

CONNECTING THROUGH NATURE AND COMMUNITY

Title

Royal Botanic Gardens Victoria Cranbourne Gardens Master Plan 2016 - 2026: connecting through nature and community

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Cover image

The heart-shaped leaf is from *Androcalva rossii*, a temperate rainforest species of south-eastern Australia, named after Dr Jim Ross, a former Chief Botanist of the National Herbarium of Victoria. The butterfly is an Australian Painted Lady, (*Vanessa kershawi*). It is named after William Kershaw, a former taxidermist with the then National Museum (now Museum Victoria). Butterfly image: Peter Waters

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Acknowledgments

We're grateful for the use of images from a number of photographers throughout the document and wherever possible, these images have been acknowledged. However, a number of images have been sourced from the Cranbourne Gardens' staff collection and names of individual photographers were not always available.

Contact us

For further information about the Cranbourne Gardens Master Plan contact: Cranbourne Gardens Cnr Ballarto Road and Botanic Drive, Cranbourne

- T 03 5900 2200
- F 03 5990 2250
- E rbgc@rbg.vic.gov.au

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Foreword

A botanic garden is no longer a walled garden, separated, inviolate; it spills out across the suburbs involving our community in new relationships and conversations with plants and each other. This vision takes us in bold, new directions that will change what society thinks about the role of a modern botanic garden.

In keeping with our vision, Royal Botanic Gardens Victoria has developed an aspirational Master Plan to guide the ongoing management and development of Cranbourne Gardens. The Master Plan applies to the entire 363 hectare site, addressing the biodiversity values of the site, engagement with the community, horticultural displays, and scientific and other research.

During the last twenty years, Cranbourne Gardens has been transformed from a sand mine and scrub to a botanic garden and nature reserve of international standing and reputation. The development of the Australian Garden, in particular, has been a momentous and hugely successful undertaking.

It is time now to address the values and opportunities that apply to the whole site, to strengthen the focus on the local flora and fauna and to seek further opportunities to promote and encourage the use and conservation of Australian plants. High priority will be given to access, promotion and the creation of inspiring entrances.

Highlights of the Plan include:

- Conserving the plant biodiversity of Victoria and south-eastern mainland Australia by developing a Centre for Plant Conservation at Cranbourne including a Seed Bank, Orchid Conservation Laboratory and public participation gallery.
- Securing regional biodiversity through the acquisition of additional land, and the provision of biolinks for the long-term protection of the Gardens' native fauna, including the endangered Southern Brown Bandicoot.
- Building ecological and human links with the surrounding landscape by developing a landscape plan for the restoration and utilisation of the Southern Grasslands.
- Making Cranbourne Gardens easier to find through creation of more prominent gateways, improved off-site directional signage and public transport links.
- Improving visitor experiences within the Australian Garden, including creation of wildflower and wetland walks showcasing the beauty of flora indigenous to the site.
- Using sustainable technology to better harvest and recycle our non-renewable resources, such as water and power.

This is an important and formative stage in the maturing of Cranbourne Gardens as a significant education and tourist destination for Victoria. With the implementation of this Master Plan, Cranbourne Gardens will consolidate its vital role in the cultural and scientific fabric of Victoria.

Professor Tim Entwisle Director and Chief Executive Royal Botanic Gardens Victoria

Chris Russell Executive Director Cranbourne Gardens

1 Our vision for Cranbourne Gardens - the big picture of the future

Cranbourne Gardens is recognised and celebrated – locally, nationally and internationally – as a vibrant centre for the appreciation, utilisation and conservation of Australian flora, with emphasis on the plants and ecosystems of Victoria and south-eastern mainland Australia. The natural beauty, landscape features and conservation values of Cranbourne Gardens are preserved and augmented.

The Gardens' landscape influence extends beyond its boundaries, creating a green and leafy 'botanic precinct' connecting the Gardens to the surrounding neighbourhoods physically and functionally. The adjacent residential suburb of Botanic Ridge has a strong urban-greening theme planted with Australian native and local indigenous plants. Habitat connectivity links extend predominantly to the west, south and east.

Social connectivity and inclusive partnerships mean that the Gardens is the vibrant green heart of the surrounding suburbs – well-loved and used by local residents and special interest groups, and providing a range of activities for volunteers.

...the Gardens is the vibrant green heart of the surrounding suburbs...

Cranbourne Gardens, and in particular the Australian Garden, is a celebrated destination for domestic and international tourists who come to experience and explore Australian plants and landscapes. Visitor numbers have increased annually to a level that can be sustained on the site, without deterioration of facilities and natural values.

Visitors are provided with authentic, engaging and educational experiences that are memorable and help connect them to plants and the environment. Some experiences are free, while some are for a fee and provide healthy revenue streams for the Royal Botanic Gardens Victoria.

All visitors are provided with high quality amenities, including adequate seating and shelter, toilets, food and beverage options and a botanically-themed gift shop. As a renowned destination, Cranbourne Gardens is easy to find and get to through a diversity of transport modes, including car, bicycle, walking and public transport. Gateway entrances are welcoming, informative and attractive. Road access within the site is safe, with clear directions to the key destinations. A broad network of paths provides visitors with good access to a diverse range of visitor nodes and experiences within the bushland and the landscaped gardens.

Figure 1 Wishing Tree, Australian Garden opening day, October 2012



Royal Botanic Gardens Victoria - Cranbourne Gardens Master Plan 2016 - 2026

2 Master Plan priorities

The map below identifies key Master Plan priorities and how their implementation relates to the whole Cranbourne Gardens site.

Figure 2 Key locations for Master Plan priorities



Royal Botanic Gardens Victoria acknowledges that the Cranbourne Gardens is located on the ancestral lands of the Boon Wurrung people.

The development of a Master Plan for Royal Botanic Gardens Victoria's Cranbourne Gardens is a key commitment under the *Royal Botanic Gardens Victoria Corporate Plan 2014–2019.* The *Cranbourne Gardens Master Plan 2016–2026* will replace the *Royal Botanic Gardens Cranbourne Development Plan 1995.*

Over the past 20 years, key aspects of the 1995 Development Plan have been achieved including development of the Australian Garden, the Visitor Centre, the Woodland Picnic Area, front entry landscape development, works depot establishment and active management of the conservation values of the site, as well as establishing an important place in the life of the local community. Over this time there has been substantial change in the surrounding landscape as Cranbourne has become increasingly urbanised, including the planning and continuing development of the Botanic Ridge residential area to the south, west and east. This growth and development has literally created a new community on our doorstep that over the next decade will physically isolate Cranbourne Gardens as a green island in a sea of suburbia.

With new perspectives, opportunities and challenges, Royal Botanic Gardens Victoria has developed this Master Plan to guide strategic planning for the next 10 years. This Plan reaffirms the need to sustainably manage site assets, both natural and built. It will strengthen and expand community relationships and will inspire a better understanding of the important role and beauty of Australian native plants. Importantly, the Master Plan identifies clear priority projects for Royal Botanic Gardens Victoria, including projects requiring funding, and projects that will raise revenue.

The Master Plan key directions and actions are informed and influenced by a framework of strategic and legislative documents from federal, state and local levels, as well as by internal Royal Botanic Gardens Victoria policy and planning documents. Key components of this reference framework are listed in Appendix 1.

The Cranbourne Gardens Master Plan has been developed with broad stakeholder and community input, with more than 1,500 ideas being generated through the various community workshops and the online engagement portal. We thank all who took time to contribute to this process and Capire Consulting Group for their assistance in designing and conducting the consultation process.



Figure 3 Oblique aerial photograph, looking north from Cranbourne Gardens (2016) Image: Adrian Vittorio

4.1 REGIONAL PLANNING

It is tempting to limit our thinking with the traditional view of a botanic garden as a "walled garden" separate, inviolate and distinct from the environment and broader landscape in which it sits – a landscape in a bottle. While Cranbourne Gardens is protected by a predatorproof fence there are a myriad of ways in which it is embedded within the environmental, economic, social and cultural flows of this region.

Cranbourne Gardens sits towards the end of the sand belt that extends from Melbourne out through the south-eastern suburbs in one of Australia's fastest growing urban corridors. The local government area of the City of Casey is one of Victoria's most populous and rapidly growing municipalities, with a 2014 population of approximately 283,000 people projected to grow to 459,000 people by 2036. Cranbourne Gardens sits near the gateway to the Mornington Peninsula on the boundary between the Port Phillip and Westernport catchments and holds one of this region's most precious pockets of remnant vegetation, as well as the awardwinning Australian Garden. When the Maud Gibson Trust was looking for suitable land to create an annexe to Melbourne Gardens, they were concerned about the impact of burgeoning urban growth on the flora of Melbourne. At the time of purchase in 1970, the site was embedded in farmland and buffered from the encroaching suburbs. Now the Gardens is an increasingly isolated patch of green in a sea of roads and new houses – urbanisation has come to the very boundary.

To protect the biodiversity values of the site and retain the cultural relevance of Cranbourne Gardens it is critical to maintain the connectivity of the site - both ecological and cultural. This can be achieved through establishment of habitat corridors, or 'biolinks', connecting us to surrounding landscapes, and through being enmeshed in the urban matrix of schools, roads, public transport, and community life. Embracing that connectivity, shoring it up and facilitating these flows is part of the role of a modern botanic garden. Regional planning is key to achieving these goals.

Vision

Cranbourne Gardens is a key hub of the environmental, economic, social and cultural network of the region.	
Goal The physical spaces and capacity to undertake current and future initiatives are available.	
Actions Work with the City of Casey and other government authorities to acquire additional land.	Timing Years 1-3
Goal Improve connectivity with surrounding landscapes and communities.	
Actions • Develop additional access points to new residential areas.	Timing Years 1-6
 Support the establishment of biodiversity corridors and broader ecological connectivity, in collaboration with government agencies and other groups. 	Years 1-10
 Explore opportunities with the City of Casey to establish a regional community plant nursery. 	Years 1-10

Habitat corridors, or 'biolinks', connect us to surrounding landscapes.



Figure 4 Aerial photograph of Cranbourne Gardens (the red line defines the Gardens' boundary) and surrounds showing urban expansion Source: Near Map, October 2015

4.2 DESTINATION EXPERIENCE, ACCESS AND CIRCULATION

Improving access for all visitors is both a challenge and a priority for future planning.

Access to a visitor destination such as Cranbourne Gardens could be described as a linking chain of decision points and actions, starting with a visitor's online research, followed by their physical journey to and through the site, and ending with their journey home. A destination that provides for all of these links in the 'chain of access' is systematically and strategically providing for its visitors' needs, both in terms of information access and physical access. There are a number of missing (or inadequate) links in the Cranbourne Gardens' chain of access:

- A relatively isolated location and lack of adequate public transport links.
- Inadequate road signage and lack of promotional landscape treatments making the site 'hidden' and difficult to find.
- Mobile navigation devices (GPS) directing visitors to the secondary west entrance on an unsealed road (Ballarto Road west).
- The number of car parking spaces on-site limiting the number of users that can attend at any one time, impacting particularly busy days and events.
- Lack of connection to pedestrian and bicycle networks in the surrounding area.
- Parts of the internal path network not adequately catering for cyclists and wheelchair users.

Figure 5 Cycling is a popular leisure activity along the 6km bushland track. Image: Janusz Molinksi



Vision Cranbourne Gardens is the premier visitor destination of the region, easily accessed by a range of transport modes. The visitor experience is supported by striking and memorable entry points, clear wayfinding, and a path network that provides all-abilities access to facilities and features across the site.	
Goal Increase the prominence and improve the visitor experience of the landscaped entry points at Ballarto Road west and Ballarto Road east.	
Actions • Upgrade the western entry on Ballarto Road through improved signage, gateway landscape treatments and the sealing of Ballarto Road, in collaboration with VicRoads and the City of Casey.	Timing Years 1–10
 Upgrade the eastern entry on Ballarto Road through refinement and implementation of existing City of Casey landscape plans, in collaboration with VicRoads and the City of Casey. 	Years 1-10
Goal Improve and diversify access options to Cranbourne Gardens.	
Actions Provide a reliable and affordable connection to nearby public transport hubs. Develop visitor entry points to new residential areas to the south and east 	Timing Years 1–10 Years 3–8
of Cranbourne Gardens. • Incorporate bicycle and pedestrian paths in entry landscape works that link to regional path networks.	Year 3
Goal Improve access and path network to better cater to a diversity of visitors.	
Actions Upgrade the arrival experience for visitors from the entry gates to the Visitor Centre with improved wayfinding and site information. 	Timing Years 1-10
• Remove impediments to universal access to, and through, the Visitor Centre as part of the Visitor Centre upgrade project.	Years 1-10
 Increase the proportion of the path network catering for bicycles and wheelchairs. Install additional bicycle storage facilities. 	Years 5-10 Years 1-5

4.3 BIODIVERSITY CONSERVATION

Approximately two-thirds of Cranbourne Gardens land supports high conservation value vegetation. Historical land use in these areas varies from no clearing ('pristine') to clearing and sand extraction up until the late 1960s. The 'conservation zone' has predominantly been managed to protect and enhance natural values such as biodiversity through pest plant and animal management, fire management and specific species protection programs. Some development has occurred to enhance the visitor experience, including: establishment of primary roads (Philip Moors Drive and Stringybark Drive), and Stringybark Picnic Area in 1989; installation of a pedestrian track network, seats and signs; construction of Trig Point Lookout, and development of the dams in the Southern Grasslands. The Australian Garden development, Woodland Picnic Area and Depot establishment (and recent upgrade) included some vegetation removal and consequent vegetation offsets. Over the past 15 years, the pedestrian track network has been rationalised with some track closures, track upgrades and drainage works.

One of the biggest challenges to preserving the conservation values of the site is mitigating the impacts of urbanisation and land use change around the boundary.

This is driven by residential development to the east, south and west (Botanic Ridge), as well as the Stevenson Brothers Industry (SBI) quarry to the west becoming a solid inert landfill site. The environmental impact of these changes is predominantly expressed through hydrological changes, weed and pest animal invasion, and genetic isolation of some fauna species (including Southern Brown Bandicoot) due to lack of functional connectivity with natural areas beyond the Gardens. Physical isolation (or containment through boundary fencing) was established during the 1980s and 1990s to protect the flora and fauna of the site, in particular for the exclusion of rabbits, foxes and packs of marauding dogs, but has also led to issues such as growth in the on-site Swamp Wallaby population through reduced connectivity with the surrounding landscape.

Figure 6 Small Grass-tree, *Xanthorrhoea minor* subsp. *Lutea*, one of many indigenous plants in the bushland Image: Warren Worboys



Figure 7 Spotted Harrier, *Circus assimilis*, one of several raptors that can be seen in the skies over Cranbourne Gardens Image: David Cundall





One of the biggest challenges...is mitigating the impacts of urbanisation...

Figure 8 Indigenous vertebrate fauna species recorded at Cranbourne Gardens

Figure 9 Indigenous vascular plants recorded at Cranbourne Gardens

Vision Cranbourne Gardens is protected and celebrated for its ecological significance and biodiversity.	
Goal Evidence-based management approaches are employed to conserve and enhance the natural values of the site.	
Actions • Continue focus on managing threatening processes, to achieve net gain of biodiversity. Develop/review strategic response to: fragmentation; climate change; land use change; invasive species and pathogens; grazing/browsing impacts; fire; and, hydrology changes.	Timing Years 1-10
 Continue to acquire and share knowledge in the area of conservation and restoration ecology. 	Years 1–10
 Review systems and processes capturing long-term baseline data to support evidence-based management of the site. 	Years 3-5
Goal Strategically increase areas under conservation management.	
Actions • Incorporate Front Block in the conservation area (see section 6.7).	Timing Year 4
• Remove the Special Collections Area and restore the precinct to become part of the conservation area (see section 6.5).	Years 4-10
• Extend naturally vegetated areas in the Southern Grasslands, as defined in the Southern Grasslands Landscape Plan (see section 6.6).	Years 4-10

4.4 RESEARCH

Science underpins the Royal Botanic Gardens Victoria's vision, supported by sharing of knowledge and provision of learning environments and opportunities.

To date, ecological research at Cranbourne Gardens has been focussed on gathering baseline information on the indigenous biota of the site, emerging threats to the natural values and mapping change, both over time and in response to management actions. In other words, research has been done to inform an adaptive management approach. Horticultural research has been partly targeted (for example, growth trials of native, non-indigenous plant taxa, and soil amelioration trials to inform Australian Garden development) and partly opportunistic (for example, the Woody Meadow Project in partnership with The University of Melbourne, University of Sheffield, City of Melbourne). Additional research includes social and landscape amenity.

In 2015, the Royal Botanic Gardens Victoria took over operation of an Orchid Conservation project previously located at Department of Environment, Land, Water and Planning (DELWP) facilities in Horsham. This project now operates at Cranbourne Gardens from a purpose-fitted laboratory, as well as utilising space in the existing nursery, and is focussed on propagation and reintroduction of threatened species of terrestrial orchids in south-eastern mainland Australia. The program is funded through grants and contracts, and managed through Royal Botanic Gardens Victoria's Science Division.

Figure 10 The Research Garden provides access for the public to view current Australian plant research trials.



Vision

Cranbourne Gardens is widely recognised as a centre for ecological, horticultural and social research, making major contributions to the conservation and appreciation of south-eastern mainland Australian biodiversity and Australian plants suited to cultivation.

Goal

Provide scientific knowledge to support effective long-term conservation and propagation of Victorian and south-eastern mainland Australian taxa.

Actions • Establish a research facility supporting conservation, management and propagation/ cultivation of selected Victorian biodiversity, incorporating the Orchid Conservation Program and the Victorian Conservation Seed Bank, as well as public access and interpretation areas (for example, a 'Seed Gallery').	Timing Years 7-10
• Conduct <i>in situ</i> conservation ecology research that supports reintroduction of indigenous plants and animals on-site, in our neighbourhood and more broadly in our region, including:	Years 1-10
 Long-term ecological monitoring of indigenous plant and animal taxa. 	
 Integrated conservation of rare and threatened species of Victoria and south-eastern mainland Australia. 	
• Facilitate social science research on the role of botanic gardens and how interactions with plants and gardening influence the social fabric of communities and contribute to a positive future.	Years 1-10
 Conduct horticultural research to inform and improve our understanding of Australian plants in cultivation. 	Years 1-10

Figure 11 Horticulture staff working in the Research Garden.



Figure 12 The endangered Southern Brown Bandicoot, *Isodon obesulus* has been the focus of long-term research in the bushland. Image: Luke Saffigna



4.5 HORTICULTURE AND COLLECTIONS

Cranbourne Gardens has a singular focus on Australian plants and that focus will remain intact, allowing for comparative plantings or interpretation if required.

A number of planted collections have been established since acquisition in 1970 including Proteaceae, Callistemon and tree plantings in the Southern Grasslands.

Development of the Australian Garden plant collections (see section 5.1) has largely been driven through implementing Paul Thompson's planting plans as an integral part of the Taylor Cullity Lethlean (TCL) design. Some of this plant selection was based on the observation of, and propagation from, the early plant trials undertaken in various locations at the Cranbourne Gardens, but draws more broadly from Thompson's experience of Australian plants. In more recent times, development of Curatorial Management Plans for individual precincts within the Australian Garden has provided opportunities to take a multi-disciplinary approach to plant selection incorporating the design, organisational, educational/ interpretive, horticultural, conservation and research objectives for the Australian Garden and other key Cranbourne Gardens' landscapes. This approach confirms the place of living collections at the core of botanic gardens, using them in innovative and interesting ways to engage visitor curiosity and advance the understanding and appreciation of our native flora.

Figure 13: Mature Queensland Bottle Tree, *Brachychiton rupestris* transplanted into the Wierd and Wonderful Garden Image: Janusz Molinski



Vision

Cranbourne Gardens is a horticultural centre of excellence for Australian native plants.

Goal

Our living collections demonstrate high quality curation, display and plant care.

Actions	Timing
• Develop a Living Plant Collections Plan with an emphasis on the utilisation, conservation and display of Australian plants with a focus on south-eastern mainland Australian flora.	Years 1-2
• Incorporate responses to climate change in collections planning and management.	Years 1-2
• Develop and manage living collections to directly support Curatorial Management Plan and Living Plant Collections Plan objectives.	Years 1-10
 Increase the number of threatened Victorian flora in the living collection. 	Years 1-10
 Provide effective arboricultural management of Cranbourne Gardens' trees. 	Years 1-10
 Provide high quality horticultural displays of Australian plants. 	Years 1–10

Figure 14 Spring flowering in the Australian Garden with Cut-leaf daisy, *Brachyscome multifida*.



Figure 15 Paper daisy, *Rhodanthe chlorocephala* subsp. *rosea* Image: Jorge de Araujo



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4.6 COMMUNITY ENGAGEMENT

Community engagement is the planned and strategic process of working with identified groups of people (audiences) to deliver the Gardens' mission and vision of a life sustained and enriched by plants. Groups can be connected by cultural background, demographics, geographic location, special interest or affiliation. The process of engagement assumes that we are in dialogue or conversation with these audiences.

To date, the Royal Botanic Gardens Victoria has made good inroads in terms of community engagement particularly within the access community, local Indigenous community and local early childhood and primary school audiences. This work has significantly improved access and engagement for all of these groups by removing barriers to their participation. A key to much of this work is the close relationship that staff have developed with service provision teams within the City of Casey, with such partnerships making Cranbourne Gardens' engagement 'reach' far more effective. From 2009 to 2011, the City of Casey employed a Botanic Development Officer to work at the interface between local developers and Cranbourne Gardens. During this time, significant strides were made towards influencing the kinds of plants that our local community uses in their gardens.

The Royal Botanic Gardens Victoria recognises that Cranbourne Gardens rests upon the ancestral lands of the Boon Wurrung people. The site is utilised for programs and activities run by the Indigenous community, such as the annual NAIDOC celebration, and Indigenous culture is expressed through a range of visitor programs and interpretations. Active and respectful liaison with community leaders has informed our role in being a site providing opportunity for Indigenous people to come together, and in appropriately expressing Indigenous culture to our visitors as it relates to Australian landscapes and plants.

Visitor numbers to Cranbourne Gardens increased significantly after the opening of each stage of the Australian Garden but have plateaued a little in recent years. Visitor feedback confirms the relatively low profile of the site. Poor patronage of some events and activities supports the need for greater profile and promotion. Of particular concern is the low use of the facility by tourism operators (see section 4.8).

Figure 16 Growing Friends hold plant sales to assist the Gardens and provide a range of native plants to the community. Image: Gwen Elliot





Figure 17 Cranbourne Gardens annual visitor numbers from 2005-2015

Significant community support and engagement is generated through the Friends of the Royal Botanic Gardens Cranbourne Incorporated. Established in 1991, the Cranbourne Friends now has over 750 members and conducts a range of activities and programs. Activity groups include the Growing Friends (plant production), Herbarium Collectors, Botanical Fabricators (textile-based creations), Basketry Group, and Botanic Illustrators. Excursions and travel activities are also organised, as well as educational programs held at Cranbourne Gardens, often in partnership with Royal Botanic Gardens Victoria. The Cranbourne Friends' activities generate significant funds which are donated to Royal Botanic Gardens Victoria for specific Cranbourne-based projects.

Cranbourne Gardens is also supported through significant contributions made by a range of volunteers, including Garden Ambassadors who provide plant and gardening advice to Australian Garden visitors, as well as horticulture, science and land management volunteers.



Figure 18 The Rockpool Waterway is popular with families on a warm day. Image: Janusz Molinski

Vision

Community engagement fosters healthy, sustainable and connected communities with an appreciation of the sustaining role of plants in our lives.

Goal Deliver a suite of interpretation and educational strategies that engage the community with the life and work of the Royal Botanic Gardens Victoria.	
Actions	Timing
• Implement the Royal Botanic Gardens Victoria Community Engagement Strategy.	Years 1-3
• Implement the Royal Botanic Gardens Victoria Marketing and Communications Plan, and prioritise actions to increase visitation to Cranbourne Gardens.	Years 1–3
• Develop an Information, Interpretation, Art and Education Plan for the whole Cranbourne Gardens site.	Years 1–3
• Continue to liaise and engage with the Indigenous and multi-cultural communities.	Years 1–10
 Identify areas appropriate for nature play on-site and promote to the early-childhood sector. 	Years 1–3
• Seek a formal partnership with the new primary school being built on the southern boundary of the site (as part of the Botanic Ridge residential development).	Years 1-10
 Continue promoting to a broad audience through participation at international garden shows. 	Years 1-10
• Continue to collaborate with the Cranbourne Friends and membership groups.	Years 1-10
 Continue to facilitate the involvement of volunteers in the work of Royal Botanic Gardens Victoria. 	Years 1-10
Goal Extend the work of the Cranbourne Gardens beyond the boundary with a focus on community greening.	
Actions Seek funding to support an education role dedicated to improving urban biodiversity.	Timing Years 1–3
Goal Expand Cranbourne Gardens' reach into the community through new experiences and attractions.	
Actions Develop a dedicated behind-the-scenes outdoor education area proximate to the Australian Garden.	Timing Years 3–5
Goal Promote and foster appreciation for the natural values of the Cranbourne Gardens site.	
Actions • Develop a name for the conservation area that is more identifiable for the community.	Timing Years 1-2
• Continue to provide for visitor access to the conservation area, primarily for educational purposes and passive recreation, while managing activities to avoid impacts on natural values.	Years 1-10
• Establish an indigenous "Wildflower Walk" on the eastern side and a "Wetlands Walk" at the northern end of the Australian Garden, to increase visitor engagement with our indigenous flora and the Cranbourne bushland	Years 7-10

4.7 ENVIRONMENTAL SUSTAINABILITY

The Royal Botanic Gardens Victoria's capacity to contribute to a sustainable future has expanded over the past decade. There has also been a greater recognition of the interconnectedness of all areas of our operation and the importance of minimising environmental impacts from these activities. The Gardens' aspiration to be a leader in environmental sustainability and standards is reflected in the *Royal Botanic Gardens Victoria's Corporate Plan 2014-2019 (Sustaining Life).* As a conservation organisation, our core business is sustainability. The challenge is to incorporate sustainability into every part of our business and operations including planning, budgeting, decision making, projects and programs. The benefits of doing so include reduced operating costs, reduced risk and liability, an improved working environment, increased productivity and encouraging environmental sustainability in the broader community.

Vision As part of Royal Botanic Gardens Victoria, Cranbourne Gardens is a leader in sustainable and environmentally responsible practice.	
Goal Business activities at Cranbourne Gardens are designed and managed to have positive environmental impacts.	
Actions • Establish recycled water as the primary source of water for irrigation.	Timing Years 1–5
• Reduce reliance on the mains power grid through installation of solar panels on viable buildings and consideration of emerging renewable technologies.	Years 5-10
• Develop a Bulk Storage Area adjacent to the Australian Garden to provide for efficient storage and use of materials. Designate within this location a waste transfer area for sorting reusable, reclaimable and recyclable waste material to minimise landfill waste.	Years 3–6
Goal Track current performance in order to identify areas for improvement and assist in addressing the predicted outcomes of climate change.	
Actions Continue to monitor lake water levels, performance of the treatment wetland and water quality in the Australian Garden lake system. 	Timing Years 1-10
• In partnership with Melbourne Gardens, develop an annual environmental score-card/ report covering all aspects of our business.	Years 1-2

Figure 19 Australian Garden bio-filtration wetland



4.8 REVENUE GENERATION

Botanic gardens rely on a mix of income sources, predominantly through government grants, corporate and philanthropic donations and revenue generated through sales and activities. Internationally, botanic gardens are reducing their reliance on recurrent grants (where they exist) and striving to increase the proportion of income through self-generated and leased/licenced activities. Royal Botanic Gardens Victoria receives the majority of its funding from the Victorian Government, but to achieve its vision and to continue to offer world-class experiences additional sources of revenue are required. Existing non-government revenue sources for Cranbourne Gardens include shop sales, retail catering and functions, and some public programs and events.

Vision Cranbourne Gardens is a vibrant cultural destination activated by a diverse range of high quality, socially and environmentally sustainable activities that help fund achievement of the Royal Botanic Gardens Victoria's vision.	
Goal New revenue opportunities are identified, explored and trialled.	
 Actions Conduct a feasibility study of a range of new eco-tourism activities, such as overnight camping, tree surfing, bicycle hire, tethered hot air balloon rides, lighting festival. 	Timing Years 2-3
 Establish partners and/or tender for provision of feasible options. 	Years 3-6
 Explore options for increased plant and flower sales. 	Years 3–6
 Conduct a feasibility study for charging a car parking fee, linked to improved access to public transport. 	Years 1-2
Goal Existing revenue streams and markets are maximised to increase revenue.	
ActionsActively participate in regional tourism industry forums to strengthen recognition of Cranbourne Gardens as a key visitor destination.	Timing Years 1–10
Develop events and tourism strategies.	Years 1-2

Figure 20 The Garden Explorer provides for improved access for visitors and a source of revenue. Image: Adrian Vittorio



4.9 RISK MANAGEMENT

The Royal Botanic Gardens Victoria is committed to Risk Management as an integral part of its operations. This is demonstrated through development, implementation and improvement of integrated business systems to assist in identification, assessment and management of organisational risk. This approach is necessary to:

- Achieve the strategic objectives of the Royal Botanic Gardens Victoria through efficient and effective operations.
- Comply with all statutory requirements and obligations relating to identification, assessment and control of risk.
- Provide a safe and stimulating work environment for staff and other persons working at the Gardens.
- Provide facilities to enable visitors to the Gardens to be in a safe environment.
- Protect and conserve the environment of, and around, the Gardens.

Vision

Cranbourne Gardens is actively managed for the protection of conservation values and built assets, achievement of financial and engagement performance targets, reputational standing, and to provide an environment that is safe for visitors, employees, volunteers and contractors as far as is practicable in a natural bushland and landscaped setting.

Goal

Mitigate risks through application and routine review of Royal Botanic Gardens Victoria's Risk Management Framework.

Actions	Timing
 Implement the Cranbourne Gardens Fire Management Policy, Procedure and Operations Plan. 	Years 1-10
 Transition from potable to recycled water for irrigation. 	Years 1-5
 Adhere to Royal Botanic Gardens Victoria's Occupational Health and Safety Management System. 	Years 1-10
 Achieve plant learning and engagement objectives through strategic planning and resourcing. 	Years 1-10
 Apply effective planning and operations to mitigate loss of biodiversity due to climate change, flood, fire, pests and pathogens. 	Years 1-10

Figure 21 Planned burns provide for asset protection and ecological benefits.



Figure 22 Fire history of Cranbourne Gardens from 1986 to 2015, including bushfires and planned burns



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5.1 AUSTRALIAN GARDEN

Planning for a native plant display at Cranbourne Gardens began in the 1980s but it was not until funding resources became available in the early 1990s that the long-held vision for the Australian Garden transformed into reality. In 1994 landscape architects Taylor & Cullity (now Taylor Cullity Lethlean) were chosen to design the Australian Garden with Paul Thompson, a landscape designer specialising in Australian plants. After a process spanning more than a decade, the first stage of the Australian Garden opened in 2006. Work on completing the garden began three years later, and the second and final stage of the Australian Garden opened in 2012.

The Australian Garden showcases Australia's remarkable landscapes and plants in contemporary settings and inspires both use of Australian plants in home gardens and the making of cultural connections between plants and people. The western side of the garden reflects the natural world, while the eastern and northern areas are designed to exemplify human or cultural influences. The Garden's central story of water, its presence or absence, is the mediating element between these naturally and human derived landscapes.

Like all gardens, the Australian Garden will continue to evolve over time. From October 2012, Royal Botanic Gardens Victoria has managed the Australian Garden landscape as a fully open and operating garden. This has provided opportunities for observation, review and reflection on how the garden functions as a visitor experience, horticultural landscape and educational resource. Central to the review and future planning for the Australian Garden is development of Curatorial Management Plans for each of the Australian Garden precincts. The process of developing Curatorial Management Plans brings together the disciplines of landscape architecture, public engagement, education and interpretation, horticulture, and natural and built asset management. The aim is to produce a forward-looking plan for each precinct that articulates the original design intent and landscape narrative while reviewing how well these objectives are being achieved. Green and hard landscape performance is assessed as well as the visitor experience, with problems or improvements articulated in the Curatorial Management Plan outcomes. Development of these Plans for all areas of the Australian Garden is well progressed, with significant existing actions listed below. Additional actions will be generated as this planning process is completed.

The Cranbourne Gardens has a single Visitor Centre which facilitates a number of key visitor functions. It orients people to the Australian Garden and the rest of the site, provides café and function facilities, a botanically-themed shop, and an auditorium space for meetings, exhibitions, seminars and education activities. However, a number of access issues are inherent with the Visitor Centre's location and in some elements of the design.

Figure 23 Aerial view of the Australian Garden (2016) Image: Adrian Vittorio



Figure 24 Aerial view looking across Ian Potter Lake and the Lily Pad Bridge. Image: Adrian Vittorio



The Australian Garden showcases Australia's remarkable landscapes and plants...

Vision The Australian Garden is celebrated as Australia's premier native garden, showcasing and displaying Australia's remarkable landscapes and plants.	
Goal The Australian Garden is managed to the highest standards through a multi-disciplinary approach comprising landscape architecture, horticulture, visitor and environmental systems management.	
Actions Complete development of Curatorial Management Plans for all Australian Garden precincts.	Timing Year 1
Implement Curatorial Management Plan actions.	Years 1–10
Goal Australian Garden displays and facilities meet the needs of a diverse range of user groups and our community.	
Actions Adapt the Ian Potter Lakeside Precinct to more diverse use by installation of picnic facilities and replacement of the Iawn tree species.	Timing Years 2-5
Improve the functionality of the kiosk and surrounds in the north of the Australian Garden to increase patronage, including provision of increased shelter.	Years 1-5
• Develop a design brief to improve functionality of the Visitor Centre, including access, interpretation and customer service needs.	Years 2-3
• Seek funding for design and implementation of the Visitor Centre upgrade.	Years 3-7
• Review and rejuvenate the Southern Display Gardens through a curatorial planning process.	Years 1-10

Figure 25 Cranbourne Gardens Visitor Centre is a gateway to the Australian Garden with a café, shop and gallery.



Figure 26 The Eucalypt Walk celebrates this important Australian plant group in a range of landscape settings.



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5.2 DEPOT AND NURSERY

Development of the Cranbourne Gardens' Depot and Nursery commenced in the early 1990s. Incremental improvements to site sheds, staff accommodation, nursery infrastructure and growing facilities occurred through to 2012 when a depot upgrade capital project commenced. This larger project has included construction of a staff administration building, extension to the north shed, erection of a fire-equipment shed and modifications to nursery infrastructure, including shade house, vermin proofing and orchid growing facilities.

Vision

The Cranbourne Gardens Depot and Nursery support the ongoing management and development of the site.

Goal

Depot and nursery facilities meet current and future operational needs.

Actions	Timing
Complete actions of Depot Upgrade Project including associated Nursery works.	Years 1–5
Maintain Nursery Garden Industry Victoria accreditation.	Years 1–10

5.3 WOODLAND PICNIC AREA

Development of the Woodland Picnic Area formed a key component of the second stage of the Australian Garden project. This area was designed to be a regionally significant multi-use visitor node incorporating a range of visitor facilities such as shelters, picnic spaces, open grasslands for ball games, a bicycle track, free barbecue facilities and a children's playground. Since it opened in 2009, the Woodland Picnic Area has become a well-patronised and valued location for families from the local community and beyond. It is 400 metres from the main carpark and can be reached by pedestrians and bicycles only, making access challenging for some visitors. A trolley hire service is available from the Visitor Centre to assist visitors in getting picnic supplies from the car park to the area.

The facilities provided at the Woodland Picnic area are in good condition and are the outcome of a recent planning process (when compared with the Stringybark Picnic Area). As such, there is no pressing need to adjust these facilities. However, there are opportunities for the Woodland Picnic Area to serve as a base to support children's nature play activities in nearby bushland areas.

Vision The Woodland Picnic Area is one of the region's top destinations for visitors to enjoy picnics and passive recreation activities, while also providing opportunities to gain an appreciation of some of the Cranbourne Gardens' natural features.	
Goal A range of family-based passive and active recreational opportunities are provided.	
Actions • Identify suitable areas and landscape elements for nature play activities proximate to the Woodland Picnic Area.	Timing Years 1–5

5.4 STRINGYBARK PICNIC AREA

The Stringybark Picnic Area was the first visitor destination established at Cranbourne Gardens and was developed (along with Stringybark Drive) in readiness to open the site to the public in 1989. The area contains toilets, a small shelter, rustic picnic tables and free gas barbecues. The picnic tables and barbecues exist in alcoves in dense bush, making the experience very immersive when compared to the Woodland Picnic Area, which is in an open parkland setting. Since 1989, there has been only limited upgrading of facilities at the Stringybark Picnic Area, including minor repairs after a fire swept through the area in 2005. Whilst the facilities are routinely cleaned and maintained, passage of time has made them sub-standard and in need of significant improvement.

The Stringybark Picnic Area provides an attractive natural setting for picnics and gatherings and is supported by a network of walking tracks. It can be accessed by car, making it attractive to less-mobile visitors, disability groups and picnickers, and is a regular meeting place

for bird watchers, bush-kinder groups (young children), playgroups, and bushwalkers. It is serviced by both a primary car park and over-flow car park with approximately 50 car spaces in total.

The setting of dense vegetation provides a sense of privacy and seclusion, but also presents risks in terms of fire. This risk is managed in part through closure of access to the area on days of elevated Fire Danger Rating. Future acquisition of Botanic Drive as part of development of the new Botanic Ridge residential area could provide alternative access options. Similarly, it may be feasible to have a direct route (to the east) from the south end of Botanic Drive into the new residential suburb.

The Stringybark Picnic Area currently meets a range of visitor needs - its immersive bushland experience, and accessibility being its two key strengths. However, there are major issues associated with aging infrastructure requiring significant capital investment to upgrade existing facilities, and with fire risk requiring regular closure of the site through the fire season.

Vision

Stringybark Picnic Area provides an accessible natural setting for picnicking and passive recreation, but transitions to closure when an alternative area is established.

Goal

Stringybark Picnic Area is decommissioned by 2026.

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Actions	liming
• Assess upgrade requirements, including capital costs, to retain Stringybark Picnic Area for the next ten years.	Year 1
 Install speed limiting devices along Stringybark Drive. 	Year 1
• Establish an alternative picnic site with car access and an attractive landscape setting, and close Stringybark Drive to visitor vehicles.	Years 8-10

Figure 27 Shelter pavilion and barbecues at the Woodland Picnic Area



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5.5 SPECIAL COLLECTIONS AREA

The Special Collections Area is approximately 2.5 hectares and located on a disturbed sand extraction site within the broader conservation area. The first plantings were made in 1977, by Alf Salkin, with sporadic additions until 2001 by the Australian Plants Society and Royal Botanic Gardens Victoria researchers. The main focus was native Proteaceae, with other plant groups also introduced, including a collection of Callistemon species.

The Special Collections Area was not publicly accessible, in part due to the presence of the root pathogen Phytophthora cinnamomi which later resulted in quarantining of the area. Over time, the access track was downgraded and, throughout its history, the collection has had minimal curatorial management.

A rabbit-proof fence was constructed around the collection's perimeter in 1993, as part of an employment program, but there has been a general decline in the collections with loss of some taxa, and others becoming weedy and spreading to the adjacent conservation area. A major issue relating to the Special Collections Area is its physical location within the conservation zone.

In 2015 the Royal Botanic Gardens Victoria, with support from specialist native plant growers, completed an audit of the remaining taxa held in the collection. A detailed assessment of the horticultural and conservation significance is vet to be completed.

Vision

The area currently holding the Special Collections is reintegrated into the conservation zone, with all significant taxa secured in Royal Botanic Gardens Victoria living collections or distributed more broadly as appropriate.

Goal

Manage the transition of the Special Collections Area into the conservation zone ensuring no loss of significant taxa.

Actions	Timing
• Complete assessment of the horticultural, scientific, conservation and weed potential values of taxa held within the Special Collections Area.	Year 1
• Propagate and disseminate significant taxa currently held in the collection to appropriate sites within the Australian Garden, Melbourne Gardens and/or other gardens within the botanic garden and other horticultural networks as appropriate.	Years 1–5
• De-accession and remove the entire collection.	Years 3–5
• Undertake ecological restoration activities and reintegrate the entire area into the conservation zone.	Years 1-10

5.6 SOUTHERN GRASSLANDS

The Southern Grasslands is an area of approximately 100 hectares on former pasture land/cleared grassy woodland. There are some existing plantings from the mid-1980s and mid-1990s, with the key direction being to establish an arboretum of larger Australian trees not suited to growing on the sands of the Australian Garden. This arboretum was planned by Royal Botanic Gardens Victoria staff and plantings were laid out in geographic collections representing all Australian States. Ex situ conservation plantings of rare and threatened species include a range of eucalypts, banksias, acacias, and callistemons. Revegetation plantings and boundary plantings using indigenous trees were established in the 1990s for screening, in anticipation of the Botanic Ridge residential development on adjacent land. The Southern Grasslands area also contains the Wylies Creek Wetlands, a series of four dams constructed in the mid-1990s as part of a former development plan, providing a key landscape feature and ecological benefits.

As former agricultural land, the area is dominated by exotic pasture species, but conspicuous native flora have become more dominant in recent decades. Hay cutting and macropod grazing appear to be driving composition of the grassland to a more native mix.

The area is publicly accessible and used mainly for walking, bike riding and management vehicles. Visitor facilities include an all-year-round access track, the Elisabeth Murdoch Pavilion (established by the Maud Gibson Trust), and a number of bench seats commemorating Maud Gibson Trust committee members and the local Rotary Club.

Being adjacent to the new residential development of Botanic Ridge, the Southern Grasslands will experience the greatest level of change (in the context of surrounding land use) of any part of Cranbourne Gardens during the life of this Master Plan. Future planning must both accommodate and influence what is happening on the other side of the boundary fence, and represents a great opportunity to take steps toward achieving our vision of a green and leafy 'botanic precinct' connecting the Gardens to the surrounding neighbourhood, both physically and functionally.

Vision

The Southern Grasslands are developed to provide for increased human and ecological connectivity to the surrounding landscape.

Goal

Develop Southern Grasslands zone to increase value to visitors, plant collections and biodiversity conservation.

Actions	Timing
 Develop and commence implementation of a Southern Grasslands Landscape Plan, incorporating; 	Years 1-10
Landscape Fian, incorporating.	
 ecological restoration to expand areas of indigenous vegetation to achieve biodiversity conservation, ecological connectivity, open space and fire management. 	
• new boundary access points.	
 facilities to support increased visitor numbers. 	
 significant new plant landscapes and collections supporting the Royal Botanic Gardens Victoria vision (for example, Australian food and medicinal plants, Indigenous peoples' plant use, and maintaining biodiversity in rural and urban fringe areas). 	

Figure 28 Wylies Creek Wetlands located within the Southern Grasslands



5.7 FRONT BLOCK

The Front Block is located to the north east of the site adjacent to the South Gippsland Highway. The area was heavily disturbed during sand extraction activities in the past and when purchased in 1988 comprised open bare sand areas with some regenerating bushland, an area heavily infested with exotic woody weeds and a natural wetland. Under Royal Botanic Gardens Victoria management, the most valuable areas of wetland have been fenced, weeds controlled, public vehicle access restricted and planned burns conducted. A number of mature pine trees are located adjacent to Ballarto Road, with some removed by the Royal Botanic Gardens Victoria in 1989 and 2003. Over time, the extent of indigenous vegetation cover has increased to the point where the biodiversity values of the site have increased significantly.

Vision

The Front block is managed for its biodiversity values. The area currently holding the Special Collections is reintegrated into the conservation zone, with all significant taxa secured in Royal Botanic Gardens Victoria living collections or distributed more broadly as appropriate.

Goal

Evidence-based management approaches are employed to conserve and enhance the natural values of the site.

Actions • Remove mature exotic Pine trees adjacent to Ballarto Road following community consultation.	Timing Years 4-5
• Extend perimeter fencing around entire Front Block.	Years 4-5
• Continue management of the risk posed by fire to Royal Botanic Gardens Victoria assets and adjacent private property as part of the Cranbourne Gardens Fire Operations Plan.	Years 1-10

Figure 28 Acacia oxycedrus (Spike Wattle) in the the heathland Image: B. Merritt



SUPPORTING DOCUMENTS

Internal:

- Royal Botanic Gardens Act 1991
- Royal Botanic Gardens Victoria Corporate Plan 2014–2019
- Royal Botanic Gardens Victoria Access Action Plan 2011
- Royal Botanic Gardens Victoria Community Engagement Strategy (in preparation)
- Cranbourne Gardens Five-year Research Plan 2013-2018
- Royal Botanic Gardens Victoria Environmental Stewardship Policy 2011
- Royal Botanic Gardens Victoria Fire Management Policy, Procedure and Operations Plan 2012
- Royal Botanic Gardens Victoria Living Collections Biosecurity Policy and Procedure 2011
- Royal Botanic Gardens Victoria Plant Sciences and Biodiversity Division Masterplan 2016–2025
- Royal Botanic Gardens Victoria Risk Management Framework 2016
- Royal Botanic Gardens Victoria Science Strategy (in preparation)
- Royal Botanic Gardens Victoria Strategic Tree Plan 2011
- Royal Botanic Gardens Victoria Strategic Water Plan 2012-2016
- Royal Botanic Gardens Victoria Landscape Succession Strategy Melbourne Gardens 2016-2036

External:

- Aboriginal Heritage Act 2006
- Country Fire Authority Act 1958
- Environment Protection and Biodiversity Conservation Act 1999
- Flora and Fauna Guarantee Act 1988
- Public Administration Act 2004
- Victorian Road Management Act 2004
- Casey Cardinia Visitation Strategy (in preparation)
- City of Casey Planning Scheme 2016
- Council of Australian Governments, National Indigenous Reform Agreement 2012
- Department of Education and Training (DET), Strategic Partnerships Program
- DET, Strategic Partnerships Program 2015-2017
- DET, Victorian Early Years Learning and Development Framework 2016
- Department of Environment, Land, Water and Planning (DEWLP), Code of Practice for Fire Management on Public Land 2012
- DEWLP, Melbourne Strategic Assessment (draft)
- DEWLP, Protecting Victoria's Biodiversity Biodiversity 2036 (in preparation)
- DEWLP, Victoria's Biodiversity Directions in Management 1997
- Metropolitan Planning Authority, Precinct Structure Plans
- Sustainability Victoria, Environmental Sustainability Policy 2015
- United Nations, Convention on Biological Diversity 1993
- United Nations, Global Strategy for Plant Conservation 2010
- Victorian Curriculum and Assessment Authority, AUSVELs 2016



ROYAL BOTANIC GARDENS VICTORIA PRIVATE BAG 2000 SOUTH YARRA 3141 VICTORIA AUSTRALIA T 03 9252 2300 E rbg@rbg.vic.gov.au W rbg.vic.gov.au