan (this report);
- A revitalisation of the living collection, and diversification of the herbarium, living and cultural collections;
- Develop a Management Plan for Botanic Park;
- Raise the standard of the site's infrastructure to improve visitor experience and working environment; and
- Promote the Garden as a flagship cultural institution in the North Terrace cultural precinct, offering unique tourist experiences.

Deepening Our Science

- Increase efficiencies in the application of information and technology management systems, and modernising collections management practices;
- Acting to assist in the conservation of SA flora and reducing the risk to threatened species; and
- Proactively demonstrating carbon-neutrality practices to the community.

Facilitating Lifelong Learning and Engagement

- Become a destination for horticultural and botanical learning by providing spaces for enriched, evolving and innovative learning experiences;
- Develop a culturally diverse range of collections to engage a broader demographic of visitors;
- Engage with secondary and tertiary students, including those from the Adelaide Botanic High School, to build lifelong connections with the Garden; and
- Develop innovative ways of interpreting the Garden's collections, science, horticulture and research.

The *Strategic Plan 2017-2022* also nominates several key actions aimed at enhancing the profile of the Garden's staff and expertise, evolving the Garden's business model through adapting new funding opportunities, including the generation of revenue through commercialisation and non-government funding programmes, diversifying and strengthening scientific and public partnerships, and finally commencing the process to secure support for a new unified centre for BGSH on the Adelaide Botanic Garden estate.

FOUNDATION DOCUMENTS

To support the implementation of the *Botanic Gardens and State Herbarium Act 1978*, the *Botanic Gardens and State Herbarium Regulations 2007*, the Strategic Plan and this Masterplan, several foundation documents have been created or are identified as needing to be created. These documents are:

- *Adelaide Botanic Garden Conservation Study 2006*
- *Code of Ethics for the Botanic Gardens and State Herbarium 2007*
- *Facility Asset Management Plan*
- *Adelaide Botanic Gardens: Waterways Study 2003*
- *Adelaide Botanic Garden Style Guide (Draft)*
- *BGSH Tourism Strategy*
- various BGSH policy documents (see next section)

2.2 Policies

COLLECTIONS POLICIES 2013 (Adopted)

The Living, Herbarium and Cultural Collection policies are part of the strategy to conserve and enhance the BGSH's role as an exemplary cultural and scientific institution. In particular, the policies provide a framework for maintaining, building and displaying collections and enhancing the richness and uniqueness of the institution. These Policies and the Living Collection Development Framework are currently under development.

SCIENCE AND CONSERVATION POLICY 2004 (Adopted)

This Policy provides a framework for integrated plant conservation programmes.

The establishment of partnerships between BGSH and other scientific and conservation organisations provides opportunities for training, bilateral research and the dissemination of information at both a national and international level.

This Policy is currently under review to ensure a whole of institution approach to science and conservation.

TREE REPLACEMENT POLICY 2004 (Adopted)

This Policy provides guidelines for the ongoing management and maintenance of BGSH's tree canopies across its garden estates and the implementation of recommendations outlined in the 2004 Tree Study. This Policy is currently under review, with a particular focus on tree succession planning for a living asset and a changing climate.

FORAGING POLICY 2018 (Adopted)

This policy is intended to govern the foraging of living collection material from BGSH collections and, in particular, Adelaide Botanic Garden living collections. Recipients permitted by the Director to forage living collection materials are required to comply with the terms and conditions set forth in this policy.

ASSET MANAGEMENT POLICY (DEW Adopted)

The Department for Environment and Water (DEW) is committed to applying best practice asset management principles and safe work practices to achieve its business objectives for the benefit of the community and stakeholders whilst complying with all legislative, statutory and reporting requirements. This Asset Management Policy has been developed to set out DEW's commitments and expectations for decisions, activities and behaviours concerning the management of non-current assets. The Policy is reviewed every three years.

SUSTAINABLE HORTICULTURE POLICY (Draft)

This Policy, when endorsed, will provide a framework to support relevant quality services, products and practices that maximise the value and benefit to the community of South Australia's natural resources and heritage. These practices will be modelled on world best practice in all its activities and services. The institution will ensure that adequate resources are made available to equip and train all staff to an optimum level of proficiency.

New Emerging Considerations 3



3. New Emerging Considerations

3.1 Organisational Considerations

BGSH MANAGEMENT CONSIDERATIONS

The BGSH is managed by the Government of South Australia through the provisions of the *Botanic Gardens and State Herbarium Act 1978* (the Act). The Board of the Botanic Gardens and State Herbarium (the Board) is established pursuant to Section 6 of the Act and is subject to the general direction and control of the Minister for Environment and Water. The Board is responsible for the administration of the Act and has responsibility for the three Garden sites: Adelaide Botanic Garden (including Botanic Park), Mount Lofty Botanic Garden, and Wittunga Botanic Garden.

There are several key areas that need to inform BGSH's key management priorities for Adelaide Botanic Garden:

- The environment in which BGSH operates has undergone significant change since the publication of the previous Masterplan. In October 2016, the administration of the State Herbarium was reintegrated with the Botanic Gardens, thereby strengthening the institution in the fields of plant sciences and conservation. This reintegration is supporting a living collections review and succession planning for a changing climate.
- Existing accommodation for scientific collections, educational services and operational and administrative functions are dispersed across Adelaide Botanic Garden and are not fit-for-purpose. A priority, outlined in the *Strategic Plan 2017-2022* is clarifying future strategies for creating an integrated multifunctional centre, including commercial opportunities, to support the institution's core operations and organisational cultural change.
- Technology advancements can provide BGSH with better understanding of visitor use and preferences and opportunities to use such data to inform management of assets and related operations. Significant technological support solutions are needed to enable BGSH to harness these opportunities.
- The growth in South Australian tourism provides further opportunities for BGSH to proactively participate in this industry and create memorable visitor experiences. There are opportunities to focus on the domestic and international experience seeker market and evoke connections between visitors and the *People, Plants, Places* and *Cultures* themes associated with Adelaide Botanic Garden's living and cultural collections, garden landscapes and heritage assets.
- Creating a vibrant precinct in the east end of North Terrace is needed following the relocation of the Royal Adelaide Hospital. BGSH is working to diversify and enhance the visitor experiences and improve visitor access to Adelaide Botanic Garden and its collections.

3.2 Site Considerations

Adelaide Botanic Garden is part of the North Terrace Cultural Precinct, in proximity to South Australia's other major cultural institutions. The Garden is located on the edge of the city, at the junction of two creeklines near the River Torrens. The Garden is easily accessible to locals and visitors, in close proximity to Adelaide's 'East End', the commercial, retail and entertainment precinct in the north-east corner of the city. The Garden is a central part of the Adelaide Parklands surrounding the city and North Adelaide, and is linked to the Torrens Linear Park system and, via Hackney Road and North Terrace, to main roads and public transport routes which lead to all parts of metropolitan Adelaide.

Between 2003 and 2010, three stages of the multi-million dollar upgrade of the North Terrace streetscape were completed in the central precinct of the Terrace as recognition of the civic importance of the 'cultural precinct' of the city. The roll-out of the rest of the North Terrace Masterplan to the west and the east, including the Adelaide Botanic Garden frontage, is yet to commence.

The city's East End/Botanic Garden precinct has also drawn recent focus due to relocation of the old Royal Adelaide Hospital, as well as transport infrastructure developments - extension of the city tram line; and the O-Bahn bus route.

A new city high school near the Garden's northwest corner enhances the education focus of the precinct when taken in context with the surrounding university campuses and the important education roles performed by the Adelaide Zoo, the South Australian Museum, the State Library of SA, the Art Gallery of SA, and other neighbouring cultural institutions.

A number of new structured living collections have been developed on the Adelaide Botanic Garden estate, many in response to the recommendations of the 2006 ABG Masterplan. Importantly, through considered planning and design none of these new Garden

attractions have in any way diminished the Garden's long established layout and structure or impacted adversely on the important heritage buildings, gardens and collections. Water continues to have a significant presence in the Garden in the form of lakes, creeks and a new wetland environment, bringing a new level of natural biodiversity back to the Garden. Flooding issues are still a periodic concern for the lower lying areas of the Garden that are yet to be addressed.

See Chapter 4 for detailed site analysis of Adelaide Botanic Garden and Precinct.

FORMER ROYAL ADELAIDE HOSPITAL SITE DEVELOPMENT (ALSO KNOWN AS 'LOT FOURTEEN')

The former Royal Adelaide Hospital (RAH) occupied land immediately west of the Garden from the late 1850's until the South Australian Government announced in 2007 that a new hospital was to be built on a site at the western end of North Terrace. The new Hospital opened in September 2017, leaving the former RAH site subject to a succession of masterplanning exercises, proposing a range of commercial, industry, residential and tourist developments on the site. Also proposed were various concepts for new city cultural institutions, such as a contemporary art gallery or indigenous art museum, as well as the handing over of a significant portion of the site for a western extension of the Adelaide Botanic Garden.

Following the March 2018 State election, the new South Australian Government announced in mid-2018 its intention to transform the former RAH ('Lot Fourteen') site into a 'creation and innovation neighbourhood, creating high-value jobs and industries to help secure South Australia's future and position Adelaide as the start-up capital of Australia'. Over eight years, the Government's plan is to bring more than 6,000 people to work and stay within the seven-hectare site, creating a centre of activity for Adelaide's start-up community.

The State Government's Department of Premier and Cabinet is leading the rejuvenation of the site and the urban development agency, Renewal SA, is providing development services to the State Government to deliver the Lot Fourteen neighbourhood. There is a site masterplan for Lot Fourteen and the Government has committed to the following:

- An Innovation, Incubator, Start-up and Growth Hub spanning seven of the former hospital's heritage buildings fronting North Terrace and Frome Road;
- Integration with the Adelaide Botanic Garden, the East End and adjacent universities;
- Significant adaptive re-use of heritage buildings located on-site as well as construction of new commercial buildings to accommodate industries of the future;
- An Aboriginal Art and Culture Centre; and
- An International Centre for Tourism, Hospitality and Food Studies.

Important design principles expressed in the two site masterplans developed for the former RAH site (Renewal SA/Woods Bagot, January 2018; Renewal SA/Oxygen, April 2019) with relevance to the future planning of the Adelaide Botanic Garden note aspirations toward the following:

- Enable all year round access for people into this new 21st century contemporary landscape;
- Consider how initiatives led by the Adelaide Botanic Garden can be included in a meaningful way on the site;
- Continue the celebrated formal North Terrace landscape across the former RAH site;
- Contribute to the Cultural Boulevard with a 'cultural attractor' that will drive visitation along the full extent of North Terrace;
- Consider and resolve a large accessible pedestrian access point across North Terrace that integrates with the tram network and other public transport;
- Soften the rigid boundary between the site and the Adelaide Botanic Gardens whilst still maintaining security and management of access to the garden;

- A new entry gate connects a direct route between the Adelaide Botanic Garden, Lot Fourteen and the universities;
- Mixed uses, including event spaces, accommodated within the escarpment, which still maintains security to the botanic garden and achieves a unique built form and landscape outcome;
- Two significant avenues of trees reinforcing visual axes that connect North Terrace and Frome Road to the Adelaide Botanic Garden; and
- The existing internal street from Frome Road is retained and redesigned as a shared use zone linking Frome Road and the Adelaide Botanic Garden.

The BGSH Board has expressed some concern with regard to the implications of removing the physical barrier to ABG without acknowledging the BGSH's requirements to provide a secure and safe site for its visitors and staff, and agreed there would need to be creative thinking around design solutions for ensuring ABG collections and heritage assets were protected outside of the Garden's usual opening hours.

O-BAHN BUS CITY ACCESS EXTENSION PROJECT

The \$160M O-Bahn Bus City Access Project was undertaken by the South Australian Government between 2016 and early 2018 with the aim of improving travel times and reliability for users of the O-Bahn bus service and reducing traffic congestion and delays in the city's northeastern precinct. The project extends the O-Bahn bus system from the end of the busway at Gilberton into the cross-city priority bus lanes on Grenfell Street, and included the creation of centrally aligned priority bus lanes along Hackney Road and a dedicated 670 metre bus tunnel providing more reliable access for O-Bahn buses into the city.

The works also included an upgrade of the western footpath of Hackney Road across the frontage of the Garden and Botanic Park, formalising carparking into

two dedicated parking bays either side of a paved plaza fronting the street facades of the Goodman and Tram Barn A buildings housing the Garden's administrative headquarters and the State Herbarium. To soften the strong dominance of the new traffic infrastructure at a major entry point to the Garden, development of the plaza's basic paved structure into a themed public garden celebrating the flora of the Flinders Ranges region, and the conservation work of the institution, was commenced by BGSB in the latter half of 2018.

The upgraded Hackney Road western footpath incorporates a formal off-road, shared-use pedestrian and cycle path connected to an existing and developing cycling network into and around the city. The formalisation of the path with linemarking and differentiated pavement treatments is intended to reduce the potential for conflicts between vehicles, cycles and pedestrians. However the efficacy of the design and the impacts on traffic flows on Plane Tree Drive and visitors accessing the Garden's Hackney Road entry needs to be monitored as Garden and Botanic Park users adjust to the changed traffic conditions.

CITY TRAM EXTENSION

The State Government's City Tram Line Extension project is the first stage in the rollout of the AdeLINK tram network. The project has delivered a one-kilometre extension of the tram line along North Terrace, from King William Street to East Terrace. The extension provides a new service to the East End's shopping, restaurant and tourism precinct, and connects the city's premier cultural and education boulevard east along North Terrace.

A new tram stop located adjacent to the Garden's Main Gate, has the potential to improve accessibility and visitation to the East End precinct including Rundle Street, Rymill Park, Lot Fourteen and Adelaide Botanic Garden. The project was completed on 13 October 2018.

ADELAIDE BOTANIC HIGH SCHOOL DEVELOPMENT

In 2013, the South Australian Government announced plans for a second city high school with the capacity for 1,000 students. Subsequent announcements confirmed that an increase in budget allocation would allow for an increase to 1,250 students, and set an opening date for the new school for the beginning of the 2019 school year. The School is based in a refurbished building purchased from the University of South Australia located on Frome Road near the north western corner of Adelaide Botanic Garden. The site is ideally located for a contemporary new high school in easy walking distance from the Garden and the Zoo, as well as two major universities and the city's other important cultural institutions on North Terrace. The new Adelaide Botanic High School has a special focus on Science, Technology, Engineering and Maths (STEM), with Science and Health Science as a feature.

The project brings a significant new city asset in close proximity to the Garden, further raising the precinct's profile as a culture and education focal point in the city, and opening up important partnership possibilities and links between the city's major educators and cultural institutions. Increased activation of the precinct west of Garden will raise public awareness of the Garden and over time develop important pedestrian links across the area from the School to the Garden, the Zoo, the redeveloped former RAH site, North Terrace and the River Torrens.

ADELAIDE ZOO MASTERPLAN

In 2015, Zoos SA released Masterplans for its two zoo sites: in the Adelaide Parklands, neighbouring the Adelaide Botanic Garden, and at Monarto. Zoos SA's Masterplans provide the context, strategic directions and design principles to drive priority projects at both sites, with the aim of:

- Enhancing the capacity to safeguard species both within and beyond the Zoo gates;
- Creating valuable visitor experiences and connecting people with nature;

-
- Ensuring Zoos SA is compliant with welfare, zoo industry and legislative responsibilities;
 - Focusing development across the business and driving efficiencies;
 - Increasing visitor admissions and facilitating other resilient revenue streams; and
 - Future proofing Zoos SA sites against foreseeable risks and improving sustainability.

Key elements of the Zoos SA Masterplan at the Adelaide Zoo site with impacts on Adelaide Botanic Garden and Botanic Park include:

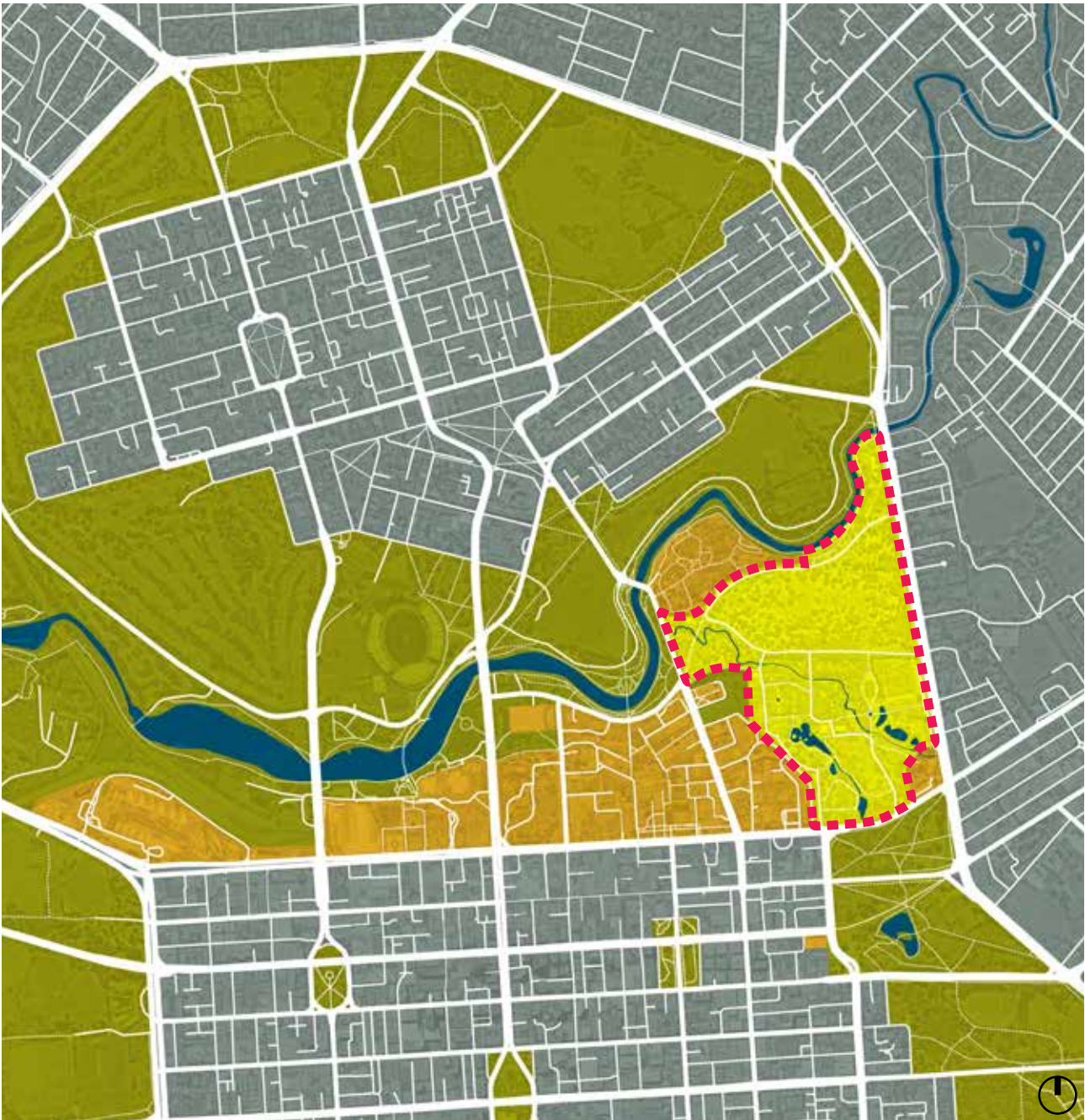
- Invest in additional off-exhibit multipurpose enclosures to support husbandry management at the eastern end of the site, along Botanic Drive;
- Develop a second entrance to cater for private and out of hours events and to aid visitor flow;
- Continue to develop night-time activities and events for visitors.

Site Analysis 4



4.1 Existing Context and Land Use

- Adelaide Botanic Garden and Botanic Park
- Park Lands
- Civil, cultural, scientific, health, research and educational institutions
- Waterways
- City and suburbs



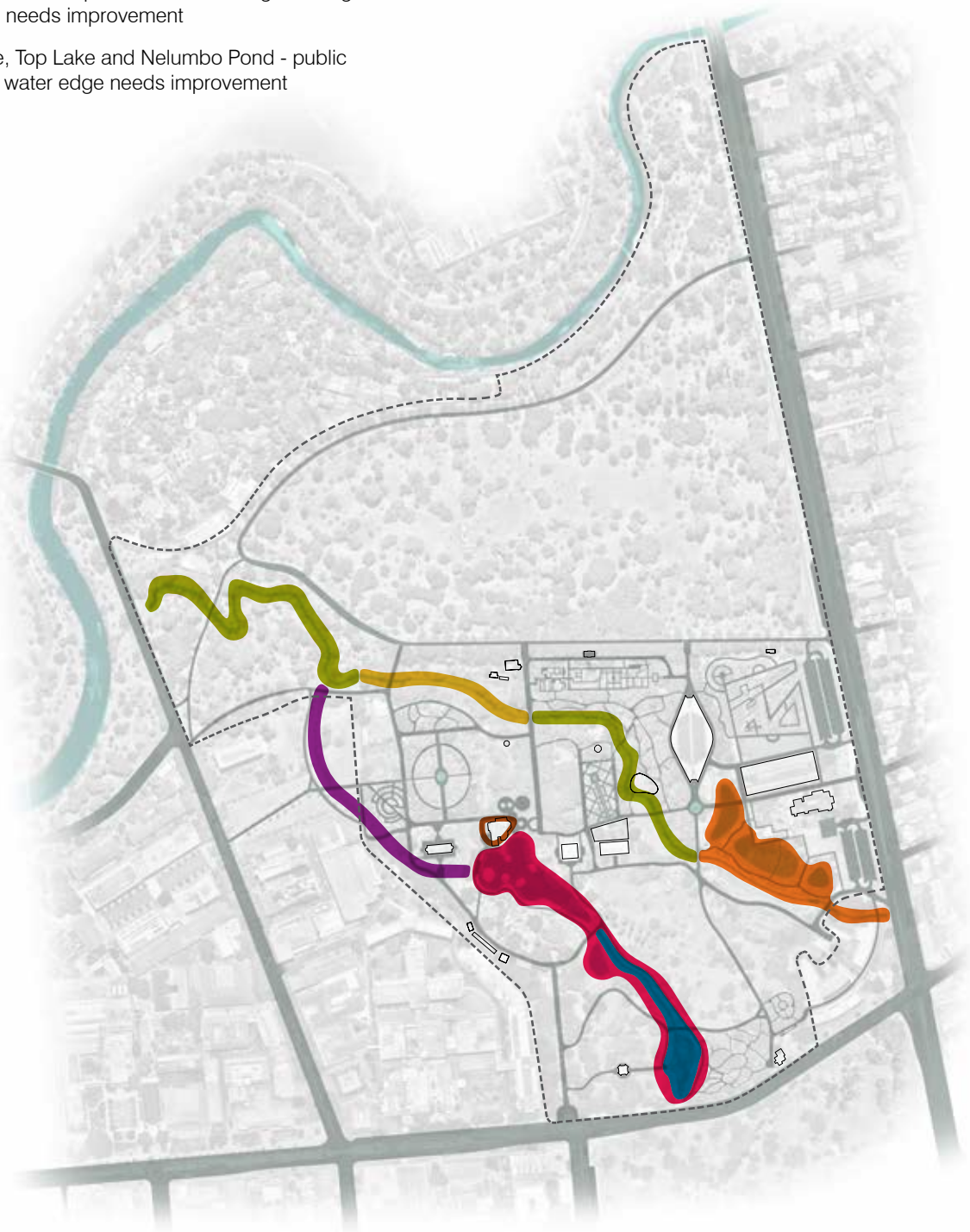
4.2 Garden Precinct: Recent and Planned Developments

- Existing transport links
- Existing pedestrian links
- Recent or planned development sites
- Recent or planned transport links
- Recent or planned pedestrian links
- Links to be prioritised for future development



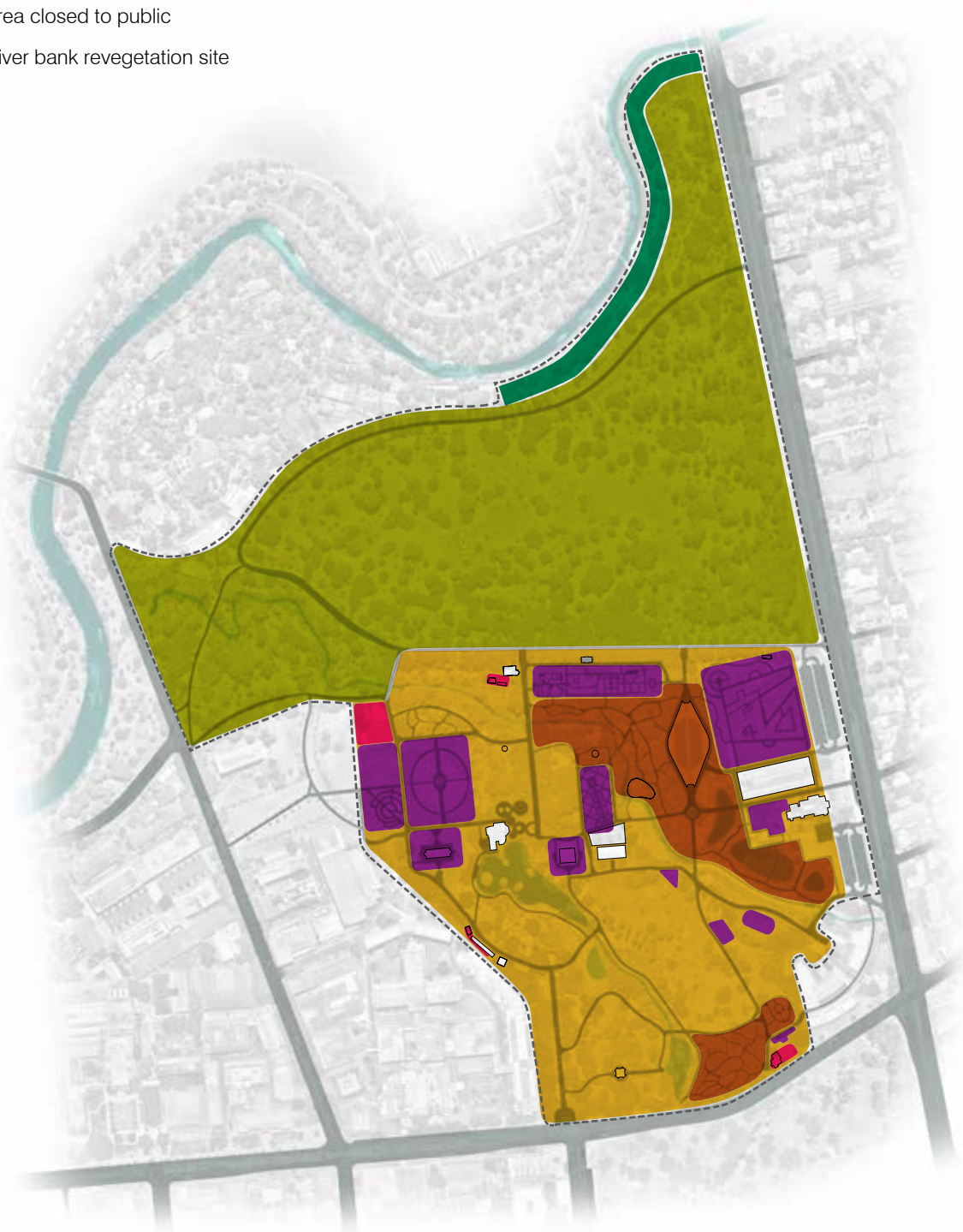
4.3 Existing Waterways

- First Creek channel - major scouring / erosion issues
- First Creek channel - localised scouring / erosion issues
- Main Lake - flood mitigation / overland flow path performance under on-going assessment
- Main Lake and Simpson Kiosk - building's setting on lake edge needs improvement
- Main Lake, Top Lake and Nelumbo Pond - public access to water edge needs improvement
- Top Lake and Botanic Creek - water quality and landscape edge treatment need major improvement
- First Creek Wetland - performance and maintenance requirements under on-going assessment



4.4 Existing Landscape Structure

- Traditional Botanic Garden - open lawns and gardens
- Arboretum specimen trees and lawns
- Formal - structured display garden
- Informal - naturalistic display garden
- Service area closed to public
- Torrens River bank revegetation site



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4.5 Existing Formal Axes/View Corridors

— Formal axes / view corridors



4.6 Existing Heritage

The Adelaide Botanic Garden Conservation Study (2006) has identified twenty-nine components of the Garden as having high cultural significance:

- 1 Western Wild Garden (1964)
- 2 Spatial form of Economic Garden (1872)
- 3 Simpson Kiosk (1906)*
- 4 Madagascan Plant Collection
- 5 Western Pinetum Remnant (1870s)
- 6 Main Lake (1855)
- 7 Nelumbo Pond (1859)
- 8 Francis Lawn (1857)
- 9 Botanic Creek (1856)
- 10 Former Trellis Walk (c.1861)
- 11 North Terrace Gates (1880)*
- 12 North Terrace Wall*
- 13 Plane Tree Drive Northern Entrance Gates
- 14 Plane Tree Drive
- 15 Botanic Park (1874)
- 16 North Lodge (1866)*
- 17 Spatial form of Class Ground (1867)
- 18 Plane Tree Circle
- 19 Spatial form of the Mediterranean Garden
- 20 Former 'tram-barn' building (1910)*
- 21 Goodman Building (1909)*
- 22 Morgue (1882)*
- 23 Spatial form of Dahlia Garden
- 24 Tradition of Bridges
- 25 Mallee Garden (1953)
- 26 Eastern Lodge and Gates (1865)*
- 27 Top Lake (1855)
- 28 Bailey Lawn (1924)

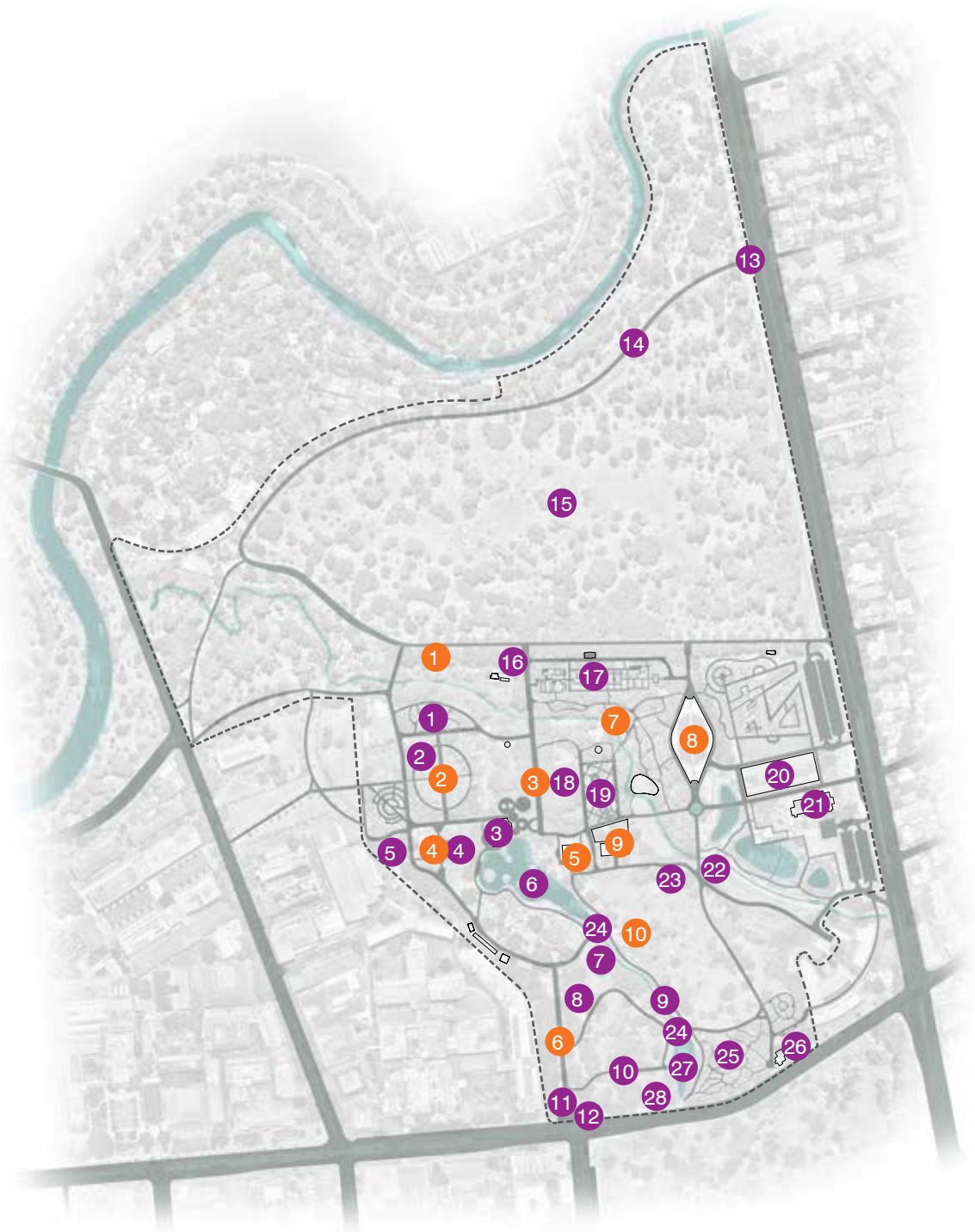
The Adelaide Botanic Garden Conservation Study (2006) has identified ten components of the Garden as having exceptional cultural significance:

- 1 Palm Garden (1870)
- 2 Boy and Serpent Fountain (1908)*
- 3 Ficus Walk (1866)
- 4 Palm House (1877)*
- 5 Amazon Waterlily Pavilion Exhibit (c.1868)
- 6 Main Walk (1855)
- 7 Australian Forest (1868)
- 8 Bicentennial Conservatory (1988)*
- 9 Museum of Economic Botany (1879)*
- 10 Araucaria Avenue (1868)

*State Heritage

4.6 Existing Heritage

- # Heritage of high significance
- # Heritage of exceptional significance



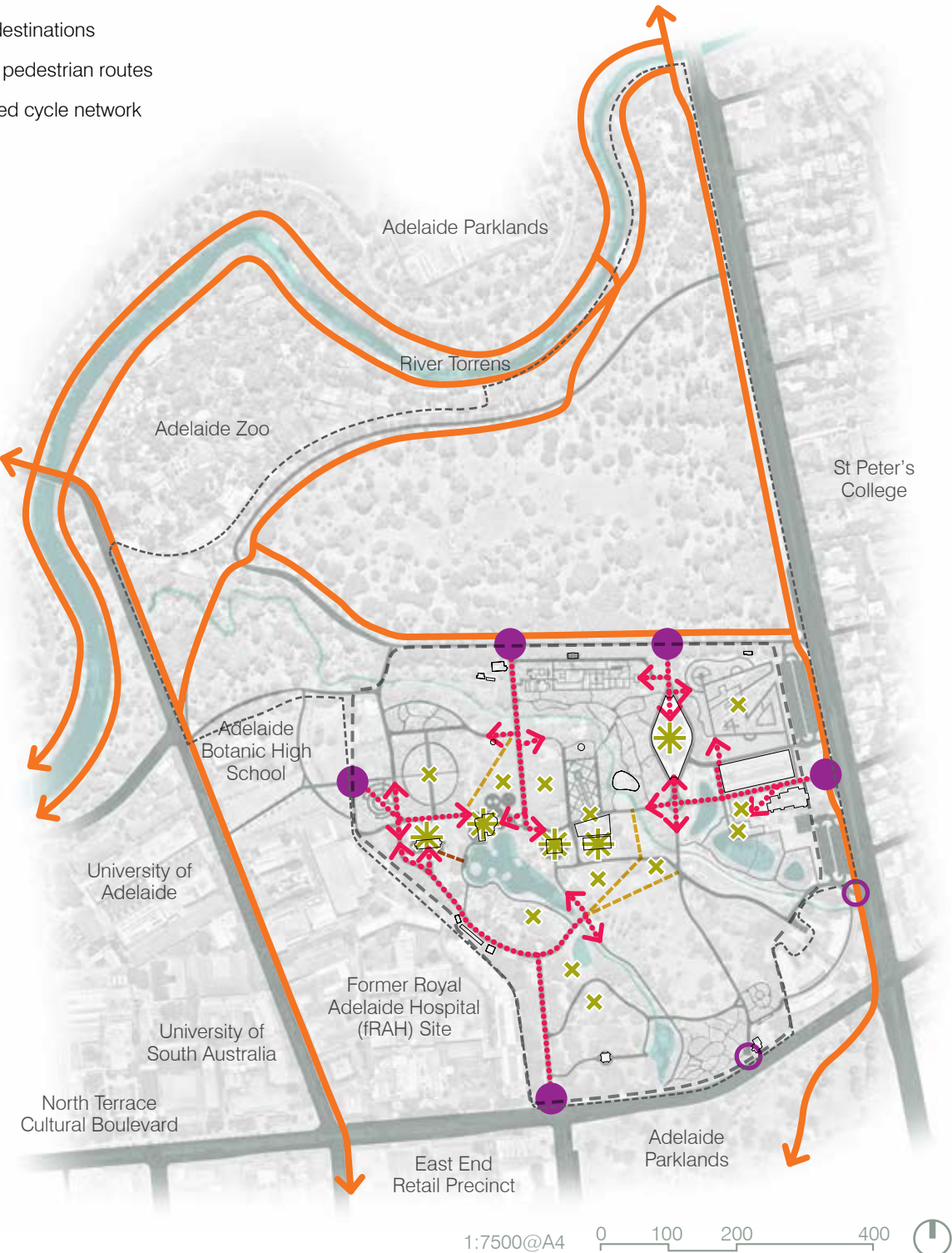
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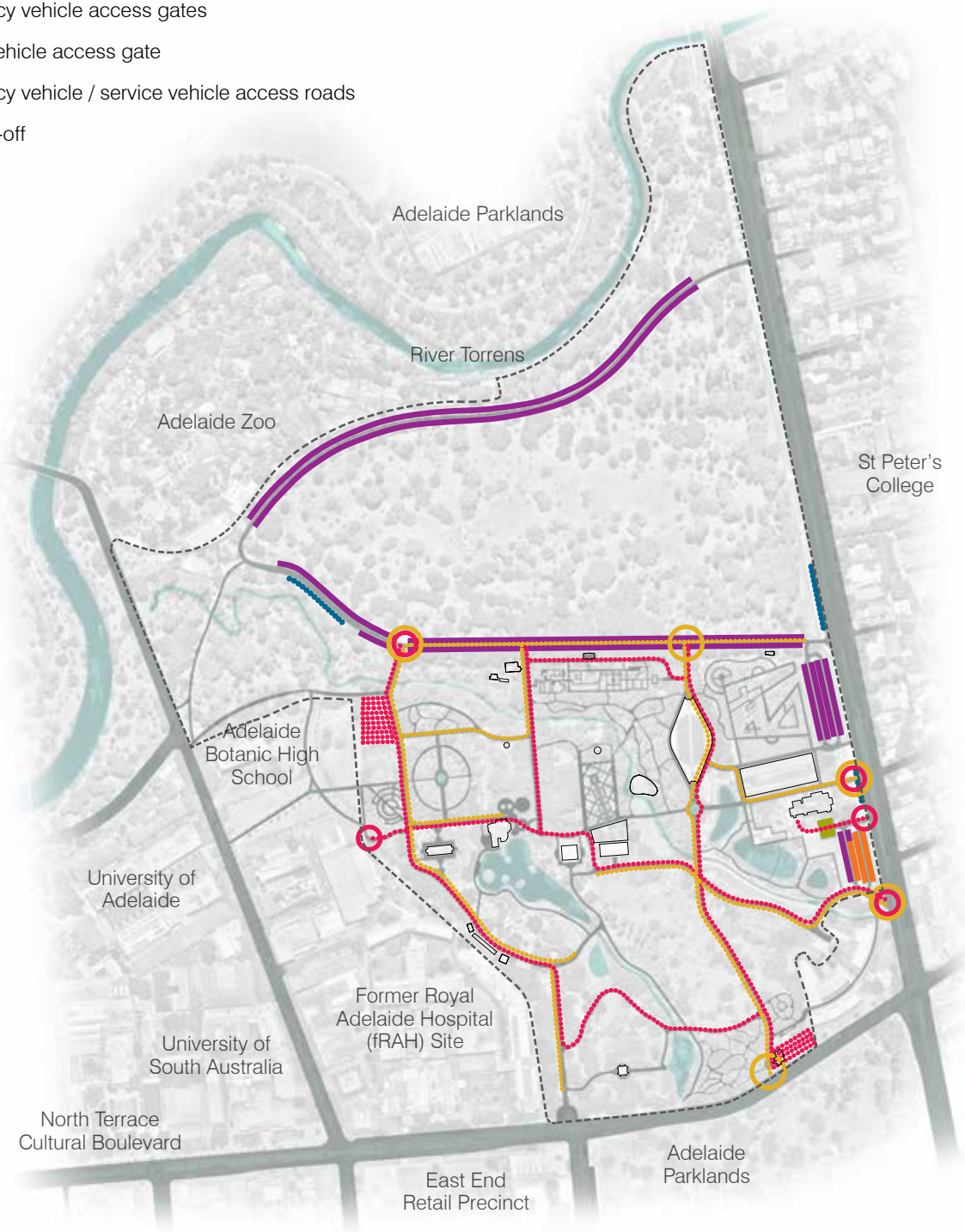
4.7 Existing Movement: Pedestrian and Cyclist

- Major garden entry
- Minor garden entry
- Major pedestrian paths and distribution
- Major attractions
- Popular destinations
- Shortcut pedestrian routes
- Designated cycle network



4.8 Existing Movement: Vehicular

- Public carparking
- Staff carparking
- National Wine Centre carparking
- ⋯ Staff and service vehicle internal access roads
- Emergency vehicle access gates
- Service vehicle access gate
- ⋯ Emergency vehicle / service vehicle access roads
- ⋯ Bus drop-off




















4.9 Existing Collections and Displays

- | | | | |
|------------------------|-----------------------|-------------------------------|----------------------|
| 1. Screening Plants | 7. Economic Garden | 13. Mediterranean Garden | 19. Hibiscus Display |
| 2. Palms | 8. Cacti & Succulents | 14. Simpson Shadehouse | 20. Araucaria |
| 3. Solanaceae | 9. Madagascar | 15. Bromeliad (terrestrial) | 21. Dahlia Display |
| 4. Acanthaceae | 10. Classground | 16. Amazon Waterlily Pavilion | 22. Nelumbo Pond |
| 5. Western Wild Garden | 11. Australian Forest | 17. Cycads | 23. Bamboo |
| 6. Garden of Health | 12. Wisteria Arbours | 18. Native Cycads | 24. Aloe |



Adelaide Botanic Garden

- | | | | |
|---|--|--|---|
|  25. South Africa |  30. First Creek Wetland | Botanic Park Arboretum: |  38. Palms |
|  26. New Zealand |  31. Sunken Garden |  35. Riparian |  39. Eucalyptus |
|  27. Rosa |  32. Eremophila |  36. Ficus |  40. Native |
|  28. Bicentennial Conservatory |  33. Mallee Section |  37. Conifers |  41. Miscellaneous |
|  29. Kitchen Garden |  34. Australian Native Garden | | |



Botanic Park

Completed Projects and Actions Post 2006

5



5. Completed ABG Projects and Actions Post 2006

The 2006 Masterplan for Adelaide Botanic Garden was its first complete masterplan in over a century. The plan proposed a number of projects and actions as site enhancements, varying in scale and complexity. It responded to observed needs to improve access for visitors, both physically and intellectually, as well as providing opportunities for the Garden to 'regenerate' itself and meet new sustainability goals.

Many of the recommended actions within the Masterplan have been implemented since 2006, while other new developments have been instigated independent of the Plan. This chapter summarises the important changes to Adelaide Botanic Garden since the completion of the 2006 Masterplan. It's noted that the new Schomburgk Pavilion and adjacent Mediterranean Garden developments, along with the Masterplan itself, were all initiatives funded by the State Government in celebration of the Garden's 150 year anniversary, and were undertaken concurrently in the years leading up to the anniversary. The Amazon Waterlily Pavilion was also a Garden's 150 initiative, however as construction had not commenced at the completion of the 2006 Masterplan, the Pavilion is included in the following project list.

AMAZON WATERLILY PAVILION

With the architectural design commissioned and underway at the time of writing the 2006 Masterplan, the construction of the new Pavilion was completed and opened to the public in 2007. This new glasshouse was a Garden's 150 year anniversary project, intended to replace the Amazon Waterlily's original purpose-built residence, the Victoria House. The design of the energy-efficient building was inspired by the lily's giant leaves, and the original pond from the Victoria House remains the centrepiece of the new pavilion.

MUSEUM OF ECONOMIC BOTANY

The Museum of Economic Botany was restored and refurbished in 2008-09 via a \$1.125M Australian Government Grant. The Museum reopened in May

2009 with its original collection forming a permanent exhibition. An inaugural temporary exhibition (borrowing works from the State's collections-based institutions) launched an exhibition programme, which has delivered twenty exhibitions to date.

GARDEN OF HEALTH

The Garden of Health features traditional medicinal plants from several cultures around the world, including western, non-western and indigenous Australian flora. Planted out with over 2500 plants from 300 species, this Garden offers the opportunity to see the diversity of plants that have assisted with healing the human body, mind and soul for centuries.

The Garden of Health is an integral element of Adelaide Botanic Garden's education programme. Interpretive signage has been developed to engage and educate the visitor providing a space for both exploration and learning.

The project was a direct recommendation of the 2006 Adelaide Botanic Garden Masterplan.

WESTERN ENTRY

The creation of the new Western Entry to Adelaide Botanic Garden has transformed the way people access and experience the Garden, and demonstrates BGSH's commitment to the broader arts through the commissioning of internationally renowned South Australian artists, Hossein and Angela Valamanesh, to work with landscape architects TCL on the design. Completed in 2011, the project consists of a pedestrian entry gate, associated paving, an extent of new boundary fencing, and a service entry gate. The artful design converts these otherwise utilitarian elements into a sculptural environment with an iconic and enduring presence.

The project was a direct recommendation of the 2006 Adelaide Botanic Garden Masterplan.

FIRST CREEK WETLAND

Situated in what was an under-utilised part of the Adelaide Botanic Garden (ABG), First Creek Wetland is an interactive, educational, and accessible, constructed wetland ecosystem, and an integral part of a stormwater recycling scheme planned to eventually supply all of the Garden's irrigation needs, ensuring that the gardens will be 'drought-proofed' and the risk of losing iconic trees during droughts will be minimised.

Constructed in 2012-13, and recipient of the 2018 International Federation of Landscape Architecture Outstanding Design Award for Biodiversity, the Wetland was designed to:

- harvest, treat and store water from First Creek to replace mains water for irrigation and help mitigate floods.
- create wetland ecosystems with an interesting range of plants that are beautiful, highly accessible and can be used for educational purposes.

Highly interpreted, the Wetland enables visitors to explore the interaction of plants, water and people within a layout which improves the visitor entry experience into the Garden via the eastern gate.

The project was a direct recommendation of the 2006 Adelaide Botanic Garden Masterplan.

ROSE TRIAL GARDEN RELOCATION

Due to the development of the First Creek Wetland and the Little Sprouts Kitchen Garden, the Rose Trial Garden was relocated in 2010-11 from the rear of the Goodman Building and incorporated into the International Rose Garden (IRG). Further refinement of soils, layout and support structures has occurred over the seasons and recommendations from the 2016 IRG redevelopment plan by Michael Marriot have been progressed.

The project was a direct recommendation of the 2006 Adelaide Botanic Garden Masterplan.

MAIN LAKE OVERFLOW SWALE

Since the 2006 Masterplan, flooding issues associated with Botanic Creek and the overflows from Main Lake have been mitigated through construction of an overland flowpath from the Lake to the Garden's western boundary and across the adjacent Parkland to First Creek in Botanic Park. This joint undertaking with the City of Adelaide was completed in 2010, and has addressed some of the major flooding issues at a low cost and with relatively minimal impact on the Garden and collections.

EASTERN ENTRANCE

The forecourt of the Goodman Building and Tram Barn A buildings on Hackney Road is a main arrival point and 'front door' experience for an increasing number of Garden visitors, both to the Garden generally, but also significantly, as the public entrance to the Botanic Gardens administration building and the State Herbarium.

The bulk earthworks and hard landscaping of the forecourt's new plaza space was undertaken as part of the Department of Planning, Transport and Infrastructure's O-Bahn City Access Project in 2017-18. General soft landscaping works were subsequently developed by the BGSH staff, based on the specific collections theming of the flora of the northern and southern Flinders Ranges. A bed of bush tucker plants also forms part of the new planting scheme on the approach to the Little Sprouts Kitchen Garden.

The Entrance upgrade is on-going with new entry marker and signage planned to clearly define the major entry point to the Garden on its eastern boundary.

LITTLE SPROUTS KITCHEN GARDEN

The Little Sprouts Kitchen Garden is located west of the Goodman Building, between the State Herbarium and the First Creek Wetland. Construction started 2014 and the Garden first opened its gates to pre-school and early-years school groups in April 2015. The Little

Sprouts Kitchen Garden includes garden beds, open areas and shelters for storytelling and group discussion.

BICENTENNIAL CONSERVATORY

Consultants were commissioned to prepare a 'Reappraisal Of The Bicentennial Conservatory' report in 2011. The work involved examining the operations and functions of the Conservatory to improve operational efficiency and visitation, developing a maintenance strategy and identifying infrastructure requiring attention to ensure the building's longevity, and determining improvements needed to the visitor experience. To date, the only recommended action that has been implemented is the turning off of the heating in the Conservatory to reduce BGS's greenhouse emissions. The total costing for the recommended maintenance and capital works was around \$8 million and these works have not been funded to date.

EREMOPHILA GARDEN

As part of an anniversary of the Native Plant Society SA, a significant collection of Eremophila species and cultivars have been planted near the Wine Centre. The project acts on a recommendation of the 2006 Adelaide Botanic Garden Masterplan to continue the planting of dryland Australian flora through the environs of the Mallee Section precinct.

AUSTRALIAN NATIVE GARDEN

An indigenous plant garden has been established that showcases innovative and artistic ways of using water-wise non-invasive Australian native plants, as well as the use of local, sustainable and recycled materials in a domestic garden setting within the Adelaide region. It was planted in 2011 and acts on a recommendation of the 2006 Adelaide Botanic Garden Masterplan to continue the planting of dryland Australian flora through the environs of the Mallee Section precinct.

CITY CROP

The City Crop was developed to educate urban communities about the importance of agriculture. In

2012, wheat was sowed and turned into flour, and the bread baked from it was exhibited at the 2013 Royal Adelaide Show. In 2013, barley was grown and malted to produce beer (Botanic Ale). In 2014, City Crop was planted with sweet corn and children planted and harvested the crop. In 2015, the site grew Lucerne.

CACTI AND SUCCULENT GARDEN RELOCATION

With the redevelopment of the Palm House in 1996, the cacti and succulent collection was moved to the Main Lake overflow swale, near the Lot Fourteen boundary. In 2007, the collections were returned and reinstated in the northern and western aspects of the Palm House. During this move the collections were diversified and enhanced and thematically planted to convey convergent evolutionary processes. Interpretation focuses on the comparison of the succulents of Madagascar (within the Palm House), Africa and the Americas to enhance the visitor experience.

The project was a direct recommendation of the 2006 Adelaide Botanic Garden Masterplan.

PLANE TREE AND BOTANIC DRIVES

Based on the recommendations of the Botanic Park Movement and Access Study of 2007, traffic improvement works were undertaken between 2010 and 2012 incorporating:

- Realignment of parking bays to 45 degree spaces and the realignment of the hairpin section of Plane Tree Drive to accommodate the new Zoos SA entry plaza;
- A new pathway along the Botanic Garden fence on Frome Road;
- Realignment of parking on Plane Tree Drive and installation of two pedestrian/cycle paths to improve traffic movement and safety of pedestrians and cyclists; and
- Integration with the City of Adelaide Parklands trail along the northern side of Plane Tree Drive.

Key Issues and Objectives 6



6. Key Issues and Objectives

The key issues discussed in this chapter are grouped into either *Garden Composition*, *Visitor Experience* or *Collections* issues, and prompt a response in the form of a set of masterplanning objectives at the end of each sub-category.

These objectives raise strategic responses, leading to a list of specific site masterplan actions. These responses and actions are listed in Chapter 7 of this report. Actions are rated as Low priority, Medium priority or High priority.

6.1 Garden Composition

6.1.1 GARDEN SITE

The current physical layout of the Adelaide Botanic Garden is the result of the site's natural topographic landform and 163 years of garden design, producing a Garden characterised by European tradition with a number of sympathetically designed contemporary garden additions responding to changing global issues, community interests and the ongoing requirements of physical renewal and maintenance.

Garden Form

The Garden's first masterplan by the founding director George Francis was the determinant of the central north-south axis through the Garden. This axis created a dominant vista from the Garden's main entry off North Terrace to Main Lake and beyond. The Francis plan also featured a dominant second axis on an east-west alignment close to the main entry (North Terrace) gate aligned with the Director's Residence to the west and toward a smaller lake (now Top Lake) to the east. A pattern of circular garden beds formed the central core of the Francis Plan, radiating out from the intersection of the two pathways.

Subsequent planning under Schomburgk's directorship emphasised the formal north-south axial geometry in the creation of a major entry to the Garden (now the Friends Gate) on axis at the Garden's northern boundary. The alignment was reinforced by an avenue planting of fig trees between the new northern gate and the lake. Schomburgk's 1874 plan also formalised the vista along the naturally occurring ridge line between the Garden creeks. Planted with an avenue of *Araucaria* species, the view from the high point of the ridge, then referred to as 'Niobe Hill' after the statue placed at the top, looked northwest down the avenue across the lake to the Palm House.

The subsequent addition of formal set-piece gardens, developed from the Schomburgk plan, created a secondary level of formal axial views across 'garden

rooms', such as the Rosary (later to become the Italianate Garden, and more recently the Mediterranean Garden), the former Classground (now the Economic Garden) and the current Classground Garden, originally laid out as a trial garden off a central axis.

This template of gardens-within-a-garden, or 'garden rooms', has continued to develop from Schomburgk's time until today. Contemporary and popular themed gardens are now punctuated across the Garden in the form of the Sunken Garden (1939), the International Rose Garden (1999), the Australian Native Garden and the Garden of Health (both in 2011), and the Little Sprouts Kitchen Garden (2015).

Between the 'rooms', the Garden takes one of two forms: one, a European/Arcadian tradition of lawns, widely spaced trees and well maintained themed beds, and secondly, more naturalistic, mainly native, swathes of plantings, predominantly the tall canopy of the subtropical Australian Forest following the line of First Creek, along with the First Creek wetland environment to the east and the Mallee Section to the south. Together these three spaces provide a distinct contrasting naturalistic quality with an enclosed and tranquil spatial experience.

Adelaide Botanic Garden's boundary is well defined by walls and fences, with five main points of public entry. The main entry to the Garden off North Terrace conveys strong messages to visitors of the formal character and prestigious quality of the Garden. The Friends Gate off Plane Tree Drive equally conveys this message. The Conservatory Gate follows a similar stylistic form but reads at a lower level of hierarchical importance. The Hackney Road entry lacks the architectural quality of the older gates and is diminished by its setting, dominated by hard edged architectural forms and pavements, and thus having the sense more of a service entry than one of the main visitor entries to the Garden. Like the eastern Hackney Road entry, the current Western Entry was never part of the Francis or Schomburgk plans for the

Garden. As an outcome of the 2006 Masterplan, and responding to new pathways created on the Parkland to the west, the entry features simple, architectural forms but incorporating highly detailed artistic expression (by Adelaide artists Hossein and Angela Valamanesh). The design demonstrates a well-considered contemporary response fitting harmoniously with older heritage sections of the Gardens.

With major entries now established on all four sides of the Garden, the conceptual arguments for establishing strong north-south and east-west pathway axes put forward in the 2006 Masterplan, need further assessment. As in 2006, the presence of the main north-south axis as a significant component of the Garden design is lessened by the current plantings obscuring views to the Main Lake both from the southern approach up Main Walk and the northern approach along Ficus Walk. The removal of the bridge across Main Lake in the 1960's joining the two ends of the north-south axis also significantly reduced the impact of this axial view.

The relative importance of the east-west axis between the two gates on those boundaries is strengthened by garden developments promoted in the 2006 Masterplan, namely the Garden of Health in the west and the First Creek Wetland in the east. The Little Sprouts Kitchen Garden near the Wetland has also brought greater visitor focus to the eastern precinct.

While the east-west axis lacks the same historic reference as the north-south axis, the existing form, with its off-axis kinks and deviations, has the potential to develop into a stronger component in the Garden's formal layout and visitor experience.

With all four axial gates leading more or less to the centre of the Garden, a two way axial alignment brings greater focus to the Main Lake as a key location in the Garden, with an inherent ability of this feature to act as the main point of orientation and wayfinding for visitors.

Garden Heritage

The 2006 ABG Masterplan determined that the findings of the then concurrent Adelaide Botanic Garden Conservation Study (2006) should act as a major determinant for future change to many areas of the Garden, most notably the heritage rich sites that were established (and remain relatively intact) under the Francis and Schomburgk masterplans. New sites within the present day Garden that were acquired subsequent to those schemes, such as the former Lunatic Asylum site (now largely occupied by the National Wine Centre) and the former Hackney Bus Depot, were considered as being more flexible to opportunities for Garden renewal, while also respecting the specific particular heritage features of these sites. This position holds true in 2021.

The ABG Conservation Study (2006) ranked the entire Garden as having exceptional cultural significance. As such, the heritage components of the Garden importantly contribute to the overall understanding of Australian botanic gardens and therefore the Garden is considered a significant cultural place on a national level.

As highlighted in the 2006 Masterplan, the main determinants for this ranking are the Garden's significant commitment to the planting of Australian flora, the Francis plan and its mid-nineteenth century European influences, the Schomburgk Masterplan for the layout of Botanic Park and the creation of discrete compartments and formal key buildings within the Garden, the retention of the Gardenesque qualities originating from these earlier eras, the tradition of gardening under glass, and the tradition of ornamentation and a decorous style.

The original layouts of the Francis and Schomburgk plans have provided the creative forces of many of the important heritage components in the Garden today. The main axial walkways, Main Walk from the south and Ficus Walk from the north, date from this era and are both ranked in the Conservation Study as exceptionally

significant elements in the landscape. Araucaria Avenue on the main ridge line between First Creek and Botanic Creek is also ranked at exceptional level.

The lakes and ponds (Main Lake, Top Lake and the Nelumbo Pond) have existed since the first layout of the Garden and were established prior to the opening of the Garden in 1857, and are therefore ranked as having high cultural significance along with the traditional locations of pedestrian bridges over the Garden's creeks.

The Garden contains a number of important items of statuary and fountains. The 2006 Conservation Study finds the following items as having exceptional cultural significance: the Boy and Serpent Fountain (1908) at the centre of the Economic Garden, the Molossian Hounds (1862) and statues (1867) on Main Walk, and the Palm House Grotto built as part of the original Palm House in 1877.

The ABG Conservation Study (2006) ranked Botanic Park as having high cultural significance, deeming it to be a significant cultural place on a state-wide level. The 'high' ranking responds to the Park being an important example of a nineteenth century public domain. Very little of the built fabric from Schomburgk's 1874 park layout survives today, the main exception being the original carriageways, now forming the alignments of Plane Tree Drive and Botanic Drive.

Botanic Park

Little of the original arboretum plantings in Botanic Park survive from the establishment of the collection by Schomburgk in the 1870's, and definition of the original geometric layout has been lost. The character of the Park today is of an open park of trees and lawns, apparent most obviously in its central precinct. West of First Creek, the Park is more heavily treed in places creating deeply shaded areas with the potential for better connections to the natural creek running through it. A resident Grey-headed Flying Fox (*Pteropus*

poliocephalus) population is being monitored to assess the impacts and potential threats on tree health and public visitation to this area.

The eastern boundary of the Park is characterised by its slightly elevated topography grading westward toward the Park's central lawns. Mature plantings of *Pinus* species along Hackney Road and the predominantly *Araucaria* and *Ficus* species through the rest of the precinct create a quality of evergreen conifer 'woodland'.

The far north-eastern corner of Botanic Park, north of Botanic Drive, consists of a mix of open, flat treed spaces with relatively immature plantings, and steeper slopes grading into the southern bank of the Torrens River with low maintenance native plantings.

Waterways

The Adelaide Botanic Garden estate, located on the Adelaide Plains, is at the lower end of the catchment of two creeks, First Creek and Botanic Creek, near their confluence with the nearby River Torrens.

Prior to the 2006 Masterplan, the ABG Waterways Study (July 2003), initiated by BGSB to assess alternative water sources and methods of use, identified a number of issues relating to flooding, stormwater, water use and waterway biodiversity. In response, the Masterplan proposed diverting the First Creek flows entering the Garden on its Hackney Road boundary to a new constructed wetland and flood retention basin system located on a relatively undeveloped land nearby, south of the Goodman Building. The design for the new wetland was commissioned in 2008 leading to the construction of the project over 2012-13. Since completion, the performance and health of the wetland is monitored and, with the development of the Little Sprouts Kitchen Garden, has vastly increased visitation to this section of the Garden. While the wetland has resulted in improvements to water quality and flooding issues associated with First Creek, the efforts to use flows through the system to recharge the underground aquifer below, and the subsequent harvesting of ground

water for irrigation, have had limited success and further engineering investigations are needed to capitalise on this opportunity. The first round of dredging of the basins to remove sediment build-up is also likely to occur within the next few years. The First Creek Wetland project has been the recipient of numerous national and international environmental design awards.

Flooding issues associated with Botanic Creek and the overflows from Main Lake have also been mitigated since the 2006 Masterplan through implementation of the proposal to create an overland flowpath from the Lake to the Garden's western boundary and across the adjacent Parkland to First Creek in Botanic Park.

Sections of both the creeks flowing through the Garden remain as modified constructions, with aging concrete linings intended to provide an efficient pathway for flows, but resulting in high flow velocities in some well used areas of the Garden. These sections of the creeks impose on the visual quality of the Garden through their engineered, unnatural appearance, localised scouring of the creek banks where the wall structures are exceeded, as well as visitor safety concerns associated with the high velocities and steep banks.

GARDEN SITE OBJECTIVES

- Maximise and enhance the key views within the Garden to assist orientation from the Garden's axial entry points, and to draw visitors into the heart of the Garden past many of the Garden's most popular attractions. Encourage visitors to then explore the Garden's many themed garden spaces spread across the site.
- Effectively manage and maintain heritage elements, spaces and collections to enhance their scientific and cultural value, and their contribution to the aesthetic experience of the Garden.
- Maintain the integrity of Botanic Park foremost as an operating scientific arboretum, with flexibility to continue to host significant public events in a parkland setting.
- Enhance the qualitative values of the Garden's waterways and continue to investigate opportunities for water conservation.

6.1.2 BUILDINGS

One of the oldest botanic gardens in Australia, Adelaide Botanic Garden has a rich and highly valuable building portfolio within its grounds. A full Conservation Study for all the Garden's heritage buildings was undertaken in 2006, highlighting three of the Garden's buildings – the Palm House (1877), the Museum of Economic Botany (1879) and the Bicentennial Conservatory (1989) – as having exceptional heritage significance. A further six buildings, including the Garden's current administrative centre, the Goodman Building (1909), and North and East Lodges (from 1865-66), were ranked as having high level significance. The condition of all BGSB built assets are audited on an ongoing basis through the whole-of-government Strategic Asset Management process.

Conservation Management Plans exist for the Museum of Economic Botany (2003), the Palm House (2003), the Simpson Kiosk (2003), East Lodge (2003), North Lodge (2003) and the Morgue (2003). There are no current Management Plans for the Goodman Building, the Tram Barn A Building (formerly 'Hackney Bus Depot'), the Simpson Shadehouse, the Francis Arbor, the Barber Shop Rotunda or the Summerhouse.

Palm House

Adelaide Botanic Garden is recognised for three iconic glasshouse buildings. Most historic is the Palm House a building wholly pre-fabricated and transported from Germany in 1877, using cutting edge engineering and manufacturing techniques of the late 1800s.

For decades, the Palm House displayed a tropical palm collection until the constant moisture levels accelerated the decay of the steel structure. With replacement of the collection to a new purpose-built glasshouse (the Bicentennial Conservatory), the building was completely renovated in 1995, restoring the structure and removing the artificial humidification systems. The building now houses a dramatic display of the dry climate flora of Madagascar.

The Palm House remains one of the last of its kind in the world, and underwent further restoration of its internal and external fabric in 2018 to ensure its longevity.

Bicentennial Conservatory

Along with the Palm House, the Bicentennial Conservatory is recognised as an outstanding example of glasshouse architecture on a national level. Built in celebration of Australia's 1988 Bicentenary, it is the largest single span glasshouse in the Southern Hemisphere, and was recipient of the national Australian Institute of Architects Sir Zelman Cowan Award for public buildings in 1991, and is South Australia's youngest heritage listed building.

In recent times, significant areas of the building structure and cladding fabric have deteriorated mainly from corrosion, resulting in movement and separation within the external panels and internal structural framework. This damage has created a risk to visitors, staff and the longevity of the iconic structure and tourist destination. Aging water sprayer systems also have the potential to create regular reportable public health issues, such as Legionella outbreaks.

An assessment of the current building condition was finalised in late 2019. This review will identify the recommended conservation repair process required in accordance with state's heritage conservation principles.

Amazon Waterlily Pavilion

The Amazon Waterlily Pavilion, designed and constructed as part of the Garden's 150 year anniversary in 2007, follows the tradition of iconic glasshouses at the Adelaide Botanic Garden, incorporating its own heritage significance through the retention of the pond structure of the original Victoria House. Built under Schomburgk in 1868, the pond provides for the continuous display of the Amazon Waterlily (*Victoria amazonica*) on this site for a century and a half.

Museum of Economic Botany and Schomburgk Pavilion

The Museum of Economic Botany is a purpose-built exhibition building of high architectural integrity. Noted in the 2006 Masterplan as being an underutilised asset, the building was revitalised as part of the Garden's 150 year anniversary with the addition of a multi-use pavilion connected to the existing building, accommodating a small food and beverage kiosk and a retail shop, bathroom facilities and new openings through from the rear of the Museum.

The substantial interior restoration of the Museum in 2008-09, the re-staging of the permanent collection, and the establishment of an exhibition programme, has resulted in consistent growth in visitor numbers.

The operation of the retail facilities needs further review to address issues of visibility and accessibility as well as the interface between other retail components within the precinct. The pavilion itself needs a review of its functionality as an event/function space during winter and summer ensuring the shared space creates the desired level of activation.

The Friends of the Botanic Gardens of Adelaide operate the Visitor Information Centre seven days a week within the retail shop on the Schomburgk Pavilion. The location of this service is not convenient for a first time visitor and alternative locations near North Terrace and/or the Goodman Building need to be considered.

North Lodge and East Lodge

The North Lodge and East Lodge are gateway buildings constructed in the 1860's. North Lodge is currently utilised as offices and workroom by the Friends and acts as the Friends public interface. East Lodge has no public function. Its yard houses research glasshouses and small depot site for BGSB scientific and horticultural staff. As noted in the 2006 Masterplan, both buildings, but particularly East Lodge, are aging structures and require renovation to more fully contribute to the

Garden. Both buildings are ranked as having high cultural significance.

Former Lunatic Asylum Morgue

The former Lunatic Asylum Morgue has both high heritage, and interpretative and landscape value within the Garden. The building fabric is in good condition with recent restoration works to repoint brickwork undertaken in 2016.

Goodman Building and 'Tram Barn A'

The redevelopment of two former Municipal Tramways Trust buildings on Hackney Road, into the Garden administration centre in the Goodman Building and the State Herbarium in the 'Tram Barn A' building, has created an administrative precinct on the Garden's eastern boundary. Both buildings are over one hundred years of age, are State Heritage listed, and are ranked as having high cultural significance in the 2006 Adelaide Botanic Garden Conservation Study, albeit not as buildings originally associated with the Garden. The sympathetic refurbishment of the buildings provides the Garden with both administration and research facilities in the Goodman Building and Tram Barn respectively, noting neither building was originally designed for these purposes.

The relocation of the State Herbarium to 'Tram Barn A' (following demolition of its previous home on the National Wine Centre site) occurred on an understanding it provided capacity for these collections for the shorter term (up to 20 years). The State Herbarium receives between 5,000-10,000 collections per annum as part of its core business and the Tram Barn building is now nearing capacity. Furthermore, the heritage building is no longer fit for purpose and salt damp, increasing humidity and insect infestation are threatening the State's \$81 million botanical preserved collections and the Institution's library containing rare books, prints and other cultural collections, valued at around \$2 million. The results of a 2019 Accommodation Review consultancy report to be delivered in late 2019,

will highlight the current constraints and identify the fit for purpose future needs for the BGSB and options for the South Australian Government.

Simpson Kiosk

The Simpson Kiosk was built in 1906 as a “superior refreshment room in the middle of the Garden”, and continues to function as a high quality restaurant, with an annexed kiosk/cafe facility on its western side. Modern architectural alterations to increase the available floor area have diminished some of the aesthetic appeal of the original building. The original built fabric and design are ranked as having high cultural significance, however the building’s address to Main Lake, both from the restaurant and kiosk, fail to take full advantage of the waterfront setting.

Francis Arbor

The original buildings constructed on the site of the Francis Arbor were ornate pavilions designed to house the Garden’s museum of botanical specimens. With the construction of the Museum of Economic Botany and the Simpson Kiosk, its functions were greatly diminished, and subsequent renovations and alterations have resulted in very little of the original built fabric surviving today. The Conservation Study describes this dilution of the original design of the only surviving building of the Francis directorship as a loss, which has jeopardised its cultural significance on the site.

Any changes to the Arbor in relation to the Lot Fourteen redevelopment will require further consideration to determine remaining cultural significance.

A.M. Simpson Shadehouse

The A.M. Simpson Shadehouse was erected in 1918-19 and is ranked as having contributory cultural significance in the Adelaide Botanic Garden Conservation Study, as a representative example of an interwar bush-house structure. By its design it requires continuous replacement of much of its fabric, while retaining its overall built form.

Barber Shop Rotunda

The Rotunda in its original form was constructed in 1893, during the Schomburgk era, on the north-south axis of the Garden’s original rosary. The octagonal timber framed pavilion has a raised central cupola and, as noted in the 2006 ABG Conservation Plan, as an accomplished garden building stylistically complementary with Schomburgk’s ‘oriental’ design for the rosary.

Summerhouse

The Summerhouse is a garden shelter that was erected in 1911 to provide greater amenity to Garden visitors. Minor renovations occurred in the preceding decades, until a major restoration was undertaken in 1984-85 resulting in the structure’s current tiled floor, roof and colour scheme.

BUILDINGS OBJECTIVES

- Reuse and the sympathetic restoration of State-maintained heritage buildings.
- Investigate the longterm serviceability of the Garden’s building stock to accommodate the BGSB’s current and future administration, education and research activities, with consideration toward the need for new built infrastructure within the grounds.
- Maximise the use of existing key buildings and built elements, and where appropriate, encourage multi-use.

6.2 Visitor Experience

6.2.1 SITE FACILITIES

Visitor Facilities

Adelaide Botanic Garden's existing visitor facilities consist of a decentralised set of infrastructure elements located at key locations within the Garden. The Garden lacks a purpose-built visitor centre which might typically be found in more contemporary botanic gardens.

Visitor information is provided from a desk located within the Diggers Garden Shop at the Schomburgk Pavilion, as well as in the form of orientation map signs at the major entries to the Garden. From these locations, a co-ordinated series of leaflets are available, providing both visitor maps and information on specific collections, seasonal displays and activities in the Garden.

Food outlets are centrally located at the Simpson Kiosk adjacent Main Lake and nearby at the Schomburgk Pavilion. The Simpson building is sub-divided to perform dual functions of high quality restaurant and café/snack food outlet. This arrangement currently operates adequately, but results in the Restaurant and café needing to be run by the same business operation because of the single kitchen facilities. Neither outlet takes full advantage of the lakeside setting.

Toilets in the Garden are spread across five locations and, in the case of the blocks near the Classground Garden, the Simpson Kiosk and the Francis Arbor, might be regarded as a relatively minimum standard for a State cultural institution. Facilities at the Schomburgk Pavilion and the rear of Tram Barn A are modern and of a higher quality.

Public car parking is generally regarded as adequate. Open air parking is provided along the Garden's northern and eastern boundaries on Plane Tree Drive and Hackney Road respectively. A redistribution of the holding capacity along the Hackney Road frontage of both the Garden and Botanic Park, undertaken as part of the O-Bahn busway upgrade, has relocated spaces

previously in Botanic Park to the Garden's frontage. As such, car parking dominates the visual experience of the Garden along its eastern boundary due to the loss of the treescape through the O-Bahn busway project.

Other than the Plane Tree Drive car parking, there are minimal visitor facilities provided in Botanic Park. Users of the Park tend not to expect visitor services, but make use of the Botanic Garden facilities if required.

Staff Facilities

The Goodman Building is the administrative headquarters for BGSH and provides office space for management and administrative staff, a lecture theatre, education room, and Friends' administration, as well as research facilities for the South Australian Seed Conservation Centre. The adjacent Tram Barn A building houses the State Herbarium and all its research and records facilities. The BGSH Library and some of the institution's cultural collections are also located in this building.

Currently, not all staff accommodation is centralised at the Goodman Building, with additional spaces provided at the Garden's Horticultural Works Depot and other smaller buildings across the estate, all of which limits the connectivity between staff. This scattering of staff accommodation was the result of a need to relocate facilities following the redevelopment of the National Wine Centre site on the previous depot site. This forced relocation has required the staff to function in a greatly reduced footprint, with the current arrangement regarded by staff as inadequate for the level of service delivery required of a State institution. The Horticultural Works Depot in the northwest corner of the site also houses all the Garden's bulk storage, works yard spaces, and trade vehicle parking.

No large-scale dedicated nursery facility is provided at the ABG, with all nursery operations for all three BGSH Garden estates accommodated at Mount Lofty Botanic Garden. A new glasshouse facility is proposed to be

built near the Goodman Building as part of teaching facilities associated with the Little Sprouts Kitchen Garden.

Botanic Park has no formal staff facilities, relying instead on the Garden's Horticultural Works Depot for storage and staff accommodation.

Amenity Infrastructure

The basic landscape assets of the Garden, such as pathways, garden furniture, fences and lighting, have a subtle yet important influence on the quality of the overall visitor experience and, generally, are of an adequate standard to meet the immediate requirements of visitors. The production of a Gardens-wide Infrastructure 'Style Guide' was commissioned by the BGSH in 2013 for all three BGSH Garden sites. This work is in draft format and as such is yet to be endorsed by the Board or fully implemented as a 'standard'. The document is scheduled to be reviewed to provide future direction for infrastructure maintenance and renewal.

The major pathways within ABG typically have a bitumen surface, and serve both pedestrians and BGSH service vehicles. Newer paths in the eastern areas of the Garden, associated with the Bicentennial Conservatory and development of the Goodman Building and Tram Barn A, are paved with red brick in line with development of the land acquired by the Garden with the handover of the former Hackney Bus Depot site. Areas of uncoordinated brick paving also occur around the Simpson restaurant and kiosk, thus diluting any sense of a consistent pavement treatment at key locations.

Other pavement type variations, such as the use of exposed aggregate concrete and natural stone in the Rose Garden, the Mediterranean Garden, the Garden of Health and the First Creek Wetland and Kitchen Garden, fall within distinct themed garden spaces, and as such can be considered independently of any overall pavement character across the Garden. Networks of

sawdust-lined or fine gravel tracks exist off the main pathways in many areas of the Garden, most notably in the Australian Forest and Mallee Sections, and are suitably informal in character for the purpose they serve.

The draft Style Guide document highlights that the existing furniture items in the Garden, such as seats, bins, and drinking fountains, lack a recognisable Garden-wide style. A variety of furniture styles has evolved over time as different sites within the Garden have been developed, or as replacement stock is required across the Garden. Consequently visitors are presented with an array of garden furniture, varying greatly in style, comfort and general condition. When taken in context, a variety of stylistic responses is acceptable when accommodated in discrete garden spaces with a consistent theme within each space. However, a coherent presentation of the 'common' areas of the Garden would be greatly improved by use of a suite of seats, bins and similar items uniting the Garden with a consistent style of furniture.

Two historic garden structures with associated seating provide an intimate setting and shelter to visitors. The Barber Shop Rotunda north of the Mediterranean Garden and the Summer House survive from the 1890's and 1910's respectively, and remain popular Garden locations despite minor upgrading works that may be stylistically at odds with their original designs. A third structure on the lawn west of the Ficus Walk is more functional in design and has no historic value or special architectural merit. The only recently constructed shelters were added to the Garden in 2013 and 2015 as part of the development of the First Creek Wetland and the Little Sprouts Kitchen Garden respectively, and both function well and remain fit for purpose.

Historically, only minimal public lighting has been provided within the Garden, due to the limited public use of the Garden outside daylight hours. Ficus Avenue is currently lit at night for after-hours access to the Botanic Gardens Restaurant. Special one-off events

held within the Garden at night require the provision of temporary lighting infrastructure to assist way finding to and from the event, most often via the Friend's Gate near North Lodge. BGSB has engaged lighting specialists to propose flexible lighting solutions for the Garden to allow it to greatly increase the potential to activate the Garden for visitors at night.

Adelaide Botanic Garden is enclosed by a mass stone wall along the southern boundary with North Terrace/ Botanic Road, the fabric of which dates back to the 1870's. The fence on the northern boundary is an open painted steel railing fence backed by dense canopied screen planting. The same fence treatment continues along the Garden's Hackney Road frontage, however complementary dense planting has not been installed, resulting in a relatively open boundary treatment and aspect on this flank of the Garden. The western boundary is lined with a combination of aging corrugated sheet fencing at the interface with the former RAH site, turning to a new feature fence and gate, where the Gardens are bounded by the recently upgraded parkland (transformed from an open carpark in the mid 2000's), creating a new formal western entrance to the Garden. It is anticipated that with the multi-million dollar development of the Lot Fourteen site, new focus will turn to this length of the Garden's boundary in terms of its presentation to a proposed newly renovated public realm that is earmarked to become a highly visited cultural precinct and potentially providing the Garden with a major new public entry point in its southwestern quadrant. Similarly, the currently poor external presentation of the Horticultural Works Depot site to the parkland demands attention with the completion of the new Adelaide Botanic High School.

The majority of the gardens and lawns in Adelaide Botanic Garden and Botanic Park are irrigated, with various systems employed across both sites. Much of the *Irrigation Masterplan's* (2004) recommended capital works programme of upgrades have been implemented

in the Garden, while work in Botanic Park is yet to commence. The intended access to recharged aquifer groundwater for irrigation use has proved problematic since the installation of the First Creek Wetland, which opened in 2013. Further investigations into accessing this potential water source need to be made with regard to the quality of water extracted and its accessibility.

Relatively little BGSB infrastructure, such as paths or furniture, is located within Botanic Park. Facilities for major events are substandard. The existing electricity transformers do not supply adequate capacity for use during the major events that Botanic Park hosts. The current irrigation system is not fit for purpose for managing water supply during the events, and the system itself is in disrepair.

The public lighting of some areas of Plane Tree Drive and Botanic Drive for vehicle and pedestrian use does not meet the levels required for frequently visited public spaces. With the opening of the new Adelaide Botanic High School to students in early 2019, upgrading of the lighting of these underserved areas will likely be required to meet the expectations of school users and any potential increase in numbers of visitors to the Zoo, and the Garden and Botanic Park after hours.

Physical Access

Adelaide Botanic Garden is open every day of the year. Opening hours are maximised and the time of closing varies throughout the year to reflect the length of daylight hours. All collections are accessible free of charge. The Board of the Botanic Gardens and State Herbarium waive the entry fee previously charged to enter the Bicentennial Conservatory. In providing maximum accessibility to visitors, plant material is largely available to the public to see, touch, and smell, with the inherent risk of vandalism or theft of sometimes rare and valuable plants.

Scientific research and herbarium collections within the State Herbarium are generally accessible to the public

by appointment only. A public-access facility, the Eric Jackson Reference Herbarium, is available to those with at least some skills in plant identification to identify their own specimens themselves. It houses a specimen of most South Australian vascular plants and a library of books and a microscope to assist.

ABG has a long established path network spreading across the generally flat terrain, including small bridges across waterways, taking visitors to all areas of the Garden. Open lawns, filling the areas between discrete garden spaces, allow easy pedestrian movement between pathways.

Outside the Garden, dedicated off-road shared-use pedestrian and cycle paths along the Torrens River, through Botanic Park, and along Hackney Road's western footpath, provide access to the Garden. Sections of these paths form part of the City of Adelaide's Parkland Trail, a recreational loop trail around the city. The paths are also used by commuters, bypassing the Garden, en-route between the city and the eastern suburbs.

The formalisation of the shared-use path on Hackney Road occurred recently as part of the upgrade of the O-Bahn bus route. The new requirements for drivers accessing Plane Tree Drive and the Hackney Road car parking spaces to give way to cyclists and pedestrians requires ongoing assessment and monitoring as behavioural adjustments occur to the changed conditions. New restrictions on the ability of pedestrians to cross Hackney Road, created by the O-Bahn busway, should also be monitored in order to assess impact on the accessibility of the Garden for visitors.

The vehicle drop-off zone for special users, such as the disabled, large groups of school children and wedding parties, at the North Gate on Plane Tree Drive lacks a turn-out lay-by space and as such, traffic flow is often impeded. During major events, bump in/bump out activities cause considerable disruption to vehicle,

pedestrian and cycle access into and around the Garden and Botanic Park. No speed reduction devices are used on Plane Tree Drive currently.

The Garden's emergency response planning is under constant review and development to ensure appropriate systems are in place for communications with, and physical site access for all emergency services agencies, in particular on occasions of major events.

Way Finding

Generally, way finding is difficult for newcomers to Adelaide Botanic Garden. It could be argued, however, that the circuitous path systems add to the sense of mystery and discovery. Beyond the main axial entry paths, the Garden's layout becomes less obvious to visitors as pathways tend to become secondary, linking elements between and around central Garden features such as the Lake, the lawns and the Simpson, Amazon Waterlily and Museum buildings.

Vistas within the Garden are few and often short. The potential to create 'lookout' views for visitors at the more elevated points in the Garden has not been realised. The recent removal of imposing multi-storey buildings of the former Royal Adelaide Hospital has broadened the outlook of the Garden to the southwest, vastly reducing the impact of architectural form in this historic corner of the Garden, albeit with the loss of a significant aid to wayfinding. Over the long term redevelopment of the Lot Fourteen site, BGSB would likely seek to ensure new buildings on the site have high architectural merit and a more sympathetic relationship to the Garden. ABG's lakes and creeks fail to assist way finding as well as they might.

Map-based signage at the major entries assists way finding, however the low key nature of internal pathway signage, along with the lack of a coherent hierarchical path system, means first time visitors can become disoriented.

As an open park, Botanic Park is generally easily negotiated, and adjacent attractions such as the Zoo, the Torrens River and recreational walking/cycling trails are signposted.

Disability Access

The Garden is generally universally accessible, with good access via pathways to most facilities and attractions. Difficulties are experienced however by visitors using mobility aids when traversing the Garden's lawns, gravel and sawdust paths. Grades of pathways are generally within the limits of accessibility as defined by Australian Standards for disability access at the time pathways were constructed.

The steepest pathway in the Garden, between the Morgue and the Mallee Section does not meet maximum allowable grades, however alternative routes via Main Walk and the Summerhouse are available. Pavements adjacent to the frontages of the Goodman Building and 'Tram Barn A' grade steeply in places due to the levels at which these historic buildings were constructed. A planned future extension of the Kitchen Garden, south of the Goodman Building, will provide improved alternative level access routes within this precinct of the Garden.

The architecture of the heritage-listed Palm House, incorporating stairways at the entries, makes the building inaccessible to prams and wheelchairs. Steps at entries to the North Lodge, the Summer House and the rotunda north of the Mediterranean Garden also prevent equal access to these buildings. The five toilet facilities within the Garden have signed, dedicated disabled toilets, and have each been upgraded to comply with current disability access codes. Garden signs and maps are inaccessible to visitors with vision impairments.

Public Safety

BGSH addresses the safety of its visitors through regularly reviewing its Business Continuity and Emergency Response Plans, produced for all three of its Garden estates. The Plans seek to provide strategies and actions to cater for the loss of key operational facilities following a significant event that disrupts the provision of normal services by the Gardens. The objectives of the Plans are to protect Garden staff, volunteers and visitors; to protect the resources of the Board and the Department for Environment and Water; to develop procedures and practices to facilitate speedy resumption of normal services; to minimise financial loss; to protect the community and to protect the environment. The Plans act as a guide to BGSH personnel who have key roles in incident management and emergency response processes, and outlines the specific roles and responsibilities of team members before, during and after an incident. The Plans are based on Australian Standards and are consistent with State Government risk management requirements.

Botanic Park is open day and night and, as noted previously, there is room for improvement in the lighting of some sections of the Park as pedestrian activity increases around the new Adelaide Botanic High School and with redevelopment of the Lot Fourteen site. Pedestrian movements through the north-east corner of the Park near the Torrens River, and through the south-west corner of the Park adjacent the site of the new School, are historically recognised as higher risk areas for public safety.

Other safety concerns at the Garden are relatively low risk issues apart from during extreme weather events such as high stormwater flows through the creeks, and high wind days and the risk of limb drop or tree failure.

SITE FACILITIES OBJECTIVES

- Manage and improve visitor facilities to support communication of the BGSB's vision and key principles.
- Heighten the visitor experience, and effectively maintain basic assets, such as utility services, roads and paths, furniture and shelters, to maximise longevity and to improve the overall quality of the Garden and the experiences it provides.
- Improve on-going physical access to the living collections for all visitors, and as necessary act on public health and safety concerns across the Garden if and when they arise.
- Improve way finding for visitors generally through the Garden, and access to important attractions and visitor facilities.

6.2.2 EDUCATION AND INTERPRETATION

BGSB's public education programme has been developed to cater, for the most part, to primary and some secondary school children. The Garden does present masterclasses, short courses and workshops through the Australian Centre of Horticultural Excellence, however, there is a lack of a more general dedicated public education programme available to all visitors. The development of a comprehensive Education and Interpretation Policy document and Interpretive Masterplan with an implementation schedule has been identified as a priority.

Free guided daily walks of the Garden are conducted by the Friends of the Botanic Gardens of Adelaide. The walks are generally one and half hours in duration and provide introductory information on the history and collections of the Garden and Botanic Park.

The restored Museum of Economic Botany is now open every day during exhibitions (otherwise closed on Mondays and Tuesdays). An active and diverse exhibition programme attracts many visitors and attendance increases annually (currently 72,000 visitors per annum). The significance of the permanent exhibition, and the unique context of the displays, provide for a range of formal and informal education experiences. The collection and exhibitions are interpreted in the Museum and documented in an assortment of publications.

The Schools Education programme is aligned to the national curriculum and is supported by the Department for Education. Educator-led sessions are paid experiences led by qualified educators with specialisations in teaching early years, primary and secondary school students.

The Little Sprouts Kitchen Garden Learning Programme is guided by a qualified kitchen garden educator. The programme provided is hands-on and sensory in nature

and aligned to the Early Years Learning Framework showcasing the benefits of growing fresh, healthy produce to the whole community, instilling healthy habits from a young age.

Interpretive signage in Adelaide Botanic Garden adds value to the face-to-face public programmes and is most developed in areas of the Garden that have undergone more recent upgrades. These include, most notably, the Bicentennial Conservatory, Mediterranean Garden, Garden of Health, First Creek Wetland, and Amazon Waterlily Pavilion.

The older areas of the Garden are often limited to standard plant labelling, and in the case of the Garden's discrete 'garden rooms', such as the Classground Garden, a small sign will often describe the form and/or function in brief detail. Such collections and stories, which have yet to receive interpretive signage, will be identified within the Interpretive Masterplan. Appropriate methods of interpretation, in addition to signage, will be determined through the interpretation masterplanning process.

Apart from guided tours, there is no interpretation available regarding the history or current plantings of Botanic Park.

EDUCATION AND INTERPRETATION OBJECTIVES

- Maximise and diversify education and engagement opportunities which foster appreciation and learning about the plant world particularly in the Garden's key areas of research, collections themes and horticultural management.
- Utilise communication media that maximises the interpretive value of collections and appeals to the greatest diversity of visitors.
- Present interpretation offerings to visitors worthy of a flagship cultural institution.

6.2.3 EVENTS AND FUNCTIONS

Visitor Demographics

Recent visitor surveys completed over three years reported visitors to the Adelaide Botanic Garden are typically evenly spread across the ages of 30-59 years with an increase of visitors over 65 years.

Visitation by geographic origin reported:

- 77% of visitors reside in Adelaide
- 9-17% come from interstate
- 8-15% come from overseas

In a three year trend report from 2014 to 2016 the following trends are noteworthy:

- 70% of visitors identify as female
- 58% attend with family and friends
- 36% of visitors visit the Garden two to five times annually
- 30% of visitors reported the most common reason for visiting the Garden was for a family outing.
- Visitors reported the main purpose or role of the Botanic Garden was to:
 - conserve plants and biodiversity – 30%
 - provide opportunities to learn about plants – 25%
 - provide a beautiful place to relax – 23%

Approximately 20% of adults visiting the Garden attended with a child under five years of age.

Recreation

The Garden is, and has always been, a place for passive recreation close to the Adelaide central business district. As a garden aiming to be maintained to the highest possible horticultural and collections development standard, it differs markedly to the adjacent city parklands where recreation in the Garden focuses on sustainable and low impact activities, such as walking, relaxing and learning about plants.

Botanic Park operates under a different management regime, which allows more active recreational activities along similar lines to the adjacent parklands.

Activities such as ball games, cycling, skating, and barbeques are not permitted within the Garden, but are allowed within Botanic Park. Similarly, pets, alcohol and sound equipment are only allowed within the Park and not the Garden, unless by Director's exemption, thus facilitating one-off events and functions.

Visitor surveys suggest the distinction between the two spaces is well understood by visitors to the Garden and each space is generally used accordingly.

Major Events

Historically, Botanic Park has been the focus for major events, in particular those requiring complex infrastructure support. In recent years the Gardens have sought to use this estate as a major public event space, for example past ASO concerts and more recent mainstream music concert events. These concerts typically attract crowds of between 7,500 and 20,000 people and again, careful selection of the artists, as well as when and how many of these events are held, are considered by the Director.

Botanic Park currently hosts between four to six of these concerts per year, and they consist of one main stage, seating for patrons, a number of bars and food trucks, and other buildings and marquees for dressing rooms, management and other backstage activity. These concerts do not use mains power from the transformers in Botanic Park but rather operators provide a number of mobile generators onsite to power the events.

The BGSH has a Major Events Policy and associated procedural guide with the purpose of ensuring major events in BGSH sites are conducted safely and that setup and dismantling procedures minimise impact on Garden visitors, collections and infrastructure and the neighbours, such as the Adelaide Zoo and local residents. Guidelines are laid down specifying conditions of use of Garden sites and responsibilities of events organisers, as well as vehicle movement controls and licensing arrangements.

Botanic Park currently hosts two repeat events each year: WOMADelaide and the Moonlight Cinema. WOMADelaide is a multicultural music and arts festival that has been held annually since 2003. The event is held on the first weekend in March and over four days and nights, it attracts an attendance of around 90,000 people. Preparations for the event occur over several weeks and involve the temporary construction of marquees, seven stages, a global village of craft, food and display stalls, site fencing, a number of site buildings for back stage dressing rooms and administration. Temporary toilets and waste facilities are also installed onsite. The festival uses both mains power from the Botanic Park transformers, as well as several generators for additional power.

The Moonlight Cinema is an open air film festival staged in Botanic Park. Audiences total around 20,000 over the twelve week season over summer. The cinema uses mains power from both Botanic Park transformers, and does provide generators. The cinema supplies temporary toilets, as well as a number of site building and storage containers to run its operation.

While all events impact on the Park, on-going assessments of event management, through review of each event and annual impact monitoring, aim to ensure the continued viability of both events and the sustainability of the Park.

To facilitate event management, initiatives such as the installation of permanent fence post sleeves along the Hackney Road frontage have been instigated to support efficient and more visually appealing fencing being used for WOMADelaide.

However, in general terms facilities for major events are inadequate. The existing electricity transformers do not supply adequate capacity for use during the major events that Botanic Park hosts. The current irrigation system is not fit for purpose for managing water supply during the events. The system does not allow for

adequate isolation of particular water points, which would allow some irrigation to run even when there is infrastructure on the Park. In addition to this, due to a number of upgrades and repairs over the years, it is unreliable. A substantial upgrade of the irrigation system would enable better management of Botanic Park as a multi-use estate.

Private Functions

Use of the Adelaide Botanic Garden for private functions has developed and increased in the past 10 years and are now common place in the Garden.

Private functions in the Garden are carefully managed to reduce impact on the collections and other visitors, and fees are charged as appropriate. Private use of spaces within the Garden is most commonly for personal celebrations such as weddings or corporate functions. These functions are managed by a private company and BGSH has a commercial contract with this company.

There are designated sites available to use for formal private group-booked functions within the Garden. The sites are generally selected for their ease of access for catering, lighting and toilet facilities, aesthetics, wet weather contingencies and proximity to car parking and their ability to recover from the impact of functions.

Weddings are the most common private functions held at the Garden, and the private company can hold up to six ceremonies per day, with a choice of nine primary sites: including the Summerhouse, Cycad Collection, Barber Shop Rotunda, International Rose Garden, Economic Garden and the Sunken Garden.

The International Rose Garden is frequently used for corporate functions and has good access to services and toilets and makes use of both paved and lawn areas. The lawn area has a beautiful outlook and can be used for functions requiring a large marquee.

The Palm House Lawn can also be used for open-air or marquee functions with the advantage of being located in close proximity to the Simpson Kiosk facilities.

The Sunken Garden is a wedding venue that makes use of the close proximity to the National Wine Centre for receptions, and the Morgue and Araucaria Avenue for photographs.

Araucaria Avenue is the most popular wedding venue in the Garden, as it has a beautiful outlook down the avenue and towards the Museum of Economic Botany.

The open lawns of Botanic Park are well used as venues for large picnics and celebrations for both organisations and family gatherings, with accessibility and good car parking the main attractions. Active recreational pursuits in the Park are managed under the *BGSH Regulations (2007)*.

EVENTS AND FUNCTIONS OBJECTIVES

- Diversify and maximise the potential for major events to occur within parameters that protect the Garden's and Park's integrity and do not impinge on the achievement of the institution's vision and objectives.
- Provide an annual programme of events to attract a diverse audience, raise revenue, support sustainable recreational activities and opportunities for the community, and maintain BGSH's relevance to the community and enhance the offerings in Adelaide.
- Increase BGSH's role in tourism and raise the profile of the institution as a destination.

6.3 Collections

Living Collections

BGSH is a collections-based cultural and scientific institution, and in acting in accordance with the governing *Botanic Gardens and State Herbarium Act 1978*, is mandated to: “accumulate and care for specimens (whether living or preserved), objects and things of interest in the fields of botany, horticulture, biology, conservation of the natural environment or history”. To this end BGSH has, since 1998, maintained a working Collections Policy. The Policy, in its current 2013 revision, provides policy statements for BGSH’s Living, Herbarium and Cultural Collections.

The Collections Policy establishes the criteria for the evaluation and development of living collections into the future by nominating categories which set down the seven primary themes applicable across the three estates. The seven themes are:

- **Geographical:** a collection or display of plants based on a defined geographical area.
- **Biological & Ecological:** collections and displays of plants, which grow together in biological or ecological communities, defined by a particular range of environmental conditions and habitats.
- **Taxonomic and Evolutionary:** a collection of plants which demonstrate principles of plant classification and evolution.
- **Ornamental and Landscape:** a collection of plants grown for their ornamental and landscape qualities.
- **Historical & Cultural:** plants which display aesthetic, scientific, historical or social values for past and present generations.
- **Conservation:** plants which require protection due to their status in line with State, National or International conservation strategies.
- **Research Collections:** plant collections which demonstrate or are assembled for scientific research.

The next revision of the Policy is due to be undertaken in 2020-2021. As such, this Masterplan Review will likely

prompt debate and formulate the policy thinking behind the future Policy. This Policy and those following, in turn, will likely focus the site planning of the next Adelaide Botanic Garden Masterplan review.

The plant material of the living collections within Adelaide Botanic Garden, and the way it is displayed to the public, significantly determines the visitor experience, and as such, is a critical determinant of the masterplanning of the site. Many of the Garden’s important historical and cultural collections, by their presence, create landmarks across the Garden, significantly shaping the overall layout, as found in examples such as the Classground Garden, Economic Garden, Ficus Walk and the Wisteria Arbours. These important collections should continue to be an aspect of the Masterplan. However, the Plan should present inherent flexibility in its design in order to plan for and accommodate future collections development.

Since its establishment in the nineteenth century, the collections held within ABG have become less built around the ‘stamp collection’ approach of the past, and instead are increasingly representative of the flora adapted to similar climatic conditions as those experienced in South Australia. This sustainability-focussed driver of collections planning will assist BGSH to sustain its collections into a future that will be inevitably impacted by a global change in climate to a greater or lesser degree. It is important therefore, that the Collections Policy is informed both by broader climatic shifts in the Adelaide bioregion, as well as the specific micro-climatic conditions found across the individual pockets of the ABG site.

It should not be forgotten that highly specific micro-climates can be achieved by gardening under glass. The Garden has a highly regarded and established tradition of using glasshouses to vary the climatic conditions for growing some of its collections, and thereby extending its collections to include plants not immediately adapted to the climate of the Adelaide

region, and thus broadening the visitor experience. However, the tradition is only sustainable as long as the Garden's three feature glasshouses can continue to operate without drawing heavily on available energy and water resources, and maintenance budgets.

Adelaide Botanic Garden currently holds collections from all seven of the Policy's theme categories, and many collections fall into more than one. In such cases, opportunities for interpretive story-telling to visitors can be enhanced beyond simple didactic messages by presenting an opportunity for deeper, multi layered interpretation of the collections. An Interpretive Masterplan will be developed over 2021-22, with an implementation schedule devised for staged delivery of interpretive stories of the ABG collections to follow.

Fauna Impacts on Living Collections

Grey-headed Flying-fox:

A Grey-headed Flying-fox (*Pteropus poliocephalus*) colony has successfully established in Botanic Park and continues to grow in numbers and has expand into the neighbouring trees beyond the initial five roost trees. The weight and movement of large numbers of the threatened species, particularly when they are breeding, has broken branches and stripped trees of leaves and new shoots in Botanic Park. Furthermore, the guano has had a burning effect on the living tips of plants in the lower storeys.

The damage has weakened the trees and it is unknown how long the current roosting trees will meet the needs of the animals. If the flying foxes increase further in colony numbers and move into adjacent trees, including back into the Garden, it is likely they will impact on the collection's heritage and landscape value. A Grey-Headed Flying-fox management plan is required to be developed through the Grey-headed Flying-fox Working Group.

Birds:

Significant numbers of the unprotected Little Corellas

(*Cacatua sanguinea*) and protected Ibis (*Threskiornis molucca*) have taken up residence both the Garden and Botanic Park. The Corellas strip the leaves of trees and new plantings in collections. The Ibis are nesting in trees near Main Lake. Both species will need to have management plans developed to enable effective future control and minimise broken branches, stripped leaves and guano deposits becoming a challenging management issue.

Foxes:

Small populations of feral foxes (*Vulpes vulpes*) continue to enter the garden site for breeding and have impact on the local water bird population. A fox management plan is in place and is enacted with the assistance of the expert staff of Adelaide Zoo.

Specimen Trees

Specimen tree plantings are dotted throughout the Garden and Botanic Park. The *Adelaide Botanic Garden Conservation Study* (2006) lists over 120 entries of significant trees or tree plantings in the Garden, with many more important plantings held in the Botanic Park arboretum collection. The value of only a few of the trees has been interpreted to visitors, either in terms of the heritage of the individual specimen or the scientific or cultural importance of the species.

Ficus Walk, in its current form, comprises 23 specimens of *Ficus macrophylla* (Moreton Bay Fig), and is believed to be the oldest avenue planting using this genus in Australia. It was ranked as having exceptional cultural significance in the *Adelaide Botanic Garden Conservation Study* (2006). Southern hemisphere conifers are strongly represented in the Garden and Park, reflecting their status as a focus collection in the current Collections Policy. The historic Araucaria Avenue, planted in 1868, is a highlight of this collection, with its importance acknowledged by new plantings at the top of the hill to complete its formal arrangement, responding to the recommended actions of the 2006 ABG Masterplan.

South Australian Indigenous Flora

The greatest representation of South Australian flora within Adelaide Botanic Garden is found amongst the collections displayed in the Mallee Section and the more recent Whipstick Mallee garden at the Hackney Road entry. The Australian Forest is a native plant garden containing some South Australian flora, including remnant pre-settlement river red gums, and the Australian Native Garden includes South Australian natives in its demonstration of the use of Australian plants in a domestic garden setting.

Since the recent completion of O-Bahn City Access Project and road works along the Hackney Road frontage, the Garden has undertaken development of a public plaza fronting the Goodman and Trambarn A buildings. This will be Garden's first themed garden dedicated solely to South Australia's indigenous flora with planting themes reflecting the plants of the Flinders Ranges and the chief species receiving dedicated research at the nearby State Herbarium and seed conservation centre.

Herbarium Collections

The State Herbarium's core function is to research and maintain its vast collection of scientific dried herbarium specimens, currently numbering over one million items. The State Herbarium collection is housed in vaults in the converted 'Tram Barn A' building on Hackney Road. The vaults are intended to reduce temperature extremes and are protected by a state-of-art, environmentally friendly gas fire-suppression system. The holdings of both terrestrial and aquatic plants encompass pressed and dried specimens, spirit, silica gel and microscope-slide collections. Represented are about 820,000 vascular plants, 15,000 ferns, 35,000 bryophytes, 90,000 algae, 25,000 fungi, 15,000 lichens, and the entire catalogue is valued to date at over \$81 million.

The botanists at the State Herbarium carry out research, predominantly on Australian native flora, but also on plants that have become naturalised after introduction from overseas or across state borders. The main international representation is from Mediterranean

climatic regions, which supports the important role of weed taxonomic research and identification.

The accommodation provided by the Trambarn 'A' building conversion is no longer fit for purpose and salt damp, increasing humidity and insect infestation are threatening the botanical preserved collections. It is anticipated new accommodation for the State Herbarium will need to be found in next five to ten years.

Cultural Collections

The Cultural Collections comprises artworks on paper, paintings, a significant economic botany collection, statuary, sculpture, memorials, artefacts, medals, a library of books, archives, photographs, slides, craft, historical equipment and *objets d'art* acquired or collected since the Garden's inception in 1855. Collectively these items contribute to the heritage and style of BGSH and promote the institution as a place of cultural and scientific significance in South Australia.

The major, large-scale items in the Cultural Collections, such as the statuary, sculptures and memorials, were assessed as part of the 2006 Adelaide Botanic Garden Conservation Study. The Study found historic statues in the Adelaide Botanic Garden, such as the 'Boy and Serpent' fountain and the 'Mollossian Hound' and 'Sphinx' statues as having exceptional cultural significance. As such, site masterplanning should remain cognisant of the historic context of the Garden's important cultural artefacts.

LIVING, HERBARIUM AND CULTURAL COLLECTIONS OBJECTIVES

- Effectively manage and develop living, herbarium and cultural collections to maximise their scientific and cultural value.
- Develop a Living Collections Development framework, inclusive of Collections Development Plans.
- Implement informed and appropriate successional plantings of the Gardens living collection based on the Living Collections Policy and Development Framework.

Strategic Responses and Actions 7



7. Strategic Responses and Actions

The strategic responses and actions in the following section of the Masterplan are derived from the analysis and interpretation of current key issues and objectives identified in Section 6 and are listed under matching sub-categories (Garden Composition, Visitor Experience and Collections).

They respond to a detailed program of investigation and consultation. The process for determination of the Responses and Actions has included individual and group meetings with staff to determine key directions for the Garden and to gain feedback on ideas and proposals. Inherent within this are the principles, together with the collective experience and specific understanding of the operations and issues that affect the future success of Adelaide Botanic Garden.

Responses obtained from consultation with key stakeholders are reflected in the actions, with the engagement process providing valuable feedback on the aspirations of the local and broader community, related industries, and state and local government bodies for the Adelaide Botanic Garden.

7.1 Garden Composition

7.1.1 GARDEN SITE

STRATEGIC RESPONSE:

Entrances and Axial Walkways

Enhance the experience of entering a high quality State cultural institution garden environment at all entrances and along important axial walkways into the Garden.

ACTIONS:

1. Enhance the spatial experience and key view lines at the North Terrace Entry with regard to heritage and existing plantings, by producing schematic designs for a distinct entry space with defined edges and strong entry marker signage, as well as incorporation of footpath redevelopment in line with the North Terrace cultural boulevard and the former RAH site design proposals and masterplan.
2. Continue to develop the Eastern Entrance to provide a high quality visitor welcoming entry experience, by creating a distinct entry space with defined edges and strong entry marker signage, a strong presence of vegetation, restricted vehicle access and strong links to adjoining First Creek Wetlands and Kitchen Garden.
3. Monitor the operation of the Western Entry to the Garden via the Garden of Health Garden, with regard to the former RAH site development and the new Adelaide Botanic High School, ensuring connecting paths and links continue to work optimally. In situations where increased visitation compromises existing Garden structure or fabric, undertake design investigations into possible new site entries or reconfigured path alignments.
4. Develop the entry to Botanic Park at its south-eastern corner to provide a higher quality entry experience similar in scale and quality of the entry at the south-western corner.
5. As part of redevelopment of the Main Lake precinct, remove screen planting at the northern end of Main Walk and at the southern end of Ficus Walk to provide open views across a new pedestrian bridge over the Lake at the termination point of these axial pathways. Install a raised boardwalk along

Ficus Walk to provide protection to the trees' root systems.

STRATEGIC RESPONSE:

Themed Gardens

Maintain and improve the distinct spatial qualities of the established formal garden spaces within the Garden.

ACTIONS:

6. Utilise revisions to the Living Collection Policy to direct the future development of the living collections displayed within the themed garden settings.
7. Prioritise upgrades to the following historic spaces and collections and ensure refurbishments are undertaken with due consideration to the distinct spatial quality of these themed gardens:
 - Classground Garden – major refurbishment
 - Dryland Palm Collection – improvements to draw visitors to the northwestern precinct of the Garden
 - Simpson Shadehouse – major refurbishment to repair storm damage and acknowledge heritage values
 - Garden of Health – general upgrade
 - Mediterranean Garden – general upgradeEnsure any future enhancements of the following garden spaces similarly acknowledge their heritage and spatial form:
 - Economic Garden
 - Western Wild Garden
 - Plane Tree Lawn
 - Dahlia Garden
 - Wisteria Arbours
8. Extend the Kitchen Garden into the under utilised space south of the Goodman Building, creating a landscape and teaching garden that ties with an overall food and health/wellbeing theme. This development is to include a teaching glasshouse to diversify learning opportunities and offerings.
9. Undertake improvements to the International Rose Garden to achieve International Accreditation (aligned to the IRG Michael Marriott Plan). The

improvements are to achieve a visitor and spatial experience compatible with the scale of the Garden, and to intensify the setting for interpretation of the *Rosa* species.

STRATEGIC RESPONSE:

Cultural Significance of Adelaide Botanic Garden

Ensure future development recognises the exceptional cultural significance and heritage fabric of the Adelaide Botanic Garden, and respect the Garden's heritage layout and vistas, and be guided by the findings of the Adelaide Botanic Garden Conservation Study regarding individual garden buildings, statuary, fences, gardens and living collections. Best practice heritage management, restoration and maintenance should underpin planning and development in the Botanic Garden.

ACTIONS:

10. Consider nomination of appropriate built assets and statuary within the Adelaide Botanic Garden for inclusion on the State Heritage register.
11. Undertake full restoration of all statuary across the Botanic Garden as part of a statuary maintenance programme.

STRATEGIC RESPONSE:

Cultural Significance of Botanic Park

Ensure future development recognises the high cultural significance of the Park, and the findings of the Adelaide Botanic Garden Conservation Study.

ACTIONS:

12. Prepare and implement a Management Plan for Botanic Park, to ensure the Park's heritage is appropriately protected and respected.
13. Review operations, planned capital works and other site influences, including the impact of major events (regular and one-off) held in Botanic Park, against the Park's Management Plan to ensure its heritage and living collections are maintained and uncompromised.
14. Review arboretum holdings in Botanic Park with

regard to Living Collections Policy and prepare a tree succession plan for Botanic Park. Update the plan over time in line with any future changes in the Living Collections Policy.

STRATEGIC RESPONSE:

Lakes and Botanic Creek Precinct

Develop the Lakes (Main Lake, Top Lake, Nelumbo Pond) and Botanic Creek Precinct to become a primary visitor attraction and orientation device at the centre of the Garden.

ACTIONS:

15. Prepare a Water Management Plan with consideration of the Waterways Management Study undertaken in 2003 to consider current and foreseeable water management challenges, opportunities and solutions.
16. Enhance Main Lake to provide improvements to water quality and landscaped edge treatments, introducing a new bridge as an extension of Main Walk connecting with Ficus Walk thereby reinforcing historic axes and views and improving integration with the Simpson Kiosk building, its outdoor dining spaces and its back-of-house operations.
17. Enhance Top Lake and its associated islands providing improvements to water quality through dredging of silt and addressing structural and landscaped edge treatment issues, and generally opening the Lake to views from the surrounding precinct.
18. Re-landscape Botanic Creek, with improvements to the visitor experience of the Nelumbo Pond, to recreate a more natural creek aesthetic, both to enhance the landscape setting of the creek and improve water quality. Investigate options for the removal of concrete channels and re-landscaping the creek and banks into a more natural and safer waterway, with reference to the recommendations of the 2003 Waterways Study.
19. Engage in discussions with relevant State agencies to investigate opportunities to address concerns

of potential flooding within the Garden from waters entering it from upstream.

STRATEGIC RESPONSE:

Wetland and First Creek Precinct

Develop the First Creek Wetland, including the rehabilitation of the downstream sections of First Creek through the Garden and Botanic Park, to become a primary educational and water management feature of the Garden.

ACTIONS:

20. Investigate options for the removal of First Creek's concrete channels and the re-landscaping of the banks into a more natural waterway and safer Garden asset, with reference to the recommendations of the 2003 Waterways Study, prioritising the lower section most prone to scouring and flooding.
21. Review functioning of the First Creek retention basins and wetland system in terms of its ability to both recharge the aquifer and access groundwater for irrigation purposes, as well as reviewing accessibility for servicing of ponds e.g. dredging operations.

STRATEGIC RESPONSE:

Niobe Hill / South-eastern Corner Precinct

Develop an inviting landscape character for the south eastern corner of the Garden with appropriate interpretation of conservation values.

ACTIONS:

22. Develop the south-eastern corner of the Garden between the Mallee Section and the First Creek Wetland to incorporate the following elements in the design:
 - Themed gardens featuring Australian native plantings linking the arid and semi-arid plantings to create a precinct and visitor trail of Australian flora;
 - Redevelopment of the current City Crop site to create a themed and interpreted experimental

- seed production garden;
- Consider the development of the area above the Sunken Garden for a multi-use smaller scale event space, taking advantage of aspect/ views and potential incorporation of the Andy Goldsworthy site-specific environmental sculpture; and
- Enhanced access and path legibility to the western entry into the National Wine Centre, and enhanced perimeter planting generally.

STRATEGIC RESPONSE:

Site Boundaries

Enhance the public visual presence of the Garden and Botanic Park as a high quality State cultural institution in the city, at all the Garden's boundaries.

ACTIONS:

23. Develop the Garden's eastern boundary along the Hackney Road frontage to provide a landscape character equal in quality to the other Garden boundaries.
24. As part of a redevelopment of the Horticultural Works Depot, ensure that the access point and the boundary treatment are of high quality in their address to Botanic Park and the Adelaide Botanic High School.
25. Provide ownership identification and definition to the eastern boundary of Botanic Park along Hackney Road, so as to be appropriately comparable to the scale and quality of the existing treatments on the western boundary with Frome Road.

STRATEGIC RESPONSE:

Former RAH Boundary Precinct

Devise creative design solutions that enhance and maintain the Adelaide Botanic Garden's individual identity and brand while achieving visual integration with the former RAH site development and the city's East End along the Garden's western boundary. These solutions will involve the development of appropriate landscaping and collections to create a sense of entry

and arrival to the Botanic Garden and integration with the Lot Fourteen and Cultural Precinct public realm areas.

ACTIONS:

26. Facilitate archaeological surveys of current western boundary gardens prior to any redevelopment.
27. Review the heritage value of the building fabric of the existing Francis Arbour structure (originally the 'Rustic Temple' museum) to determine retention value and ensure preservation of items with high interpretive value.
28. Undertake living collections assessment of current western boundary gardens prior to any redevelopment and ensure preservation of high value items.
29. Investigate options to redesign and redevelop the existing western boundary of the Garden concurrent with the development of the former RAH site including a new entry gateway structure and upgraded fencing in the Francis Arbor precinct that will enhance the visitor experience, provide a visual sense of integration while still protecting the collections and heritage assets when the Botanic Garden is closed.
30. Review all minor non-heritage buildings and structures along the Garden's boundary with the Lot Fourteen site to determine retention value, and ensure preservation of high value items and consider opportunities to upgrade low value items.

7.1.2 BUILDINGS

STRATEGIC RESPONSE:

Visitor, Science and Administration Centre

Provide visitors to the Garden with a contemporary, state of the art and innovative Centre dedicated to storytelling, wayfinding, current events and education, with other commercial opportunities, co-located with a fit for purpose State Herbarium and science facility which permits its own public interface.

ACTIONS:

31. Undertake a review of the accommodation requirements and possible solutions to address current and future accommodation needs for the State Herbarium and seed bank collections, curatorial and administration, education and support staff and visitor service needs.
32. Undertake longer term planning to determine the best solutions for exhibiting the Garden's collections and its public interface, including ability to increase commercial revenue opportunities.
33. Assess ongoing adequacy of Goodman Building as the "front-door" for visitors to the Adelaide Botanic Garden and for the Trambarn A for housing the State Herbarium collection sustainably over the long term.
34. Implement immediate and short term actions regarding collections storage to maintain the current operational requirements of the Herbarium.
35. Review strengths and weaknesses of current Noel Lothian Hall facility usage and management model.

STRATEGIC RESPONSE:**North Terrace Gates and Wall**

Develop the Garden's North Terrace frontage to position Adelaide Botanic Garden as a flagship in the North Terrace cultural precinct, while respecting the heritage, its gates and walls, and the significant living collections.

ACTIONS:

36. Design and redevelop the North Terrace frontage landscape to improve the visual presence of the Botanic Garden from North Terrace and the East End, and create a substantial sense of entry and arrival. This redevelopment will take into consideration entrance signage, public artwork and feature planting.

STRATEGIC RESPONSE:**Bicentennial Conservatory**

Protect and conserve the important heritage values of the Bicentennial Conservatory building and continue

to have living collections that enhance the visitor experience, learning and engagement.

ACTIONS:

37. Complete a detailed Building Condition Audit report of the Bicentennial Conservatory to inform future conservation management and revitalisation options of the building asset.
38. Assess and act on the recommendations of recent reviews of the building to protect and conserve the heritage listed structure.
39. Develop a Conservation Management Plan for the Bicentennial Conservatory.
40. Undertake a review of the living collections and visitor experiences in the Bicentennial Conservatory as part of the Living Collections review process, and consider themes of development which are suitably appropriate to be housed in the iconic building.

STRATEGIC RESPONSE:**North Lodge**

Develop North Lodge building and grounds to maximise the potential of this site, whilst protecting and conserving the important heritage values of the building.

ACTIONS:

41. Design and implement appropriate refurbishments to North Lodge in accordance with the Conservation Management Plan (2003) to enable its future functions.

STRATEGIC RESPONSE:**East Lodge**

Develop East Lodge building and grounds to maximise the potential of this site, whilst protecting and conserving the important heritage values of the building.

ACTIONS:

42. Restore and refurbish the East Lodge heritage building.
43. Consider the need for any new facilities, to enable diverse opportunities for the use of the East Lodge building, aligned to the values of the Botanic Gardens and State Herbarium.

-
44. Investigate relocation of staff facilities and growing glasshouses to enable alternative use of East Lodge for income-generating activities.

STRATEGIC RESPONSE:

Former Lunatic Asylum Morgue

Activate the former Lunatic Asylum Morgue building to maximise the potential of this building, whilst protecting and conserving the important heritage values of the building.

ACTIONS:

45. Continue to refurbish the former Lunatic Asylum Morgue heritage building and undertake an options study to investigate future appropriate heritage approved reuse of the building asset for visitor experiences.

STRATEGIC RESPONSE:

Other Heritage Building Conservation

Continue to protect and conserve the important heritage values of all the heritage buildings within the Garden site.

ACTIONS:

46. Undertake Conservation Management Plans for the Goodman Building, the Tram Barn A Building, the Simpson Shadehouse, the Francis Arbor precinct, the Barber Shop Rotunda and the Summerhouse / former Trellis Walk precinct.

7.2 Visitor Experience

7.2.1 SITE FACILITIES

STRATEGIC RESPONSE:

Visitor Service Hub

Establish a clearly defined, high profile one-stop location for the dissemination of detailed staffed visitor information and retail outlet, supported by secondary information signage at major Garden entries and main buildings.

ACTIONS:

47. As part of longer term planning and business cases for future improved visitor services, include an options analysis for the best location within the Garden for a focus point for the dissemination of detailed information to visitors.

STRATEGIC RESPONSE:

Food and Beverage Outlets

Improve the visitor appeal and amenity of the setting of the Botanic Gardens Restaurant and Simpson Kiosk, in particular the lakeside setting and outdoor dining spaces.

ACTIONS:

48. Undertake redevelopment of Simpson Kiosk precinct to improve its lakeside setting, for both restaurant and kiosk/cafe functions.
49. Review any need to rationalise food outlet operations between the Kiosk and Cafe Fibonacci, and consider longer term planning for any potential new food outlets associated with future accommodation business cases.

STRATEGIC RESPONSE:

Bathroom Facilities

Provide accessible and high standard bathroom facilities within the Garden.

ACTIONS:

50. Audit condition and accessibility of all bathroom facilities within the Garden and upgrade to a

standard that is appropriate for a State scientific and cultural institution as required.

51. Review potential impacts of removal of existing toilet block facilities near the Francis Arbor site.

STRATEGIC RESPONSE:

Garden Furniture

Ensure the Garden's furniture provides brand recognition for the Adelaide Botanic Garden, and is maintained to a satisfactory standard appropriate for a high quality State cultural institution garden environment.

ACTIONS:

52. Finalise the Adelaide Botanic Garden Style Guide and systematically introduce a consistent suite of garden furniture, with built-in flexibility to cater for specially-themed precincts within the Garden, with consideration to universal access, cost, maintenance and durability.
53. Audit the condition and longevity of existing garden furniture and prepare an asset renewal and replacement programme.

STRATEGIC RESPONSE:

Horticultural Works Depot

Provide a Horticultural Works Depot facility with an improved functioning, quality and safety of the internal and external spaces that is sympathetic to its location.

ACTIONS:

54. Redesign the Horticultural Works Depot facility in the northwest corner of the Garden, taking into account a more efficient use of the available and/or neighbouring space on the site, the need for vastly improved staff facilities, service vehicle access issues and screening to improve visual impact.

STRATEGIC RESPONSE:

Operational Infrastructure

Improve operational infrastructure across the Gardens in terms of capability, performance and efficiency.

ACTIONS:

55. Review all operational and storage facilities across the site, to address potential improvement to: internal spaces, offices space, external spaces for plant and equipment and 'satellite' service yards.
56. Research requirements and develop initiatives for providing and improving the use of Wi-Fi and internet access technology, and automate appropriate operational systems.

STRATEGIC RESPONSE:**Lighting**

Improve the potential of the Garden to offer evening public programmes and commercial events by introducing feature lighting at important locations to enhance the night-time landscape appeal of the Garden and the ability to provide curated experiences.

ACTIONS:

57. Develop concept designs for a lighting strategy across the Gardens to enhance opportunities for curated experience night-time events and activities.
58. Complete the current night lighting design proposal and implement the endorsed design proposals as able, prioritising improvements to power and lighting in the immediate precinct of the Museum of Economic Botany, the Botanic Gardens Restaurant, Noel Lothian Hall, and the north-south and east-west axial pathways.
59. Upgrade safety lighting for vehicles and pedestrians throughout Botanic Park, exploring cost sharing opportunities with City of Adelaide and Adelaide Zoo.

STRATEGIC RESPONSE:**Utility Services Infrastructure**

Ensure the Garden's power, water, sewer and communications services networks are adequate, and where possible integrate green power, to meet the short to medium term needs of the Garden.

ACTIONS:

60. Audit and map the location, condition and longevity of existing services infrastructure and highlight future upgrades of engineering infrastructure, prioritising water/sewer connections at key sites.
61. In response to auditing existing services infrastructure, upgrade services according to priority and as capital works funding becomes available.
62. Upgrade the provision of services infrastructure in Botanic Park as required in order to operate as a major event venue.

STRATEGIC RESPONSE:**Wayfinding**

Ensure wayfinding for visitors to the Garden is coherent and logical without detrimentally impacting on the Garden's established heritage and collections, and visual amenity of the Garden.

ACTIONS:

63. Review content and update as necessary the visitor information signage at the five major Garden entries (North Terrace Gate, Friends Gate/North Lodge, Bicentennial Conservatory Gate, Eastern Entry, and Western Entry).
64. Create a central core precinct in the Garden around Main Lake, clearly linked to the four main entrances (north, south, east and west) into the Garden.
65. Develop a central precinct that incorporates key visitor attractions such as the Amazon Waterlily Pavilion, the Schomburgk Pavilion, and the Simpson Kiosk building with a consistent planting theme and pavement treatment.
66. Develop and implement a hierarchical wayfinding signage system.
67. Ensure any future improvements to path lighting are designed to assist wayfinding.

STRATEGIC RESPONSE:**Car Parking Facilities**

Provide accessible and convenient car and bus parking facilities for staff and visitors to the Garden.

ACTIONS:

68. Conduct visitor research to assess whether recent changes to car parking within the Gardens precinct are adequately meeting visitor expectations.
69. Continue to develop the Hackney Road frontage to provide a higher quality entry experience, with clear connections to expanded parking facilities.

STRATEGIC RESPONSE:**Internal Path Network**

Develop a recognisable, hierarchical pathway system to assist visitor orientation and wayfinding, and operational access and functionality.

ACTIONS:

70. Audit the existing pathway types and develop a coherent, hierarchical pathway system and incorporate the following elements into the Adelaide Botanic Garden Style Guide: path widths, maximum gradients and surface material, with consideration to universal access, cost, surface treatment, safety, maintenance and durability.
71. In response to auditing existing pathways, realign paths to improve visitor movement and wayfinding in association with new developments within the Garden (such as around Main Lake), and upgrade existing paths over time in accordance with the recommended path system and the Adelaide Botanic Garden Style Guide.
72. Consider localised changes to the internal path system to provide appropriate connections between the Garden and the former RAH precinct.
73. Monitor the use of the existing path network to assess the impacts of any increase in pedestrians traversing the Garden through the changes to the Precinct (former RAH site, Adelaide Botanic High School development, the extension to the city tramline, and changes to car parking along the Hackney Road frontage).

STRATEGIC RESPONSE:**Road Network**

Ensure the Garden's internal road network functions to assist visitor orientation and operational and emergency vehicle access and functionality.

ACTIONS:

74. Audit the existing roadway types and develop a coherent, hierarchical pathway system and incorporate the following elements into the Adelaide Botanic Garden Style Guide: road widths, maximum gradients and surface material, with consideration to universal access, cost, surface treatment, safety, maintenance and durability.
75. In response to auditing existing roadways, realign roads to improve visitor movement and wayfinding in association with new developments and upgrade roads over time in accordance with the Adelaide Botanic Garden Style Guide.
76. Consider localised changes to the internal road system to provide appropriate connections between the Garden and the former RAH precinct development.
77. Audit the existing road network with emergency services providers to confirm that all access requirements are met by the current layout.
78. In response to the audit, maintain and upgrade existing roads or realign if required, in accordance with the audit recommendations to improve access.

STRATEGIC RESPONSE:**External Path Network**

Ensure surrounding pedestrian and cycle networks do not impact adversely on Garden visitation and operations.

ACTIONS:

79. Review potential impacts on the Garden of new pedestrian and bicycle pathways sited around the Garden and Botanic Park associated with the development of the former RAH precinct. Ensure any north-south paths linking North Terrace and the new tram stop in the south with Adelaide Botanic

High School and Adelaide Zoo to the north, make appropriate connections to existing or potential new entrances to the Garden.

80. Review impacts on the Garden of sections of the shared cycleway network around the Garden and Botanic Park completed as part of O-Bahn busway project.
81. Install dedicated bicycle rest stops around the perimeter of the Garden, such as near the Eastern Entrance, the Western Gate, the North Gate and Conservatory Gate to inform and promote appropriate cycling behaviour in the Garden precinct.

STRATEGIC RESPONSE:

Disability Access

Ensure existing and new pathways, where practical, provide continuously accessible paths of travel in the Garden.

ACTIONS:

82. Upgrade paths, ramps, building entrances and toilets that are non-compliant or problematic, with consideration to impact on heritage values of the Goodman Building, Palm House, North Lodge, East Lodge, Summerhouse and the Barber Shop rotunda.
83. Progressively introduce a signage system that is accessible for the vision impaired.
84. Relocate existing furniture and install new furniture to ensure universal accessibility where required.
85. Audit signage and install priority signage, particularly around the Goodman Building and Trambarn A.

STRATEGIC RESPONSE:

Safety and Water

Maintain and monitor public safety risk associated with waterways in the Garden.

ACTIONS:

86. Through an auditing process, review the existing approaches to and edge depths for Main Lake, Top Lake and the Nelumbo Pond and assess compliance with currently accepted risk management recommendations. Undertake remedial works as required.
87. Reduce risk associated with high stormwater flows through the Garden. Consider public safety in potential redesign of all new creek and wetland edges. In the short term, identify key risk areas and undertake remedial action as appropriate.

STRATEGIC RESPONSE:

Safety and Trees

Maintain and monitor public safety risk associated with trees in the Garden.

ACTIONS:

88. Continue the current annual tree risk assessment audits and implement the recommendation of the assessments, as part of the tree management programme.

7.2.2 EDUCATION AND INTERPRETATION

STRATEGIC RESPONSE:

Interpretation Masterplan

Develop a comprehensive Interpretation Masterplan including Adelaide Botanic Garden.

ACTIONS:

89. Develop a BGSB Interpretation Masterplan that will investigate and guide the Garden on the following interpretation opportunities:
 - Current successes in interpretation of the Garden to the public;
 - Appropriate interpretive themes for Adelaide Botanic Garden;
 - Areas for prioritisation for potential rollout of interpretive displays/messaging;
 - Maintaining the Gardens' cultural and heritage settings;
 - Appropriate methods and/or technologies for delivering interpretation; and
 - Linking themes and stories between Adelaide Botanic Garden, Mount Lofty Botanic Garden and Wittunga Botanic Garden.

STRATEGIC RESPONSE:

Education Programme

Develop a dedicated facility for the coordination and promotion of the Garden's learning and visitor experience programmes.

ACTIONS:

90. As part of longer term planning and business analysis to address storage and accommodation requirements in the Garden, investigate options to accommodate space in any future new buildings which can support the Garden's public education programmes.
91. Consider new education/learning spaces in the longer term planning and future business cases for all new garden developments within the Garden.

92. Review and as necessary take steps to improve functioning of potential 'outdoor classroom' areas and demonstration / practical learning spaces, such as the proposed new teaching glasshouses in the future extension of the Kitchen Garden.

7.2.3 EVENTS AND FUNCTIONS

STRATEGIC RESPONSE:

Public Events

Continue to ensure public events are well managed and sustainable within the Garden and Botanic Park in order to protect garden heritage and non-heritage assets and infrastructure for the long-term.

ACTIONS:

93. Develop an Events Policy that sets out guidelines for both commercial and community event use of the Botanic Garden and proposes a framework for engaging with creative industries to increase the institution's public programme offerings while ensuring the long-term protection of garden heritage and non-heritage assets and infrastructure.
94. Continuously review the impact of events in the Garden and Botanic Park and take action if events are compromising the heritage and scientific collections values of the Garden.
95. Continuously review the impact of major events on the Botanic Park landscape using a well-designed, scientific monitoring programme.
96. Develop the Speakers Corner site and adjacent areas in the Dell (subject to the Grey Headed Flying Fox colony activities) as a small to medium scale event space and interpret the history of the site.
97. Identify areas within the Garden and Botanic Park which can be established and used as back of house areas for large scale events.

STRATEGIC RESPONSE:

Private Functions

Continue to ensure private functions are well managed and sustainable within the Garden and Botanic Park.

ACTIONS:

98. Review the current wedding and function sites within the Garden and discontinue use or upgrade as appropriate.

99. Consider potential opportunities for a variety of other pop-up events.

100. Improve the external spaces around Tram Barn A / Noel Lothian Hall to make better use of the precinct and facilities for private outdoor functions and events, with connections to the International Rose Garden and the Kitchen Garden.

7.3 Collections

7.3.1 LIVING COLLECTIONS

STRATEGIC RESPONSE:

Living Collections

Utilise a new Living Collections Policy to guide the direction of future living collection and supporting landscape element development for Adelaide Botanic Garden.

ACTIONS:

101. Review the Living Collections specifically nominated in the current policy and the need for their expansion, as well as determine the need for new collections, addressing emerging issues including climate change, adaptability of collections, and longevity of current aging collections. Compile and issue a revised Living Collections Policy and associated Implementation Plan
102. Assess the current status and value of Living Collections located in areas scheduled for site improvements in the short to medium term, and recommend actions to enhance the collections concurrently with any proposed site upgrade work.
103. Assess the feasibility of developing a new carbon neutral demonstration garden as part of development of potential new collections.
104. Identify priority Living Collections utilised in the Interpretation Masterplan for the Adelaide Botanic Garden and implement collection improvements to assist delivery of the interpretive messaging to visitors.

STRATEGIC RESPONSE:

South Australian Seed Centre Collections

Utilise a Collection Management Plan and Seed Collections Policy to inform future seed collection, curation and storage accommodation requirements for the South Australian Seed Conservation Centre.

ACTIONS:

105. Review the existing diversity and conservation of the seed collections and determine the need

for their expansion, as well as determine the need for new collections, addressing emerging issues including climate change, adaptability of collections, and longevity of current collections. Compile and issue a revised Seed Collections Policy, associated management plan and fit for purpose accommodation recommendation plan.

STRATEGIC RESPONSE:

Specimen Trees

Identify, protect and interpret to visitors all appropriate major iconic specimen and avenue trees both in the Garden and Botanic Park.

ACTIONS:

106. Audit and map the location, condition and longevity of all iconic specimen and avenue trees in the Garden and Botanic Park.
107. As part of the iconic specimen tree audit, propose actions for short to medium term succession planting and addressing issues related to tree risk reduction, tree care and maintenance.
108. Assess and prioritise trees most appropriate for interpretive messaging to visitors and incorporate them in the Interpretation Masterplan.

7.3.2 HERBARIUM COLLECTIONS

STRATEGIC RESPONSE:

Herbarium Collections

Plan for the future accommodation and storage needs for the State Herbarium as the current facility, located in Trambarn A, reaches capacity.

ACTIONS:

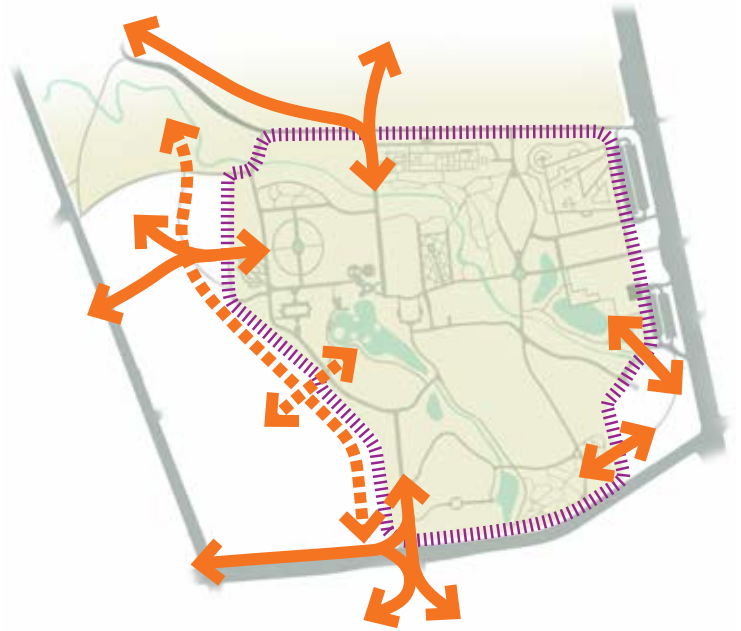
109. Audit the current operations of the State Herbarium and prepare a brief outlining future requirements of the institution for its continued operation either on its current Hackney Road site or at a new location.
110. Undertake a business case analysis to determine solutions for long term storage and accommodation requirements for the State Herbarium.

Guiding Design Principles 8



8.1 Precinct Connections

Enhance the presence and identity of the Garden and make open physical and conceptual connections to the public realm and institutions neighbouring the Garden.



8.2 Garden Structure

Acknowledge the existing structure developed over the last century and a half, as a mix of 'formal and geometric' with 'informal and flowing' spaces, responding to site topography and culturally informed interventions.



8.3 Entries and Arrival Experience

Enhance through consistent theming the major and lesser entries to both Adelaide Botanic Garden and Botanic Park in a manner appropriate to a significant State cultural institution.



8.4 Themed Precincts and Trails

Within the existing garden structure, develop themed precincts and trails across the Garden to provide a deeper, more engaging visitor experience for those that seek it.



8.5 Destinations

Acknowledge the legacies of the favourite visitor drawcards that exist in the Garden and seek opportunities to further develop existing or create new complimentary attractions within the Garden.



8.6 Waterways

Improve the aesthetic, biodiversity and water conservation values of the Garden's waterways.



Adelaide Botanic Garden Masterplan

9



9. Adelaide Botanic Garden Masterplan

The 2020 Adelaide Botanic Garden Masterplan is an update to the previous 2006 Plan and responds to the completion of several highly successful improvements to the Garden over those intervening years. In addition, the revised Masterplan responds to new emerging considerations currently impacting on this historic estate on the city's primary cultural boulevard, North Terrace.

As in 2006, this Masterplan is an outcome of a detailed review of the determining factors that shape the physical form and operations of the Garden today, and into the future. The Plan has been developed with a deep understanding of the role of botanic gardens in contemporary society and the actual site: its natural topography, its structure, and its heritage. It follows the precedent of the 2006 Plan by investigating the three highlighted aspects of:

- Access - both physical and intellectual, through the enhancement of the presentation of visitor attractions and amenities, information services, interpretation and storytelling.
- Regeneration – reviewing the regenerative potential and maximising the value of previously overlooked corners of the Garden.
- Sustainability – acting to ensure plant conservation, sustainable water use, and appreciation of the world's interlinked biodiversity are key messages conveyed to visitors through demonstration of best practice in these areas.

Importantly, these areas of focus align with the key targets of the current Botanic Gardens and State Herbarium 5-year Strategic Plan of 'creating destination gardens, deepening our science, and facilitating lifelong learning and engagement' as discussed in earlier chapters.

There are various instruments guiding the strategic decision making and investment decisions in relation to the management and development of Adelaide Botanic Garden and Botanic Park. The Department for Environment and Water's *Corporate Plan* and the Board

of the Botanic Gardens and State Herbarium's *Strategic Plan (2017-2022)* are aligned to the South Australian government strategic agenda and policy context.

The BGSB strategic vision, infrastructure and the supporting operations, activities and services are also consistent with the objectives and guiding principles of the *30-Year Plan for Greater Adelaide*, including: world-class design and vibrancy; heritage and character protection; healthy, safe and connected communities; economic growth and competitiveness and maximising the efficient use of infrastructure; natural resource management and environment protection, restoration and enhancement; ensuring a diverse range of quality public open space and places; and climate change resilience.

With these goals in mind, the 2020 Masterplan has evolved in consideration of the overarching guiding design principles illustrated in the previous chapter, while simultaneously taking a 'bottom-up' approach to problem-solving by addressing a broad range of site and operations issues evident 'on the ground' at the Adelaide Botanic Garden (as covered in Chapters 6 and 7 of this Plan).

Priority Project Categories

Eight categories of project work have been determined to allow grouping of like packages of work, investigations and outcomes required to deliver the actions identified in Chapter 7, independent of the objective or strategic response the action is addressing.

This grouping permits the ready identification of similar 'types' of infrastructure construction or programming work required to deliver the actions.

The Priority Project categories used for the Adelaide Botanic Garden Masterplan actions are:

- Integration into the Cultural Precinct;
- Accommodation Review;
- Water and Waterway Management;
- Collections and Thematic Landscape Development;
- Building Management;
- Site Infrastructure Management;
- Botanic Park Management; and
- Visitor Experience and Event Management.

Prioritisation Process

Actions have been assigned a priority ranking of high, medium, or low to begin to understand the order of action delivery required, and the assignment reflects the following considerations:

- urgency of the identified action to enable the Gardens to reach its potential for visitor experience and satisfaction;
- contribution to improving access to the Garden and its collections and the neighbouring precinct;
- magnitude of the action and its relative contribution to the development of the Garden;
- actions which need to be sequentially built upon or must be undertaken in incremental steps;
- value for money investments that enable the creation of commercial opportunities;
- ability to enable the operational efficiency and effectiveness of the service delivery of the Garden.

Priority rankings, as identified by ideal deliverable timeframes, are nominated according to the following general scale, using the considerations listed above.

High Priority - action to be delivered in the next 5 years

Medium Priority - action to be delivered in the next 5 to 10 years

Low Priority - action to be delivered in the next 10 plus years.

All of the Garden Composition, Visitor Experience and Collections actions proposed in Chapter 7 are considered, categorised into one of eight Priority Project categories and then prioritised by High, Medium and Low Delivery Priority. All of these actions have been charted by time in their categories.

As a quick overview reference, the highlight key moves and associated actions are illustrated in the summary Site Masterplan drawing also presented in this chapter.

In future, the identified strategic responses and actions will require accompanying project plans to inform the Board of the Botanic Gardens and State Herbarium of potential details of the capital works, which are inputs into the formation of a 10 year Strategic Asset Management Plan. These plans will also enable the Board to be nimble and responsively “shovel ready” to philanthropic support and other funding opportunities.

Many of the major capital investment related actions identified in this Masterplan, starting with the back to basics needs, have been submitted for inclusion in the DEW Capital Intentions Statements for future State Government funding consideration.

9.1 Masterplan Drawings



Main Lake / Simpson Kiosk precinct upgraded - reconfigured lake edge, islands and perimeter gardens, with new bridge and path connections

Upgraded dryland palm garden with new pavilion

First Creek naturalised

Horticultural Works Depot site redeveloped, and new screen planting established

Garden of Health upgraded

Visitor experience infrastructure upgraded

Former RAH ('Lot Fourteen') redevelopment site

Possible siting of future new visitor, science, education and collections centre. (long term vision - shown dashed)

Francis Arbor upgraded with new Garden gateway (preceding development of future centre - short / medium term)

Sustainable long term waterways management solutions established

North Lodge - heritage restoration

New raised boardwalk through Ficus Walk

Classground upgraded

Simpson Shadehouse upgraded

Top Lake rehabilitated to improve lake edge and views, Botanic Creek naturalised

North Terrace entrance upgraded gate and wall coordinated with North Terrace upgrade and former RAH site redevelopment

Bicentennial Conservatory restored and renovated to improve visitor experience

International Rose Garden upgraded

Heritage buildings repurposed

Aquifer Storage and Recovery (ASR) Wetlands efficiency improvements

Screen planting established

Continued improvements to Eastern Entrance

Kitchen Garden extended, with food, health and wellbeing focus and new teaching glasshouses

Niobe Hill precinct upgraded, with themed gardens of Australian native planting linking Mallee, Wetland and Australian Forest

East Lodge - heritage restoration

New themed and interpreted experimental seed production garden



9.2 Priority Projects

INTEGRATION INTO THE CULTURAL PRECINCT

The Botanic Gardens and State Herbarium, commencing with the opening of Adelaide Botanic Garden in 1857 is among South Australia's oldest cultural and scientific institutions – frequented by local South Australians and visitors to learn about plants and explore the Garden's attractions and heritage, as well as enjoy the Garden as a place of peace, beauty and tranquility. Adelaide Botanic Garden, situated in the heart of the CBD, is the City of Adelaide's pinnacle green open space. This Garden, with Botanic Park, is South Australia's most loved and visited destination attracting over 1.3 million visitors annually. It is consistently rated as #1 for Adelaide attractions on TripAdvisor.com with visitor satisfaction levels consistently sitting at over 90%. Key findings in a recent report by Deloitte Access Economics (2013) valued the Botanic Gardens' tourism impact on South Australia at \$12.4 million annually and a \$10.8 million impact to the State's economy.

The Board envisage the development of an integrated public realm with the newest precinct development, that of the Former RAH site, so that it respects aesthetics, heritage and vistas, including enhancing access to what is proudly South Australia's most visited cultural institution. The State's need for significant new activity drivers must be addressed by this development in order to create a vibrant 'place' for all South Australians and visitors. The development should leverage and complement the existing place activation of Adelaide Botanic Garden, situated at the head of the North Terrace Cultural Boulevard. The Garden is integral to the development, and collaboration will lead to a new public realm that will be far greater than the sum of the parts.

HIGH PRIORITY ACTIONS

1. Enhance the spatial experience and key view lines at the North Terrace Entry with regard to heritage and existing plantings, by producing schematic designs for a distinct entry space with defined edges and strong entry marker signage, as well as incorporation of footpath redevelopment in line with the North Terrace cultural boulevard and the former RAH site design proposals and masterplan.
26. Facilitate archaeological surveys of current western boundary gardens prior to any redevelopment.
27. Review the heritage value of the building fabric of the existing Francis Arbor structure (originally the 'Rustic Temple' museum) to determine retention value and ensure preservation of items with high interpretive value.
28. Undertake living collections assessment of current western boundary gardens prior to any redevelopment and ensure preservation of high value items.
29. Investigate options to redesign and redevelop the existing western boundary of the Garden concurrent with the development of the Lot Fourteen site including a new entry gateway structure and upgraded fencing in the Francis Arbor precinct that will enhance the visitor experience, provide a visual sense of integration while still protecting the collections and heritage assets when the Botanic Garden is closed.
30. Review all minor non-heritage buildings and structures along the Garden's boundary with the former RAH site to determine retention value, and ensure preservation of high value items and consider opportunities to upgrade low value items.
36. Design and redevelop the North Terrace frontage landscape to improve the visual presence of the Botanic Garden from North Terrace and the East End and create a substantial sense of entry and arrival. This redevelopment will take into consideration entrance signage, artwork and feature planting.
24. As part of a redevelopment of the Horticultural Works Depot, ensure that the access point and

the boundary treatment are of high quality in their address to Botanic Park and the Adelaide Botanic High School.

MEDIUM PRIORITY ACTIONS

2. Continue to develop the Eastern Entrance to provide a high quality visitor welcoming entry experience, by creating a distinct entry space with defined edges and strong entry marker signage, a strong presence of vegetation, restricted vehicle access and strong links to adjoining First Creek Wetlands and Kitchen Garden.
3. Monitor the operation of the Western Entry to the Garden via the Garden of Health Garden, with regard to the former RAH site development and the new Adelaide Botanic High School, ensuring connecting paths and links continue to work optimally. In situations where increased visitation compromises existing Garden structure or fabric, undertake design investigations into possible new site entries or reconfigured path alignments.
25. Provide ownership identification and definition to the eastern boundary of Botanic Park along Hackney Road, so as to be appropriately comparable to the scale and quality of the existing treatments on the western boundary with Frome Road.
4. Develop the entry to Botanic Park at its south-eastern corner to provide a higher quality entry experience similar in scale and quality of the entry at the south-western corner.

LOW PRIORITY ACTIONS

69. Continue to develop the Hackney Road frontage to provide a higher quality entry experience, with clear connections to expanded parking facilities.
72. Consider localised changes to the internal path system to provide appropriate connections between the Garden and the former RAH precinct.
76. Consider localised changes to the internal road system to provide appropriate connections

between the Garden and the former RAH precinct development.

79. Review potential impacts on the Garden of new pedestrian and bicycle pathways sited around the Garden and Botanic Park associated with the development of the former RAH precinct. Ensure any north-south paths linking North Terrace and the new tram stop in the south with Adelaide Botanic High School and Adelaide Zoo to the north, make appropriate connections to existing or potential new entrances to the Garden.
80. Review impacts on the Garden of sections of the shared cycleway network around the Garden and Botanic Park completed as part of O-Bahn busway project.

ACCOMMODATION REVIEW

The Botanic Gardens and State Herbarium has nationally and internationally significant scientific and cultural collections, currently housed in the heritage listed Tram Barn A. These collections are under threat from ageing infrastructure which is experiencing salt damp and increasing incidents of insect infestation, while also reaching the 20 year projected capacity for collections storage. In addition, the institution has its science, education / learning and cultural collection programme staff operating across multiple buildings creating inefficiencies, including the duplication of facilities.

An external business analysis and review is required to identify a long term solution that will not only secure the state's botanical scientific collections, but will enable integrated business activities and provide exciting new opportunities for South Australian innovation to be applied to the development. This would lead to potential global applications with South Australia acting as an international industry leader in robotics and machine learning for natural history collections storage and use with potential for new business developments an outcome.

HIGH PRIORITY ACTIONS

31. Undertake a review of the accommodation requirements and possible solutions to address current and future accommodation needs for the State Herbarium and seed bank collections, curatorial and administration, education and support staff and visitor service needs.
34. Implement immediate and short term actions regarding collections storage to maintain the current operational requirements of the Herbarium.
109. Audit the current operations of the State Herbarium and prepare a brief outlining future requirements of the institution for its continued operation either on its current Hackney Road site or at a new location.
110. Undertake a business case analysis to determine solutions for long term storage and accommodation requirements for the State Herbarium.

MEDIUM PRIORITY ACTIONS

90. As part of longer term planning and business analysis to address storage and accommodation requirements in the Garden, investigate options to accommodate space in any future new buildings which can support the Garden's public education programmes.
43. Consider the need for any new facilities, to enable diverse opportunities for the use of the East Lodge building, aligned to the values of the Botanic Gardens and State Herbarium.

WATER AND WATERWAY MANAGEMENT

The Adelaide Botanic Garden and Botanic Park are situated in the Adelaide Riverbank Precinct. The sites have a network of key waterways transecting and bounding them, including the River Torrens and First Creek. The Garden and Park are both enhanced and degraded by these waterways. Water management generally is a high priority, as water is vital to the survival

of the living collections, local fauna, production of the thematic landscape and sweeping lawns, and in feature landscapes and fountains. The availability, quality, source and cost of water is also challenging, requiring an integrated and sustainable management approach to the management of water and waterways, to enable continuation of living collections vitality and visitor experiences.

HIGH PRIORITY ACTIONS

15. Prepare a Water Management Plan, with consideration of the Waterways Study undertaken in 2003 to consider current and foreseeable water management challenges, opportunities and solutions.
16. Enhance Main Lake to provide improvements to water quality and landscaped edge treatments, introducing a new bridge as an extension of Main Walk connecting with Ficus Walk, thereby reinforcing historic axes and views and improved integration with the Simpson Kiosk building, its outdoor dining spaces and its back-of-house operations.
17. Enhance Top Lake and its associated islands providing improvements to water quality through dredging of silt and addressing structural and landscaped edge treatment issues, and generally opening the Lake to views from the surrounding precinct.
18. Re-landscape Botanic Creek, with improvements to the visitor experience of the Nelumbo Pond, to recreate a more natural creek aesthetic, both to enhance the landscape setting of the creek and improve water quality. Investigate options for the removal of concrete channels and re-landscaping the creek and banks into a more natural and safer waterway, with reference to the recommendations of the 2003 Waterways Study.
20. Investigate options for the removal of First Creek's concrete channels and the re-landscaping of the banks into a more natural waterway and safer Garden asset, with reference to the

recommendations of the 2003 Waterways Study, prioritising the lower section most prone to scouring and flooding.

21. Review functioning of the First Creek retention basins and wetland system in terms of its ability to both recharge the aquifer and access groundwater for irrigation purposes, as well as reviewing accessibility for servicing of ponds e.g. dredging operations.

MEDIUM PRIORITY ACTIONS

19. Engage in discussions with relevant State agencies to investigate opportunities to address concerns of potential flooding within the Garden from waters entering it from upstream.
86. Through an auditing process, review the existing approaches to and edge depths for Main Lake, Top Lake and the Nelumbo Pond and assess compliance with currently accepted risk management recommendations. Undertake remedial works as required.
87. Reduce risk associated with high stormwater flows through the Garden. Consider public safety in potential redesign of all new creek and wetland edges. In the short term, identify key risk areas and undertake remedial action as appropriate.

COLLECTIONS AND THEMATIC LANDSCAPE DEVELOPMENT

Globally, botanic gardens are becoming more specialised and intimately related to and interactive with other urban green spaces including public parks and gardens, urban forests and nature reserves. Botanic gardens will continue to need to be responsive to the demands of the local community and intensify their efforts in delivering conservation and sustainability messages to the public through their displays, collections and traditional, electronic and social media. Global change continues to affect botanic gardens in many different ways. Human population displacement

and large scale movements as a result of demographics growth, changes in agricultural and land use policies and the impacts of industry all place significant impacts on, and risks to, the world's flora and as a consequence the ex situ collections in botanic gardens increase in their value and importance.

The future for botanic gardens' living collections remains challenging. Living collection policies typically encourage the development of focus or signature collections linked to programmes in research, conservation, education, landscaping and culture. The values that underpin a living collections policy for Adelaide Botanic Garden will continue to evolve. The ability of the Garden's management to effectively integrate and reconcile living collections values, policy, development and programmes will determine the effectiveness of the Botanic Gardens and State Herbarium as a scientific and cultural institution.

The acquisition of new living collections for the botanic garden will have to change to take into account the new conditions resulting from changing climates. Some species will no longer be able to be grown, while the successful introduction of others previously unsuitable for cultivation - will become possible. Changes in flowering times may affect the availability of pollinators and increase or decrease hybridisation between species, all of which has serious implications for conservation collections. Invasive species are becoming more common and increasingly cause problems for botanic gardens maintenance.

The living collections in Adelaide Botanic Garden and Botanic Park are also aging and succession strategies for maintaining and replacing often iconic plantings and conservation collections are essential.

HIGH PRIORITY ACTIONS

101. Review the Living Collections specifically nominated in the current policy and the need

for their expansion, as well as determine the need for new collections, addressing emerging issues including climate change, adaptability of collections, and longevity of current aging collections. Compile and issue a revised Living Collections Policy and associated Implementation Plan.

105. Review the existing diversity and conservation of the seed collections and determine the need for their expansion, as well as determine the need for new collections, addressing emerging issues including climate change, adaptability of collections, and longevity of current collections. Compile and issue a revised Seed Collections Policy, associated management plan and fit for purpose accommodation recommendation plan.
88. Continue the current annual tree risk assessment audits and implement the recommendation of the assessments, as part of the tree management programme.
40. Undertake a review of the living collections and visitor experiences in the Bicentennial Conservatory as part of the Living Collections review process, and consider themes of development which are suitably appropriate to be housed in the iconic building.
48. Undertake redevelopment of Simpson Kiosk precinct to improve its lakeside setting, for both restaurant and kiosk/cafe functions.
8. Extend the Kitchen Garden into the underutilised space south of the Goodman Building, creating a landscape and teaching garden that ties with an overall food, health and wellbeing theme. This development is to include a teaching glasshouse to diversify learning opportunities and offerings.

MEDIUM PRIORITY ACTIONS

92. Review and as necessary take steps to improve functioning of potential 'outdoor classroom' areas and demonstration / practical learning spaces, such as the proposed new teaching glasshouses in the

future extension of the Kitchen Garden.

22. Develop the south-eastern corner of the Garden between the Mallee Section and the First Creek Wetland to incorporate the following elements in the design:
 - Themed gardens featuring Australian native plantings linking the arid and semi-arid plantings to create a precinct and visitor trail of Australian flora;
 - Redevelopment of the current City Crop site to create a themed and interpreted experimental seed production garden;
 - Consider the development of the area above the Sunken Garden for a multi-use smaller scale event space, taking advantage of aspect/views and potential incorporation of the Andy Goldsworthy site-specific environmental sculpture; and
 - Enhanced access and path legibility to the western entry into the National Wine Centre, and enhanced perimeter planting generally.
23. Develop the Garden's eastern boundary along the Hackney Road frontage to provide a landscape character equal in quality to the other Garden boundaries.
5. As part of redevelopment of the Main Lake precinct, remove screen planting at the northern end of Main Walk and at the southern end of Ficus Walk to provide open views across a new pedestrian bridge over the Lake at the termination point of these axial pathways. Install a raised boardwalk along Ficus Walk to provide protection to the trees' root systems.
6. Utilise revisions to the Living Collection Policy to direct the future development of the living collections displayed within the themed garden settings.
102. Assess the current status and value of Living Collections located in areas scheduled for site improvements in the short to medium term, and recommend actions to enhance the collections concurrently with any proposed site upgrade work.
103. Assess the feasibility of developing a new carbon neutral demonstration garden as part of development of potential new collections.

104. Identify priority Living Collections utilised in the Interpretation Masterplan for the Adelaide Botanic Garden and implement collection improvements to assist delivery of the interpretive messaging to visitors.
106. Audit and map the location, condition and longevity of all iconic specimen and avenue trees in the Garden and Botanic Park.
107. As part of the iconic specimen tree audit, propose actions for short to medium term succession planting and addressing issues related to tree risk reduction, tree care and maintenance.
7. Prioritise upgrades to the following historic spaces and collections and ensure refurbishments are undertaken with due consideration to the distinct spatial quality of these themed gardens:
 - Classground Garden – major refurbishment
 - Dryland Palm Collection – improvements to draw visitors to the northwestern precinct of the Garden
 - Simpson Shadehouse – major refurbishment to repair storm damage and acknowledge heritage values
 - Garden of Health – general upgrade
 - Mediterranean Garden – general upgrade
 Ensure any future enhancements of the following garden spaces similarly acknowledge their heritage and spatial form:
 - Economic Garden
 - Western Wild Garden
 - Plane Tree Lawn
 - Dahlia Garden
 - Wisteria Arbours
108. Assess and prioritise trees most appropriate for interpretive messaging to visitors and incorporate them in the Interpretation Masterplan.
64. Create a central core precinct in the Garden around Main Lake, clearly linked to the four main entrances (north, south, east and west) into the Garden.
65. Develop a central precinct that incorporates key visitor attractions such as the Amazon Waterlily Pavilion, the Schomburgk Pavilion, and the Simpson Kiosk building with a consistent planting theme and pavement treatment.

9. Undertake improvements to the International Rose Garden to achieve International Accreditation (aligned to the IRG Michael Marriott Plan). The improvements are to achieve a visitor and spatial experience compatible with the scale of the Garden, and to intensify the setting for interpretation of the *Rosa* species.
61. In response to auditing existing services infrastructure, upgrade services according to priority and as capital works funding becomes available.

BUILDING MANAGEMENT

One of South Australia's oldest and most visited destinations, Adelaide Botanic Garden faces challenges to maintain, manage and develop its heritage and buildings. As a result, there is a critical need to restore and in many cases revitalise the heritage and non-heritage buildings across the Garden. Asset management lifecycle planning and investment is required to nurture the intrinsic public, tourism and scientific value of these buildings. Overall this investment will dramatically advance Adelaide city's tourism development potential and deliver as yet to be realised business developments through achieving an internationally recognised botanical destination.

Changing climate also impacts aging heritage assets both built and biological and investment in the botanic garden should provide assets, collections and garden resilience through revitalising and activating key Garden building assets, local economies should be enhanced and additional revenue generated to allow for gardens, heritage and landscape restoration and rehabilitation activities to ensure the institution is sustained into the future.

HIGH PRIORITY ACTIONS

37. Complete a detailed Building Condition Audit report of the Bicentennial Conservatory to inform future conservation management and revitalisation options of the building asset.

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38. Assess and act on the recommendations of recent reviews of the building to protect and conserve the heritage listed structure.
 39. Develop a Conservation Management Plan for the Bicentennial Conservatory.
 46. Undertake Conservation Management Plans for the Goodman Building, the Tram Barn A Building, the Simpson Shade house, the Francis Arbor precinct, the Barber Shop Rotunda and the Summerhouse / former Trellis Walk precinct.
 54. Redesign the Horticultural Works Depot facility in the northwest corner of the Garden, taking into account a more efficient use of the available and/or neighbouring space on the site, the need for vastly improved staff facilities, service vehicle access issues and screening to improve visual impact.

MEDIUM PRIORITY ACTIONS

10. Consider nomination of appropriate built assets and statuary within the Adelaide Botanic Garden for inclusion on the State Heritage register.
41. Design and implement appropriate refurbishments to North Lodge in accordance with the Conservation Management Plan (2003) to enable its future functions.
42. Restore and refurbish the East Lodge heritage building.
44. Investigate relocation of staff facilities and growing glasshouses to enable alternative use of East Lodge for income-generating activities.
50. Audit condition and accessibility of all bathroom facilities within the Garden and upgrade to a standard that is appropriate for a State scientific and cultural institution as required.
51. Review potential impacts of removal of existing toilet lock facilities near the Francis Arbor site.
55. Review all operational and storage facilities across the site, to address potential improvement to: internal spaces, offices space, external spaces for plant and equipment and 'satellite' service yards.
82. Upgrade paths, ramps, building entrances and

toilets that are non-compliant or problematic, with consideration to impact on heritage values of the Goodman Building, Palm House, North Lodge, East Lodge, Summerhouse and the Barber Shop rotunda.

SITE INFRASTRUCTURE MANAGEMENT

Adelaide Botanic Garden has experienced long term challenges to maintain and develop its basic operational and visitor experience site infrastructure. As a result, there is a critical need to revitalise the overall infrastructure across the sites.

Adelaide Botanic Garden contributes to South Australia's scientific and cultural identity. The Garden requires active infrastructure development to nurture and enhance the inherent value of the Garden for the public, science and tourism.

PRIORITY ACTIONS

52. Finalise the Adelaide Botanic Garden Style Guide and systematically introduce a consistent suite of garden furniture, with built-in flexibility to cater for specially-themed precincts within the Garden, with consideration to universal access, cost, maintenance and durability.

MEDIUM PRIORITY ACTIONS

11. Undertake full restoration of all statuary across the Botanic Garden as part of a statuary maintenance programme.
53. Audit the condition and longevity of existing garden furniture and prepare an asset renewal and replacement programme.
56. Research requirements and develop initiatives for providing and improving the use of Wi-Fi and internet access technology, and automate appropriate operational systems.
58. Complete the current night lighting design proposal and implement the endorsed design proposals as able, prioritising improvements to power and

lighting in the immediate precinct of the Museum of Economic Botany, the Botanic Gardens Restaurant, Noel Lothian Hall, and the north-south and east-west axial pathways.

59. Upgrade safety lighting for vehicles and pedestrians throughout Botanic Park, exploring cost sharing opportunities with City of Adelaide and Adelaide Zoo.
60. Audit and map the location, condition and longevity of existing services infrastructure and highlight future upgrades of engineering infrastructure, prioritising water/sewer connections at key sites.
66. Develop and implement a hierarchical wayfinding signage system.
67. Ensure any future improvements to path lighting are designed to assist wayfinding.
70. Audit the existing pathway types and develop a coherent, hierarchical pathway system and incorporate the following elements into the Adelaide Botanic Garden Style Guide: path widths, maximum gradients and surface material, with consideration to universal access, cost, surface treatment, safety, maintenance and durability.
71. In response to auditing existing pathways, realign paths to improve visitor movement and wayfinding in association with new developments within the Garden (such as around Main Lake), and upgrade existing paths over time in accordance with the recommended path system and the Adelaide Botanic Garden Style Guide.
74. Audit the existing roadway types and develop a coherent, hierarchical pathway system and incorporate the following elements into the Adelaide Botanic Garden Style Guide: road widths, maximum gradients and surface material, with consideration to universal access, cost, surface treatment, safety, maintenance and durability.
75. In response to auditing existing roadways, realign roads to improve visitor movement and wayfinding in association with new developments and upgrade roads over time in accordance with the Adelaide Botanic Garden Style Guide.

77. Audit the existing road network with emergency services providers to confirm that all access requirements are met by the current layout.
78. In response to the audit, maintain and upgrade existing roads or realign if required, in accordance with the audit recommendations to improve access.
83. Progressively introduce a signage system that is accessible for the vision impaired.
84. Relocate existing furniture and install new furniture to ensure universal accessibility where required.
85. Audit signage and install priority signage, particularly around the Goodman Building and Trambarn A.
62. Upgrade the provision of services infrastructure in Botanic Park as required in order to operate as a major event venue.

LOW PRIORITY ACTIONS

73. Monitor the use of the existing path network to assess the impacts of any increase in pedestrians traversing the Garden through the changes to the Precinct (former RAH site, Adelaide Botanic High School development, the extension to the city tramline, and changes to car parking along the Hackney Road frontage).
81. Install dedicated bicycle rest stops around the perimeter of the Garden, such as near the Eastern Entrance, the Western Gate, the North Gate and Conservatory Gate to inform and promote appropriate cycling behaviour in the Garden precinct.

BOTANIC PARK MANAGEMENT

Botanic Park is a popular visitor destination in its own right and presents its own challenges to maintain its operational and visitor experience site infrastructure. As a result, there is a critical need to revitalise the many aspects of the infrastructure across the Park. The Park requires active infrastructure upgrades and mitigation against further declines and impacts to site fidelity from its current co-use as a popular function and

concert event location. Site management must address ongoing delivery of living collections stewardship and manage risks to the site (soil compaction, collection damage and attrition) and visitors (trees limbs) in perpetuity. Infrastructure development is required to nurture the value of Botanic Park as a public space, arboretum, tourism icon and unique event space.

PRIORITY ACTIONS

12. Prepare and implement a Management Plan for Botanic Park, to ensure the Park's heritage is appropriately protected and respected.

MEDIUM PRIORITY ACTIONS

95. Continuously review the impact of major events on the Botanic Park landscape using a well-designed, scientific monitoring programme.
96. Develop the Speakers Corner site and adjacent areas in the Dell (subject to the Grey Headed Flying Fox colony activities) as a small to medium scale event space and interpret the history of the site.
14. Review arboretum holdings in Botanic Park with regard to Living Collections Policy and prepare a tree succession plan for Botanic Park. Update the plan over time in line with any future changes in the Living Collections Policy.

VISITOR EXPERIENCE AND EVENT MANAGEMENT

Adelaide Botanic Garden is a place of beauty, it is also a place of learning and understanding, a place of science, a place of activity and fun, and a place that reflects the history and endeavour of the people and society that has created it, and those who were here before us. Successful activation, wayfinding, comfort services and interpretation will encourage visitors to develop a personal connection with the place and its stories and lead to changed attitudes, understandings and values that ultimately will be transformed into actions for the environment and South Australian society. Multi-

layered education and interpretation strategies will help visitors of all ages and backgrounds to engage with the displays and make meaning of the garden on a number of levels.

Tourism is also an area of growth for South Australia, contributing to employment and economic prosperity for the state. Adelaide Botanic Garden and Botanic Park are destination locations, drawing interstate and overseas tourists. Both Adelaide Botanic Garden and Botanic Park are sites which are having more site activation and larger scale curated initiatives delivered, than ever before.

There will be many conflicts and challenges in our future, namely preservation and tradition versus renewal and change. By finding the balance between old ideas and new initiatives, the botanic garden will continue to play a major part in our scientific, socio-economic and cultural life.

HIGH PRIORITY ACTIONS

93. Develop an Events Policy that sets out guidelines for both commercial and community event use of the Botanic Garden and proposes a framework for engaging with creative industries to increase the institution's public programme offerings while ensuring the long-term protection of garden heritage and non-heritage assets and infrastructure.
13. Review operations, planned capital works and other site influences, including the impact of major events (regular and one-off) held in Botanic Park against the Park's Management Plan to ensure its heritage and living collections are maintained and uncompromised.
32. Undertake longer term planning to determine the best solutions for exhibiting the Garden's collections and its public interface, including ability to increase commercial revenue opportunities.

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33. Assess ongoing adequacy of Goodman Building as the “frontdoor” for visitors to the Adelaide Botanic Garden and for the Trambarn A for housing the State Herbarium collection sustainably over the long term.
47. As part of longer term planning and business cases for future improved visitor services, include an options analysis for the best location within the Garden for a focus point for the dissemination of detailed information to visitors.
89. Develop a BGSH Interpretation Masterplan that will investigate and guide the Garden on the following interpretation opportunities:
- Current successes in interpretation of the Garden to the public;
 - Appropriate interpretive themes for Adelaide Botanic Garden;
 - Areas for prioritisation for potential rollout of interpretive displays/messaging;
 - Maintaining the Gardens’ cultural and heritage settings;
 - Appropriate methods and/or technologies for delivering interpretation; and
 - Linking themes and stories between Adelaide Botanic Garden, Mount Lofty Botanic Garden and Wittunga Botanic Garden.

HIGH PRIORITY ACTIONS

91. Consider new education/learning spaces in the longer term planning and future business cases for all new garden developments within the Garden.
94. Continuously review the impact of events in the Garden and Botanic Park and take action if events are compromising the heritage and scientific collections values of the Garden.
97. Identify areas within the Garden and Botanic Park which can be established and used as back of house areas for large scale events.
98. Review the current wedding and function sites within the Garden and discontinue use or upgrade as appropriate.

99. Consider potential opportunities for a variety of other pop-up events.
100. Improve the external spaces around Tram Barn A / Noel Lothian Hall to make better use of the precinct and facilities for private outdoor functions and events, with connections to the International Rose Garden and the Kitchen Garden.
49. Review any need to rationalise food outlet operations between the Kiosk and Cafe Fibonacci, and consider longer term planning for any potential new food outlets associated with future accommodation business cases.
57. Develop concept designs for a lighting strategy across the Gardens to enhance opportunities for curated experience night-time events and activities.
63. Review content and update as necessary the visitor information signage at the five major Garden entries (North Terrace Gate, Friends Gate/North Lodge, Bicentennial Conservatory Gate, Eastern Entry, and Western Entry).

LOW PRIORITY ACTIONS

35. Review strengths and weaknesses of current Noel Lothian Hall facility usage and management model.
45. Continue to refurbish the former Lunatic Asylum Morgue heritage building and undertake an options study to investigate future appropriate heritage approved reuse of the building asset for visitor experiences.
68. Conduct visitor research to assess whether recent changes to car parking within the Gardens precinct are adequately meeting visitor expectations.

9.3 Delivery Plan (Projects 1 - 2)

ACTION		next 5 years	next 10 years	> 10 years
Project 1 - Integration into the Cultural Precinct				
1	Enhance the spatial experience and key view lines at the North Terrace Entry with regard to heritage and existing plantings, by producing schematic designs for a distinct entry space with defined edges and strong entry marker signage, as well as incorporation of footpath redevelopment in line with the North Terrace cultural boulevard and the former RAH site design proposals and masterplan.			
26	Facilitate archaeological surveys of current western boundary gardens prior to any redevelopment.			
27	Review the heritage value of the building fabric of the existing Francis Arbour structure (originally the 'Rustic Temple' museum) to determine retention value and ensure preservation of items with high interpretive value.			
28	Undertake living collections assessment of current western boundary gardens prior to any redevelopment and ensure preservation of high value items.			
29	Investigate options to redesign and redevelop the existing western boundary of the Garden concurrent with the development of the fRAH site including a new entry gateway structure and upgraded fencing in the Francis Arbor precinct that will enhance the visitor experience, provide a visual sense of integration while still protecting the collections and heritage assets when the Botanic Garden is closed.			
30	Review all minor non-heritage buildings and structures along the Garden's boundary with the fRAH site to determine retention value, and ensure preservation of high value items and consider opportunities to upgrade low value items.			
36	Design and redevelop the North Terrace frontage landscape to improve the visual presence of the Botanic Garden from North Terrace and the East End, and create a substantial sense of entry and arrival. This redevelopment will take into consideration entrance signage, public artwork and feature planting.			
24	As part of a redevelopment of the Horticultural Works Depot, ensure that the access point and the boundary treatment are of high quality in their address to Botanic Park and the Adelaide Botanic High School.			
2	Continue to develop the Eastern Entrance to provide a high quality visitor welcoming entry experience, by creating a distinct entry space with defined edges and strong entry marker signage, a strong presence of vegetation, restricted vehicle access and strong links to adjoining First Creek Wetlands and Kitchen Garden.			
25	Provide ownership identification and definition to the eastern boundary of Botanic Park along Hackney Road, so as to be appropriately comparable to the scale and quality of the existing treatments on the western boundary with Frome Road.			

ACTION		next 5 years	next 10 years	> 10 years
3	Monitor the operation of the Western Entry to the Garden via the Garden of Health Garden, with regard to the former RAH site development and the new Adelaide Botanic High School, ensuring connecting paths and links continue to work optimally. In situations where increased visitation compromises existing Garden structure or fabric, undertake design investigations into possible new site entries or reconfigured path alignments.			
4	Develop the entry to Botanic Park at its south-eastern corner to provide a higher quality entry experience similar in scale and quality of the entry at the south-western corner.			
69	Continue to develop the Hackney Road frontage to provide a higher quality entry experience, with clear connections to expanded parking facilities.			
72	Consider localised changes to the internal path system to provide appropriate connections between the Garden and the former RAH precinct.			
76	Consider localised changes to the internal road system to provide appropriate connections between the Garden and the former RAH precinct development.			
79	Review potential impacts on the Garden of new pedestrian and bicycle pathways sited around the Garden and Botanic Park associated with the development of the former RAH precinct. Ensure any north-south paths linking North Terrace and the new tram stop in the south with Adelaide Botanic High School and Adelaide Zoo to the north, make appropriate connections to existing or potential new entrances to the Garden.			
80	Review impacts on the Garden of sections of the shared cycleway network around the Garden and Botanic Park completed as part of O-Bahn busway project.			
Project 2 - Accommodation Review				
31	Undertake a review of the accommodation requirements and possible solutions to address current and future accommodation needs for the State Herbarium and seed bank collections, curatorial and administration, education and support staff and visitor service needs.			
34	Implement immediate and short term actions regarding collections storage to maintain the current operational requirements of the Herbarium.			
109	Audit the current operations of the State Herbarium and prepare a brief outlining future requirements of the institution for its continued operation either on its current Hackney Road site or at a new location.			
110	Undertake a business case analysis to determine solutions for long term storage and accommodation requirements for the State Herbarium.			
90	As part of longer term planning and business analysis to address storage and accommodation requirements in the Garden, investigate options to accommodate space in any future new buildings which can support the Garden's public education programmes.			
43	Consider the need for any new facilities, to enable diverse opportunities for the use of the East Lodge building, aligned to the values of the Botanic Gardens and State Herbarium.			

9.3 Delivery Plan (Projects 3 - 4)

ACTION		next 5 years	next 10 years	> 10 years
Project 3 - Water and Waterway Management				
15	Prepare a Water Management Plan with consideration of the Waterways Management Study undertaken in 2003 to consider current and foreseeable water management challenges, opportunities and solutions.			
16	Enhance Main Lake to provide improvements to water quality and landscaped edge treatments, introducing a new bridge as an extension of Main Walk connecting with Ficus Walk thereby reinforcing historic axes and views and improving integration with the Simpson Kiosk building, its outdoor dining spaces and its back-of-house operations.			
17	Enhance Top Lake and its associated islands providing improvements to water quality through dredging of silt and addressing structural and landscaped edge treatment issues, and generally opening the Lake to views from the surrounding precinct.			
18	Re-landscape Botanic Creek, with improvements to the visitor experience of the Nelumbo Pond, to recreate a more natural creek aesthetic, both to enhance the landscape setting of the creek and improve water quality. Investigate options for the removal of concrete channels and re-landscaping the creek and banks into a more natural and safer waterway, with reference to the recommendations of the 2003 Waterways Study.			
20	Investigate options for the removal of First Creek's concrete channels and the re-landscaping of the banks into a more natural waterway and safer Garden asset, with reference to the recommendations of the 2003 Waterways Study, prioritising the lower section most prone to scouring and flooding.			
21	Review functioning of the First Creek retention basins and wetland system in terms of its ability to both recharge the aquifer and access groundwater for irrigation purposes, as well as reviewing accessibility for servicing of ponds e.g. dredging operations.			
19	Engage in discussions with relevant State agencies to investigate opportunities to address concerns of potential flooding within the Garden from waters entering it from upstream.			
86	Through an auditing process, review the existing approaches to and edge depths for Main Lake, Top Lake and the Nelumbo Pond and assess compliance with currently accepted risk management recommendations. Undertake remedial works as required.			
87	Reduce risk associated with high stormwater flows through the Garden. Consider public safety in potential redesign of all new creek and wetland edges. In the short term, identify key risk areas and undertake remedial action as appropriate.			

ACTION		next 5 years	next 10 years	> 10 years
Project 4 - Collections and Thematic Landscape Development				
40	Undertake a review of the living collections and visitor experiences in the Bicentennial Conservatory as part of the Living Collections review process, and consider themes of development which are suitably appropriate to be housed in the iconic building.			
48	Undertake redevelopment of Simpson Kiosk precinct to improve its lakeside setting, for both restaurant and kiosk/cafe functions.			
101	Review the Living Collections specifically nominated in the current policy and the need for their expansion, as well as determine the need for new collections, addressing emerging issues including climate change, adaptability of collections, and longevity of current aging collections. Compile and issue a revised Living Collections Policy and associated Implementation Plan			
105	Review the existing diversity and conservation of the seed collections and determine the need for their expansion, as well as determine the need for new collections, addressing emerging issues including climate change, adaptability of collections, and longevity of current collections. Compile and issue a revised Seed Collections Policy, associated management plan and fit for purpose accommodation recommendation plan.			
8	Extend the Kitchen Garden into the under utilised space south of the Goodman Building, creating a landscape and teaching garden that ties with an overall food, health and wellbeing theme. This development is to include a teaching glasshouse to diversify learning opportunities and offerings.			
88	Continue the current annual tree risk assessment audits and implement the recommendation of the assessments, as part of the tree management programme.			
92	Review and as necessary take steps to improve functioning of potential 'outdoor classroom' areas and demonstration / practical learning spaces, such as the proposed new teaching glasshouses in the future extension of the Kitchen Garden.			

9.3 Delivery Plan (Projects 4 continued)

ACTION		next 5 years	next 10 years	> 10 years
22	Develop the south-eastern corner of the Garden between the Mallee Section and the First Creek Wetland to incorporate the following elements in the design: <ul style="list-style-type: none"> • Themed gardens featuring Australian native plantings linking the arid and semi-arid plantings to create a precinct and visitor trail of Australian flora; • Redevelopment of the current City Crop site to create a themed and interpreted experimental seed production garden; • Consider the development of the area above the Sunken Garden for a multi-use smaller scale event space, taking advantage of aspect/views and potential incorporation of the Andy Goldsworthy site-specific environmental sculpture; and • Enhanced access and path legibility to the western entry into the National Wine Centre, and enhanced perimeter planting generally. 			
23	Develop the Garden's eastern boundary along the Hackney Road frontage to provide a landscape character equal in quality to the other Garden boundaries.			
5	As part of redevelopment of the Main Lake precinct, remove screen planting at the northern end of Main Walk and at the southern end of Ficus Walk to provide open views across a new pedestrian bridge over the Lake at the termination point of these axial pathways. Install a raised boardwalk along Ficus Walk to provide protection to the trees' root systems.			
6	Utilise revisions to the Living Collection Policy to direct the future development of the living collections displayed within the themed garden settings.			
102	Assess the current status and value of Living Collections located in areas scheduled for site improvements in the short to medium term, and recommend actions to enhance the collections concurrently with any proposed site upgrade work.			
103	Assess the feasibility of developing a new carbon neutral demonstration garden as part of development of potential new collections.			
104	Identify priority Living Collections utilised in the Interpretation Masterplan for the Adelaide Botanic Garden and implement collection improvements to assist delivery of the interpretive messaging to visitors.			
106	Audit and map the location, condition and longevity of all iconic specimen and avenue trees in the Garden and Botanic Park.			
107	As part of the iconic specimen tree audit, propose actions for short to medium term succession planting and addressing issues related to tree risk reduction, tree care and maintenance.			

ACTION		next 5 years	next 10 years	> 10 years
7	Prioritise upgrades to the following historic spaces and collections and ensure refurbishments are undertaken with due consideration to the distinct spatial quality of these 'Themed Gardens': <ul style="list-style-type: none"> • Classground Garden – major refurbishment • Dryland Palm Collection – improvements to draw visitors to the north-western precinct of the Garden • Simpson Shadehouse – major refurbishment to repair storm damage and acknowledge heritage values • Garden of Health – general upgrade • Mediterranean Garden – general upgrade Ensure any future enhancements of the following garden spaces similarly acknowledge their heritage and spatial form: <ul style="list-style-type: none"> • Economic Garden • Western Wild Garden • Plane Tree Lawn • Dahlia Garden • Wisteria Arbours 			
108	Assess and prioritise trees most appropriate for interpretive messaging to visitors and incorporate them in the Interpretation Masterplan.			
64	Create a central core precinct in the Garden around Main Lake, clearly linked to the four main entrances (north, south, east and west) into the Garden.			
65	Develop a central precinct that incorporates key visitor attractions such as the Amazon Waterlily Pavilion, the Schomburgk Pavilion, and the Simpson Kiosk building with a consistent planting theme and pavement treatment.			
9	Undertake improvements to the International Rose Garden to achieve International Accreditation (aligned to the IRG Michael Marriott Plan). The improvements are to achieve a visitor and spatial experience compatible with the scale of the Garden, and to intensify the setting for interpretation of the Rosa species.			
61	In response to auditing existing services infrastructure, upgrade services according to priority and as capital works funding becomes available.			

9.3 Delivery Plan (Projects 5 - 6)

ACTION		next 5 years	next 10 years	> 10 years
Project 5 - Building Management				
37	Complete a detailed Building Condition Audit report of the Bicentennial Conservatory to inform future conservation management and revitalisation options of the building asset.			
38	Assess and act on the recommendations of recent reviews of the building to protect and conserve the heritage listed structure.			
39	Develop a Conservation Management Plan for the Bicentennial Conservatory.			
46	Undertake Conservation Management Plans for the Goodman Building, the Tram Barn A Building, the Simpson Shadehouse, the Francis Arbor precinct, the Barber Shop Rotunda and the Summerhouse / former Trellis Walk precinct.			
54	Redesign the Horticultural Works Depot facility in the northwest corner of the Garden, taking into account a more efficient use of the available and/or neighbouring space on the site, the need for vastly improved staff facilities, service vehicle access issues and screening to improve visual impact.			
10	Consider nomination of appropriate built assets and statuary within the Adelaide Botanic Garden for inclusion on the State Heritage register.			
41	Design and implement appropriate refurbishments to North Lodge in accordance with the Conservation Management Plan (2003) to enable its future functions.			
42	Restore and refurbish the East Lodge heritage building.			
44	Investigate relocation of staff facilities and growing glasshouses to enable alternative use of East Lodge for income-generating activities.			
50	Audit condition and accessibility of all bathroom facilities within the Garden and upgrade to a standard that is appropriate for a State scientific and cultural institution as required.			
51	Review potential impacts of removal of existing toilet block facilities near the Francis Arbor site.			
55	Review all operational and storage facilities across the site, to address potential improvement to: internal spaces, offices space, external spaces for plant and equipment and 'satellite' service yards.			
82	Upgrade paths, ramps, building entrances and toilets that are non-compliant or problematic, with consideration to impact on heritage values of the Goodman Building, Palm House, North Lodge, East Lodge, Summerhouse and the Barber Shop rotunda.			
Project 6 - Site Infrastructure Management				
52	Finalise the Adelaide Botanic Garden Style Guide and systematically introduce a consistent suite of garden furniture, with built-in flexibility to cater for specially-themed precincts within the Garden, with consideration to universal access, cost, maintenance and durability.			
11	Undertake full restoration of all statuary across the Botanic Garden as part of a statuary maintenance programme.			
53	Audit the condition and longevity of existing garden furniture and prepare an asset renewal and replacement programme.			
56	Research requirements and develop initiatives for providing and improving the use of Wi-Fi and internet access technology, and automate appropriate operational systems.			
58	Complete the current night lighting design proposal and implement the endorsed design proposals as able, prioritising improvements to power and lighting in the immediate precinct of the Museum of Economic Botany, the Botanic Gardens Restaurant, Noel Lothian Hall, and the north-south and east-west axial pathways.			

ACTION		next 5 years	next 10 years	> 10 years
59	Upgrade safety lighting for vehicles and pedestrians throughout Botanic Park, exploring cost sharing opportunities with City of Adelaide and Adelaide Zoo.			
60	Audit and map the location, condition and longevity of existing services infrastructure and highlight future upgrades of engineering infrastructure, prioritising water/sewer connections at key sites.			
66	Develop and implement a hierarchical wayfinding signage system.			
67	Ensure any future improvements to path lighting are designed to assist wayfinding.			
70	Audit the existing pathway types and develop a coherent, hierarchical pathway system and incorporate the following elements into the Adelaide Botanic Garden Style Guide: path widths, maximum gradients and surface material, with consideration to universal access, cost, surface treatment, safety, maintenance and durability.			
71	In response to auditing existing pathways, realign paths to improve visitor movement and wayfinding in association with new developments within the Garden (such as around Main Lake), and upgrade existing paths over time in accordance with the recommended path system and the Adelaide Botanic Garden Style Guide.			
74	Audit the existing roadway types and develop a coherent, hierarchical pathway system and incorporate the following elements into the Adelaide Botanic Garden Style Guide: road widths, maximum gradients and surface material, with consideration to universal access, cost, surface treatment, safety, maintenance and durability.			
75	In response to auditing existing roadways, realign roads to improve visitor movement and wayfinding in association with new developments and upgrade roads over time in accordance with the Adelaide Botanic Garden Style Guide.			
77	Audit the existing road network with emergency services providers to confirm that all access requirements are met by the current layout.			
78	In response to the audit, maintain and upgrade existing roads or realign if required, in accordance with the audit recommendations to improve access.			
83	Progressively introduce a signage system that is accessible for the vision impaired.			
84	Relocate existing furniture and install new furniture to ensure universal accessibility where required.			
85	Audit signage and install priority signage, particularly around the Goodman Building and Trambarn A.			
62	Upgrade the provision of services infrastructure in Botanic Park as required in order to operate as a major event venue.			
73	Monitor the use of the existing path network to assess the impacts of any increase in pedestrians traversing the Garden through the changes to the Precinct (former RAH site, Adelaide Botanic High School development, the extension to the city tramline, and changes to car parking along the Hackney Road frontage).			
81	Install dedicated bicycle rest stops around the perimeter of the Garden, such as near the Eastern Entrance, the Western Gate, the North Gate and Conservatory Gate to inform and promote appropriate cycling behaviour in the Garden precinct.			

9.3 Delivery Plan (Projects 7 - 8)

ACTION		next 5 years	next 10 years	> 10 years
	Project 7 - Botanic Park Management			
12	Prepare and implement a Management Plan for Botanic Park, to ensure the Park's heritage is appropriately protected and respected.			
95	Continuously review the impact of major events on the Botanic Park landscape using a well-designed, scientific monitoring programme.			
96	Develop the Speakers Corner site and adjacent areas in the Dell (subject to the Grey Headed Flying Fox colony activities) as a small to medium scale event space and interpret the history of the site.			
14	Review arboretum holdings in Botanic Park with regard to Living Collections Policy and prepare a tree succession plan for Botanic Park. Update the plan over time in line with any future changes in the Living Collections Policy.			
	Project 8 - Visitor Experience and Event Management			
93	Develop an Events Policy that sets out guidelines for both commercial and community event use of the Botanic Garden and proposes a framework for engaging with creative industries to increase the institution's public programme offerings while ensuring the long-term protection of garden heritage and non-heritage assets and infrastructure.			
13	Review operations, planned capital works and other site influences, including the impact of major events (regular and one-off) held in Botanic Park, against the Park's Management Plan to ensure its heritage and living collections are maintained and uncompromised.			
32	Undertake longer term planning to determine the best solutions for exhibiting the Garden's collections and its public interface, including ability to increase commercial revenue opportunities.			
33	Assess ongoing adequacy of Goodman Building as the "frontdoor" for visitors to the Adelaide Botanic Garden and for the Trambarn A for housing the State Herbarium collection sustainably over the long term.			
47	As part of longer term planning and business cases for future improved visitor services, include an options analysis for the best location within the Garden for a focus point for the dissemination of detailed information to visitors.			
89	Develop a BGS Interpretation Masterplan that will investigate and guide the Garden on the following interpretation opportunities: <ul style="list-style-type: none"> • Current successes in interpretation of the Garden to the public; • Appropriate interpretive themes for Adelaide Botanic Garden; • Areas for prioritisation for potential rollout of interpretive displays/messaging; • Maintaining the Gardens' cultural and heritage settings; • Appropriate methods and/or technologies for delivering interpretation; and • Linking themes and stories between Adelaide Botanic Garden, Mount Lofty Botanic Garden and Wittunga Botanic Garden. 			

ACTION		next 5 years	next 10 years	> 10 years
91	Consider new education/learning spaces in the longer term planning and future business cases for all new garden developments within the Garden.			
94	Continuously review the impact of events in the Garden and Botanic Park and take action if events are compromising the heritage and scientific collections values of the Garden.			
97	Identify areas within the Garden and Botanic Park which can be established and used as back of house areas for large scale events.			
98	Review the current wedding and function sites within the Garden and discontinue use or upgrade as appropriate.			
99	Consider potential opportunities for a variety of other pop-up events.			
100	Improve the external spaces around Tram Barn A / Noel Lothian Hall to make better use of the precinct and facilities for private outdoor functions and events, with connections to the International Rose Garden and the Kitchen Garden.			
49	Review any need to rationalise food outlet operations between the Kiosk and Cafe Fibonacci, and consider longer term planning for any potential new food outlets associated with future accommodation business cases.			
57	Develop concept designs for a lighting strategy across the Gardens to enhance opportunities for curated experience night-time events and activities.			
63	Review content and update as necessary the visitor information signage at the five major Garden entries (North Terrace Gate, Friends Gate/North Lodge, Bicentennial Conservatory Gate, Eastern Entry, and Western Entry).			
35	Review strengths and weaknesses of current Noel Lothian Hall facility usage and management model.			
45	Continue to refurbish the former Lunatic Asylum Morgue heritage building and undertake an options study to investigate future appropriate heritage approved reuse of the building asset for visitor experiences.			
68	Conduct visitor research to assess whether recent changes to car parking within the Gardens precinct are adequately meeting visitor expectations.			

