



# Annual Report

2009/2010



## About this Report

This Annual Report is an overview of the Botanic Gardens and Parks Authority's performance and achievements during 2009/10 and the challenges facing the Authority in 2010/11 and beyond. The report is presented in five sections: Overview, Agency Performance, Current and Emerging Issues and Trends, Disclosures and Legal Compliance, Appendices.

This Report has been produced in electronic format and can be viewed on the Authority's website [www.bgpa.wa.gov.au](http://www.bgpa.wa.gov.au). Alternative formats are available upon request. Enquiries regarding this Annual Report should be directed to:

### Botanic Gardens and Parks Authority

Fraser Avenue, West Perth, Western Australia, 6005



**Tel:** +61 8 9480 3600



**Fax:** +61 8 9322 5604



**Email:** [enquiries@bgpa.wa.gov.au](mailto:enquiries@bgpa.wa.gov.au)

© Botanic Gardens and Parks Authority 2010.

This work is copyright, subject to the *Copyright Act 1968*. All photographs within have been used with permission and remain the property of the contributors.

**Front Cover:** The Kings Park Ceremonial Walk was opened on 21 April 2010.

1. Minister for the Environment; Youth, the Hon. Donna Faragher and RSL WA State President Mr Bill Gaynor.
2. The State War Memorial and Flame of Remembrance.
3. RSL members joined the event.



Think before you print!

Please consider the environment before printing this report!

## Statement of Compliance

The Hon. Donna Faragher MLC  
Minister for Environment; Youth

In accordance with Section 61 of the *Financial Management Act 2006*, we hereby submit for your information and presentation to Parliament, the Annual Report of the Botanic Gardens and Parks Authority for the financial year ended 30 June 2010.

The Annual Report has been prepared in accordance with the provisions of the *Financial Management Act 2006*.

Professor John Considine  
Member  
Botanic Gardens and Parks Authority Board of Management  
14 September 2010

Grant Roberson  
Member  
Botanic Gardens and Parks Authority Board of Management  
14 September 2010

# Table of Contents

<b>Chairman’s Report</b> .....	<b>1</b>	Key Performance Indicators .....	88
<b>Overview</b> .....	<b>2</b>	Other Financial Disclosures .....	96
From the CEO .....	3	Other Governance and Legal Requirements .....	98
Executive Summary.....	5	<b>Appendices</b> .....	<b>105</b>
About the Authority .....	11	Appendix 1: Volunteer Group Reports.....	106
Organisational Structure .....	12	Appendix 2: Publications .....	122
Partners, Supporters and Stakeholders .....	16	Appendix 3: Scientific Research Projects .....	129
<b>Agency Performance</b> .....	<b>18</b>	Appendix 4: Research Scientists and Students .....	132
Performance Summary.....	19		
Major Projects and Events.....	22		
Planning and Community Liaison .....	25		
Visitation and Recreation.....	28		
Interpretation and Education.....	33		
Cultural Heritage.....	38		
Biodiversity Conservation and Ecological Restoration .....	39		
Risk Management.....	51		
<b>Significant Issues and Trends</b> .....	<b>54</b>		
Current and Emerging Issues and Trends .....	55		
Likely Developments and Forecasts of Operations .....	57		
<b>Disclosures and Legal Compliance</b> .....	<b>58</b>		
Independent Audit Opinion .....	59		
Financial Statements .....	60		

The DNA tower is a Kings Park icon.



# Chairman's Report



The Botanic Gardens and Parks Authority has a commitment to delivering quality outcomes to the local, national and international community. The Authority is a leader in many diverse fields including services to visitors, working with volunteers, parkland and bushland management; the horticulture, development and display of indigenous plants; restoration science; plant genetics; seed biology; and biodiversity conservation generally. The activities of the Authority over the last 12 months will

only enhance its reputation as a leader in each of these fields.

The Board of Management provides strategic direction to the Authority and in accordance with the formal Management Plans for both Kings Park and Botanic Garden and Bold Park, the Authority's team of highly skilled staff and the many dedicated volunteers deliver outstanding service. This is measured in the very high satisfaction ratings in visitor surveys, the excellent outcomes in horticulture; parkland, bushland and botanic garden management; restoration science; plant genetics; seed biology; and biodiversity conservation generally.

The major project this year was the Kings Park Ceremonial Walk. This was completed on time and within budget and was received with great acclaim by the RSL and the wider community. It was a significant undertaking for the Authority and it has added a greater degree of dignity, tranquillity and safety to this important ceremonial and tourism precinct.

The scientific programs undertaken by the Authority include internationally recognised research, with a key focus on adaptive management techniques applied in the bushlands of Kings Park and Bold Park. This work continues to attract a

positive reputation for the Authority and is delivered in response to the increasing community, industry and government awareness of the value and need for biodiversity conservation.

The Authority and the community benefit from the sustained efforts and passion of all staff, volunteers and other key stakeholders.

On behalf of the Board, I extend sincere appreciation to Chief Executive Officer, Mark Webb, and his enthusiastic team. Also to the many committed volunteers who contribute to the Authority's high service standards and achievement of outcomes.

The Board acknowledges the services provided to visitors by the various lease holders, licensees, contractors and other operators.

I take this opportunity to sincerely thank my fellow Board members for their wise counsel and professionalism in leading the strategic direction of the Authority.

The support of the Hon. Donna Faragher MLC Minister for Environment; Youth has been an essential and much appreciated factor in the success of the Authority in the past year.

This has been an excellent year and I look forward to further achievements in the years ahead.

**Richard Simpson**  
**Chairman**  
**Botanic Gardens and Parks Authority Board of Management**

*"The Authority and the community benefit from the sustained efforts and passion of all staff, volunteers and other key stakeholders."*

# Overview



<b>In this Section</b>	<b>Page</b>
From the Chief Executive Officer .....	3
Executive Summary .....	5
About the Authority .....	11
Organisation Structure .....	12
Partners, Supporters and Stakeholders .....	16
Back to Contents Page .....	ii



## From the Chief Executive Officer



This has been another busy and exciting year in the life of the Authority. Perhaps the year is best defined by delivery of the Kings Park Ceremonial Walk project. Officially opened in April 2010 by the Hon. Donna Faragher MLC, Minister for Environment; Youth and RSL State President Bill Gaynor, this project removed part of Fraser Avenue and hence the associated traffic, thus enhancing the dignity of the State War Memorial and making the precinct safer and more pedestrian-friendly. The project

incorporated other improvements for visitors to this important tourist precinct such as a new and larger toilet block, new pathways, improved lighting, and new and extensive landscaped garden and lawn areas. This project was the largest project to be undertaken in Kings Park since the establishment of the State Botanic Garden in 1965.

I acknowledge the support of the Board who guided the project and the many staff and contractors who delivered the outcome. It is always difficult to just select some key people from the many who were involved in the project, but it would be remiss of me not to mention the extraordinary efforts of Authority staff Lesley Hammersley, Grady Brand, Peter Nguyen, Mike Baldwin and Marcelle Broderick, and Plan E Landscape Architect David Smith. Their dedication, professionalism and enthusiasm ensured the project was delivered on budget and to a world class standard. The patience and understanding of the lessees of all the businesses affected by the construction works was very much appreciated.

The extended period of the Fraser Avenue works and the associated disruption to vehicle and pedestrian movement had an effect on visitation to Kings Park, with numbers falling from

6.5 million in 2008/09 to 5.8 million in 2009/10. This is the first reduction in visitor numbers recorded since accurate measuring commenced in 2005. However, it is likely this trend will be reversed in 2010/11.

On 22 March 2010, a severe rain and hail storm caused widespread but relatively minor damage to Kings Park. The main damage was to bushland trees, especially on the western side of the park, which were almost totally denuded of leaves from the hail. Most of the trees are recovering well, but a few trees already stressed from other causes may not recover. Most buildings were also affected with rain water intrusion causing the main damage. Unfortunately, an estimated 35 endangered Carnaby's Cockatoos were killed by the hail. Several other injured birds were taken to Perth Zoo where they recovered before being released back into Kings Park.

Additional artwork and visitor facilities were installed at Synergy Parkland in Kings Park. Zamia Café was also refurbished to provide a larger seating area under a more weather resistant roof.

As a result of the major bushfire in Kings Park in January 2009 and the Black Saturday bushfires in Victoria in February 2009, the Board determined to undertake an independent review of its Fire Management Guidelines for Kings Park and Bold Park. A panel was appointed and formal submissions and interviews will be undertaken early next year.

The Friends of Bold Park Bushland Inc decided to establish the Bold Park Volunteer Guides, a sub-group of the Friends that will conduct guided walks in Bold Park. This is an exciting new venture and will increase community awareness of the important biodiversity values of Bold Park.

“[The Kings Park Ceremonial Walk] project was the largest project to be undertaken in Kings Park since the establishment of the Botanic Garden in 1965.”

Outstanding and noteworthy research has been published by the Authority's scientists. These include:

- The number of papers published in international peer-reviewed scientific journals totalled 43. This is a 31% increase on 2008/09 and more than double that of 2007/08; an outstanding achievement by any measure.
- Two of these papers were published in *Nature* and *Science*, the world's leading scientific journals, attracting international media attention.
- Kings Park scientists were authors on 4 of the 15 most read papers for 2009/10 in the *Australian Journal of Botany*, Australia's premier botanical science journal. This is the highest number of any single equivalent scientific research institution.
- Researchers of high international standing are invited onto the editorial boards of journals, influencing the quality of these publications through the handling of papers submitted for review. Kings Park scientists currently sit on the editorial boards of international peer reviewed journals such as *Restoration Ecology*, *Conservation Genetics*, *Plant Ecology* and *Plant & Soil*.

There are many other achievements detailed in this Annual Report that provide an overview of the success of the Authority's Board, staff and volunteers in Kings Park, Bold Park, and elsewhere – both nationally and internationally. I commend the report to you.

I acknowledge the input and support of the Chairman and members of the Authority's Board of Management, the Department of Treasury and Finance and the Office of the Auditor General, who ensure that the Authority is well managed and provides the services it is funded to deliver. I also appreciate the support and input of the Minister for Environment; Youth and her Ministerial team.

As always, the achievements by the Authority this past year are a result of the passion, dedication and professionalism of Board members, staff and volunteers. I am privileged to be a part of this team.

**Mark Webb**  
**Chief Executive Officer**  
**Botanic Gardens and Parks Authority**

A number of the endangered Carnaby's Cockatoos were injured in the March 2010 hail storm



# Executive Summary

## The Year in Review

### Kings Park Ceremonial Walk

The completion of Stage One of the [Kings Park Ceremonial Walk](#) project in April 2010 was a major achievement for the Authority. This project has significantly improved pedestrian access between the State War Memorial and the very busy Kings Park visitor precinct.

Two hundred and thirty metres of Fraser Avenue were removed and traffic was redirected onto a new road, Wadjuk Way, that connects to May Drive and the rest of the park. More than 4,000 square meters of turf were laid where the road was removed and 7,000 Western Australian native plants were planted in new display garden beds.

Removing traffic from the area has enhanced the dignity and sanctity of the State War Memorial, the Court of Contemplation and its Flame of Remembrance and the Jewish War Memorial.

### SER International Conference

The Authority hosted the 19<sup>th</sup> Conference of the Society for Ecological Restoration (SER) International, in August 2009. This was only the third time that the conference had been held outside the United States of America and the first time in the southern hemisphere; a significant event for restoration ecology research in Western Australia.

The conference attracted approximately 750 delegates from 40 countries, who contributed to 400 oral and 150 poster presentations. A series of one-day field trips provided a great opportunity for the Authority to showcase the ecological restoration projects currently being undertaken within the Kings Park and Bold Park bushlands.

### Kings Park Nursery

The nursery continues to provide quality plant production for the Authority. Almost 90,000 plants were produced to support ecological restoration programs in Kings Park and Bold Park bushland and planting throughout the Botanic Garden and the Kings Park Ceremonial Walk project. A further 4,500 native trees, shrubs and sedges have been propagated in preparation for the *Rio Tinto Naturescape in Kings Park* project.

In addition, the nursery produced of 4,684 plants of various threatened flora species for the Department of Environment and Conservation's species recovery plans to enhance populations of Declared Rare Flora and threatened flora for their ongoing conservation.

### Plant Development

The Authority's Plant Development team, working with external funding partners, released two new plant varieties during the year. The Authority bred hybrid *Scaevola aemula* 'Blue Print' was released internationally and in Australia with a further 25 lines under evaluation. The kangaroo paw *Anigozanthos rufus* 'Kings Park Federation Flame' was released for sale in Australia, with international release planned for 2011.

### Water Use Efficiencies

Ground water use in Kings Park and Botanic Garden was reviewed during the year to improve efficiency in irrigated areas and reduce water application (despite increased development and irrigated garden areas in the park). Improvements in the irrigation system, ranking of the turf areas, ongoing practices of planting water-wise Western Australian plants and using mulch to retain soil moisture, has reduced the Authority's groundwater usage.

Kings Park Federation Flame  
*Anigozanthos rufus*



Conservation of scheme water was also a priority. Cisterns in some public toilets were replaced with water-wise units and flow-regulating devices were installed in many of the hand basin taps. An ageing scheme water pipeline was replaced to eliminate leakage. Irrigation lines in the State War Memorial precinct were changed to ground water.

### Millennium Seedbank Project

The ten-year Millennium Seed Bank (MSB) partnership between the MSB in the United Kingdom, the Department of Environment and Conservation and the Authority came to an end December 2009. During the life of this project, the Authority has supplied seed of 1,500 Western Australian species to the MSB, upgraded the Authority's seed storage and processing facilities, assisted with international training programs with other MSB partners and participated in workshops and training both in Australia and overseas.

Another highlight was the completion of the first study of the seed biology, ecology and conservation of aquatic species from vernal pool ecosystems. This research resulted in the discovery that seeds of the enigmatic basal angiosperm plant family, Hydatellaceae, are desiccation tolerant and that they possess a type of seed dormancy previously unknown to science.

Additional funding has been provided for a one-year period to assist the Authority in developing funding proposals to enable continuation of the conservation collection program into the future, without financial support from the MSB.

### Western Australian Seed Technology Centre

A total of 186 plant collections were made during the year. This brings the total over a 20-year period to the significant milestone of 8,000 collections by Western Australian Seed Technology Centre Curator, Luke Sweedman.

### Scientific Publications

Partnerships with UWA in Australian Research Council-funded research into the metabolism and molecular biology of the seed response to karrikinolide (the chemical in smoke that promotes germination of native species following a major fire) saw some significant publications in 2009/10, including publications in the prestigious journals *Plant Physiology* and *Proceedings of the National Academy of Sciences*. This research is demonstrating new knowledge linking seed light-sensing mechanisms to the mechanism of karrikinolide action for the first time.

### New Discoveries by Kings Park Scientists

Kings Park scientists, brothers Matt and Russell Barrett, have discovered a rich array of plant species in the Kimberley, including a new species for the State, a small white-flowering orchid dubbed the "smelly socks orchid" previously found only in the Northern Territory and Queensland. Thirteen other new plants were found, including new *Acacia* species, bush tomatoes, *Calytrix* (turkey bush), and possibly a new *Eucalyptus* and *Melaleuca*. Fresh flowers were found on two rare species, one of which was first collected in 1821 and then not seen for 180. Authority botanists finally observed it in flower in 2010.

### Orchid Research

A research project on *Caladenia huegelii* has continued this year. This project successfully reintroduced artificially-propagated plants of the nationally threatened grand spider orchid into its natural habitat. Through optimised propagation methods developed by the Orchid Research team, this species has flowered in both the glasshouse and in field sites.

Russell Barrett collecting a new species of cliff dwelling Spinifex (*Triodia* sp.)



## Bushland Restoration

Ecological restoration and weed control activities continued in Bold Park and Kings Park bushland. In particular a mycologist was commissioned to undertake fungi surveys in both parks during Winter 2009. One hundred and twenty three species were collected in Kings Park, 82 of which were new records. A review of past studies, records and names was also undertaken to verify past identifications (where voucher specimens were available) to document an accurate fungi inventory for the park in the future.

The Bold Park survey on macro fungi included 14 vegetation communities originally surveyed a decade ago in 1999. The 2009 survey collected 155 species, including 62 considered new records for Bold Park and four species that were new records for Western Australia. A total of 437 fungi species have now been recorded in Bold Park; the most comprehensively surveyed bushland site for fungi in Western Australia.

## Education

Two programs were added to the growing [Discover Kings Park](#) series this year. Both are designed to support specific year 11 and 12 curriculum. The Science of Conservation program examines strategies for maintaining biodiversity with a focus on either plant genetics or seed ecology. From the Flames investigates the impact of fire on the environment, looking at the nature and management of fire and reconstructive measures.

## Art in the Park

The Stage Three upgrade in Synergy Parkland this year, made possible through funding from Synergy, included the installation of two impressive new mega fauna structures: the giant wombat-like Diprotodons and a Phytosaur, which looks like a giant crocodile. A large mosaic featuring a Zamia plant was also embedded in the path.

A mystical face was carved into the trunk of a dead tree by local wood-carving artist, Nic Compton. It was subsequently installed upside down at the Lotterywest Family Area as a Wishing Tree, in time for the Kings Park Festival and the Wild Fairland Day.

The new Acacia Toilets, built as part of the Kings Park Ceremonial Walk project, features a spectacular artwork on the external walls depicting *Acacia* foliage and flowers. A series of decorative steel gates was also created, featuring four local Western Australian wattle species. These artworks were created by local artist Mark Datodi.

A new brochure, Botanic Garden Art Trail was created offering a self-guided journey of the many art forms throughout Kings Park and Botanic Garden.

## Funding Partners

The Authority continues to seek important sponsorship funding for major projects and events. The Water Corporation and Lotterywest, through the Friends of Kings Park, continued their sponsorship of the annual Kings Park Festival. New Festival partners, MIX 94.5 and Australia's South West, assisted in increasing community awareness.

The Authority was successful in attaining funding through the Perth Solar City initiative. This program will fund environmentally sustainable design elements that support and promote the use of solar and energy efficient practices for *Rio Tinto Naturescape in Kings Park*.

## Financial Performance

### Income

In 2009/10 the Authority received 59% of operating income from the State Government by way of consolidated fund appropriation. The Authority generated the balance of revenue (41%) through own source activities.

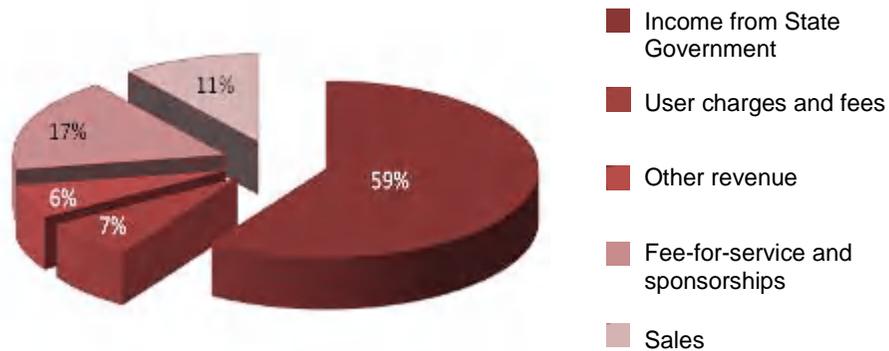
“The 2009 [Bold Park macro fungi] survey collected 155 species, 62 ...new records for Bold Park and 4 species that were new records for Western Australia.”

Own source revenue includes 17% through sponsorship, primarily for the *Rio Tinto Naturescape in Kings Park* project scheduled to open in 2011, and fee-for-service revenue received to deliver scientific research and conservation outcomes.

A further 7% of revenue was raised through user fees and charges for events such as concerts held over the Summer season, venue hire, and licences with various leaseholders within the park.

*Aspects of Kings Park*, the Authority's retail outlet, contributed almost 11% of the revenue through sales, continuing a consistent growth trend since operations commenced in 2005.

### 2009/10 Consolidated Income



### Expenditure

The Authority's expenditure is summarised into broad categories. Employee benefits comprise 38% of total expenditure, which includes salary and wage costs, together with superannuation and leave entitlements.

39% of expenditure was incurred on supplies and services, of which approximately half was for the Kings Park Ceremonial Walk project. This has resulted in a higher than typical proportion of total expenditure for this category for this period

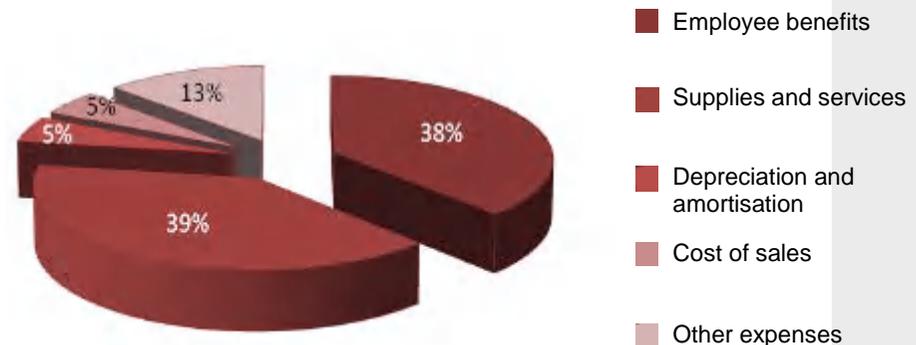
only. The balance includes expenses for consumables, insurance, contract and leasing costs.

Depreciation and amortisation of 5% reflects the expense incurred by the land, building and equipment asset base under management by the Authority. The Authority has an asset replacement plan in place to identify and arrange for ongoing replacement of key assets.

Other expenses account for 13% of total expenditure. It includes costs associated with repairs to buildings and equipment; tree management; and landscape, ground and bushland maintenance. This category also includes employment on-costs such as workers compensation and staff development costs.

While expenditure incurred in supplies and services for the Kings Park Ceremonial Walk was fully planned, an operating deficit was reported during this period. This was expected as the funds for this project were received in a prior period. The core recurrent operations of the Authority performed within budget at all times for the period.

### 2009/10 Consolidated Expenditure



## The Year Ahead

The Authority continues to face challenges in the delivery of its core functions in light of rising demands and costs, however it will undertake the following initiatives in the coming year.

### 2010 Kings Park Festival

Planning is underway for the annual [Kings Park Festival](#) in September, celebrating the International Year of Biodiversity. The Authority, with the support of funding partners, is seeking to provide a full calendar of events including workshops, talks, guided walks, live theatre, a music program, family entertainment and retail opportunities.

### Summer Events Season

The Authority's [Summer events](#) in Kings Park and Botanic Garden continue to be popular. A number of concerts have been scheduled, commencing in November 2010. The outdoor cinema will open late November/early December and Shakespeare in the Park will return in January 2011.

### Place of Reflection

Planning has commenced for a Place of Reflection in the Western Australian Botanic Garden. This will be a place where people who have suffered loss can seek peace, healing, hope and renewal. The concept design was endorsed by the Authority in December 2009. It includes refurbished toilet facilities, upgraded paths and a new shelter. The project is funded by Lotterywest through the Friends of Kings Park and a range of other donors and a project Consortium, comprising representatives from several community organisations. The Place of Reflection is expected to be completed by April 2011.

### Rio Tinto Naturescape in Kings Park

[Rio Tinto Naturescape in Kings Park](#) will enable greater understanding and appreciation of Western Australian native flora and ecosystems. The new facility will provide up to 40,000 school students per year with formal, curriculum linked education programs. This will be in addition to the anticipated 200,000 family-based visitors annually.

The detailed design and documentation of the project is underway and will go to tender in July/August 2010. The landscape features and experiential nodes will be completed by June 2011, with construction of the education building and facilities to be completed late 2011.

### Subiaco Lodge

The first stage of conservation works for Subiaco Lodge will commence in 2010. Subiaco Lodge has significant heritage value and is the oldest building in Kings Park and Botanic Garden.

### Office of Shared Services

Government agencies roll-in to the Department of Treasury and Finance's Office of Shared Services was brought forward, with project completion planned for 2012. The Authority is preparing for the transition of its human resources and accounts processing functions in November 2011.

### Bold Park Management Plan

The Authority will undertake a review of the current [Bold Park Management Plan 2006–2010](#) this year to prepare a management plan for the next five years. Consultation with key stakeholders will commence in late 2010 to review achievements of the current plan and identify future management priorities. A draft Management Plan will be available for public consultation in early 2011.

Banksias in flower in the bushland.



## Conservation and Restoration

The Authority will continue essential restoration research programs with industry partners to benefit Kings Park and Botanic Garden and Bold Park as well as the conservation of Western Australia's unique biodiversity. Restoration and weed control activities will continue in Kings Park and Bold Park bushlands with ongoing monitoring of the impacts of the January 2009 fire and March 2010 hail storm on the Kings Park bushland.

Post-fire research will continue over many years, assessing plant regeneration in permanent monitoring plots compared with pre-fire plant species composition and abundance; the effect of fire-fighting vehicle entry into bushland areas on post-fire plant regeneration; and the regeneration of known populations of vulnerable flora after fire.

The Authority will continue to assess the impact of the March 2010 hail storm on the Kings Park bushland, undertaking monitoring of plant recovery of some of the keystone species.

## Restoration Seedbank

The Authority is completing a feasibility and business case for a restoration seedbank at Kings Park. The initiative will deliver community, industry and research benefits. It aims to provide a curated storage facility for Western Australian native plant seed. Kings Park has a proven track record in successful ecological restoration. The restoration seedbank is the next and most critical step for Western Australia to enable community-directed landscape restoration projects and for more effective restoration after mine-site closures. A key plank of this support is related to the targeted research by the Authority's world-renowned seed scientists that would underpin the seedbank's operations and practical outcomes.

## International Partnerships

The Authority will continue to investigate the long-term benefits of providing consultancy services to Middle East countries, through the Department of Agriculture and Food Western Australia's overseas business unit, AGWEST International.

“Kings Park has a proven track record in successful ecological restoration. The restoration seedbank is the next and most critical step for Western Australia...”

# About the Authority

## Enabling Legislation

The Botanic Gardens and Parks Authority (the Authority) is constituted under the *Botanic Gardens and Parks Authority Act 1998* (the Act) for the care, control and management of Kings Park and Botanic Garden (reserve A1720 except Perth Lots 64 and 65) and other land including Bold Park (reserve A45409).

The Authority was established under Part 2, Section 4 of the Act, and is responsible for administering the *Botanic Gardens and Parks Authority Regulations 1999*, created under the provisions of Part 8 of the Act. The statutory responsibility for the Authority is vested with the Minister for Environment.

## Our Role

The Authority is responsible for the care, control and management of Kings Park, including the Western Australian Botanic Garden and Bold Park, in accordance with publicly endorsed management plans, and for the conservation of biological diversity generally. The Act identifies the functions that underpin that management of these parks including the provision of recreational and tourism services and facilities; conservation of natural landscapes; plant management and display; biodiversity management; and research and educational programs.

### Our Vision

The Authority's vision is to create and provide world-recognised botanic gardens and parks and to inspire the conservation of biological diversity.

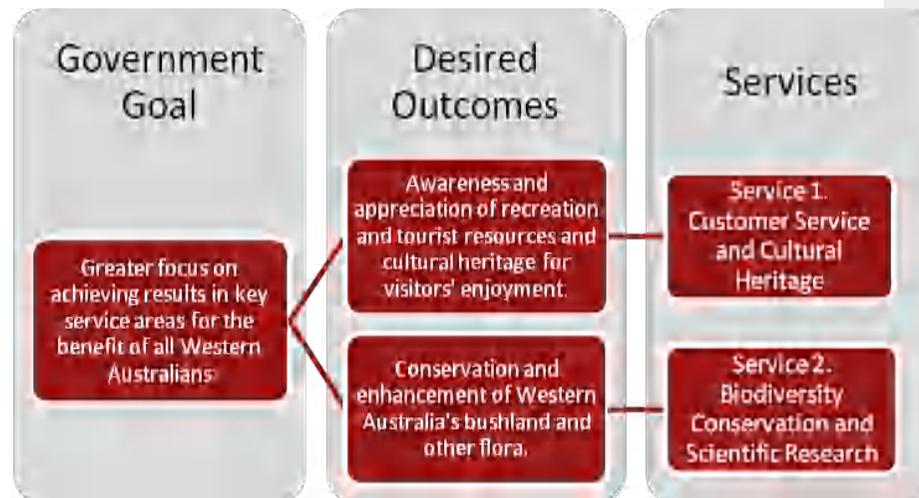
### Our Mission

The Authority's mission is to conserve and enhance Kings Park and Botanic Garden and Bold Park with the community, and to conserve biological diversity generally.

## Outcome-Based Management Framework

The Authority's [Strategic Plan 2009-2014](#) identifies the Functions, Vision and Mission Statements, Core Business and Guiding Principles, which are the key elements in delivering its agency-level government desired outcomes. A review of the Strategic Plan was undertaken in May 2010 with no material changes required.

The Authority has aligned its activities and outcomes with the relevant goal and strategic outcomes of the State, ensuring collaboration and coordination of service delivery.



The Authority's Outcome-Based Management Framework did not change during 2009/10.

## Shared Responsibilities with other Agencies

The Authority did not share any responsibilities with other agencies in 2009/10.

# Organisational Structure

The statutory responsibility for the Authority is vested with the Minister for Environment, the Hon. Donna Faragher MLC, Minister for Environment; Youth.

## Board of Management

The Board of Management (the Board) is the governing body responsible for the policy and strategic direction of the Authority. Members are appointed by the Minister for Environment according to their skills and experience in areas relevant to the Authority's activities.

During 2009/10, two new Board members were appointed, Mr Tom Baddeley and Mr Hamish Jolly, following the departure of inaugural member Mr Ross Willcock and member Dr Mandy Burrows and at the end of their terms. The Board currently has eight members and meets formally on a bi-monthly basis. The Board met on six occasions during this reporting period. The appointed terms and number of meetings attended are outlined below.

Member	Term Expires	No. of Meetings
Richard Simpson Chairman	31 December 2012	6 of 6
John Considine	31 December 2012	6 of 6
Clare Power	31 December 2012	3 of 6
Corinne MacRae	30 June 2012	4 of 6
Mr Grant Robinson	30 June 2012	5 of 6
Lyn Beazley	31 March 2012	4 of 6
Tom Baddeley	31 March 2013	1 of 2
Hamish Jolly	31 March 2013	1 of 2
Ross J Willcock Deputy Chairman	Expired – 30 August 2009	2 of 2
Mandy Burrows	Expired – 31 December 2009	3 of 3

## Board Members as at 30 June 2010:

### Mr Richard Simpson, Chairman

Mr Simpson has significant commercial and management experience in the financial services sector and over 20 years experience in providing investment banking advice to a range of corporate and government clients in Australia and internationally. He has worked in investment banks in London, Sydney, Melbourne and Perth. Mr Simpson was Chairman and Managing Director of Hartleys Limited from 2003 to 2008 and Head of Corporate Finance from 2002 to 2009. He remains a Director of Hartleys Limited. Mr Simpson was formally re-appointed to the Board in March 2009 until 31 December 2012.

### Professor John Considine

Professor Considine is Emeritus Professor of Horticulture and Viticulture and Senior Research Fellow in the School of Plant Biology at The University of Western Australia. He is interested in the continued conservation and enhancement of Kings Park and Botanic Garden and other designated lands. Professor Considine was re-appointed to the Board in April 2010 until 31 December 2012.

### Ms Clare Power

Ms Power is a consultant to Middletons, a national legal firm, with over 25 years experience in commercial law acting for both private sector and government clients. Ms Power was re-appointed to the Board in April 2010 until 31 December 2012.

### Ms Corinne MacRae

Ms MacRae is a councillor in the Town of Cambridge and is a member of the Western Australian Planning Commission. Ms MacRae was re-appointed to the Board in April 2010 until 30 June 2012.

### **Mr Grant Robinson**

Mr Robinson is a partner with KPMG with a focus on audit and assurance services. He has experience with a broad range of industry sectors, both listed and non-listed entities as well as Government organisations. Mr Robinson was formally re-appointed to the Board in April 2010 until 30 June 2012.

### **Professor Lyn Beazley**

Professor Lyn Beazley trained at the Universities of Oxford and Edinburgh before transferring to The University of Western Australia in 1976 and building a team researching recovery from neurotrauma. Professor Beazley was appointed Chief Scientist of Western Australia in 2006 and was reappointed in January 2009. She was awarded Officer of the Order of Australia in January 2009. Professor Beazley was appointed to the Board in March 2009 for a period of three years until 31 March 2012.

### **Mr Tom Baddeley**

Mr Baddeley is Director WA of the Australian Petroleum Production & Exploration Association, the peak industry association for the Australian upstream oil and gas sector. He was previously WA Director of policy think-tank, the Committee for Economic Development of Australia and was a solicitor before moving into journalism, firstly with The West Australian newspaper and later with the ABC. Mr Baddeley was appointed to the Board in April 2010 until 31 March 2013.

### **Mr Hamish Jolly**

Mr Jolly is the Chief Executive Officer of Greening Australia WA. He has over 20 years' experience in executive leadership of diverse corporate, international development and consulting businesses, including his role as former Director of Strategy and Ventures at Bankwest. Mr Jolly is a Chartered Accountant and was recognised as a WA business leader through the WA Business News 40 Under 40 Awards in 2006. Mr Jolly was appointed to the Board in April 2010 until 31 March 2013.

The Board delegates to the Chief Executive Officer the responsibility for the day to day operations of the Authority.

## **Operational Structure**

Under the direction of the Chief Executive Officer, the Authority's vision, mission and services are delivered through three Directorates: Horticulture and Conservation; Business and Visitor Services; and Science.

Each Directorate has a set of objectives, derived from the functions of the Botanic Gardens and Parks Authority Act and designed to deliver the two key services to Government (Service 1: Customer Services and Cultural Heritage and Service 2: Biodiversity Conservation and Scientific Research).

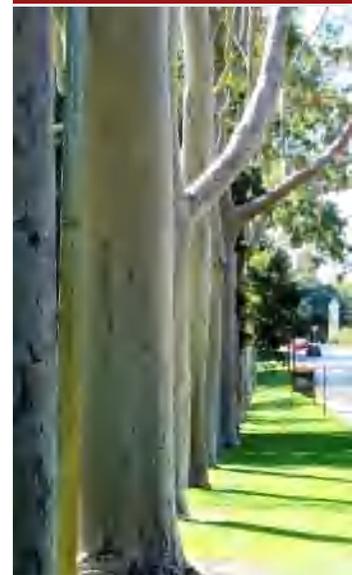
### **Horticulture and Conservation Directorate Objectives**

- Provide, improve and promote recreational and tourism services and facilities.
- Conserve, enhance and promote native biological diversity of Kings Park and Botanic Garden and Bold Park and of biological diversity generally.
- Conserve and enhance the natural environment, landscape features and amenities.
- Conserve, develop, manage, display and undertake research into collections of Western Australian and other flora.
- Conserve, enhance and promote the Aboriginal, colonial and contemporary cultural heritage of Kings Park and Botanic Garden and Bold Park.
- Promote the use of flora for the purposes of horticulture, conservation and education.

### **Business and Visitor Services Directorate Objectives**

- Provide, improve and promote recreational and tourism services and facilities.
- Enhance and promote the understanding and conservation of the biological diversity of Kings Park and Botanic Garden and Bold Park and of biological diversity generally.

The tall trees in Fraser Avenue form the iconic entrance to Kings Park and Botanic Garden .



- Conserve, enhance and promote the Aboriginal, colonial and contemporary cultural heritage of Kings Park and Botanic Garden and Bold Park.
- Promote the use of flora for the purposes of horticulture, conservation and education.

### Science Directorate Objectives

- Conserve, develop, manage, display and undertake research into collections of Western Australian and other flora.
- Enhance and promote the understanding and conservation of the biological diversity of the designated lands and of biological diversity generally.
- Undertake and promote research and investigation into matters related to or connected with the Authority's functions.

Details of the Authority's activities and achievements for 2009/10 are outlined in the [Agency Performance](#) section of this Report.

## Senior Officers

### **Mark Webb BSc. Agric (Hons), Post Grad. Cert. Cross-Sector Partnerships Chief Executive Officer**

Mark Webb was appointed Chief Executive Officer of the Botanic Gardens and Parks Authority on 23 November 2004. Mr Webb joined the Authority in October 1998 as Director Living Collections. He has experience in horticultural research, management and business. He is a member of the International Society for Horticultural Science and is a member of a number of local, national and international committees and boards.

### **Lesley Hammersley B (App. Sci) Env. Hort. Acting Director Horticulture and Conservation**

Lesley Hammersley joined the Authority in December 2000 as Manager Biodiversity Conservation and was appointed Acting Director Horticulture and Conservation in August 2009. Ms Hammersley is responsible for all on-ground activities in Kings

Park and Botanic Garden and Bold Park including bushland conservation and management, all horticultural activities, cultural heritage, asset and infrastructure management and the management of capital works projects and other developments. Prior to joining the Authority, Ms Hammersley had many years' experience managing a botanic garden and involvement with plant nurseries and landscape development in private enterprise.

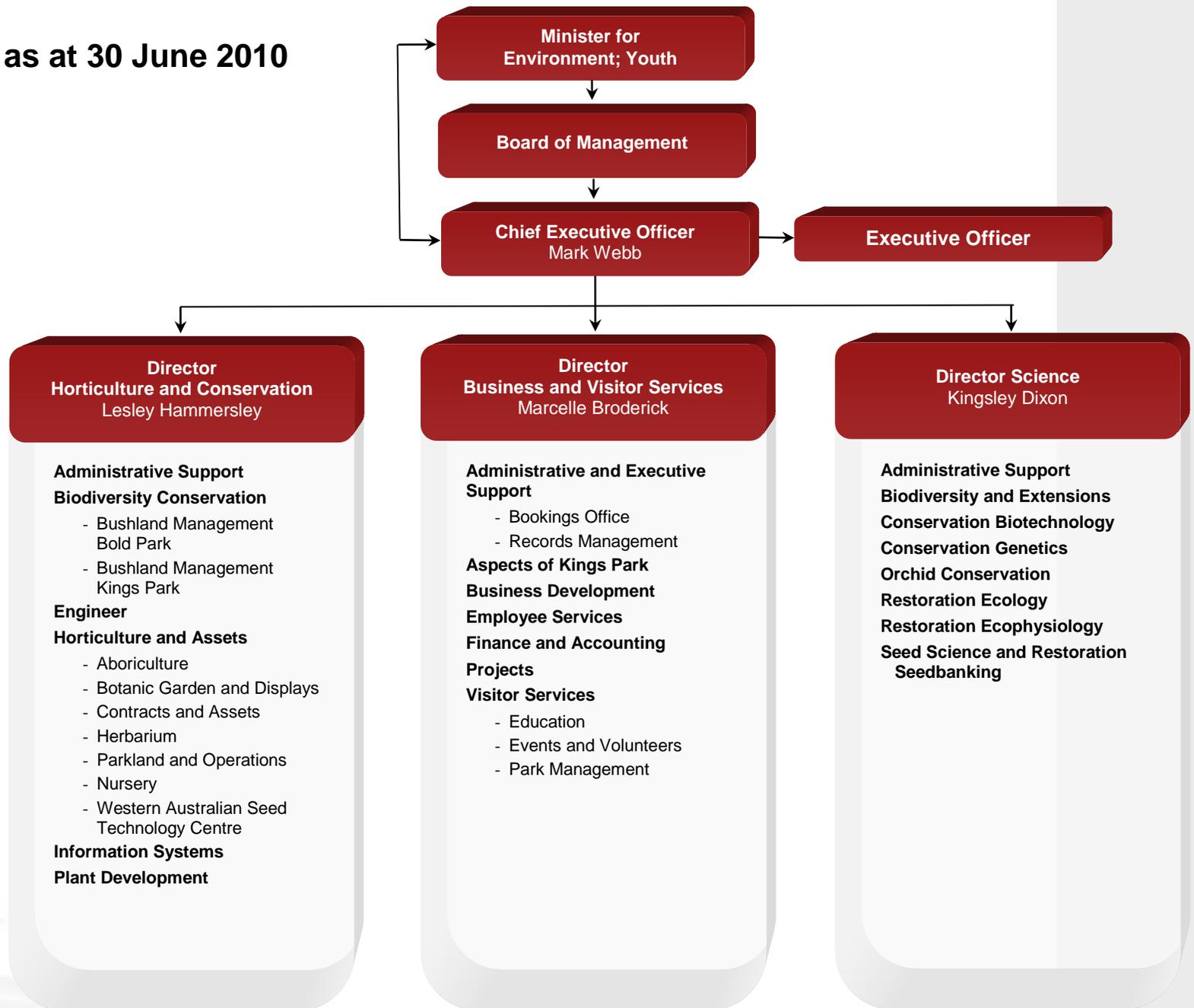
### **Marcelle Broderick BSw, MSW (Policy and Administration), Grad. Cert. Public Sector Management Director Business and Visitor Services**

Marcelle Broderick joined the Authority in January 1998 and is responsible for all internal business and corporate services, reporting, external business development, leases, licences and for direct visitor services incorporating *Aspects of Kings Park*, events, volunteers and education. Prior to joining the Authority, Ms Broderick worked in a number of private and public sector organisations with varied responsibilities including social research, community development, employee support, organisational change and corporate services.

### **Professor Kingsley Dixon PhD Director Science**

Kingsley Dixon has worked in public sector research for 25 years and leads a team of scientists in innovative research that underpins the conservation and restoration of our unique Western Australian flora. He holds a Permanent Visiting Professorship from The University of Western Australia and maintains a high profile research program in the conservation and restoration sciences. Professor Dixon holds a number of distinguished positions in learned and professional societies, including as board member of the Society for Ecological Restoration International; board member of the IUCN Species Survival Commission for reintroduction programs; and Fellow of the Linnean Society of London. Professor Dixon is also Adjunct Professor with the Department of Botany, Kasetsart University, Bangkok in recognition of the research collaborations with the University.

# Authority Structure as at 30 June 2010



# Partners, Supporters and Stakeholders

The Authority recognises that support and contributions from its volunteers, the community, government and private organisations is essential in achieving the Authority's outcomes. The Authority is privileged to work with many groups that provide resources to Kings Park and Botanic Garden and Bold Park for major projects, events and research.

## Volunteers

The Authority is very fortunate to have the committed involvement of five dedicated volunteer groups: the Friends of Kings Park; the Kings Park Volunteer Guides; the King Park Volunteer Master Gardeners; the Honour Avenues Maintenance Group; and the Friends of Bold Park Bushland.

Each of these groups offers unique and invaluable services. Their amazing efforts ensure that the Authority can offer outstanding services well in excess of those funded through the Authority itself. The Authority provides some administrative support to the volunteers, supports training and information and actively seeks their involvement in operations and planning. The volunteer groups have contributed approximately 18,000 hours of service to Kings Park and Botanic Garden and Bold Park this year, equating to ten people working full time.

Further information about the activities undertaken by the Authority's volunteers is outlined in their individual group reports in [Appendix 1](#) of this Annual Report.

## Sponsors

A number of key sponsors have been partners in major projects and events undertaken this year:

- 2009 Kings Park Festival – Friends of Kings Park, Lotterywest, Water Corporation of WA and MIX 94.5FM.
- Saw Avenue Playground – Variety WA.
- Synergy Parkland – Synergy.
- Place of Reflection (opening in 2011) - a collaborative project between the Association for Torture Trauma Survivors, Healing Hearts Foundation, SIDS and Kids WA, Soroptimist International of South Perth and The Compassionate Friends. Supported by the Friends of Kings Park and Lotterywest.
- *Rio Tinto Naturescape in Kings Park* (opening in 2011) – Rio Tinto, Friends of Kings Park, Lotterywest, Water Corporation and Perth Solar City.



## Supporters and Key Stakeholders

### Volunteers and Associated Organisations

Birds Australia Inc  
Friends of Bold Park Bushland Inc  
Friends of Kings Park Inc  
Honour Avenues Group  
Kings Park Guides Inc  
Kings Park Volunteer Master Gardeners.  
The Nyoongar community of Perth  
Returned Serviceman's League of Australia (Western Australia Branch)  
Vietnam Veterans Memorial Trustees  
Wardens of the State War Memorial  
Wildflower Society of Western Australia

### Local, State and Federal Government

AGWEST  
Building Management and Works  
City of Perth  
City of Nedlands  
City of Subiaco  
Department of Agriculture and Food  
Department of Commerce

Department of Environment and Conservation  
Department of Environment, Water, Heritage and The Arts  
Department of Planning  
Department of Premier and Cabinet  
Department of State Development  
Department of Transport  
Department of Treasury and Finance  
Department of Veterans' Affairs  
Fire and Emergency Services Authority  
Horizon Power  
Main Roads Western Australia  
Office of the Auditor General  
Office of Public Sector Standards  
Commissioner  
Public Sector Commission  
Public Transport Authority  
Shire of Bruce Rock  
Shire of Corrigin  
Shire of Westonia  
State Emergency Services  
State Solicitors Office  
Synergy  
Tourism Western Australia  
Town of Cambridge  
Water Corporation  
Western Australian Museum

Western Australian Planning Commission  
Western Australian Police  
Western Power

### Private Organisations

Alcoa World Alumina  
Alinta Gas  
AngloGold Ashanti Australia  
Arbor Centre  
Asia Iron Holdings Limited  
Austem Pty Ltd  
Australian Orchid Foundation  
BHP Billiton Iron Ore  
Boom Logisitcs  
Catalpa Resources (Westonia Mines Ltd)  
Cockburn Cement  
Gindalbie Metals Limited  
Grange Resources Limited  
Iluka Resources Limited  
Mt Gibson Mining Limited  
Newcrest Mining (Telfer)  
OZWEST Pty Ltd  
Rio Tinto  
Rocla Quarry Products  
Shark Bay Resources Pty Ltd  
Theiss Services  
Trawalla Foundation  
Variety WA  
Wavelength Nominees  
Westralia Airports Corporation  
Worsley Alumina

### Schools and Universities

Australian National University  
Curtin University  
Kasetsart University, Thailand  
Murdoch University  
St Louis University, USA  
The University of Western Australia  
University of Madrid, Spain  
University of Noumea  
University of Pavia, Italy  
University of Regensburg, Germany  
University of Rostock, Germany

### National History Institutions

Korean National Arboretum  
Millennium Seed Bank, Royal Botanic Gardens, Kew

“The Authority recognises that support and contributions from its volunteers, the community, government and private organisations is essential in achieving [its] outcomes.”

# Agency Performance



<b>In this Section</b>	<b>Page</b>
Performance Summary .....	19
Major Projects and Events .....	22
Planning and Community Liaison.....	25
Visitation and Recreation .....	28
Interpretation and Education .....	33
Cultural Heritage .....	38
Biodiversity Conservation and Ecological Restoration .....	39
Risk Management .....	51
Back to Contents Page .....	ii



# Performance Summary

## Financial Targets: Actual Performance Compared to Budget Targets

	Target \$,000	Actual \$,000	Variation \$,000
Total cost of services	18,348	24,466	6,118 <sup>(1)</sup>
Net cost of services	13,219	15,492	2,273 <sup>(1)</sup>
Total equity	47,491	53,866	6,375 <sup>(2)</sup>
Net increase/(decrease) in cash held	(2,119)	(4,187)	(2,068) <sup>(3)</sup>
Approved full time equivalent (FTE) staff level	131	132	1

### 1. Cost of Services

The total cost of services is higher than the target, due primarily to additional one-off major works carried out during the year, including the Kings Park Ceremonial Walk. The net cost of services is higher for the same reason, however the effect is reduced by increased own source revenue raised during the period.

### 2. Total Equity

The increase in total equity is the result of an increase in the value of assets held by the Authority by means of revaluation and acquisition.

### 3. Cash Held

The decrease in cash held is due to payment for capital works projects during the period.

## Key Performance Indicators: Actual Performance Compared to Budget Targets

**Outcome 1: Awareness and appreciation of recreation and tourist resources and cultural heritage for visitors' enjoyment.**

	Target	Actual	Variation
The level of visitor satisfaction with Kings Park and Botanic Garden facilities and the Western Australian Botanic Garden.	99%	99%	-
The level of visitor satisfaction with Bold Park and facilities.	97%	99%	2%
The percentage change in the number of cultural events held at Kings Park and Botanic Garden compared to previous years.	6%	6.5%	0.5%
The percentage change in the number attending customer awareness and education forums held at Kings Park and Botanic Garden compared to previous years.	10%	16%	6%

### Service 1: Customer Service and Cultural Heritage

	Target	Actual	Variation
Average cost per visitor to Kings Park and Botanic Garden.	\$1.44	\$2.38	\$0.94 <sup>(1)</sup>
Average cost per attendee at cultural events held in Kings Park and Botanic Garden.	\$0.12	\$0.14	\$0.02
Average cost per attendee at education forums held at Kings Park and Botanic Garden.	\$1.35	\$1.31	(\$0.04)
Response times for public information requests (within 28 days).	95%	98%	3%
Percentage change in number of visitors to Reabold Hill compared to previous years.	3%	25%	22% <sup>(2)</sup>

#### 1. Visitors to Kings Park

The number of people visiting Kings Park and Botanic Garden was 5.6% less than target and expenses were 55.6% greater than target. The Fraser Avenue Ceremonial Walk project had an impact on visitation during the period of construction due to traffic and pedestrian access restrictions. In addition, this project was primarily responsible for the increased expenses for the period.

#### 2. Visitors to Reabold Hill

The increase in the number of visitors exceeded the estimated target due to a different methodology used to calculate visitor numbers for the period.

## Outcome 2: Conservation and enhancement of Western Australian bushland and other flora.

	Target	Actual	Variation
Percentage of Declared Rare Flora (DRF) species in living collections in Kings Park and Botanic Garden, compared to the known number of DRF species in Western Australia.	62%	63%	1%
Percentage of accessions in living collections in Kings Park and Botanic Garden.	38%	37%	(1%)
Percentage of accessions lost in Kings Park and Botanic Garden.	5%	5%	-
The presence of 15 nominated perennially evident native plant species, which are the most vulnerable taxa within each Kings Park and Bold Park bushland.	100%	100%	-
Number of common native plant species in Bold Park in areas with high levels of management compared to areas with low levels of management.	1.5	1.5	-
Weed cover in high intensity management areas compared to low intensity management areas in Bold Park.	0.59	0.59	-
Number of representative native plant taxa in Kings Park bushland.	324	324	-
Number of representative native plant taxa in Bold Park bushland.	310	310	-

## Service 2: Biodiversity Conservation and Scientific Research

	Target	Actual	Variation
Average cost of representative native plant taxa in Kings Park bushland.	\$2,985	\$4,181	\$1,196 <sup>(1)</sup>
Average cost of representative native plant taxa in Bold Park bushland.	\$3,883	\$4,205	\$322
Average cost per research grant project administered.	\$13,866	\$13,758	(\$108)
Percentage change in number of refereed scientific publications published per CF position compared to previous years.	-19%	31%	50% <sup>(2)</sup>

### 1. Average cost of Native Plant Taxa in Kings Park Bushland

There was no change in the number of native plant taxa in Kings Park Bushland. The variance is due to expenses increasing by 40%. This was a result of trail and path works carried out in 2009/10.

### 2. Percentage Change in Publications

Significant carryover of publications due to prolonged journal review processes. Coincidental completion of a number of PhD programs resulting in a flush of publications.

# Major Projects and Events

## Kings Park Ceremonial Walk

The majority of works associated with the [Kings Park Ceremonial Walk](#) project were completed in time to welcome 40,000 visitors to the annual ANZAC Day event. It was officially opened to the community on 21 April 2010 by the Minister of Environment; Youth the Hon. Donna Faragher MLC and RSL WA State President Bill Gaynor. The opening was celebrated with a welcome by Indigenous statesman Dr Richard Walley, military music and a gathering of RSL members, key stakeholders and supporters who enjoyed a tour of the new facilities.

The most significant element of this project was the removal of a 230 metre section of Fraser Avenue from the Floral Clock to the Forrest Roundabout to create a continuous pedestrian link between the main carpark, now called Wadjuk Carpark, and the State War Memorial. Traffic is now permanently diverted along a new road, Wadjuk Way, behind the restaurant precinct and through to May Drive. This project also included the construction of a substantial new amenities block, Acacia Toilets, to replace the demolished Limestone Toilets. This building features a spectacular artwork on the external walls depicting *Acacia* foliage and flowers, which, along with a suite of decorative steel gates within this precinct, were created by local artist Mark Datodi.

Other works included in the Ceremonial Walk project were: a new turnaround at the termination of Fraser Avenue near the Floral Clock; an upgrade of the Floral Clock surrounds to enhance visitor access; a minor reconfiguration of the main carpark to incorporate a new bus set-down area, delivery zone and new entry and exit points; construction of a new bus-parking area, Wardong Buspark; new street and pedestrian lighting; new paths to improve pedestrian safety and links to facilities; the reconfiguration of Forrest Carpark to include a

turnaround at its southern end; and the creation of expansive new garden beds, planted with over 7,000 Western Australian native plants. The remaining outstanding works will be completed in the latter half of 2010.

## Rio Tinto Naturescape in Kings Park

Planning for [Rio Tinto Naturescape in Kings Park](#), to be developed on the site of the Kings Park Arboretum, was advanced significantly during the year. The addition of a new funding partner, Perth Solar Cities, to the existing multi-sector partnership expanded the project scope to incorporate environmentally sustainable design elements, including solar power and other energy efficiency measures and associated interpretation. Design work on the environmental education building was delayed to enable negotiations with the new funding partner to be finalised, resulting in the landscape design progressing ahead of the building design. A decision to locate the building just outside the north-west corner of the Arboretum site enabled the project design to proceed as two separate, yet related components.

The detailed landscape design and documentation was completed for tender in June 2010, with considerable effort made to locate the various elements in a way that will minimise their impact on the existing native vegetation. The design includes: a major entry statement on May Drive by artist Jon Tarry; a community bush base with seating and shelter for family groups; a range of innovative, interactive features to encourage children to connect with nature; a large wetland and access deck; fenced conservation areas to protect the native vegetation; boundary fencing for safety; and a separate education precinct to deliver formal education programs.

Considerable progress was made on the detailed design of the environmental education building and an amenities block. The

Coming Soon... *Rio Tinto Naturescape in Kings Park* will open mid 2011.



main building will include environmentally sustainable design features and will be partially submerged below ground. It will feature separate office and teaching facilities linked by a covered plaza, as well as interpretive artworks reflecting the themes of solar energy and nature. A new carpark to be located to the east of the new building was also designed and will be tendered with the building construction works. It is anticipated that the landscape component, including planting by Authority staff, will be completed in June 2011 and the building works will be completed by the end of 2011.

## Synergy Parkland Stage Three and Zamia Cafe

The Stage Three upgrade of facilities at Synergy Parkland was completed during the year with the support of Synergy sponsorship. The refurbishment was celebrated on 21 March 2010 with a special family event called the Dinosaurs' Day Out. Works included the creation of two new mega fauna artworks by artist Travis Tischler, which have been extremely popular with visitors. The artworks comprise a pair of Diprotodons (giant wombat-like creatures) near Zamia Café and a Phytosaur (a giant crocodile) on the Bovell Kiosk side of the lake. Also near Bovell Kiosk, artist Rudi Verschoor created a large mosaic artwork embedded in the path junction that features the Zamia plant (*Macrozamia fraseri*). Other works included new community facilities such as picnic tables and benches; a new path suitable for disabled access; new bicycle racks; an upgrade to the electric barbecues; and new limestone edging for garden beds.

[Zamia Café](#) also underwent a significant refurbishment to improve the comfort of café patrons while retaining the original character of the café. Works included the replacement of the vergola roof; internal decking was replaced with solid flooring; the café space was moderately extended, reconfigured and air conditioned; and the external café blinds were replaced with glass bifold doors. The café was closed for two months to

enable the works. The kitchen and serving areas were renovated by the café lessees at the same time.

## Place of Reflection

The concept design for a new project at the southern end of the Botanic Garden was endorsed by the Authority in December 2009 and detailed design and documentation was nearing completion in June 2010. The Place of Reflection is externally funded by Lotterywest through the Friends of Kings Park and a range of other donors and a project consortium comprising representatives from a range of community organisations that provide support for those who have suffered loss. The project incorporates an upgrade to the path network with a contemplative walk, seating, contemplation decks, lighting and a new pavilion. Key words and phrases will be incorporated into the paths and other elements to communicate the reflective nature of this space within the Botanic Garden. The Roe Toilets will also be upgraded to incorporate facilities for people with disabilities as part of this project. The Place of Reflection is expected to be completed by mid 2011.

## 2009 Kings Park Festival

The 2009 [Kings Park Festival](#) delighted more than 600,000 visitors during September through a variety of family days and educational and interpretive activities including workshops, demonstrations, displays and live theatre.

The financial support received from sponsors Lotterywest and Water Corporation was critical to the Festival's success. Also successful were the partnerships with MIX 94.5 and Australia's South West, which assisted with targeting family audiences and increasing community awareness.

The theme of the 2009 Festival was "Nature Inspiring Art" which highlighted the beauty of the Western Australian environment and the inspiration that the natural world provides to artists in creating their works. Visitors had the opportunity to be inspired

The new dinosaur Phytosaur is already a popular addition to Synergy Parkland.



by various local art societies showcasing and displaying their works within the Botanic Garden, meet artists in the *Aspects of Kings Park* gallery shop, stroll through the Botanic Garden with a self guided art trail, peruse the marvellous display of children's art in the Wildflower in Focus exhibition or enrol in one of the many creative workshops on offer.

The Wildflower Display at the entry to the Botanic Garden was a highlight, with a total of around 3,000 Western Australian plant species on display throughout 17 hectares of the Botanic Garden.

The Wandering Wildflowers became stars of their very own theatre show, Spring Fever, which provided free, fun, family entertainment over the September long weekend. The project was a successful collaboration between SWERVE theatre company and the Authority, showcasing Western Australia's magnificent flora through song, dance and narration.

The Kings Park Festival event was recognised with an award from WA Tourism Council at the 2009 Tourism Awards.

The Wandering Wildflowers are a highlight of the Kings Park Festival



# Planning and Community Liaison

## Management Plans

Significant progress was made in relation to the strategies in the first year of the [Kings Park and Botanic Garden Management Plan 2009-2014](#) and the fourth year of the [Bold Park Management Plan 2006-2011](#). A program for the formal five year review of the Bold Park Management Plan was drafted to ensure the new Bold Park Management Plan is completed by mid 2011 with appropriate community consultation.

## Business Development

The Authority continued its business development program focusing on implementing sustainable fund raising strategies for the current and long term enhancement of Kings Park and Botanic Garden and Bold Park. The Authority reviewed its short to long term project funding priorities and continued with ongoing efforts to maintain and enhance existing relationships. It continues to seek new partnerships to ensure effective strategic alliances.

The Friends of Kings Park are a key stakeholder with the Authority, and they continue to have a very successful partnership with Lotterywest. This year the Friends of Kings Park were able to grant funds from Lotterywest towards the 2009 Kings Park Festival.

The Friends also continue to raise significant funds through their quarterly plant sales.

The Water Corporation and the Authority have a highly productive partnership with the Kings Park Festival adult education program to promote conservation messages important to both organisations. The Water Corporation is also a partner of the *Rio Tinto Naturescape in Kings Park* project.

Synergy continues its sponsorship of Synergy Parkland, hosting a free community event earlier in the year to launch upgrades and improvements to visitor amenities.

Variety WA continued its sponsorship of the Variety Pavilion in 2009/10. The refurbishment carried out to the Saw Avenue Picnic Area the previous year has proven extremely popular with the community with a high level of usage in particular on weekends by both abled and disabled people.

The Authority welcomed a new partnership this year. Perth Solar City is a Federal Government initiative and joins other sponsors Rio Tinto, Water Corporation and Lotterywest through the Friends of Kings Park to support the new environmental discovery and learning project entitled *Rio Tinto Naturescape in Kings Park* (expected to open in 2011). Perth Solar City's support will assist this iconic project to integrate environmentally sustainable design elements that support and promote the use of solar and energy efficient approaches.

## Promotion, Public Relations and Marketing

A comprehensive marketing and media strategy was successfully undertaken to increase community awareness and build local attendance of the 2009 Kings Park Festival. The campaign targeted a broad cross-section of Western Australian community to generate participation from across metropolitan Perth. Festival partners Mix 94.5 and Australia's South West assisted with targeting family audiences and increasing community awareness.

Marketing activity for *Aspects of Kings Park* increased in 2009/10 with regular advertising throughout the year to position its brand and develop more product-focused advertising in the lead up to the Kings Park Festival. A media consultant was

“The Authority welcomed a new partnership this year. Perth Solar City joins Rio Tinto, Water Corporation and Lotterywest...to support the ...*Rio Tinto Naturescape in Kings Park* project.”

engaged to work on generating regular publicity for the range of new products and in-store promotional activities. In addition, the Aspects website is being regularly updated with new products, artist information and current promotions.

## Volunteer Development Project

A one-year project is underway to strengthen the way the Authority works with volunteers in Kings Park and Botanic Garden and Bold Park. The aim of the Volunteer Development Plan is to support volunteers and employees to meet the challenges of the future together.

The purpose of the Volunteer Development Project is to maximise the value that volunteers provide and sustain this into the future with the focus remains on providing volunteers with meaningful roles, high quality training and opportunities to connect with other people.

With five independent volunteer groups (four in Kings Park and one in Bold Park) currently providing an exceptional standard of service to the community, the project aims to establish a common sense of direction and a practical plan that can be shared by every volunteer and employee.

In-depth discussion with existing volunteers and Authority employees has identified these core areas for the project:

- Practical support for Authority employees to involve volunteers in more activities;
- A central hub for volunteer activity and communication in Kings Park and Botanic Garden;
- Improved communication and promotion at all levels; and
- An innovative volunteer program for *Rio Tinto Naturescape in Kings Park* that embodies best practice in volunteer management.

The Authority is in the fortunate position of attracting high calibre volunteers who make an immeasurable contribution to our parks and the wider community. Demand for volunteer positions is higher than the number of roles we are currently

able to offer. As a result, the project will work with employees to identify and free up more tasks for volunteers. There will also be a shift towards promoting volunteering in Kings Park as a whole and engaging more widely with the changing Western Australian community.

The Volunteer Development Project emerged following a 2008 research project: 'Botanic Gardens and Parks Authority Community and Volunteer Development Strategy' by Curtin University's Dr Kirsten Holmes in 2008. This research highlighted that the Authority is in a strong position to proactively recruit a greater diversity of volunteers to complement the existing structure.

The Friends of Kings Park, Kings Park Volunteer Guides, Kings Park Volunteer Master Gardeners, Friends of Bold Park Bushland and the Honour Avenues Group are being actively consulted at each stage of this project.

## Friends of Bold Park Volunteer Guides

The Friends of Bold Park Bushland were successful in receiving a Lotterywest grant to progress the planning for a new group of volunteer guides for Bold Park this year. The Authority participated in a working group to steer development of the program, drawing on experience gathered over 25 years with the Kings Park Volunteer Guides. Assistance was provided with a survey to gauge public interest in the program; development of a training program tailored specifically for Bold Park; and in the interviews of potential course participants. The first induction of Bold Park Guides will be completed by September 2010 in time for Spring Guided Walks to commence in Bold Park.

## Community Liaison

The Authority continued to liaise with surrounding land managers and community organisations throughout the year to ensure Authority interests were represented in regional matters and to share staff expertise where applicable. This included regular attendance at the Town of Cambridge Ranger meetings

BGPA staff and Volunteers work together.



by the Bold Park Community Liaison Officer; liaison with Wollaston College regarding the further development of their site; and participation in the early development of a Bush to Beach walk trail coordinated by the Western Suburbs Regional Organisation of Councils (WESROC). Authority staff communicate directly with City of Perth and event organisers for community events such as Australia Day Skyworks, Red Bull Air Race and City to Surf. The CEO represents the Authority on the steering committee for the UWA-QEII Urban Design Framework.

## Visitor Feedback and Complaints Handling

Visitor feedback plays a critical role in general management and planning. Visitor Surveys are conducted annually in both Kings Park and Botanic Garden and Bold Park to assess visitor satisfaction with services, facilities and the overall visitor experience. Results of these surveys are also used to provide data for the Authority's [Key Performance Indicators](#).

Other communications are received via the front reception at Kings Park and Botanic Garden and Bold Park, from the Kings Park Guides Visitor Information Centre and to the enquiries email direct or via the website. The Authority's Communications Handling Procedures considers complaints, compliments and comments/suggestions made by visitors and other stakeholders to monitor, manage and improve the visitor experience. All communications are responded to directly as required and considered for improvement. A total of 60 communications were recorded between 1 July 2009 and 30 June 2010, a 50% decrease on the number received in 2008/09. This is a significant achievement and a reflection on the high standards of presentation and level of services and facilities maintained by staff across the Authority.

## International Partnerships

A pilot program was launched during the year to develop two new international partnerships in the Middle East. The Authority provides expert horticultural advice on a consultancy basis

through the Department of Agriculture and Food Western Australia's overseas business unit, AGWEST International.

The first of these projects was the Bahrain Bay Development (BBD) in Bahrain, which is one of the world's largest real estate developments on a reclaimed island. Following the acceptance of a detailed scoping document for the horticultural and landscape development services to be provided by the Authority, staff commenced investigations into environmental conditions, a palette of plants likely to be suitable in the harsh conditions, plant procurement methods and potential BBD nursery design. This investigative stage also involved travel to Bahrain by Authority staff.

Several reports were submitted to the BBD including a site and environmental analysis; a tree and palm plant palette of potentially suitable species; analysis of plant candidates; development of environmental zones; and a nursery facility concept plan including detailed layout and irrigation concept design.

A second project was initiated with the Ar-Riyadh Development Authority (ADA) in Saudi Arabia, which manages a range of programs including the landscape development of urban areas and the restoration of natural areas. Authority staff visited Riyadh three times to deliver training in germplasm collection and storage (including field trips with local ADA employees), horticultural training in plant propagation and cultivation, and to discuss the consultancy services on facility development and future restoration programs.

Reports submitted to the ADA by the Authority included a review of germplasm collection and storage; nursery and landscape practice; natural area restoration; and germplasm facility development. In addition, a germplasm facility concept design was provided as well as a range of seed of Australian plant species identified as being suitable for cultivation in Riyadh.

*“Visitor feedback plays a critical role in general management and planning.”*

# Visitation and Recreation

## Visitors

### Bold Park

The total number of vehicles accessing Reabold Hill during the year was 51,325. This represents a slight increase over last year's visitation of 0.9% and indicates the park's ongoing popularity with the community. An estimated 150,000 people visited [Bold Park](#) in 2009/10.

### Kings Park and Botanic Garden

[Kings Park and Botanic Garden](#) welcomed 5.8 million visitors in 2009/10. The number of visitors to the Botanic Garden across all recorded locations was lower than the previous year. The Botanic Garden entry recorded 410,474 visitors, which is 22% lower than the previous year, and visitation to the Lotterywest Federation Walkway was 461,765, a drop of 12% compared with the previous year.

This is a decline in visitation from 6.5 million visitors in 2008/09, a direct result of the extended period disruption caused by the works related to the Kings Park Ceremonial Walk project. These works impacted on vehicle and pedestrian access as well as parking over a period of ten months, and particularly between October 2009 and April 2010, which in turn affected visitation to nearby attractions such as the Botanic Garden entry.

This is the first reduction in visitation experienced in five years and it is expected that with works now complete, visitation will continue to increase in 2010/11 and future years.

Spring and Summer months once again proved to have higher visitation, coinciding with peak flowering times for the gardens, the Kings Park Festival and school holidays.

### Visitor Liaison in Kings Park and Botanic Garden

The Authority's Park Management Officers (PMOs) play an essential role in all visitor liaison, providing front-line customer service to visitors in relation to their bookings or other issues. The PMOs maintain daily contact with the Kings Park Volunteer Guides through the Visitor Information Centre and regular interactions with all lease operators.

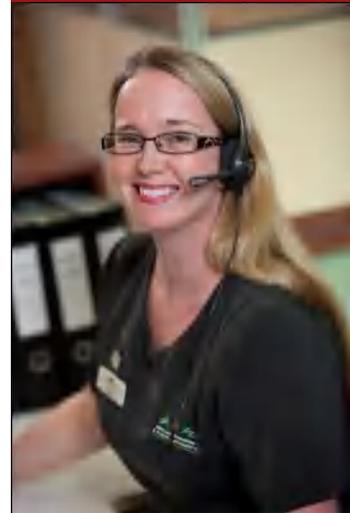
Part of the PMO role is to ensure visitors abide by the Authority's regulations, ensuring the safety and enjoyment of facilities for all visitors. This year 1,147 infringement notices were issued: 1,158 of which were for parking offences and 11 for other offences, including speeding.

The reception facilities in Kings Park and Botanic Garden and Bold Park provide daily visitor/customer liaison in person, over the phone or by email on a range of services such as events, functions and general enquiries, complaints and communications.

The Authority's website provides a broad range of information to the community on all aspects of the Authority's activities.

The Visitor Information Centre in Kings Park and Botanic Garden, run by the Kings Park Volunteer Guides, is open everyday from 9.00am to 4.00pm and is where many visitors access information on things to see and do in the park. All the Authority's maps and brochures are available from the Centre, and the Guides share information on a variety of native plants as well as their extensive knowledge of Kings Park and Botanic Garden.

Our Customer Service Officers are happy to help.



## Kings Park Bushland

A pathway upgrade to the Nature Trail through the Kings Park bushland was commenced to encourage visitors to explore the bushland and discover its diversity as an alternative to the more developed areas of the park. The upgrade includes installation of sections of raised steel boardwalk interspersed between new concrete paths to replace the ageing concrete slabs, with minimal disturbance to the bushland. In the long term, the boardwalk will enable low growing native plants to establish beneath it and protect the bushland from foot traffic and the impacts of incremental widening of the path. Works are expected to be completed in September 2010.

The Crawley Path was also upgraded during the year from Forrest Drive in Crawley through to the Broadwalk Vista, following damage caused by heavy fire vehicle traffic the previous year. The extension of the Crawley Path north of the Broadwalk Vista through to the Nature Trail was also upgraded. On completion of the Nature Trail section, there will be a completely new path surface from Crawley to the Pines Carpark on Lovekin Drive.

## Parkland and Turf

The Parkland and Turf teams continued to maintain high standards of presentation of the parkland despite high levels of visitation causing increased wear and tear in popular areas. Along with the Botanic Garden team, these teams were also involved in the planting and establishment of gardens and turf associated with the Kings Park Ceremonial Walk. With over 7,000 square meters of turf installed by contractors, the turf team was kept busy ensuring its establishment and maintenance. In addition, significant areas of planting and mulching were implemented beside the new roads and carparks.

The Parkland and Turf teams were also involved in the replacement of soil and turf within the Frasers Restaurant rooftop area, which included installation of trickle irrigation to the

garden beds, mulching and planting with native plants. This area will now be maintained by Authority staff to ensure a high standard consistent with nearby areas. The Turf team implemented its routine program of fertilizing, weed control, turf renovation and intensive mowing throughout the year with the positive results consistently noticed and praised by visitors.

The Parkland team continued its tradition of striking displays of exotic annual bedding plants, particularly around the Flame of Remembrance and the Queen Victoria statue. After 60 years of displaying exotic annuals at the wishing well, the surrounding garden beds were planted with Western Australian native species for the first time on a trial basis. The intention of this strategy is to strengthen the Authority's role in cultivating and promoting Western Australian flora to the community, to reinforce a sense of place and to reduce water use where possible through appropriate plant selection. Some of the plants included are small growing kangaroo paws, *Scaevola* and *Conostylis*.

All public areas were maintained in a clean and presentable state with infill planting also implemented by horticultural staff as required and weed control efforts supported by contractors in some areas. This included a significant change to the gardens surrounding Zamia Café following building works and an associated grease trap upgrade, which impacted on the site. Plants selected form part of a new initiative to be further launched during 2010, to promote the use of Australian plants for home gardens.

## Playgrounds

The redevelopment of the Saw Avenue Picnic area during 2008/09 prompted an increase in visitation to this area during the year. All new furniture and artworks installed at Saw Avenue were oiled and/or conditioned during the year, as well as all play equipment elements and furniture at Synergy Parkland. In addition, approximately 170 cubic metres of pine mulch soft fall was installed in playgrounds throughout the park and existing sand in play areas was regularly cleaned and sifted.

The Turf team work hard to maintain the beautiful lawns in Kings Park.



Local wood-carving artist, Nic Compton, carved a mystical face into the trunk of a dead tree, which was subsequently installed upside down at the Lotterywest Family Area as a Wishing Tree in time for the Kings Park Festival. This proved to be a popular installation, particularly on the Wild Fairyland Day. Other improvements included the replacement of a shade sail over play equipment in the Lotterywest Family Area.

## Booked Functions and Activities

Kings Park and Botanic Garden remains a popular location for the many [weddings, family, private and corporate functions, sporting events and fitness](#) activities held daily.

Almost 100,000 people visited the park as a result of booked functions or events. The number of bookings received in 2009/10 totalled 2,102 against 2,566 in 2008/09.

Booked Function/Event	No. of Bookings 2008/09	No. of Bookings 2009/10
Weddings	273	342
Social Functions	547	658
Corporate Functions	85	87
Community Group Events	60	60
Wedding and Commercial Filming and Photography	274	276
Sport and Fitness	333	312
Memorial and Wreath Laying Ceremonies	56	53
School group visits (not including visits for the Kings Park Education Service)	360	261
Special Events	523	12
Booked Guided Walks	49	41
<b>Total No. of Bookings</b>	<b>2,566</b>	<b>2,102</b>

A review of the bookings processes occurred in 2009/10 and resulted in significant improvements to information and procedures. The application forms and conditions of use were updated with clear procedures and improvements to the Authority's website made the information more readily available. The updated booking information will be implemented from 1 July 2010 along with new approved fees.

A new bookings system, was purchased to better manage the increasingly busy bookings office and better capture information for Authority reporting. This will be fully implemented by December 2010. Numbers of bookings decreased in 2009/10 as many had to be turned away or chose to go elsewhere due to the disruption resulting from the Kings Park Ceremonial Walk works.

The Tamala Room in the Western Australian Ecology Centre, Bold Park, was a popular venue for community group bookings for various activities including monthly membership meetings, workshops and launches, particularly for environmental groups such as Birds Australia. In addition, it remained well used for cross cultural awareness training for corporate organisations and Government agencies. More than 100 bookings were confirmed for the year.

Other visitor activities conducted in Bold Park included guided walks and information sessions run by Authority staff for schools and interested community groups and some guided walks by community groups during September as part of the Kings Park Festival.

The mystical wishing tree is popular with the fairies on Wild fairyland Day.



## Events

The Summer series of [concert and theatre](#) performances and the outdoor cinema continue to be popular, attracting more than 97,000 visitors.

Mellen Events presented twelve concerts during the 2009/10 season with artists including Seal, The Beach Boys, Massive Attack, Harry Connick Jnr, Paul Kelly and Bjorn Again. The Perth International Arts Festival presented Sing the Truth – the Music of Nina Simone. The Western Australian Symphony Orchestra presented five concerts with artists Barbara Bonney, Andrew McFarlane, The Panics and The Pointer Sisters.

In January 2010, Shakespeare WA presented Shakespeare's *Taming of the Shrew* in the Botanic Garden and Prompt Corner presented *Peter Pan and Wendy* at the Saw Avenue Amphitheatre.

Attendance to the outdoor cinemas, presented by Moonlight Cinema, increased by 15% compared to the 2008/09 year.

Community events continued to attract visitors to Kings Park and Botanic Garden and Bold Park including:

- The Red Bull Air Race in April 2010 attracted 4,500 people to the park, similar to the 2008/09 event.
- An estimated 2,000 people came to Kings Park and Botanic Garden to celebrate New Year's Eve. Numbers were down due to the fireworks in Gloucester Park being cancelled.
- The annual Australia Day Skyworks event on the Swan River attracted approximately 20,000 people who watched from vantage points in Kings Park and Botanic Garden.
- The ANZAC Day Dawn Service at the State War Memorial attracted an estimated 40,000 people.
- The *Tour de Perth* cycling event, was conducted around Bold Park with a time trial finishing on Reabold Hill. This event attracted around 1,000 spectators and was telecast nationally on SBS television.

Event	Attendees 2008/09	Attendees 2009/10
2009 Kings Park Festival (est)	600,000	600,000
Concerts	50,489	53,678
Outdoor Theatre	8,513	10,366
Outdoor Cinema	29,110	33,330
New Year's Eve (estimated)	6,000	2,000
Australia Day (estimated)	35,000	20,000
ANZAC Day (estimated)	40,000	40,000
Red Bull Air Race (estimated)	4,500	4,500
Estimated Total Attendees	773,612	763,874

The Horticultural and Operations staff continued to provide support for the events program throughout summer and Autumn, with attendance on site during bump in and out to ensure contractor compliance with Authority guidelines to protect horticultural and other assets. A temporary limestone track to the Pioneer Women's Memorial Fountain was installed for event access and removed and re-turfed at the end of the events season. Turf repairs and maintenance remained an important task to maintain a high standard of presentation in high profile areas that had been subjected to wear from frequent concerts.

An electrical upgrade was implemented at the Water Garden to improve the power supply for concerts. New permanent power connections were also installed in the Botanic Garden carpark to replace the need for ongoing temporary power provision to portable amenities required for concerts. A permanent fibre optic cable was also installed at the ticket booth location for outdoor cinema at Synergy Parkland.

“Attendance to the outdoor cinemas, presented by Moonlight Cinema, increased by 15%...”

## Aspects of Kings Park Gallery Shop

*Aspects of Kings Park* is the Authority's flagship gallery and retail store with the highest quality contemporary Australian and Western Australian craft and design. It delivers a distinctive shopping experience integrating art and design, ecology, conservation and education in the heart of one of Western Australia's most iconic locations. The store features local artists, whose works reflect Australia's natural environment and floral biodiversity. Its product range is innovative, colourful, intriguing and inspirational.

A business plan completed this year will shape the direction for the business operations including marketing and product development for the next five years.

*Aspects of Kings Park* has developed a solid local client base, including corporate and bridal gifts, and is developing its service to cater to the many interstate and international visitors. It provides ongoing cross portfolio contributions to the tourism, art, resources and environmental sectors.

The Authority's audit processes review internal controls, procedural instructions, staff training and detailed financial and performance reports to ensure effectiveness and efficiency of processes.

*Aspects of Kings Park* is owned and operated by the Authority. All proceeds from the sale of goods at *Aspects of Kings Park* support the Authority's commitment to the unique Western Australian environment.

*Aspects of Kings Park* offers visitors a unique shopping experience.



# Interpretation and Education

## Maps and Brochures

The Authority has a suite of [maps](#) and information [brochures](#), all of which are available on the Authority's website, from Kings Park and Bold Park reception and the Visitor Information Centre in Kings Park. A comprehensive list of Authority publications is available in [Appendix 2](#) of this report.

Many of the current brochures have been updated this year, the Visitor Map and other Kings Park maps have been updated to show the new road alignment and car park following the completion of the Kings Park Ceremonial Walk. Updates to the Free Guided Walks, Botanic Garden Trail, Self Guided Memorials Walk, Bushland Nature Trail, Birds of Kings Park, Wildflowers for Gardens and Sport and Fitness in Kings Park brochures, were also made.

A review of Bold Park brochures was initiated, including the Visitor Map, the Birds of Bold Park brochure and other information with updated brochures to be available later in 2010.

New brochures were developed through the year to complement the current range and in response to growing visitor demand. A new *Rio Tinto Naturescape in Kings Park* brochure was produced to convey the rationale behind the project and a brief overview of what to expect when it opens in 2011.

A new Memorials in Kings Park location map has been developed to assist visitors find specific military and civic memorials more easily. This adds to our already comprehensive suite of maps.

A new brochure was developed to promote Guided Walks By Request for special interest groups who wish to book a guided tour with a specific focus or for people with special needs.

A new brochure, the Botanic Garden Art Trail, was developed in collaboration with the Kings Park Guides. This is a self-guided

walk to take visitors on a journey of the various art forms in the park including mosaic pathways, structures and sculptures depicting natural or botanical forms.

A brochure promoting potential international consultancy services available on a fee-for-service basis from the Authority was produced to support this initiative launched during the year.

## Other Publications

Authority staff contribute research papers and articles to many scientific and other journals. Several articles were written for the For People and Plants magazine produced by the Friends of Kings Park to provide updates on projects and other activities being undertaken in Kings Park and Botanic Garden. Staff contributed 96 articles on Authority research activities, projects and events. Details of research papers or articles and Authority publications can be found in [Appendix 2](#) of this report.

## Website

The Authority continues to develop its [website](#) to increase public access to information and awareness of its activities to the public. The subscription to the monthly e-newsletters about events and Authority news, *Aspects of Kings Park* and the Kings Park Festival continues to grow.

A major review of the Education section has produced more comprehensive information for teachers on core programs, special events and planning an excursion. A review of information in the Biodiversity section has commenced to improve the information available in this format.

“Staff contributed 96 articles on Authority research activities, projects and events.”

## Signage

Ongoing upgrades and replacement of signs throughout both parks, include directional and interpretive signs. All visitor maps on signs throughout the park were updated to show the new road realignment associated with the Kings Park Ceremonial Walk.

Interpretive signage for the new mega fauna was installed in Synergy Parkland, and a new sign promoting Indigenous Heritage Tours was installed in the main visitor precinct to promote these specialised walks.

New perimeter signs were developed and installed during the year including: Thank You Volunteer Guides; Kings Park Ceremonial Walk Now Open; Thank you RSL - 90 Years of Dedicated Service; and Aspects Gallery Shop.

## Education

A range of educational opportunities were delivered to visitors and local communities through the [Connect with Kings Park](#) community education programs and the [Discover Kings Park Education Service](#) for schools.

Two new programs for senior secondary school students were added to the Discover Kings Park program this year. The Science of Conservation is designed for year 11 and 12 students to support learning in the new Biological Sciences curriculum and looks at strategies for maintaining biodiversity with a focus on either plant genetics or seed ecology. From the Flames uses the case study of bush fires in Kings Park to address the year 11 and 12 Geography curriculum and Society and Environment for Early Adolescence curriculum.

A new self-guided trail for Middle Childhood students Inspiring Nature – Art in the Botanic Garden, takes students on a journey to explore interpretative artworks in the Botanic Garden. A new theatre show for Middle Childhood students has been developed in collaboration performance artist Quintin with George. The new show *Professor Bio-diversity's Mad Cap Race*

*Against Time* tells the story of Western Australian threatened plant species and ways in which Kings Park is helping to protect biodiversity for future generations. Previews of the show received excellent feedback and it will be opened to schools in Spring 2010. The education team has reviewed all 15 school oriented programs this year to ensure that content reflects current teaching requirements and the high quality of programs is maintained.

The Authority was invited to join the organising committee for National Science week 13-20 August 2009. The Education Team worked with the Science Department to deliver two science-based workshops, one for primary and the other for secondary aged students. In total 90 students attended on the day.

The *Great Quiz on Legs* was held for the third year in September 2009 to mark National Threatened Species Day. Twenty different environmental organisations were represented. Approximately 800 students and 100 adults attended.

Participation in the Kings Park Festival Poster Exhibition dramatically increased in 2009 with 270 entries from pre-primary, primary and secondary schools across Western Australia. Fifty of the best entries were chosen and displayed in the Botanic Garden during the 2009 Kings Park Festival with a further 30 posters displayed in the Festival Wildflower Marketplace over the September long weekend. Art teachers were very positive about the project and many of the schools involved and individual family members visited the Park to see the art works on display.

A new *Discover Kings Park* calendar of special events was produced for the first time in January 2010. The calendar included 20 special events for all ages across the curriculum areas, including seven new events for the 2010 school year. Planned activities included theatre shows, Festival Art Week and new one-off events such as Biodiversity in the Bag to celebrate World Environment Day. On 4 June, 70 middle childhood students from two schools attended the day's

The theatre shows run as part of the education program are a favourite with children and adults alike.



activities, which included pond-dipping, an invertebrate hunt, a bird survey and tree identification.

The Education Service delivered 177 (183 in 08/09) lessons to approximately 6,615 (7,096 in 2008/09) students during the year. There were also an additional 87 (116 in 2008/09) booked self-guided education visits to the Park involving a further 5,168 (7,349 in 2008/09) participants. The self-guided education figures show a fall in the 2009/10 year. Increased transport costs have been reported as a major factor in the decline in affordability of school excursions. In response the Education Team has partnered with the Public Transport Authority to promote the option of public transport to schools. The Education Team ran three professional learning workshops for teachers with a total of 77 participants. Two of the workshops were for Year 12 Biological Sciences and the third for the primary science conference.

In September 2009 the Education team partnered with Perth Zoo to deliver the national wildlife survey project Tiwest Night Stalks in Western Australia. Approximately 100 people attended over three nights. Due to the popularity of night stalks a further night was held during the April 2010 school holidays. A new Connect with Kings Park family event Cubbies and Crafts was fully booked with 50 participants.

Connect with Kings Park is a series of community oriented public education programs that are held throughout the year. These programs provide pathways to learning so that people of all ages and experience can develop their environmental skills and creative talents. The programs comprise of lectures, workshops, interactive walks and talks using Authority and external presenters. The classes have proven to be highly successful.

## Science Programs

### **The University of Western Australia: Conservation Biology and Restoration Ecology Unit**

The coordination and teaching by the Authority's Science Directorate of Conservation Biology and Restoration Ecology, a third year unit at The University of Western Australia continued for its seventh year. This course provides undergraduate students with the experience of managing real-life research projects in an operational laboratory by pairing students with Authority research scientists for the semester. Twenty students conducted independent experimental programs on conservation and ecology of Western Australian native plant species, under the guidance of Authority scientists.

### **Kings Park Summer Scholarships**

Six 12-week Summer Scholarships were offered in 2009/10 for the Conservation Biotechnology research group. Supervised by Authority Scientists, successful recipients commenced in December 2009 and completed their projects in late February 2010.

## Biodiversity and Extensions

The core business for [Biodiversity and Extensions](#) is to use and promote sound horticultural practices in species restoration and recovery operations; and the use of native Australian species in gardening and landscaping to help maintain biodiversity and minimise the use of fertiliser and water.

Environmental weed control, glasshouse and field trials are conducted using a wide range of pre and post emergent herbicides within the Authority, with other agencies and through fee-for-service arrangements.

The Authority is collaborating with local and State Government agencies, in particular the Department of Environment and Conservation, in relation to the translocation of Declared Rare

Flora, managing natural ecosystems and environmental weed control.

Extension projects currently underway include:

- Translocation of *Verticordia lindleyi* subsp. *lindleyi* funded by the Public Transport Authority and planted at Perth Airport on land managed by Westralia Airports Corporation. This project was progressing very well with more than the projected final number of plants surviving. Most plants had flowered and 45% produced viable seed, however Winter rainfall combined with extra runoff from cleared sites resulted in all sites being flooded for several months. Unfortunately only a few plants survived, well below the expected outcome to restore a viable community about the same size as the donor population. Though the funding for this project has ceased, a further batch of plants raised from seed was planted in Winter 2009 in an attempt to build up plant numbers.
- The translocation of *Eremophila resinosa* funded by Catalpa Resources (formerly Westonia Mines Ltd) and supported by the Shire of Westonia. Both clonal tissue cultured plants and seed generated plants have high survival rates and are growing well, producing large amounts of seed to build up the soil seedbank. Two new sites were initiated in December 2008, aiming to produce 500 seedlings for planting in Winter 2009. A large amount of seedlings were produced and planted. Over 2,000 plants are now established on the three sites. This program also includes more in-depth germination trials including sowing seed *in situ* and is investigating the use of suitable herbicides for the control of the worst weeds on site (ice plants and Wards weed) whilst reducing off-target damage to indigenous species.
- Translocation of the critically endangered Corrigin Grevillea in conjunction with Department of Environment and Conservation (Narrogin) is progressing very well with natural recruitment recorded on all three sites. The largest ever recruitment was in Winter and Spring 2009, indicating

the soil seed bank has large reserves of stored seed. Harvesting of the long term (50 year) soil burial trials, now in its fifth year but only harvested every two years, indicates seed on the soil surface as well as seed buried at 5cm remains highly viable. As time progresses the tissue cultured and seedling plants raised in Kings Park and Botanic Garden and planted out on site are senescing, leading to a sharp decline of plants on site but a large soil seed bank ready for a mass germination event following a disturbance event such as fire.

- Translocation of the critically endangered *Symonanthus bancroftii*, in co-operation with Department of Environment and Conservation (Merredin), Shire of Bruce Rock and volunteers is progressing. Seed collections were made again this Spring. New and old seed was used to investigate the best method to stimulate germination. Seedlings planted in Winter 2008 on one site have responded well with exceptionally high survival rates compared to other plantings. They produced sufficient seed in Spring 2009 to enable seed collection for research purposes and long-term seed storage. Seed burial trials on site were initiated in Spring 2009 to establish the longevity of the soil seedbank and to harvest for germination trials.

Extension activities are promoted through networking and serving on advisory groups with local organisations such as the Environmental Weeds Action Network Australia and Association of Bush Regenerators, representing the Authority on several committees and through presentations to professional organisations, conferences, seminars and the general public.

Gardening advice is provided to the general public through the Kings Park Volunteer Master Gardeners, in using moisture efficient and low nutrient native plants. This group also manages a large bush garden open to public viewing. All the plants in the garden have been raised in-house by the Kings Park Volunteer Master Gardeners to illustrate how easy it is raise your own plants and to garden without additional water and fertilisers. The

Translocation site of Corrigin Grevillea.



garden is now five years old. It is mulched to reduce moisture loss and to suppress weeds. Recruitment of natural seedlings is increasing each year, reducing the need for continually raising some short lived species. As the garden ages, due to high survival rates, several trees are removed each year to reduce competition and reduce shade. Due to drought conditions and increased competition there was a reduction in the amount of smaller shrubs and herbaceous plants surviving. A small amount of planting is carried out each Winter to introduce new species and supplementary planting of some short lived species.

## International Conferences

The dissemination of research findings is a priority for the Authority. Hosting of conferences and workshops provides an avenue to encourage and pursue this activity. In August 2009, the Authority hosted the 19<sup>th</sup> Conference of the Society for Ecological Restoration (SER) International - the 3<sup>rd</sup> World Conference on Ecological Restoration. The hosting of this conference marked an important occasion in restoration ecology research for Western Australia.

For the third time in the Society's history, the conference was held outside of the United States of America and for the first time, the southern hemisphere played host. As a result, the conference drew the attention of approximately 750 delegates from over 40 countries who contributed to 400 oral and 150 poster presentations. Importantly, the one-day field trip options that accompanied the conference provided a great opportunity for the Authority to showcase the ecological restoration projects currently being undertaken within the Kings Park and Bold Park bushlands.

As the host organisation, the Authority was committed to ensuring that real-value carbon offsets were built into the conference carbon budget. This commitment involved planting seedlings of the key woodland trees, *Banksia attenuata*, *Banksia menziesii*, *Eucalyptus gompohocephala* and *Corymbia calophylla* into the Bold Park bushland. As a result, the Authority

collected seeds for, grew and planted, more than 5,000 seedlings as sponsorship of the SER International 2009 Conference. The trees will sequester an anticipated 400 tonnes of carbon that was generated by travel and accommodation averaged across every conference delegate. Unlike other carbon-offset packages, these plantings represent both biodiversity and restoration benefits given that the trees are an integral part of the on-going conservation and ecological enhancement of the urban bushland areas under the control of the Authority.

“...the Authority was committed to ensuring that real-value carbon offsets were built into the conference budget...more than 5,000 seedlings were planted [which] will sequester 400 tonnes of carbon generated by travel and accommodation.”

# Cultural Heritage

An extensive review of the Kings Park Conservation Plan 2000 was undertaken by Phil Griffiths Heritage Architects during 2009 and forwarded to Authority staff to review the horticultural information within the plan. This required a full survey of all developed precincts to update plant information and reflect the many changes since 2000. The revised Conservation Plan is currently under review by the Authority and will be finalised in 2010.

The first stage of conservation works for Subiaco Lodge on Saw Avenue was documented by a heritage architect and endorsed by the Heritage Council for implementation. This is the oldest remaining building in Kings Park and Botanic Garden and is of significant heritage value. The works will be undertaken in 2010 to arrest the declining condition of the building and commence its restoration.

The Queen Elizabeth Shell Memorial was withdrawn from its location under a large Fig tree on the eastern side of Fraser Avenue for restoration works, which were implemented by a specialist art conservator. The memorial had been deteriorating as a result of its position in the landscape and will be reinstated in a revised location more suited to its ongoing preservation during 2010.

## Indigenous Heritage

The Authority continued to implement strategies highlighted in its Reconciliation Action Plan (RAP) to demonstrate its commitment to promoting Indigenous culture and cultural awareness. These included the naming of Wardong, Wadjuk and Kulbardi carparks in Kings Park and Botanic Garden to acknowledge past and enduring Nyoongar connection with the land, as well as the naming of Wadjuk Way: the new link road from Fraser Avenue to May Drive. In addition, Welcome to Country ceremonies were conducted at official openings;

cultural awareness training was delivered to the majority of Authority staff; and a revised RAP was created for the coming year.

The Authority also continued to meet twice yearly with representative Nyoongar elders on the Indigenous Reference Group to update them on design and progress with development projects and bushland restoration works in Kings Park and Botanic Garden and Bold Park, and to consult on relevant activities. A bus tour was organised for the group during June to drive through Kings Park and Botanic Garden to view various changes through the park, including the regeneration after the January 2009 fire. A contract with an anthropological consultant to provide advice on Indigenous matters and assist with Indigenous Reference Group meetings was renewed in January 2010 for a further year.

The Authority provided support to the South West Land and Sea Council for a funding application to enable the development of an Indigenous cultural element in Kings Park and Botanic Garden, including a promotional brochure. This project remains unfunded. A Section 18 Application under the Aboriginal Heritage Act 1972 was approved early in 2010 to construct the *Rio Tinto Naturescape in Kings Park* on the site of the Arboretum and adjacent former pine plantation area.

The Authority went to public tender for Indigenous Cultural Heritage Tours to be delivered in Kings Park. The Nannup Family Trust secured the tender to deliver this service in Kings Park and Botanic Garden commencing 1 July 2010.

Mr Alton Walley secured a WA Indigenous cadetship working with the Visitor Services team in Kings Park.

Subiaco Lodge is the oldest remaining building in Kings Park. Photo c1938.



# Biodiversity Conservation and Ecological Restoration

## Kings Park Bushland

Biodiversity conservation activities in Kings Park bushland have centred on research and monitoring within the 40 hectare area burnt by bushfire in January 2009, the largest fire in the park since 1996. These studies included: quantification of fire severity using qualitative visual assessment, grass tree leaf scorch and tree char height as measures; post-fire plant regeneration in permanent monitoring plots compared with pre-fire plant species composition and abundance; the effect of fire-fighting vehicle entry off formed tracks into bushland areas on post-fire plant regeneration; the effectiveness of a range of soil stabilisation products in reducing erosion at burnt areas on the Mt Eliza escarpment (field trial) and the effect of such products on native seedling emergence and establishment (glasshouse trial); and the regeneration of known populations of vulnerable flora after fire. These studies will continue over several years with the results helping Authority staff understand the effect of fire and fire fighting operations on biodiversity recovery.

The Authority funded a reptile survey by an Edith Cowan University zoologist to investigate the impact of the fire on reptile fauna. Trapping was undertaken in Spring and Autumn in both burnt and unburnt sites, with early indications suggesting reduced species richness and population size in the burnt areas, although juveniles had begun recolonising the burnt area by Autumn. Further monitoring will be required to determine any longer term impacts.

A mycologist was commissioned to undertake a fungi survey during the Winter of 2009. This resulted in 123 species being collected, 82 of which were new records for Kings Park. A review of past studies, records and names was also undertaken to determine whether identifications could be verified (where voucher specimens were available) with a view to documenting an accurate fungi inventory for the park at some stage in the future.

A study to examine changes in the vegetation of Kings Park bushland over a 20 year period was initiated, but limited staff resources and other priorities meant little progress was made. The study aims to use historical data recorded at permanent monitoring sites and recent survey data. It will assess changes in structure, composition and abundance of plant species. Relationships between vegetation and factors such as fire history and park management practices will also be examined.

Seed collection activities continued by Authority staff, resulting in 75 collections and seed of 55 local species being cleaned, x-rayed, recorded in the Authority's horticultural database and stored in the Seed Technology Centre as a resource for future restoration and conservation activities.

Restoration activities continued throughout the year on the Mt Eliza Escarpment and on the plateau area of Kings Park bushland including ongoing weed control programs, planting and seed collection as noted previously.

Woody weeds were removed from around 35 hectares, with a focus on the areas burnt in the 2009 fire. Veld grass control was implemented through a total of 84 hectares and control of other weed species was conducted over 23 hectares. Highly invasive weeds that were controlled included 34 populations of Black Flag (*Ferraria crispa*), 27 populations of Geraldton Carnation (*Euphorbia terracina*) and 13 populations of *Gladiolus* species. Other weeds controlled included *Scrophularia*, *Succowia* and *Verbesina*.

In addition to extensive weed control, restoration planting was undertaken in more than 20 sites, including areas within the 2009 fire site and on the Mt Eliza Escarpment. Over 24,000 plants were planted in the Winter of 2010. Some additional erosion control measures were put in place on the escarpment in areas with minimal vegetation cover since the fire.

Fungi are important in maintaining bushland health and ecological function.



## Bold Park

External consultants were commissioned to undertake a comprehensive survey in Bold Park of weeds and vulnerable native flora. The survey was carried out on a 50 metre grid of the park, consistent with a similar survey completed in 1997 to enable comparisons of data. The survey focused on 29 weed species with opportunistic recording of a further 12 species and vulnerable native flora. Analysis is underway to document the most significant changes since the 1997 survey.

Authority staff continued the annual monitoring of 15 vulnerable native flora in Bold Park with no loss of species recorded. A previously unrecorded location of one of the vulnerable native species, *Anigozanthos humilis* subsp. *humilis* (Cat's Paw) was found during the consultant survey. Work on species management plans for each of the 15 species was progressed to determine strategies for their conservation and recovery of viable populations within Bold Park.

An external mycologist was commissioned to survey macro fungi in Bold Park in Winter 2009, the ten year anniversary of the first survey completed. To mark this milestone, the survey was expanded to include the 14 vegetation communities originally surveyed. The 2009 survey resulted in the collection of 155 species, including 62 that were considered new records for Bold Park and four species that were new records for Western Australia. A total of 437 fungi species have now been recorded in Bold Park, which is now the most comprehensively surveyed bushland site for fungi in Western Australia.

Priorities for seed collection continued to focus on those species required for restoration planting, rushes and sedges suitable for inclusion in the future Camel Lake restoration project, as well as conservation collections of vulnerable flora species. Seed from a total of 112 local species, including nine of the 15 vulnerable flora species was collected, processed and stored in the Seed Technology Centre. There was an abundance of seed produced on many of the legumes, including *Acacia*, *Templetonia* and *Hovea*.

Restoration was a key focus in Bold Park during the year in keeping with the Bold Park Management Plan. With planting in the Winter 2009 season delayed until July 2009 due to unseasonably dry weather, over 37,000 local native plants with 37 species represented were planted across ten sites in the Oceanic, Eastern Gateway and Reabold Hill precincts as well as a site located near the Ecology Centre. This included 4,600 trees (mostly *Banksia* and *Eucalyptus*) that were additional plantings as carbon offsets for travel to the Society for Ecological Restoration International conference, hosted in Perth by the Authority.

Trials on the feasibility of using rocket pots to produce high value greenstock for restoration with improved root systems were initiated using *Banksia* species. It is anticipated that this method will enhance the survival rates of *Banksia* and other trees planted in restoration programs in the future.

Over 34,000 plants were planted during the Winter of 2010 in key sites including the Eastern Gateway precinct, the Oceanic Precinct and near the Ecology Centre, with 46 local plant species represented in the mix. Some infill planting also occurred along track edges planted the previous season along Balga Walk, Tuart Walk and Zamia Trail.

Weed control works were concentrated in restoration planting sites (past and present) as a first priority. Additional works occurred within general restoration precincts. This included 15 hectares of Veld grass control, 22 hectares of Pelargonium control and 16 hectares of Bridal Creeper control. In addition, targeted weed control continued on highly invasive species including bulbous plants and invasive introduced grasses. Due to the nature of the terrain in many precincts and the lack of vehicle access tracks through them, most of the weed control is done on foot using backpack sprayers, which is both time consuming and strenuous work.

## Western Australian Botanic Garden

The [Botanic Garden](#) team continued to maintain high standards of presentation and horticultural expertise throughout the gardens. The main focus during the year was the establishment of new gardens associated with the Kings Park Ceremonial Walk. This included installation of irrigation systems, mulching and planting. Extensive new garden areas were incorporated into the layout in order to display some of Western Australia's spectacular flora in this high profile tourist precinct. This reflects a true sense of place for visitors, and highlights the Authority's core business of conservation, enhancement and promotion of the State's flora. Species were selected for their outstanding display qualities and their origin being mostly unique to Western Australia. Most of the new garden beds have been incorporated into the Botanic Garden team's area of responsibility.

Approximately 15,000 plants were added to the Botanic Garden beds as part of the annual upgrade to plantings made possible with the revised format of the Kings Park Festival. Although infill planting occurred throughout, planting the Kangaroo Paw and Wax gardens and the Acacia garden beds was a focus. Infill planting in the Conservation Garden was also undertaken with additional threatened species now represented. The Conservation Garden continues to be a popular attraction, with the original 2008 plantings well-established and providing an excellent display.

The Botanic Garden welcomed a new addition to its Eastern States section in April 2010 with the transplant of a mature Bottle Tree (*Brachychiton rupestris*) donated from a suburban garden. This tree is a significant addition to the Eastern States plantings and set to become a popular attraction in this area.

A new chemical is being tested for its effectiveness in the control of the Honey Fungus, (*Armillaria*) in the Botanic Garden in partnership with Murdoch University. This chemical has the potential to control the fungus and arrest the decline of mature trees suffering its effects.

## Nursery

The Kings Park Nursery provided valuable support for the Authority's conservation programs through the production of quality plants and maintenance of important conservation collections held within the nursery. More than 7,000 plants were produced for planting throughout new garden beds created as part of the Kings Park Ceremonial Walk project as well as approximately 15,000 plants for infill planting throughout the Botanic Garden entry.

The Nursery also supported the Authority's ecological restoration programs in Kings Park bushland and Bold Park through plant production and conducting germination trials on seed lots collected during the previous seed collection season. A total of 44,000 local native plants were produced in tubes for bushland planting and a range of seed pre-treatments were applied to seed lots before being sent to external nurseries contracted for restoration plant production for both parks.

The Nursery also continued to support external conservation programs by producing 4,684 plants of various threatened flora species for the Department of Environment and Conservation (DEC). These plants are crucial for DEC species recovery plans and are usually translocated into the wild to enhance populations of Declared Rare Flora and threatened flora.

Other Nursery production included 3,000 Western Australian flowering annuals in pots and approximately 17,000 in cell trays for colourful wildflower displays for the Kings Park Festival season. Approximately 4,500 native trees, shrubs and sedges have been propagated in preparation for the *Rio Tinto Naturescape in Kings Park* project.

Nursery facilities underwent a minor rationalisation with the relocation of the Growing Friends to their own allocated space in which separate facilities were established. Nursery staff assisted with the design and implementation of the Growing Friends area through a small working group. This move proved to be quite timely, as planning for an upgrade to the Depot and Nursery commenced in mid 2010.

The Nursery produces thousands of plants for the gardens and bushland restoration projects.



## Plant Development

The [Plant Development](#) team expanded during the year with the appointment of a Senior Plant Breeder in August 2009 and an additional technical staff member to advance horticultural research into plant biology, plant breeding systems, propagation, grafting and cultivation. Work continued on developing hardy, water-wise Australian plants for horticulture through an active plant breeding program and selection of plants with potential from the wild. Development of the flora is expected to be linked to its conservation in the long term.

Two plant varieties developed by the Authority were commercially released during the year by external partners. The Authority-bred hybrid *Scaevola aemula* named 'Blue Print' was released internationally and in Australia, with a further 25 lines under evaluation. The kangaroo paw *Anigozanthos rufus* 'Kings Park Federation Flame' was released for sale in Australia by an Australian company, with the international release planned for 2011.

A partnership with an Australian company to develop new varieties of *Grevillea*, *Hakea* and the small myrtle genera continued throughout the year. Intensive breeding programs continued in *Grevillea*, *Anigozanthos* and the small myrtles and 11 hybrid *Grevillea* selections were sent to the funding partner for commercial evaluation.

## Western Australian Seed Technology Centre (WASTC) and Herbarium

December 2009 saw the culmination of the ten year Millennium Seed Bank (MSB) project partnership between the MSB in the United Kingdom, the Department of Environment and Conservation (DEC) and the Authority. Under this partnership, the Authority supplied seed of 1,500 Western Australian species to the MSB, upgraded the Authority seed storage and processing facilities to a high standard, assisted with international training programs with other MSB partners and

participated in workshops and training both in Australia and overseas.

A new transition agreement commenced in March 2010 to provide one year's transition funding to selected Australian partners. This agreement is to provide support for the development of funding proposals to enable continuation of the conservation collection program into the future without financial support from the MSB. Some additional collection targets have also been included.

A total of 186 plant collections were made during the year, bringing the total over a 20 year period by the current [WASTC](#) Curator, Luke Sweedman, to the significant milestone of 8,000 collections. Thirty five days were spent collecting in the field in Western Australia, including a trip with the Director of the Royal Botanic Gardens in Kew to the remote areas of Cape Arid National Park.

In addition, the Authority's seed specialist travelled to Saudi Arabia in a consultancy role to assist in the development of seed collection, cleaning and storage protocols and the design of new nursery and seed facilities. Assistance with training local people in these areas also formed part of the program.

A highlight was the confirmed discovery of two new species of eucalypt that were previously thought to be forms of *Eucalyptus tetraptera*. In recognition of the contribution to the conservation of the Western Australian flora by two Authority staff, these species were named *Eucalyptus brandiana* after the Curator of the Botanic Garden, Grady Brand, and *Eucalyptus sweedmaniana* after the Curator of the WASTC, Luke Sweedman.

The Authority's Reference Herbarium staff provided invaluable assistance in the identification of plant species for the MSB project and other collections, including plants on display in Kings Park and Botanic Garden and field collections. This service is linked to the horticultural database and ensures that all collections are correctly named and each has a properly-mounted voucher specimen retained within the Herbarium.

The hybrid *Scaevola aemula* 'Blue Print' was released internationally and in Australia. Photo courtesy of Ball Flora.



## Arboriculture

The Arboriculture team was expanded during the year with the creation of a second Tree Surgeon contract position. This has improved the efficiency of the team in the field and enabled tree assessments to be undertaken without interruption to the tree maintenance programs. Two significant training and travel opportunities were secured by Arbor staff including a Winston Churchill Fellowship for one to study the latest techniques in tree management and tree risk management overseas. A travel scholarship from the Friends of Kings Park was also awarded to work in Singapore in tree management. Both these opportunities delivered significant benefits to the Authority in the field of tree management.

Some significant remedial tree works were completed during the year to maintain the tree collections using a combination of staff and external contractors. These works included removal of deadwood from Lovekin Drive Memorial trees and the Fraser Avenue Centennial Avenue; surgery on State War Memorial precinct trees; removal of dead fronds from the palms in the Fraser Avenue precinct; and works associated with the Kings Park Ceremonial Walk project. In addition, the senescent stand of pines (*Pinus radiata*) on the northern side of the Mt Eliza Reservoir were felled and removed from site as these trees were assessed as being in severe decline and were not providing a food source for the Carnaby's cockatoos. They will be replaced with extensive plantings of local native trees and shrubs during 2011.

Monitoring of the [Gija Jumulu boab tree](#) continued throughout the year including the use of sonic tomography to test the integrity of the trunk and test for the presence of decay. Root zone investigations were also undertaken to check for root growth and health and ensure appropriate soil conditions. A plastic skirt was placed around the tree's base to prevent rainfall infiltration which could lead to root rotting. The Arbor team was involved in other relocations including a mature cycad planted in the nursery border and the new Bottle tree in the Botanic

Garden. These plants were accepted from private donors after being assessed as suitable and valuable to the Authority's plant collections and displays.

Approximately 300 trees were planted throughout Kings Park and Botanic Garden and a further 1,500 new trees were planted in pots to be grown as advanced stock for the *Rio Tinto Naturescape in Kings Park* project.

## Scientific Research Programs

### Restoration Ecology

The [Restoration Ecology](#) team continued to research reasons underpinning ecosystem decline or plant establishment. It developed new and innovative technologies for tackling urban bushland, post-mining and post-disturbance restoration of the State's bio-diverse ecosystems. Whilst the focus has centred on the *Banksia* woodland, externally funded projects contribute to restoration ecology knowledge of the State's ecosystems from the Pilbara region, the Swan Coastal Plain to the south-west region and ultimately, build restoration research capability that directly benefits the designated lands of the Authority.

A key research partnership with Rocla Quarry Products, now in its 14<sup>th</sup> year, involves developing restoration principles applicable to *Banksia* woodlands. With significant gaps in the dissemination of restoration knowledge, the research partnership is developing a practitioner's guide to the restoration of *Banksia* woodlands on the Swan Coastal Plain. Whilst in the early development stages, the guide will be a step-by-step manual, highlighting restoration techniques that deliver improved restoration outcomes.

The partnership with Rocla Quarry Products is also developing restoration principles for former pine plantations within the Gngangara area. These will help build community knowledge into *Banksia* woodland ecosystems and their restoration. The program involves investigating the use of the topsoil seedbank from former pine plantations as a source of plants for restoration

“Two significant training and travel opportunities were secured by Arbor staff...to study the latest techniques in tree management.”

sites. With wild seed sources dwindling on the Swan Coastal Plain, it is important to begin locating and auditing all possible seed-plant sources. Not only for former pine plantations, but for restoration projects in general. At the same time, the pine needles and the soil profile from former pine plantations are being investigated for their potential negative effects, if any, on seed germination, seedling establishment and plant survival, which may impact restoration capability.

Research is also underway into the potential for developing a seed orchard of *Banksia* woodland species. Specifically species that will continue to be of greatest demand in the coming decades for restoration purposes.

The hail storm in March 2010 that affected 40ha of the Kings Park bushland has provided significant and exciting scientific research opportunities. Monitoring of plant physiological parameters will provide the Authority with an opportunity to describe plant recovery of some of the keystone species, and ultimately the resilience of components of the bushland.

Research is continuing into the effects of chemicals typically used in natural plant communities (e.g. herbicides, adjuvants, and fire-suppressing agents) on species native to the Kings Park and Bold Park bushlands. To date, many of the findings seem to contradict the purported characteristics of some of these chemicals, illustrating the harm they may pose to our native plant communities. The findings of the research programs are potentially important in weed management and bushfire control technology.

Although the focus has centred on the *Banksia* woodland, the group is also building its restoration capability in the arid region of Western Australia, investigating topsoil management and seed broadcasting techniques to enhance species return and increase plant density. Subsoil and site management are also being investigated to enhance plant establishment.

Research continues into the conservation biology of the State's rare/threatened flora. It aims to resolve biological and/or

environmental reasons that may underpin plant rarity, such as plant reproduction (flowering, fruiting, seeding and seed-bank development stages); the presence of invasive species; feral animal activities; or climate change. This involves describing *in situ* (translocations) and *ex situ* (nursery living collections) conservation strategies to increase species presence.

## Conservation Genetics

The [Conservation Genetics](#) team is applying molecular markers for research and practical outcomes in native plant conservation, ecological restoration, native plant breeding, systematics and phylogenetics. The laboratory is equipped with state-of-the-art automated DNA sequencers, enabling the rapid application of fluorescent-based DNA fingerprinting and DNA sequencing techniques.

Through the application of modern molecular techniques, the Conservation Genetics team undertakes key research programs in: conservation genetics; restoration genetics; taxonomy and phylogeny; population genetic processes; evolution and adaptation; molecular forensics and identification; mating and dispersal; and landscape genetics.

Four nationally competitive Australian Research Council (ARC) grants were held by the Conservation Genetics team through the Discovery and Linkage Grants Schemes with researchers at the University of Western Australia, Curtin University, Murdoch University and the Australian National University.

A five-year ARC Discovery grant has extended research on the population dynamics and genetic variation of plants varying in fire response and dispersal capability. The project has shed new light on the role of disturbance and the increased occurrence of hybrids between Hooker's banksia (*Banksia hookeriana*) and *Banksia prionotes*; on the phylogeographic history of *Banksia hookeriana*, including range expansion and on pollen dispersal, highlighting the importance of birds as pollinators for the unique south-west Western Australian flora; and has identified a surprisingly high frequency of long distance seed dispersal in

*Banksia hookeriana*, *Banksia attenuata*, *Banksia candolleana* and *Daviesia triflora*, which plays an important role in the metapopulation dynamics of these species.

With supporting funds from the ARC, significant progress has been made towards a genetic provenance atlas for native plant community restoration in urban bushland remnants in south Western Australia, with genetic provenance information for more than 50 local species now achieved. Species most recently assessed genetically include *Banksia menziesii*, *Banksia attenuata*, *Alexgeorgea nitens*, *Eucalyptus gomphocephala*, *Persoonia longifolia*, *Stylidium hispidum*, and *Daviesia divaricata*. This information helps identify local provenance seed collection zones, makes restoration activities more efficient and conserves biodiversity within species.

A five-year ARC linkage grant, with funds from industry partners Alcoa World Alumina Australia, Worsley Alumina and Greening Australia, saw research continue on a molecular ecophysiological assessment of the importance of using local provenance seed in native plant community restoration.

With funds from a four-year ARC linkage grant and industry partner Rocla Quarry Products, work has commenced on a new project to address the management of evolutionary-ecological processes in the restoration of *Banksia* woodlands that will be resilient to global environmental changes. By manipulating genetic diversity, provenance and gene flow, this project will establish suitable seed sourcing regimes to manage evolutionary processes in large-scale restorations. Population genetic assessment and field trials have commenced on keystone *Banksia* species of restoration at the Rocla Quarry Products Gngangara site. A genetic assessment of variation and mating of restored and natural populations of *Banksia attenuata* has already highlighted the successful genetic management of restoration with this species at this site and the successful application of genetic guidelines for restoration.

With funds from a four-year ARC linkage grant, molecular markers have been applied to identify genetically unique

conservation units and key population genetic processes in the orchid genera *Caladenia* and *Drakaea*. This genetics research constitutes a major part of a multidisciplinary research program to assess limiting factors and predict impacts of climate change for endangered Australian orchids. DNA sequence data has been generated to assess the phylogenetic relationships between species within these genera, their pollinators, and their symbiotic fungi.

A three-year research program on the conservation genetics of the priority listed narrowly endemic *Acacia karina* continued, with support from Karara Mining Ltd. Key outcomes include the quantification and characterisation of spatial genetic structure and variation; the assessment of key population genetic processes such as mating and dispersal; molecular resolution of the phylogeny of *Acacia karina* and related species; as well as the application of DNA barcoding for the rapid identification of *Acacia* species in the region. This research underpins the conservation and management of this threatened species that is to be impacted by mining.

A major research program on the conservation genetics and phylogenetic relationships of the declared rare flora *Darwinia masonii* and *Lepidosperma gibsonii* for on- and off-site conservation continued, with support from Mt Gibson Mining. Research highlights to date include: comprehensive molecular phylogenies of the *Darwinia*, *Chamelaucium*, *Verticordia* group as well as *Lepidosperma*, with significant taxonomic implications; genetic confirmation that the number of species currently recognised in *Lepidosperma* is a gross underestimate; an understanding of patterns of spatial genetic variation and clonality within these species; and the identification of complex patterns of polyploidy within species groups.

Genetic barcoding of elite breeding accessions of *Grevillea* continues in collaboration with the plant breeding program in the Horticulture and Conservation directorate. These results underpin a more efficient native plant breeding program through the rapid and accurate assessment of artificial hybridisation.

*Banksia attenuata* and other *Banksia* species, is the subject of research into the restoration of urban bushland areas on the swan coastal plain.



With funding support from Cockburn Cement, genetic variation and spatial genetic structure has been assessed with microsatellites in the sea-grass *Posidonia australis* nationally, with a focus on Cockburn Sound. Genetic results have been interpreted to generate genetic guidelines for seed and propagule sourcing, underpinning improved seagrass restoration efforts. With new research funding awarded in June 2010 from the ARC, this project will now expand and continue for a further three years.

A two-year research program commenced with funding from Rio Tinto, to characterise genetic variation within and among populations of the Pilbara species *Eucalyptus camaldulensis*, *Eucalyptus victrix* and *Melaleuca argentea*, associated with impacts from mining on Weeli Wolli Springs.

With funding from AngloGold Ashanti, DNA sequencing and DNA fingerprinting tools were applied for a rapid molecular forensic assessment of the identity of morphologically cryptic regenerating eucalypts in relation to the DRF *Eucalyptus articulata* on a mining lease east of Kalgoorlie. This project demonstrated the utility of a rapid DNA barcoding type approach for a conservation outcome.

Associated student projects include a molecular systematic study of the *Grevillea thelmaniana* complex, a population genetic assessment of *Drakea elastica*, a characterisation of the mating system of *Darwinia masonii*, an assessment of world-wide genetic variation in the aquatic carnivorous *Aldrovandra vesiculosa*, effects of fragmentation on genetic variation and mating in *Banksia ilicifolia*, an assessment of home-site advantage and outbreeding depression in *Stylidium hispidum*, a phylogeographic analysis of genetic variation in *Eucalyptus gomphocephala*, the genetic identification of hybrids between the seagrasses *Posidonia australis* and *Posidonia sinuosa*, and the characterisation of the mating patterns in *Acacia karina*.

## Seed Science and Restoration Seedbanking

The [Seed Science](#) team continues to manage a diverse range of research programs focused on seed ecology, seed germination and dormancy, seed storage physiology and seedling establishment. This research is aimed at understanding the seed biology of Western Australia's unique flora in order to develop more efficient and effective methods of seed use in the conservation of Australian plants and the restoration of degraded habitats. The research programs of the Seed Science team have continued to expand over the past year, in particular those associated with the flora of the Pilbara region. This region now forms a major area of activity with four separately funded research programs underway. The Seed Science team also continued its major research collaborations with the Millennium Seed Bank, Western Australian universities and industry partners.

The Authority's research program with the Millennium Seed Bank partnership is due for completion in 2010. Over the past five years this partnership has contributed support to three post-doctoral positions and has seen the successful completion of a PhD research program. A particular highlight of the past year is the completion of the first study of the seed biology, ecology and conservation of aquatic species from vernal pool ecosystems. This research resulted in the discovery that seeds of the enigmatic basal angiosperm plant family Hydatellaceae are desiccation tolerant and that they possess a type of seed dormancy previously unknown to science. This internationally significant finding contributes significantly to our understanding of the evolution of seed germination behaviour. Research into seed storage physiology of a range of aquatic species under this program demonstrates many are short-lived, but research has developed techniques for long-term conservation of these seeds via cryostorage.

A major five-year project with BHP Billiton Iron Ore has continued into its second year. Research under this project is supporting the production of a 'Seed Atlas' to provide practical

guidelines for the collection, processing, storage, germination and use of seeds in restoration following mining in the Pilbara region. Seeds of 80 species have been collected since the start of the project to investigate seed biology, germination and conservation techniques. Experiments examining the range of temperatures over which seeds from this region can germinate have been completed for 37 species and it is clear that warmer temperature conditions (25 – 30°C) are optimal. Seed burial experiments to determine seed persistence in the soil have been running for 12 months and demonstrate seeds persist in the soil for at least one year with little loss of viability: a result that will assist in developing methods for seedling establishment in restoration sites. A major irrigation trial has also been undertaken over the past six months to determine the feasibility of establishing seed orchards for spinifex to address shortfalls in seed supply for restoration of these iconic plants.

Two new research programs supported by Rio Tinto commenced in 2010. The first is a major five-year program to investigate the seed biology of key species required for restoration. Focusing on seed collection, quality, storage and germination biology, the program will deliver strategies for managing the seed resource and improving on-ground restoration of Rio Tinto's iron ore mines in the east and west Pilbara. To date this project has audited seeds of 29 species collected for rehabilitation purposes, determining seed quality and viability and classifying dormancy type for each. Germination experiments have commenced on 19 of these species. The second research program with Rio Tinto is a three-year partnership focused on the iconic tree species *Melaleuca argentea*, *Eucalyptus camaldulensis* and *Eucalyptus victrix* growing in Weeli Wollie Creek in the Pilbara. This project commenced in June 2010 and in concert with the Authority's Conservation Genetics team, the research program will determine the genetic structuring of the populations of these species and develop a seed conservation strategy to protect the existing genetic diversity and support potential future restoration activities.

A research program supported by Newcrest Mining Ltd directed at resolving seed germination requirements for restoration at Telfer Gold Mine in the Pilbara continued into its second year. Seeds of seven species of unknown germination requirements (*Grevillea*, *Goodenia* and *Triodia* spp.) were targeted and research has identified that species-specific protocols are necessary for successful germination. Karrikinolide is effective at promoting germination of *Grevillea* and *Triodia* species and research is continuing to fine-tune the germination response of seeds to karrikinolide following dry after-ripening and alternating wet/dry cycles.

An ARC-funded project in collaboration with UWA's Western Australian Herbicide Resistance Initiative Centre investigating the efficacy of karrikinolide as a broad-acre weed control agent continued into its second year. Research highlights over the past year includes demonstration of the strong seasonal response to karrikinolide of a range of weed seeds buried in the soil environment and a study on *Brassica tournefortii* (wild turnip – a significant agricultural weed) demonstrating the significant effect of seed hydration status and prior seed imbibition history on the response of seeds to karrikinolide. These findings have practical implications in relation to the timing of application of karrikinolide to the soil and will greatly assist the development of the molecule for weed control.

Partnerships with UWA in ARC-funded research into the metabolism and molecular biology of the seed response to karrikinolide saw some significant publications in 2009/10, including publications in the prestigious journals *Plant Physiology* and *Proceedings of the National Academy of Sciences*. This research is demonstrating new knowledge linking seed light-sensing mechanisms to the mechanism of karrikinolide action.

After preliminary investigations and scoping of research undertaken in 2009, work formally commenced in 2010 on the integrated conservation of the critically endangered *Commersonia* sp. Mt Groper, a five-year project supported by

“...research into the metabolism and molecular biology of the seed response to karrikinolide some significant publications in 2009/10, including publications in the prestigious journals *Plant Physiology* and *Proceedings of the National Academy of Sciences*.”

Grange Resources. This integrated research program is focused on the seed biology, propagation biotechnology, soil seed bank dynamics, genetics and restoration ecology of this unique species which is currently reduced to only three populations and less than 80 individuals. A small quantity of seeds has been collected to date. Research has established the dormancy type of these seeds and developed a protocol for rapid and reliable germination. In addition, a tissue culture protocol capable of producing a large number of new plantlets has been established and each plant in the two largest populations has been tagged and propagation material collected from 56 individuals to establish an *ex situ* conservation collection.

### Restoration Ecophysiology

The [Restoration Ecophysiology](#) team continues to research key physiological markers that underpin early stage establishment in native seedlings. Understanding the relationship between the plant and its growing environment will allow scientists and industry stakeholders to improve plant establishment success in restoration. Ecophysiology projects are addressing key questions in the mining (Goldfields, Mid-west, Pilbara and Swan Coastal Plain) and agricultural sectors (Western Australia, New South Wales, Victoria).

Collaborative research continues in several key areas including:

*Banksia woodland restoration* - Understanding underlying mechanisms of poor establishment post sand extraction in two dominant *Banksia* species (*Banksia attenuata* and *Banksia menziesii*) and *Eucalyptus tottiana* at Rocla Quarry Products rehabilitation site. Field trials, complemented by controlled environment studies continue to investigate the ability of *Banksias* and *Eucalypts* to tolerate stresses such as seasonal drought and soil compaction. Collaborative research has commenced with the School of Earth and Environment at the University of Western Australia to increase our understanding of how soil substrate parameters drive restoration success.

*Banded Ironstone restoration* - A one year research program on the ecophysiology of the rare *Tetratheca aphylla* located on the Helana Aurora Range has commenced with support from Polaris Pty Ltd and Mineral Resources Limited. It is envisaged that research outcomes will: (a) provide a greater understanding of *Tetratheca aphylla* ecology/physiology; (b) serve to inform potential restoration requirements for *Tetratheca aphylla*; (c) assist in deriving a restoration plan for MRL related to *Tetratheca aphylla*.

A three-month research program supported by Sinosteel Midwest Corporation was undertaken to develop a restoration research plan for sites in the Midwest and Pilbara. The research was derived around efficient use of topsoil, seed and substrate resources to ensure effective restoration of Banded Ironstone formation plant communities.

*Agricultural land restoration and sustainable production* – improving perennial native species establishment for use in Australian agriculture. Two complementary research streams have been established to identify germination/establishment barriers in (1) native grasses and (2) the subtropical grasses, legumes and herbaceous shrubs.

1. A three-year collaborative project entitled 'Broadscale implementation of native grass germination enhancement technologies' funded by Rural Industries Research and Development Corporation (RIRDC) in collaboration with Native Seeds Pty Ltd, has commenced. This research will ensure that seed based research findings from the 'Grass Roots' program (see previous annual reports and final report can be found through RIRDC website), are delivered to industry across Australia. Trial sites have been established at Shenton Park and Katanning in Western Australia, as well as in New South Wales and Victoria.

2. The complementary project 'Reliable establishment of non-traditional perennial pasture species' has concluded. The collaboration with the Department of Food and Agriculture Western Australia, Department of Primary Industries Victoria, Native Seeds Pty Ltd, Future Farm Industries CRC Limited, Charles Sturt University has ensured significant success in overcoming plant establishment barriers in many species. Seed germination issues were resolved for many key taxa including those from the Chenopodiaceae and Poaceae in which significant improvement in plant establishment success has been achieved under field conditions. The final report can be found through RIRDC website.

## Conservation Biotechnology

The [Conservation Biotechnology](#) group undertakes research into advanced *in vitro* technologies, cryogenics and micropropagation of plants; areas critical to the success of *ex situ* conservation and translocation of recalcitrant and endangered plant species. In addition, the team provide expert advice to other researchers seeking to use *in vitro* technology as part of their programs in other fields such as genetics, seed biology and restoration.

An Australian Research Council (ARC) Linkage application entitled 'Development of cryopreservation for high value provenance collections of recalcitrant plant species used in post-mining restoration' is now in its second year. This project is a national collaboration involving Curtin University of Technology WA, Royal Melbourne Institute of Technology, University of Queensland, The University of Western Australia, the Authority and industry partners ALCOA and Worsley Alumina. The project is progressing well with investigations into membrane composition chemistry and biophysical attributes crucial to developing novel cryogenic storage technology for plant conservation and restoration.

Plants of the critically endangered *Commersonia adenothalia* (collected in January 2008 near Morewa) have been successfully micropropagated and shoot apices will soon be placed into cryogenic storage to complete *ex situ* conservation for this species. A related species *Commersonia* sp 'Mount Groper' has also been successfully micropropagated.

*In vitro* cultures of various genotypes of *Darwinia* sp. Mt Gibson have been successfully initiated as part of a study into integrated conservation of this taxon. These *in vitro* cultures will form the basis of a germplasm repository for this endangered species.

Research into optimising micropropagation procedures with other endangered and priority plant species has produced a successful root induction and transfer to soil protocol with *Philothea wonganensis* (Rutaceae). This species has previously been recalcitrant to attempts to induce root induction. Research on developing rooting protocols for *Drummondita ericoides* achieved some success with rooted plantlets satisfactorily established in soil. Research on *Hemigenia excilis* is continuing as initial trials were not conclusive.

Cryogenic methods are continuing to improve our capacity to efficiently store germplasm of declared rare flora. Initial success has been forthcoming with new species including *Loxocarya cinerea* (an important, but propagation recalcitrant species, for minesite restoration). The cryogenic program is vital for bringing increased security to the valuable *in vitro* collection at the Kings Park and Botanic Garden. The current ARC Linkage cryogenic study is providing valuable new information to boost the efficiency, speed and reliability of cryopreservation protocols.

## Orchid Conservation and Biology

The [Orchid Research](#) team has been actively involved in diverse research areas towards orchid conservation. This research emphasis has facilitated strong collaborative links with local and international institutions, the most prominent being with the Orchid Research scientists at the Royal Botanic

*Darwinia* sp. Mt. Gibson plants in tissue culture at Kings Park.



Gardens, Kew, United Kingdom. In addition, a significant outcome from this research has been collaboration with industry stakeholders, community groups, volunteers and students from other education institutions, who are all dedicated to the research and recovery of Western Australia's native orchids.

Research from two major long-term orchid conservation projects has continued this year. The *Drakaea elastica* research program focuses on the population biology, conservation and recovery of the nationally rare glossy-leaved hammer orchid. This genus contains ten species, five of which are declared rare flora and another is known only from herbarium records. This research has demonstrated the highly specialised nature of its two key ecological requirements: the wasp pollinator and mycorrhizal endophytes. It is hypothesised that this high specialisation may be driving rarity in a number of species within this genus. Research into the habitat requirements of both *Drakaea elastica* and the pollinator, as well as the conservation genetics of the orchid is being undertaken. Preliminary analysis quantified the requirement of *Drakea elastica* for sandy patches in habitat with a relatively open understorey. Further fieldwork is planned for Spring 2010 to complete investigation of the multi-scale habitat requirements of the species, as well as investigation into the movement capability of the pollinator.

Following on from ecological research into *Drakaea*, this year has seen the initiation of a major research program investigating the speciation process in sexually deceptive orchids using *Drakaea* as a study system. This study is the first of its type to integrate research of mycorrhiza and pollinators in the study of orchid speciation and conservation and will serve as a benchmark for orchid conservation research.

A research project on *Caladenia huegelii*, has continued this year with six months remaining. This project has seen the successful reintroduction of artificially propagated plants of the nationally threatened grand spider orchid into its natural habitat. Through optimised propagation methodologies developed by the orchid research team, this species has flowered in both the glasshouse and in field sites. Current research is focused on

determining the pollinators for this species which are proving to be highly elusive and are likely to be extremely rare in the orchid's natural habitat.

The *Caladenia huegelii* research program has recently been expanded with a new project funded by Jandakot Airport Holdings. This project will focus on the integrated and sustainable conservation of the existing *Caladenia huegelii* populations at the Jandakot Airport site. Further optimisation of propagation and survival of reintroduced orchid seedlings to field sites will be key outcomes for this project.

A major new research program commenced in 2010 to investigate the propagation, reintroduction and long-term conservation of the highly restricted and rare species, *Caladenia lodgeana*. The project will also investigate the genetic diversity of the orchid plants and mycorrhizal fungi and aims to determine the identity and abundance of the pollinator/s.

The Millennium Seed Bank project has continued this year. The project aims to collect and place into long term storage all of Western Australia's terrestrial orchid seed and associated mycorrhizal endophytes. Presently, the Authority has collected approximately 80% of all described native orchid seed and fungi and is working to increase that number to 100% by the end of the 2011 growing season.

Volunteer work by the Orchid Carers from the Friends of Kings Park has seen the successful artificial propagation of another 25 species of native terrestrial orchids through seed germination and laboratory methods. Housed in a newly renovated glasshouse, these volunteers are dedicated to establishing a living collection of Western Australia's native orchids with particular focus on threatened taxa.

### More Information

For a comprehensive list of the Authority's externally funded research programs or the scientists and students involved in current research projects, refer to [Appendix 3](#) and [Appendix 4](#).

BGPA scientists are reintroducing the nationally threatened grand spider orchid *Caladenia huegelii* into its natural habitat.



# Risk Management

## Hail Storm

An intense hail storm that struck localised areas of the Perth metropolitan area on 22 March 2010 caused significant damage to infrastructure, vehicles and vegetation in Kings Park and Botanic Garden. Large hailstones stripped the foliage from vegetation throughout the park over a period of less than an hour and exceptionally heavy rain caused flash flooding and serious erosion in many areas. Tree damage and ground debris was extensive and the park was immediately closed to vehicles as a risk management strategy. Most roads remained closed for the next three days to enable clean up operations to take place to restore safe public access.

One of the worst hit areas was the southern and western end of the park, including Crawley Lodge and Synergy Parkland, where the newly renovated Zamia Café was flooded and hail damaged and the ornamental lake flooded and filled with mud and other debris. The bushland in this area was severely affected, with much of its canopy foliage stripped to ground level leaving almost cleared views through the previously dense vegetation. Thirty five Carnaby's Cockatoos were killed in the hail and a further eight injured birds were captured by Authority staff the next morning and transferred to the Perth Zoo for rehabilitation.

The ground floor of the Biodiversity Conservation Centre was flooded, destroying carpets and damaging the lift and electrical infrastructure. In the depot, windows were broken including many panels in the nursery glasshouses and five Authority vehicles sustained significant hail damage. The Water Garden in the Botanic Garden sustained severe flooding with water overflowing from Forrest Drive. A catchment wall constructed several years ago below the Water Garden to retard potential flood waters was successful in preventing very serious flooding over the escarpment above the Brewery carpark. Some material was washed from the escarpment but most (except for some finer sands) was contained by the rock catch fencing along the

base. An immediate geotechnical inspection identified only minor remedial works were required as a result of the storm.

The clean up required park-wide was extensive and was completed efficiently by a combination of staff and contractors, who were commended for their dedication to the task. Roads, paths and lawns were cleared, safety checks were conducted and tree inspections and immediate treatments were implemented. A series of damage inspections were initiated and works commenced in accordance with recommended actions to address the damage. Due to the widespread impact of the storm and high demand for contractors to carry out repairs, some less urgent repair works had not been completed by 30 June 2010.

Approximately 62 tree part failures were recorded in the developed areas as a direct result of the storm and potentially thousands of parkland and bushland trees were impacted by the hail, and monitoring of these trees is continuing. The Saw Avenue pine plantation was severely affected by the hail, accelerating the decline of these trees. Two independent arboricultural assessments were commissioned and management options are being considered.

## Fire Management

There was one small fire in Kings Park bushland and three fires in Bold Park over the Summer period of 2009/10 with a total area burnt of approximately two hectares. The largest fire was approximately 1.5 hectares in an area off Stephenson Avenue in Bold Park on 3 February 2010, caused by a vehicle accident on the park boundary. The area burnt was mapped and will be monitored over time to determine any necessary weed and erosion control measures and other restoration requirements.

A range of fire-related equipment was upgraded during the year including new radios provided by the Fire and Emergency Services Authority (FESA) fitted to the Authority fire response

The hail storm in March caused havoc across Kings Park.



vehicles. A review of vehicle naming protocols was undertaken to meet FESA requirements and fire pre-plans for both parks prepared by FESA were reviewed. Staff training was also a priority, including basic fire fighting for new fire officers, in-house refresher training over two sessions, four wheel drive training for truck drivers and AIIMS training for new crew leaders.

An independent, expert panel was appointed by the Authority to evaluate, within the context of the Authority's urban bushlands (Kings Park and Bold Park), the strategies for prevention, preparation, response and recovery within the Authority's current fire management guidelines and to consider a range of fire management options. The panel will assess the effectiveness of these options on reducing the risk of bushfire as well as the likely impact they would have on biodiversity conservation. It will provide recommendations for fire management within the Authority's designated lands. The panel is expected to complete the review and its final report by October 2010.

## **Mt Eliza Escarpment**

The ongoing stability and risk management of the Mt Eliza Escarpment remained a priority throughout the year. Remedial risk management measures were implemented in several locations following identification of potential risks during geotechnical inspections, including one inspection immediately following the March 2010 hail storm. These remedial measures included removal of loose boulders in controlled circumstances, some minor trimming and backfilling followed by installation of matting to control erosion, repair of stone pitching beneath overhanging boulders and the installation of drape mesh to hold back a potentially unstable large boulder.

A minor slippage occurred in one location in which sand and rock material detached from the slope, with all material contained by the rock catch fencing. Although the fence incurred some minor damage that was subsequently repaired, this was an indication of the value of the fencing in preventing material from falling onto the road below. In addition to the on-ground

activities, Authority staff continued to liaise with adjoining landowners regarding appropriate slope management; a revised Landslide Response Plan was drafted; two routine geotechnical inspections were undertaken by a specialist consultant; and an annual structural inspection of the rock catch fence was completed and minor repairs implemented.

## **Asset Management**

With most of the irrigation upgrade works related to System One pond complete, attention turned to the upgrade of infrastructure associated with System Two pond. An upgrade to the electrical controls was completed in October 2009 and a new transfer pump was installed. An upgrade to the filter system was also implemented but a structural failure of the filter vessels during construction delayed its completion and caused considerable inconvenience to the Authority as the system was largely unavailable for an extended period. All faults were rectified however, and the system is operating satisfactorily. These upgrades have significantly improved flexibility and risk management within the irrigation system, which now has the capacity to interchange from one system to the other should the need arise. They have also improved efficiency and irrigation water quality is now at a high standard.

The Authority's ground water use was reviewed during the year with a view to improving efficiency in irrigated areas and reducing water application where possible, to avoid exceeding the ground water license allocation despite increased development and irrigated garden areas in the park. The use of sub-surface trickle irrigation in garden beds; monitoring of turf irrigation to achieve industry benchmarks for e-pan replacement, planting water-wise Western Australian plants; and the use of garden mulch to retain soil moisture are ongoing practices within the Authority to conserve water.

In addition, turf areas were assigned a priority ranking during the year according to their profile in the park, associated standard of presentation required and their level of use. As a consequence, some of the least visited areas such as Thomas

Road verge and Broadwalk Vista were reduced in priority ranking and water application, producing considerable savings in water use without significant impact on the quality of the turf. Some areas of turf along May Drive were also changed to mulched areas to enable a staged reduction in watering over time. Total ground water use for the year was 538 megalitres, compared with 576 megalitres the previous year.

Conservation of scheme water was also a priority through the year and the Authority continued to implement strategies as agreed in its Water Efficiency Management Plan. These included replacement of cisterns in some public toilets with water wise units, installation of flow-regulating devices in many of the hand basin taps, replacement of an ageing scheme water pipeline to eliminate leakage and the changeover of irrigation lines in the State War Memorial precinct from scheme water supply to ground water.

Asset maintenance and replacement programs continued to ensure a high level of public safety and satisfaction with facilities. These programs have maintained the Authority's infrastructure and equipment to minimise risk and maximise efficiency. Significant assets purchased included two out-front mowers, a tractor for turf operations, a digital global positioning system complete with rugged laptop computers for outdoor use, and a custom boom sprayer for improved safety during chemical application.

Several upgrades to electrical infrastructure were also implemented including earthing upgrades to two transformers, improvements to sub-boards in the Botanic Garden and Fraser Avenue precincts and a major power supply upgrade in the Botanic Garden to service concerts and other events.

## Information Services

The Information Services team continued to focus on the management of risk and business continuity. A Windows-based network-attached storage device was purchased to protect the Authority's server environment. The system complements the

existing tape backup system with its ability to provide near-term, near-line recovery from a single file, database or mail message up to a full production server in minutes. This eliminates costly downtime due to server failure and, with short recovery times and frequent recovery points, setbacks are fewer and staff are able to stay connected and productive.

In addition, a comprehensive review of the fibre network in Kings Park and Botanic Garden was undertaken as a first step improving the overall availability and performance of the existing network design and towards eliminating identified potential points of failure. Modification and upgrade options will be presented as part of the review, which is expected to be completed by September 2010.

## Ongoing Risk Management

Other tree risk management works conducted through the year were deadwood removal from the Fraser Avenue Lemon Scented Gums and Lovekin Drive memorial trees, precinct servicing of trees in Saw Avenue parkland, Synergy Parkland, the Botanic Garden, Kings Park Road, Fraser Avenue east, the State War Memorial precinct and annual inspections and remedial works in both Kings Park bushland and Bold Park.

In Bold Park, some minor upgrades to tracks at the old Turf Farm entry and the Campbell Barracks access track were implemented to improve visitor safety and reduce erosion. Remedial works were implemented on Tuart Walk and on Yoon Walk to address defects resulting from the major track upgrade project.

Significant progress was made towards completing the transfer of the Authority's risk register from its original data base into the web based system, RiskBase. This involved a comprehensive review of risks within the Authority, risk assessment and control assessment at the time of transfer. The new risk register is expected to be completed by December 2010.

“[Changes in Authority practices] produced considerable savings in water use... Total ground water use for the year was 538 megalitres, compared with 576 megalitres the previous year.”

# Significant Issues and Trends



<b>In this Section</b>	<b>Page</b>
Current and Emerging Issues and Trends .....	55
Likely Developments and Forecast Results of Operations .....	57
Back to Contents Page .....	ii



# Current and Emerging Issues and Trends

## Biodiversity Conservation

A key focus for the Authority remains on the conservation and enhancement of bushland in Bold Park and Kings Park. Significant fires in January 2009 in Kings Park and February 2010 in Bold Park have required additional management of these sites for public safety and environmental outcomes. Resources have been reallocated from other bushland sites to enable environmental monitoring and restoration as a priority to promote regeneration of native species and control weeds. Specialist fungi and fauna surveys are being implemented to determine any impacts from the fires on these populations.

Bold Park and Kings Park bushland also require ongoing ecological restoration, weed control, tree management and essential asset maintenance. Upgrades to the Kings Park Nature Trail are currently in progress and ongoing upgrades are underway to improve pedestrian paths and car parks in Bold Park.

The severe hail storm on 22 March 2010 had widespread impacts throughout Kings Park and Botanic Garden that necessitated closure of some areas of the park for up to three days to enable essential clean up operations to restore public safety. The storm caused damage to many buildings through flooding and hail impact and erosion in parkland and on the steep slopes of the escarpment. Bushland vegetation at the western end of the park experienced tree damage and significant stripping of foliage. Ongoing monitoring will be required to determine the longer-term impacts of biodiversity conservation in the bushland.

## Visitation

Kings Park and Botanic Garden remains one of Western Australia's single most visited tourist destination with 5.8 million

visitors welcomed in 2009/10. While this represents a decline of 10.8% on visitation compared with the previous year, it is still a 21% increase on the 4.8 million visitors in 2005/06.

A decrease in visitation in 2009/10 was anticipated due to the impact of road closures and other interruptions during construction work on the Kings Park Ceremonial Walk project during normally high visitation periods in Spring and Summer late 2009 and early 2010. It is anticipated that trends will show an increase in visitation in the 2010/11 year with these works now completed.

Year	Total No. of Visitors	% Change
2009/10	5.8 million	10.8% ↓
2008/09	6.5 million	12.1% ↑
2007/08	5.8 million	11.5% ↑
2006/07	5.2 million	8.3% ↑
2005/06	4.8 million	2.1% ↑

## Assets and Facilities

High levels of visitation to Kings Park and Botanic Garden continues to apply pressure to existing operating systems, infrastructure and resources. This requires ongoing upgrades and review and has various implications across the Authority including:

- Higher maintenance requirements on aging infrastructure and assets.
- Increased pressure on staff resources to maintain the grounds and facilities, manage bookings, handle general

enquiries, and to ensure visitor enjoyment, safety and security.

- Decreasing funds in real terms available to maintain other functions of the park such as bushland restoration programs, scientific research and horticulture.
- Increased pressure to lawn areas to sustain higher levels of wear and tear, requiring a review of irrigation requirements in order to achieve water conservation targets whilst continuing to meet community expectations in the presentation of the park.

## Revenue

Kings Park and Botanic Garden is open to the community 24 hours a day, every days of the year and does not generate any revenue from entry or parking fees. The community's expectation that extremely high standards of presentation and service are maintained in Kings Park and Botanic Garden means the Authority must seek external funding in order to improve or provide additional visitor facilities and maintain the world-class botanic gardens and events.

The *Rio Tinto Naturescape in Kings Park* project is entirely funded through sponsorship with foundation partners including Rio Tinto, Friends of Kings Park, Lotterywest, the Water Corporation of WA and Perth Solar City. The annual Kings Park Festival has limited funding and can only deliver a full program of events with support from funding partners.

The Authority seeks to negotiate positive service standards and optimal revenue from all its contracts, leases and licences.

## Research and Development

Externally funded research provides major input into core scientific activities. Research programs improve knowledge of restoration techniques and land management for the Authority and other land managers and improve the conservation of Western Australia's native plant species.

DNA barcoding improves the identification of biodiversity values of Western Australian flora and seedbanking will provide native species for restoration activities and improve the conservation of the State's endangered species.

In addition, a range of species and hybrids of *Grevillea* and small native plants are being developed to create a range of water efficient plant varieties, suitable for use in home gardens and public landscapes.

Sturt's Desert Pea  
*Swainsonia Formosa* is one of the amazingly diverse WA native plant species.

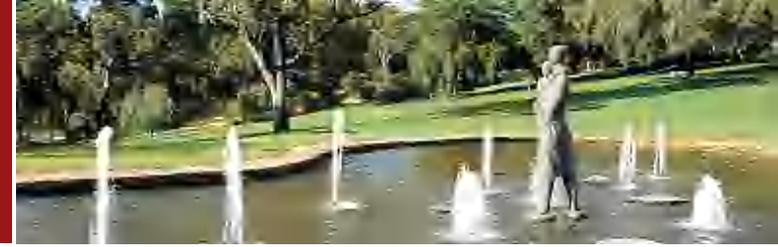


## Likely Developments and Forecasts of Operations

The year ahead will see significant progress on key projects as well as the continued challenge of ongoing funding for essential maintenance and service delivery. Key projects are:

- (a) Detailed planning and design for the *Rio Tinto Naturescape in Kings Park* will deliver major benefits in environmental education; awareness of climate change; and the importance of understanding and conserving our natural environment, primarily by encouraging connecting children with nature.
- (b) A new community facility to create a Place for Reflection is in design and documentation phase. The new facility will be located at the southern end of the Botanic Garden and is anticipated to be completed in April 2011.
- (c) Further enhancement of the Saw Avenue Picnic Area will be progressed, with development focused on the eastern section of Saw Avenue. This upgrade will include new barbeque and picnic facilities and new pedestrian paths to link the new facilities with the existing path network.
- (d) Implementation of the five-year Management Plan for Kings Park and Botanic Garden will continue, including conservation of heritage assets and management of infrastructure to address rising costs, aging assets and high levels of visitation. Planning will commence for the 50<sup>th</sup> anniversary of the State's Botanic Garden in 2015.
- (e) The new five-year management plan will be developed for Bold Park for the period 2011 to 2016, for release on 1 July 2011.
- (f) The restoration, rehabilitation and adaptive management work undertaken to conserve and enhance the bushland areas of Bold Park and Kings Park will continue. In particular the monitoring, restoration and weed management activities in the areas damaged by recent fires in Kings Park and Bold bushland.
- (g) A new concept will be developed in Kings Park to encourage cultivation of Australian native plants in home gardens. To be known as Backyard Botanicals, this concept will provide a full package to support home gardens including demonstration gardens displaying a selection of native plant species; a suite of interpretive signs; plant labels; and information on the Authority's website. Additional support will be provided through the garden advisory service run by the Kings Park Volunteer Master Gardeners.
- (h) Research and development projects in conservation science will continue in order to deliver significant benefits to the community and industry for conservation of endangered species and successful translocations of native flora in disturbed or degraded areas.
- (i) Review budgets and operational outcomes to support the high levels of visitation and subsequent maintenance and operational costs impacting on service delivery, including an annual review of the Kings Park Festival, volunteer engagement strategies and business development activities.
- (j) Continue to seek funding partners to support projects and enhance visitor facilities, including an Indigenous memorial to recognise historical and contemporary Indigenous connections with the land in Kings Park and Botanic Garden.

# Disclosures and Legal Compliance



<b>In this Section</b>	<b>Page</b>
Independent Audit Opinion.....	59
Financial Statements .....	60
Key Performance Indicators.....	88
Other Financial Disclosures .....	96
Other Government and Legal Requirements .....	98
Back to Contents Page .....	ii



# Independent Audit Opinion – Financial Statements for the Year Ended 30 June 2010



Auditor General

## INDEPENDENT AUDIT OPINION

To the Parliament of Western Australia

### BOTANIC GARDENS AND PARKS AUTHORITY FINANCIAL STATEMENTS AND KEY PERFORMANCE INDICATORS FOR THE YEAR ENDED 30 JUNE 2010

I have audited the accounts, financial statements, controls and key performance indicators of the Botanic Gardens and Parks Authority.

The financial statements comprise the Statement of Financial Position as at 30 June 2010, and the Statement of Comprehensive Income, Statement of Changes in Equity and Statement of Cash Flows for the year then ended, a summary of significant accounting policies and other explanatory notes.

The key performance indicators consist of key indicators of effectiveness and efficiency.

#### Board's Responsibility for the Financial Statements and Key Performance Indicators

The Board is responsible for keeping proper accounts and the preparation and fair presentation of the financial statements in accordance with Australian Accounting Standards and the Treasurer's Instructions and the key performance indicators. This responsibility includes establishing and maintaining internal controls relevant to the preparation and fair presentation of the financial statements and key performance indicators that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; making accounting estimates that are reasonable in the circumstances; and complying with the Financial Management Act 2006 and other relevant written law.

#### Summary of my Role

As required by the Auditor General Act 2006, my responsibility is to express an opinion on the financial statements, controls and key performance indicators based on my audit. This was done by testing selected samples of the audit evidence. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion. Further information on my audit approach is provided in my audit practice statement. This document is available on the OAG website under "How We Audit".

An audit does not guarantee that every amount and disclosure in the financial statements and key performance indicators is error free. The term "reasonable assurance" recognises that an audit does not examine all evidence and every transaction. However, my audit procedures should identify errors or omissions significant enough to adversely affect the decisions of users of the financial statements and key performance indicators.

Page 1 of 2

1st Floor Dumas House 2 Havelock Street, (Opp Perth 8000), Western Australia. Tel: 08 9222 7800 Fax: 08 9222 9654

Botanic Gardens and Parks Authority  
Financial Statements and Key Performance Indicators for the year ended 30 June 2010

#### Audit Opinion

In my opinion,

- (i) the financial statements are based on proper accounts and present fairly the financial position of the Botanic Gardens and Parks Authority at 30 June 2010 and its financial performance and cash flows for the year ended on that date. They are in accordance with Australian Accounting Standards and the Treasurer's Instructions;
- (ii) the controls exercised by the Authority provide reasonable assurance that the receipt, expenditure and investment of money, the acquisition and disposal of property, and the incurring of liabilities have been in accordance with legislative provisions; and
- (iii) the key performance indicators of the Authority are relevant and appropriate to help users assess the Authority's performance and fairly represent the indicated performance for the year ended 30 June 2010.

COLIN MURPHY  
AUDITOR GENERAL  
16 September 2010

Page 2 of 2

# Financial Statements

## Certification of the Financial Statements

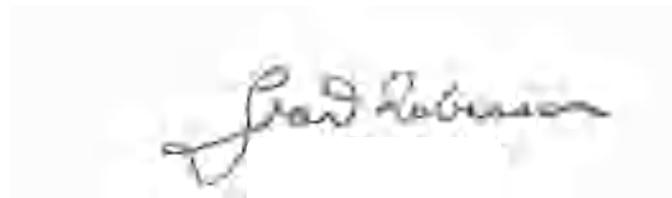
For the year ended 30 June 2010

The accompanying financial statements of the Botanic Gardens and Parks Authority have been prepared in compliance with the provisions of the *Financial Management Act 2006* from proper accounts and records to present fairly the financial transactions for the financial year ended 30 June 2010 and the financial position as at 30 June 2010.

At the date of signing we are not aware of any circumstances which would render the particulars included in the financial statements misleading or inaccurate.



Professor John Considine  
Member  
Botanic Gardens and Parks Authority Board of Management  
14 September 2010



Grant Robinson  
Member  
Botanic Gardens and Parks Authority Board of Management  
14 September 2010



Ian Biddle  
Chief Financial Officer  
Botanic Gardens and Parks Authority  
14 September 2010

## Statement of Comprehensive Income for the year ended 30 June 2010

	Note	2010 \$,000	2009 \$,000
<b>COST OF SERVICES</b>			
<b>Expenses</b>			
Employee benefits expense	5	9,261	9,104
Supplies and services	6	9,678	4,936
Depreciation expense	7	1,215	1,049
Cost of sales	10	1,183	1,051
Loss on disposal of non-current assets	14	-	131
Other expenses	8	3,129	2,615
<b>Total cost of services</b>		<b>24,466</b>	<b>18,886</b>
<b>Income</b>			
<b>Revenue</b>			
User charges and fees	9	1,554	1,473
Sales	10	2,277	1,909
Commonwealth grants and contributions	11	11	15
Interest revenue	12	383	330
Fee-for-service and sponsorships	13	3,792	2,708
Other revenue	13	946	670
<b>Total Revenue</b>		<b>8,963</b>	<b>7,105</b>
<b>Gains</b>			
Gain on disposal of non-current assets	14	11	-
<b>Total Gains</b>		<b>11</b>	<b>-</b>
<b>Total income other than income from State Government</b>		<b>8,974</b>	<b>7,105</b>
<b>NET COST OF SERVICES</b>		<b>15,492</b>	<b>11,781</b>
<b>Income from State Government</b>	15		
Service appropriation		12,903	12,544
Resources received free of charge		21	25
<b>Total income from State Government</b>		<b>12,924</b>	<b>12,569</b>
<b>SURPLUS/(DEFICIT) FOR THE PERIOD</b>		<b>(2,568)</b>	<b>788</b>
<b>OTHER COMPREHENSIVE INCOME</b>			
Changes in asset revaluation surplus		(1,542)	5,968
Gains/(losses) recognised directly in equity		-	-
<b>Total other comprehensive income</b>		<b>(1,542)</b>	<b>5,968</b>
<b>TOTAL COMPREHENSIVE INCOME FOR THE PERIOD</b>		<b>(4,110)</b>	<b>6,756</b>

- Refer also note 38 'Schedule of income and expenses by service'.
- The Statement of Comprehensive Income should be read in conjunction with the accompanying notes.

## Statement of Financial Position for the year ended 30 June 2010

	Note	2010 \$,000	2009 \$,000
<b>ASSETS</b>			
<b>Current Assets</b>			
Cash and cash equivalents	28	2,521	8,842
Restricted cash and cash equivalents	16,28	4,770	2,636
Inventories	17	743	418
Receivables and other assets	18	1,532	1,257
Amounts receivable for services	19	585	675
<b>Total Current Assets</b>		<b>10,151</b>	<b>13,828</b>
<b>Non-Current Assets</b>			
Amounts receivable for services	19	3,869	3,404
Property, plant and equipment	20	41,135	42,486
Infrastructure	22	937	-
<b>Total Non-Current Assets</b>		<b>45,941</b>	<b>45,890</b>
<b>TOTAL ASSETS</b>		<b>56,092</b>	<b>59,718</b>
<b>LIABILITIES</b>			
<b>Current Liabilities</b>			
Payables	24	820	880
Provisions	25	1,380	1,395
Other current liabilities	26	2,341	2,379
<b>Total Current Liabilities</b>		<b>4,541</b>	<b>4,654</b>
<b>Non-Current Liabilities</b>			
Provisions	25	589	577
<b>Total Non-Current Liabilities</b>		<b>589</b>	<b>577</b>
<b>TOTAL LIABILITIES</b>		<b>5,130</b>	<b>5,231</b>
<b>NET ASSETS</b>		<b>56,092</b>	<b>54,487</b>
<b>EQUITY</b>			
Contributed equity	27	16,254	15,669
Reserves		15,971	17,333
Accumulated surplus		18,917	21,485
<b>TOTAL EQUITY</b>		<b>50,962</b>	<b>54,487</b>

- The Statement of Financial Position should be read in conjunction with the accompanying notes.

## Statement of Changes in Equity for the year ended 30 June 2010

	Note	Contributed equity	Reserves	Accumulated surplus / (deficit)	Total Equity
		\$,000	\$,000	\$,000	\$,000
<b>Balance at 1 July 2008</b>	27	11,790	11,365	20,697	43,852
Comprehensive income for the year					
Surplus for the period		-	-	788	788
Other comprehensive income		-	5,968	-	5,968
Total		-	5,968	788	6,756
Transactions with owners in their capacity as owners:					
Capital appropriations		3,879	-	-	3,879
Other contributions by owners		-	-	-	-
Distributions to owners		-	-	-	-
Total		3,879	-	-	3,879
<b>Balance at 30 June 2009</b>		<b>15,669</b>	<b>17,333</b>	<b>21,485</b>	<b>54,487</b>
<b>Balance at 1 July 2009</b>	27	15,669	17,333	21,485	54,487
Comprehensive income for the year					
Deficit for the period		-	-	(2,568)	(2,568)
Other comprehensive income		-	(1,542)	-	(1,542)
Total comprehensive income for the year		-	(1,542)	(2,568)	(4,110)
Transactions with owners in their capacity as owners:					
Capital appropriations		585	-	-	585
Other contributions by owners		-	-	-	-
Distributions to owners		-	-	-	-
Total		585	-	-	585
<b>Balance at 30 June 2010</b>		<b>16,254</b>	<b>15,791</b>	<b>18,917</b>	<b>50,962</b>

- The Statement of Changes in Equity should be read in conjunction with the accompanying notes.

## Statement of Cash Flows for the year ended 30 June 2010

	Note	2010 \$,000	2009 \$,000
<b>CASH FLOWS FROM STATE GOVERNMENT</b>			
Service appropriation		11,674	11,322
Salary and Allowances Act 1975		179	172
Capital contributions		585	3,879
Holding account drawdowns		675	959
<b>Net cash provided by State Government</b>		<b>13,113</b>	<b>16,332</b>
<b>Utilised as follows:</b>			
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
<b>Payments</b>			
Employee benefits		(9,271)	(8,817)
Supplies and services (includes cost of sales)		(11,306)	(5,912)
Other payments		(3,081)	(2,360)
GST payments on purchases		(1,533)	(885)
GST payments to taxation authority		(29)	(5)
<b>Receipts</b>			
User charges and fees		1,586	1,508
Sales		2,189	1,901
Commonwealth grants and contributions		11	15
Fee for service and sponsorships		4,032	3,182
Interest received		376	336
Other revenue		768	829
GST receipts on sales		782	639
GST receipts from taxation authority		544	248
<b>Net cash used in operating activities</b>	28	<b>(14,932)</b>	<b>(9,321)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Proceeds from sale of non-current physical assets		14	59
Purchase of non-current physical assets		(2,382)	(880)
<b>Net cash used in investing activities</b>		<b>(2,368)</b>	<b>(821)</b>
Net increase in cash and cash equivalents		(4,187)	6,190
Cash and cash equivalents at the beginning of period		11,478	5,288
<b>CASH AND CASH EQUIVALENTS AT THE END OF PERIOD</b>	28	<b>7,291</b>	<b>11,478</b>

- The Statement of Cash Flows should be read in conjunction with the accompanying notes.

# Notes to the Financial Statements for the year ended 30 June 2010

## Note 1. Australian Accounting Standards

### General

The Authority's financial statements for the year ended 30 June 2010 have been prepared in accordance with Australian Accounting Standards. The term 'Australian Accounting Standards' refers to the Standards and Interpretations issued by the Australian Accounting Standard Board (AASB).

The Authority has adopted any applicable, new and revised Australian Accounting Standards from their operative dates.

### Early adoption of standards

The Authority cannot early adopt an Australian Accounting Standard unless specifically permitted by TI 1101 Application of Australian Accounting Standards and Other Pronouncements. No Australian Accounting Standards that have been issued or amended but are not yet operative have been early adopted by the Authority for the annual reporting period ended 30 June 2010.

## Note 2. Summary of significant accounting policies

### a) General statement

The financial statements constitute general purpose financial statements that have been prepared in accordance with Australian Accounting Standards, the Framework, Statements of Accounting Concepts and other authoritative pronouncements of the AASB as applied by the Treasurer's Instructions. Several of these are modified by the Treasurer's Instructions to vary application, disclosure, format and wording.

The *Financial Management Act* and the Treasurer's Instructions are legislative provisions governing the preparation of financial statements and take precedence over Australian Accounting Standards, the Framework, Statements of Accounting Concepts and other authoritative pronouncements of the AASB.

Where modification is required and has had a material or significant financial effect upon the reported results, details of that modification and the resulting financial effect are disclosed in the notes to the financial statements.

### (b) Basis of preparation

The financial statements have been prepared on the accrual basis of accounting using the historical cost convention, except for land, buildings and infrastructure which have been measured at fair value.

The accounting policies adopted in the preparation of the financial statements have been consistently applied throughout all periods presented unless otherwise stated.

The financial statements are presented in Australian dollars and all values are rounded to the nearest thousand dollars (\$,000).

The key assumptions made concerning the future, and other key sources of estimation uncertainty at the end of the reporting period that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are disclosed at note 3 'Key sources of estimation uncertainty'.

### (c) Reporting entity

The reporting entity comprises the Authority.

### (d) Contributed equity

AASB Interpretation 1038 Contributions by Owners Made to Wholly-Owned Public Sector Entities requires transfers in the nature of equity contributions, other than a result of a restructure of administrative arrangements, to be designated by the Government (the owner) as contributions by owners (at the time of, or prior to transfer) before such transfers can be recognised as equity contributions. Capital appropriations have been designated as contributions by owners by TI 955 Contributions by Owners made to Wholly Owned Public Sector Entities and have been credited directly to Contributed equity.

The transfer of net assets to/from other agencies, other than as a result of a restructure of administrative arrangements, are designated as contributions by owners where the transfers are non-discretionary and non-reciprocal. Refer to note 27 'Equity'.

### (e) Income

#### Revenue recognition

Revenue is measured at the fair value of consideration received or receivable. Revenue is recognised for the major business activities as follows:

#### Sale of goods

Revenue is recognised from the sale of goods and disposal of other assets when the significant risks and rewards of ownership transfer to the purchaser and can be measured reliably.

#### Rendering of services

Revenue is recognised on delivery of the service to the client or by reference to the stage of completion of the transaction.

#### Interest

Revenue is recognised as the interest accrues.

#### Service appropriations

Service appropriations are recognised as revenues at nominal value in the period in which the Authority gains control of the appropriated funds. The Authority gains control of appropriated funds at the time those funds are deposited to the bank account or credited to the 'Amounts receivable for services' (holding account) held in Treasury. Refer to note 15 'Income from State Government'.

#### Grants, donations, gifts and other non-reciprocal contributions

Revenue is recognised at fair value when the Authority obtains control over the assets comprising the contributions, usually when cash is received.

Other non-reciprocal contributions that are not contributions by owners are recognised at their fair value. Contributions of services are only recognised when a fair value can be reliably determined and the services would be purchased if not donated.

#### Gains

Gains may be realised or unrealised and are usually recognised on a net basis. These include gains arising on the disposal of non-current assets and some revaluations of non-current assets.

### **(f) Property, plant and equipment and infrastructure**

#### Capitalisation/expensing of assets

Items of property, plant and equipment costing \$5,000 or more and infrastructure costing \$250,000 or more are recognised as assets and the cost of utilising assets is expensed (depreciated) over their useful lives. Items of property, plant and equipment costing less than \$5,000 and infrastructure costing less than \$250,000 are immediately expensed direct to the Statement of Comprehensive Income (other than where they form part of a group of similar items which are significant in total).

#### Initial recognition and measurement

All items of property, plant and equipment and infrastructure are initially recognised at cost.

For items of property, plant and equipment and infrastructure acquired at no cost or for nominal cost, the cost is their fair value at the date of acquisition.

#### Subsequent measurement

Subsequent to initial recognition as an asset, the revaluation model is used for the measurement of land, buildings and infrastructure and the cost model for all other property, plant and equipment. Land, buildings and infrastructure are carried at fair value less accumulated depreciation (buildings and infrastructure only) and accumulated impairment losses. All other items of property, plant and equipment are stated at historical cost less accumulated depreciation and accumulated impairment losses.

Where market-based evidence is available, the fair value of land and buildings is determined on the basis of current market buying values determined by reference to recent market transactions. When buildings are revalued by reference to recent market transactions, the accumulated depreciation is eliminated against the gross carrying amount of the asset and the net amount restated to the revalued amount.

Where market-based evidence is not available, the fair value of land and buildings is determined on the basis of existing use. This normally applies where buildings are specialised or where land use is restricted. Fair value for existing use assets is determined by reference to the cost of replacing the remaining future economic benefits embodied in the asset, i.e. the depreciated replacement cost. Where the fair value of buildings is determined on using the depreciated replacement cost basis, the gross carrying amount and the accumulated depreciation are restated proportionately.

Independent valuations of land and buildings are provided annually by the Western Australian Land Information Authority (Valuation Services) and recognised annually to ensure that the carrying amount does not differ materially from the asset's fair value at the end of the reporting period.

Fair value of infrastructure will be determined by reference to the depreciated replacement cost (existing use basis) as the assets are specialised and no market-based evidence of value is available. Land under infrastructure is included in land reported under note 20 'Property, plant and equipment' at fair value. Independent valuations will be obtained every three to five years.

When infrastructure is revalued, the accumulated depreciation is restated proportionately with the change in the gross carrying amount of the asset so that the carrying amount of the asset after revaluation equals its revalued amount.

The most significant assumptions in estimating fair value are made in assessing whether to apply the existing use basis to assets and in determining estimated useful life. Professional judgement by the valuer is required where the evidence does not provide a clear distinction between market type assets and existing use assets.

Refer to note 20 'Property, plant and equipment' for further information on revaluations.

The Authority has recognised a constructed road and carpark as infrastructure in the current period. The absence of such assets from the previous financial statements is a result of the age of such infrastructure leading to the assets being fully depreciated to nil value under a depreciated costs basis. An assessment was made of bringing to account other similar existing road, pathway and carpark infrastructure on a fair value basis. However, this was determined to be impracticable in accordance with AASB 108.50.

#### Derecognition

Upon disposal or derecognition of an item of property, plant and equipment and infrastructure, any revaluation reserve relating to that asset is retained in the asset revaluation surplus.

#### Asset revaluation surplus

The asset revaluation surplus is used to record increments and decrements on the revaluation of non-current assets as described in note 20 'Property, plant and equipment'.

#### Depreciation

All non-current assets, having a limited useful life are systematically depreciated over their estimated useful lives in a manner that reflects the consumption of their future economic benefits.

Land is not depreciated. Depreciation on other assets is calculated using the straight line method, using rates which are reviewed annually. Estimated useful lives for each class of depreciable asset are:

Buildings	22 to 67 years
Plant and equipment	5 to 10 years
Software <sup>(a)</sup>	5 years
Motor vehicles	7 years
Monuments and Special Items	40 years
Infrastructure	40 years

(a) Software that is integral to the operation of related hardware.

### **(g) Intangible assets**

#### Capitalisation/expensing of assets

Acquisitions of intangible assets costing \$5,000 or more and internally generated intangible assets costing \$50,000 or more are capitalised. The cost of utilising the assets is expensed (amortised) over their useful life. Costs incurred below these thresholds are immediately expensed directly to the Statement of Comprehensive Income.

All acquired and internally developed intangible assets are initially recognised at cost. For assets acquired at no cost or for nominal cost, the cost is their fair value at the date of acquisition.

The cost model is applied for subsequent measurement requiring the asset to be carried at cost less any accumulated amortisation and accumulated impairment losses.

Amortisation for intangible assets with finite useful lives is calculated for the period of the expected benefit (estimated useful life) on the straight line basis using rates which are reviewed annually. All intangible assets controlled by the Authority have a finite useful life and zero residual value.

#### Licences

Licences have a finite useful life and are carried at cost less accumulated amortisation and accumulated impairment losses.

#### Research and development costs

Research costs are expensed as incurred. Development costs incurred for an individual project are carried forward when the future recoverability can reasonably be regarded as assured and the total project costs are likely to exceed \$50,000. Other development costs are expensed as incurred.

### Computer software

Software that is an integral part of the related hardware is treated as property, plant and equipment. Software that is not an integral part of the related hardware is treated as an intangible asset. Software costing less than \$5,000 is expensed in the year of acquisition.

### Website costs

Website costs are charged as expenses when they are incurred, unless they relate to the acquisition or development of an asset when they may be capitalised and amortised. Generally, costs in relation to feasibility studies during the planning phase of a website, and ongoing costs of maintenance during the operating phase are expensed. Costs incurred in building or enhancing a website, to the extent that they represent probable future economic benefits that can be reliably measured, are capitalised.

### **(h) Impairment of assets**

Property, plant and equipment, infrastructure and intangible assets are tested for any indication of impairment at the end of each reporting period. Where there is an indication of impairment, the recoverable amount is estimated. Where the recoverable amount is less than the carrying amount, the asset is considered impaired and is written down to the recoverable amount and an impairment loss is recognised. As the Authority is a not-for-profit entity, unless an asset has been identified as a surplus asset, the recoverable amount is the higher of an asset's fair value less costs to sell and depreciated replacement cost.

The risk of impairment is generally limited to circumstances where an asset's depreciation is materially understated, where the replacement cost is falling or where there is a significant change in useful life. Each relevant class of assets is reviewed annually to verify that the accumulated depreciation/amortisation reflects the level of consumption or expiration of asset's future economic benefits and to evaluate any impairment risk from falling replacement costs.

Intangible assets with an indefinite useful life and intangible assets not yet available for use are tested for impairment at the end of each reporting period, irrespective of whether there is any indication of impairment.

The recoverable amount of assets identified as surplus assets is the higher of fair value less costs to sell and the present value of future cash flows expected to be derived from the asset. Surplus assets carried at fair value have no risk of material impairment where fair value is determined by reference to market-based evidence. Where fair value is determined by reference to depreciated replacement cost, surplus assets are at risk of

impairment and the recoverable amount is measured. Surplus assets at cost are tested for indications of impairment at the end of each reporting period.

Refer to note 2(p) and note 18 'Receivables and other assets' for impairment of receivables.

### **(i) Non-current assets (or disposal groups) classified as held for sale**

Non-current assets (or disposal groups) held for sale are recognised at the lower of carrying amount and fair value less costs to sell and are presented separately from other assets in the Statement of Financial Position. Assets classified as held for sale are not depreciated or amortised.

### **(j) Leases**

The Authority enters into commercial operating leases for specified business premises located in Kings Park and Botanic Gardens. The Authority acts as Lessor and revenue is recognised as income as per the terms and conditions of the lease agreement. See note 20 'Property, plant and equipment'.

The Authority holds operating leases for motor vehicles. Lease payments are expensed on a straight line basis over the lease term as this represents the pattern of benefits derived from the leased motor vehicles. Refer to note 30 'Commitments'.

The Authority does not hold any finance leases.

### **(k) Financial instruments**

In addition to cash, the Authority has two categories of financial instrument:

- Loans and Receivables; and
- Financial liabilities measured at amortised cost.

Financial instruments have been disaggregated into the following classes:

- Financial Assets
  - Cash and cash equivalents
  - Restricted cash and cash equivalents
  - Receivables
  - Amounts receivable for services
- Financial Liabilities
  - Payables

Initial recognition and measurement of financial instruments is at fair value which normally equates to the transaction cost or the face value. Subsequent measurement is at amortised cost using the effective interest method.

The fair value of short-term receivables and payables is the transaction cost or the face value because there is no interest rate applicable and subsequent measurement is not required as the effect of discounting is not material.

#### **(l) Cash and cash equivalents**

For the purpose of the Statement of Cash Flows, cash and cash equivalent (and restricted cash and cash equivalent) assets comprise cash on hand.

#### **(m) Accrued salaries**

Accrued salaries (see note 24 'Payables') represent the amount due to staff but unpaid at the end of the financial year, as the pay date for the last pay period for that financial year does not coincide with the end of the financial year. Accrued salaries are settled within a fortnight of the financial year end. The Authority considers the carrying amount of accrued salaries to be equivalent to its net fair value.

#### **(n) Amounts receivable for services (holding account)**

The Authority receives funding on an accrual basis that recognises the full annual cash and non-cash cost of services. The appropriations are paid partly in cash and partly as an asset (holding account receivable) that is accessible on the emergence of the cash funding requirement to cover leave entitlements and asset replacement. Refer to note 15 'Income from State Government' and note 19 'Amounts receivable for services'.

#### **(o) Inventories**

Inventories are measured at the lower of cost and net realisable value. Costs are assigned by the method most appropriate to each particular class of inventory, with the majority being valued on a first in, first out basis.

Inventories not held for resale are valued at cost unless they are no longer required, in which case they are valued at net realisable value. Refer to note 17 'Inventories'.

#### **(p) Receivables**

Receivables are recognised and carried at the original invoice amount less an allowance for any uncollectible amounts (i.e. impairment). The collectability of receivables is reviewed on an ongoing basis and any receivables identified as uncollectible are written-off against the allowance account. The allowance for

uncollectible amounts (doubtful debts) is raised when there is objective evidence that the Authority will not be able to collect the debts. The carrying amount is equivalent to fair value as it is due for settlement within 30 days. Refer to note 2(k) 'Financial Instruments' and note 18 'Receivables and other assets'.

#### **(q) Payables**

Payables are recognised at the amounts payable when the Authority becomes obliged to make future payments as a result of a purchase of assets or services. The carrying amount is equivalent to fair value, as they are generally settled within 30 days. Refer to note 2(k) 'Financial instruments' and note 24 'Payables'.

#### **(r) Provisions**

Provisions are liabilities of uncertain timing or amount and are recognised where there is a present legal or constructive obligation as a result of a past event and when the outflow of resources embodying economic benefits is probable and a reliable estimate can be made of the amount of the obligation. Provisions are reviewed at the end of each reporting period. Refer to note 25 'Provisions'.

##### Provisions - employee benefits

###### *Annual leave and long service leave*

The liability for annual and long service leave expected to be settled within 12 months after the reporting period is recognised and measured at the undiscounted amounts expected to be paid when the liabilities are settled. Annual and long service leave expected to be settled more than 12 months after the reporting period is measured at the present value of amounts expected to be paid when the liabilities are settled. Leave liabilities are in respect of services provided by employees up to the end of the reporting period.

When assessing expected future payments, consideration is given to expected future wage and salary levels including non-salary components such as employer superannuation contributions. In addition, the long service leave liability also considers the experience of employee departures and periods of service.

The expected future payments are discounted using market yields at the end of each reporting period on national government bonds with terms to maturity that match, as closely as possible, the estimated future cash outflows.

All annual leave and unconditional long service leave provisions are classified as current liabilities as the Authority does not have an unconditional right to defer settlement of the liability for at least 12 months after the reporting period.

Refer to note 5 'Employee benefits expense and 'note 25 'Provisions.'

#### *Purchased leave*

The provision for purchased leave relates to Public Service employees who have entered into an agreement to self-fund up to an additional four weeks leave per calendar year. The provision recognises the value of salary set aside for employees and is measured at the nominal amounts expected to be paid when the liabilities are settled. This liability is measured on the same basis as annual leave. Refer to note 5 'Employee benefits expense' and note 25 'Provisions.'

#### *Superannuation*

The Government Employees Superannuation Board (GESB) in accordance with legislative requirements administers public sector superannuation arrangements in Western Australia.

Employees may contribute to the Pension Scheme, a defined benefit pension scheme now closed to new members or the Gold State Superannuation Scheme (GSS), a defined benefit lump sum scheme also closed to new members.

The Authority has no liabilities under the Pension Scheme or the GSS. The liabilities for the unfunded Pension Scheme and the unfunded GSS transfer benefits due to members, who transferred from the Pension Scheme, are assumed by the Treasurer. All other GSS obligations are funded by concurrent contributions made by the Authority to the GESB. The concurrently funded part of the GSS is a defined contribution scheme as these contributions extinguish all liabilities in respect of the concurrently funded GSS obligations.

Employees commencing employment prior to 16 April 2007 who are not members of either the Pension Scheme or the GSS became non-contributory members of the West State Superannuation Scheme (WSS). Employees commencing employment on or after 16 April 2007 became members of the GESB Super Scheme (GESBSS). Both of these schemes are accumulation schemes. The Authority makes concurrent contributions to GESB on behalf of employees in compliance with the Commonwealth Government's Superannuation Guarantee (Administration) Act 1992. These contributions

extinguish the liability for superannuation charges in respect of the WSS and GESBSS.

The GESB makes all benefit payments in respect of the Pension Scheme and GSS, and is recouped from the Treasurer for the employer's share. Refer to note 2(s) 'Superannuation expense'.

#### Provisions - Other

##### *Employment on-costs*

Employment on-costs, including workers' compensation insurance, are not employee benefits and are recognised separately as liabilities and expenses when the employment to which they relate has occurred. Employment on-costs are included as part of 'Other expenses' and are not included as part of the Authority's 'Employee benefits expense'. The related liability is included in 'Employment on-costs provision'. Refer to note 8 'Other expenses' and note 25 'Provisions'.

#### **(s) Superannuation expense**

The superannuation expense in the Statement of Comprehensive Income comprising employer contributions paid to the GSS (concurrent contributions), WSS, and the GESBS.

The GSS is a defined benefit scheme for the purposes of employees and whole-of-government reporting. However, it is a defined contribution plan for agency purposes because the concurrent contributions (defined contributions) made by the agency to GESB extinguishes the agency's obligations to the related superannuation liability.

#### **(t) Resources received free of charge or for nominal cost**

Resources received free of charge or for nominal cost that can be reliably measured are recognised as income and as assets or expenses as appropriate, at fair value.

#### **(u) Comparative figures**

Comparative figures are, where appropriate, reclassified to be comparable with the figures presented in the current financial year.

### Note 3. Key sources of estimation uncertainty

The Authority makes key estimates and assumptions concerning the future. These estimates and assumptions are based on historical experience and various other factors that have a significant risk of causing a material adjustment to the carrying amount of assets and liabilities within the next financial year.

#### Long Service Leave

In calculating the Authority's long service leave provision, several estimations and assumptions have been made. These include expected future salary rates, salary inflation, discount rates, employee retention rates and expected future payments. Any changes in these estimations and assumptions may impact on the carrying amount of the long service leave provision.

PricewaterhouseCoopers was engaged by the Authority to calculate the Leave Provisions based on a shorthand method applying the Department of Treasury issued discount rates and other factors as published in the Accounting Policy Guideline 3 dated June 2010.

### Note 4. Disclosure of changes in accounting policy and estimates

Initial application of an Australian Accounting Standard

The Authority has applied the following Australian Accounting Standards effective for annual reporting periods beginning on or after 1 July 2009 that impacted on the Authority:

### AASB Standards and Interpretations

<b>AASB 101</b>	<b><i>Presentation of Financial Statements (September 2007).</i></b> This Standard has been revised and introduces a number of terminology changes as well as changes to the structure of the Statement of Changes in Equity and the Statement of Comprehensive Income. It is now a requirement that owner changes in equity be presented separately from non-owner changes in equity. There is no financial impact resulting from the application of this revised Standard.
<b>AASB 2007-10</b>	<b><i>Further Amendments to Australian Accounting Standards arising from AASB 101.</i></b> This Standard changes the term 'general purpose financial report' to 'general purpose financial statements', where appropriate in Australian Accounting Standards and the <i>Framework</i> to better align with IFRS terminology. There is no financial impact resulting from the application of this Standard.
<b>AASB 2008-13</b>	<b><i>Amendments to Australian Accounting Standards arising from AASB Interpretation 17 – Distributions of Non-cash Assets to Owners [AASB 5 &amp; AASB 110].</i></b> This Standard amends AASB 5 <i>Non-Current Assets Held for Sale and Discontinued Operations</i> in respect of the classification, presentation and measurement of non-current assets held for distribution to owners in their capacity as owners. This may impact on the presentation and classification of Crown land held by the Authority where the Crown land is to be sold by the Department of Regional Development and Lands (formerly Department for Planning and Infrastructure). The Authority does not expect any financial impact when the Standard is first applied prospectively.
<b>AASB 2009-2</b>	<b><i>Amendments to Australian Accounting Standards – Improving Disclosures about Financial Instruments [AASB 4, AASB 7, AASB 1023 &amp; AASB 1038.</i></b> This Standard amends AASB 7 <i>Financial Instruments: Disclosures</i> and will require enhanced disclosures about fair value measurements and liquidity risk with respect to financial instruments. There is no financial impact resulting from the application of this Standard.

### Voluntary changes in Accounting Policy

There have been no voluntary changes in accounting policy.

### Future impact of Australian Accounting Standards not yet operative

The Authority cannot early adopt an Australian Accounting Standard unless specifically permitted by TI 1101 Application of Australian Accounting Standards and Other Pronouncements. Consequently, the Authority has not applied early any of the following Australian Accounting Standards that have been issued that may impact the Authority. Where applicable, the Authority plans to apply these Australian Accounting Standards from their application date.

Title	Operative for reporting periods beginning on/after
<p><b>AASB 2009-11 – Amendments to Australian Accounting Standards arising from AASB 9 [AASB 1, 3, 4, 5, 7, 101, 102, 108, 112, 118, 121, 127, 128, 131, 132, 136, 139, 1023 &amp; 1038 and Interpretations 10 &amp; 12].</b> The amendment to AASB 7 requires modification to the disclosure of categories of financial assets. The Authority does not expect any financial impact when the Standard is first applied. The disclosure of categories of financial assets in the notes will change.</p>	<p><b>1 January 2013</b></p>

### Changes in accounting estimates

There have been no changes in accounting estimates.



2010	2009
\$,000	\$,000

### Note 5. Employee benefits expense

Wages and salaries <sup>(a)</sup>	7,722	7,367
Superannuation – defined contribution plans <sup>(b)</sup>	596	554
Superannuation – defined benefit plans <sup>(c)</sup>	187	161
Long service leave <sup>(d)</sup>	69	378
Annual Leave <sup>(d)</sup>	687	644
	<b>9,261</b>	<b>9,104</b>

- (a) Includes the value of the fringe benefit to the employee plus the fringe benefits tax component.
- (b) Defined contribution plans include West State, GESBSS and Gold State (contributions paid).
- (c) Defined benefit plans include Pension Scheme and Gold State (pre-transfer benefit).
- (d) Includes a superannuation contribution component (note 25 'Provisions').

Employment on-costs such as workers' compensation insurance are included at note 8 'Other Expenses'. The employment on-costs liability is included at note 25 'Provisions'.

### Note 6. Supplies and services

Communications	156	137
Consultants and contractors	6,960	2,659
Consumables	1,631	1,502
Travel	131	110
Other	800	528
	<b>9,678</b>	<b>4,936</b>

### Note 7. Depreciation expense

<u>Depreciation</u>		
Plant, equipment and vehicles (includes monuments)	904	817
Buildings	311	232
	<b>1,215</b>	<b>1,049</b>

2010	2009
\$,000	\$,000

### Note 8. Other expenses

Purchase of property, plant and equipment	329	287
Building maintenance	1,733	1,322
Equipment repairs and maintenance	465	312
Doubtful debts expense	25	-
Employment on-costs <sup>(a)</sup>	554	434
Fee for service <sup>(b)</sup>	(35)	213
Other <sup>(c)</sup>	58	47
	<b>3,129</b>	<b>2,615</b>

- (a) Includes workers' compensation insurance and other employment on-costs. The on-costs liability associated with the recognition of annual and long service leave liability is included at note 25 'Provisions'. Superannuation contributions accrued as part of the provision for leave are employee benefits and are not included in employment on-costs, See note 5 'Employee benefits expense'.
- (b) Fee for service recognised as a liability, refer to note 26 'Other current liabilities'.
- (c) Audit fees and write-offs, refer to note 36 'Remuneration of auditor' and note 37 'Supplementary financial information'.

### Note 9. User charges and fees

Rent and licence fees	674	638
Functions and events	802	735
Fines and infringements	78	100
	<b>1,554</b>	<b>1,473</b>

### Note 10. Trading profit

Sales	2,277	1,909
Cost of Sales:		
Opening inventory	(418)	(326)
Purchases	(1,508)	(1,143)
	(1,926)	(1,469)
Closing inventory	743	418
Cost of Goods Sold	(1,183)	(1,051)
Trading Profit	<b>1,094</b>	<b>858</b>

Refer to note 2(o) 'Inventories' and note 17 'Inventories'.

2010	2009
\$,000	\$,000

### Note 11. Commonwealth grants and contributions

Recurrent	11	15
	<b>11</b>	<b>15</b>

### Note 12. Interest revenue

Interest revenue <sup>(a)</sup>	383	330
	<b>383</b>	<b>330</b>

(a) Commonwealth Bank of Australia

### Note 13. Fee for Service sponsorships and other revenue

<u>Fee-for-Service and sponsorships</u>		
Fee-for-service	1,583	1,661
Sponsorships	2,209	1,047
	<b>3,792</b>	<b>2,708</b>
<u>Other Revenue</u>		
Recoups	884	578
Other	62	92
	<b>946</b>	<b>670</b>

### Note 14. Net gain/(loss) on disposal of non-current assets

<u>Costs of Disposal of Non-Current Assets</u>		
Buildings	(3)	-
Plant, equipment and vehicles	-	(2)
Bores, pumps and reticulation	-	(100)
Monuments and special items	-	(29)
<u>Proceeds from Disposal of Non-Current Assets</u>		
Plant, equipment and vehicles	14	-
Net gain/(loss)	<b>11</b>	<b>(131)</b>

Refer to note 2(i) 'Non-current Assets (or Disposal Groups) classified as Held for Sale' and note 20 'Property, plant and equipment'.

2010	2009
\$,000	\$,000

### Note 15. Income from State Government

Appropriation received during the year:		
Service appropriation <sup>(a)</sup>	12,903	12,544
	<b>12,903</b>	<b>12,544</b>
Resources received free of charge <sup>(b)</sup>		
Determined on the basis of the following estimates provided by agencies:		
State Solicitor's	21	25
	<b>21</b>	<b>25</b>
	<b>12,924</b>	<b>12,569</b>

- (a) Service appropriations are accrual amounts reflecting the net cost of services delivered. The appropriation revenue comprises a cash component and a receivable (asset). The receivable (holding account) comprises the depreciation expense for the year and any agreed increase in leave liability during the year.
- (b) Where assets or services have been received free of charge or for nominal cost, the Authority recognises revenue equivalent to the fair value of the assets and/or the fair value of those services that can be reliably measured and which would have been purchased if they were not donated, and those fair values shall be recognised as assets or expenses, as applicable. Where the contribution of assets or services are in the nature of contributions by owners, in which case the Authority makes adjustment direct to equity.

### Note 16. Restricted cash and cash equivalents

<u>Current</u>		
Fee-for-service	1,904	1,739
Sponsorship	2,866	897
	<b>4,770</b>	<b>2,636</b>

### Note 17. Inventories

<u>Current</u>		
Inventories held for resale	743	418
	<b>743</b>	<b>418</b>

Refer to note 2(o) 'Inventories' and note 10 'Trading profit'.

2010	2009
\$,000	\$,000

### Note 18. Receivables and other assets

Current		
Receivables	1,011	1,163
Infringements	38	29
Allowance for impairment of receivables	(24)	-
Accrued revenue	247	39
GST receivable	260	26
<b>Total receivables</b>	<b>1,532</b>	<b>1,257</b>

#### Reconciliation of changes in the allowance for impairment of receivables:

Balance at start of year	-	7
Doubtful debts expense recognised in the statement of comprehensive income	(24)	(7)
Amounts written off during the year	-	-
Amount recovered during the year	-	-
<b>Balance at end of year</b>	<b>(24)</b>	<b>-</b>

Two receivables have been identified as impaired due to the nature of the agreements; \$9,900 to Department of Sustainability and Environment and \$16,776.89 to GME resources, these amounts include GST.

The Authority does not hold any collateral as security or other credit enhancements relating to receivables.

Refer to note 2(p) 'Receivables', note 34 'Financial instruments'.

### Note 19. Amounts receivable for services

Current	585	675
Non-current	3,869	3,404
	<b>4,454</b>	<b>4,079</b>

Represents the non-cash component of service appropriations. Refer to note 2(n) 'Amounts receivable for services (holding account)'. It is restricted in that it can only be used for asset replacement or payment of leave liability.

2010	2009
\$,000	\$,000

### Note 20. Property, plant and equipment

Land		
At fair value <sup>(a)</sup>	15,170	15,170
Accumulated impairment losses	-	-
	<b>15,170</b>	<b>15,170</b>
Buildings and residences		
At fair value <sup>(a)</sup>	16,222	17,041
Accumulated depreciation	(1,197)	(1,017)
Accumulated impairment losses	-	-
	<b>15,025</b>	<b>16,024</b>
Assets under construction		
Construction costs	85	115
Plant, equipment and vehicles		
At cost	8,178	7,633
Accumulated depreciation	(4,490)	(3,841)
Accumulated impairment losses	-	-
	<b>3,688</b>	<b>3,792</b>
Monuments and special items		
At cost	8,885	8,885
Accumulated depreciation	(1,718)	(1,500)
Accumulated impairment losses	-	-
	<b>7,167</b>	<b>7,385</b>
	<b>41,135</b>	<b>42,486</b>

- (a) Land and buildings were revalued as at 1 July 2009 by the Western Australian Land Information Authority (Valuation Services). The valuations were performed during the year ended 30 June 2010 and recognised at 1 July 2009. In undertaking the revaluation, fair value was determined on the basis of existing use. Refer to note 2(f) 'Property, plant and equipment and infrastructure' for basis of valuation.

## Note 20. Property, plant and equipment (continued)

Reconciliations of the carrying amounts of property, plant, equipment and vehicles at the beginning and end of the reporting period are set out below.

	Freehold land	Buildings and residences	Assets under construction	Plant, equipment and vehicles	Monuments & special items	Total
<b>2010</b>	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000
Carrying amount at start of year	15,170	16,024	115	3,792	7,385	42,486
Additions	-	222	623	564	-	1,409
Other disposals	-	(3)	-	-	-	(3)
Transfers	-	635	(653)	18	-	-
Revaluation	-	(1,542)	-	-	-	(1,542)
Increments / (decrements)	-	(1,542)	-	-	-	(1,542)
Depreciation expense	-	(311)	-	(686)	(218)	(1,215)
Carrying amount at end of year	15,170	15,025	85	3,688	7,167	41,135

	Freehold land	Buildings and residences	Assets under construction	Plant, equipment and vehicles	Monuments & special items	Total
<b>2009</b>	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000
Carrying amount at start of year	10,730	12,336	3,184	2,995	7,631	36,876
Additions	-	20	507	1,560	-	2,087
Other disposals	-	-	-	(164)	(28)	(192)
Transfers	-	2,372	(3,576)	-	-	(1,204)
Revaluation	4,440	1,528	-	-	-	5,968
Increments / (decrements)	4,440	1,528	-	-	-	5,968
Depreciation expense	-	(232)	-	(599)	(218)	(1,049)
Carrying amount at end of year	15,170	16,024	115	3,792	7,385	42,486

2010	2009
\$,000	\$,000

### Note 21. Operating lease receivable

The Authority leases buildings to commercial tenants for retail purposes under operating leases of varying terms and duration. Details of the minimum lease payments receivable are detailed below.

Future minimum lease payments under non-cancellable operating leases in the aggregate:

Not later than 1 year	616	558
Later than 1 year and not later than 5 years	2,632	2,098
Later than 5 years	7,161	9,884
	<b>10,409</b>	<b>12,540</b>

Operating leases fall into two categories; those based on a percentage of gross turnover and fixed leases with either scheduled increases or increases based on annual CPI increases. There is one significant operating lease which expires in 2032 and one lease not yet re-negotiated.

These commitments are all exclusive of GST.

### Note 22. Infrastructure

At cost (initial)	937	-
At cost	-	-
Accumulated amortisation	-	-
	<b>937</b>	<b>-</b>
Reconciliations:		
Carrying amount at start of year	-	-
Additions	937	-
Impairment losses recognised in Statement of Comprehensive Income	-	-
Depreciation expense	-	-
Carrying amount at end of year	<b>937</b>	<b>-</b>

Refer to note 2(f) 'Property, plant and equipment and infrastructure'.

2010	2009
\$,000	\$,000

### Note 23. Impairment of assets

There were no indications of impairment to property, plant and equipment at 30 June 2010.

The Authority held no goodwill or intangible assets with an indefinite useful life during the reporting period. At the end of the reporting period there were no intangible assets not yet available for use.

All surplus assets at 30 June 2010 have either been classified as assets held for sale or written-off.

### Note 24. Payables

<u>Current</u>		
Accounts payable	339	668
Accrued expenses	381	129
Accrued salaries	100	83
Total current	<b>820</b>	<b>880</b>

Refer to note 2(q) 'Payables' and note 34 'Financial instruments'.

### Note 25. Provisions

<u>Current</u>		
Employee benefits provision		
Annual leave <sup>(a)</sup>	769	710
Long service leave <sup>(b)</sup>	518	590
48/52 leave arrangements	55	56
	<b>1,342</b>	<b>1,356</b>
<u>Other provisions</u>		
Employment on-costs <sup>(c)</sup>	38	39
	<b>38</b>	<b>39</b>
	<b>1,380</b>	<b>1,395</b>
<u>Non-current</u>		
Employee benefits provision		
Long service leave <sup>(b)</sup>	532	513
48/52 leave arrangements	40	48
	<b>572</b>	<b>561</b>

2010	2009
\$,000	\$,000

## Note 25. Provisions continued

<i>Other provisions</i>		
Employment on-costs <sup>(c)</sup>	17	16
	17	16
	<b>589</b>	<b>577</b>

- (a) Annual leave liabilities have been classified as current as there is no unconditional right to defer settlement for at least 12 months after the end of the reporting period. Assessments indicate that actual settlement of the liabilities will occur as follows:

Within 12 months of the end of the reporting period	509	478
More than 12 months after the end of the reporting period	296	280
	<b>805</b>	<b>758</b>

- (b) Long service leave liabilities have been classified as current where there is no unconditional right to defer settlement for at least 12 months after the end of the reporting period. Assessments indicate that actual settlement of the liabilities will occur as follows:

Within 12 months of the end of the reporting period	436	502
More than 12 months after the end of the reporting period	728	712
	<b>1,164</b>	<b>1,214</b>

- (c) The settlement of annual and long service leave liabilities gives rise to the payment of employment on-costs including workers' compensation insurance. The provision is the present value of expected future payments. The associated expense, apart from the unwinding of the discount (finance cost), is disclosed in note 8 'Other expenses'

### Movements in Other Provisions

Movements in each class of provisions during the financial year, other than employee benefits, are set out below.

<u>Employment on-cost provision</u>		
Carrying amount at start of year	55	45
Additional provisions recognised	-	10
<b>Carrying amount at end of year</b>	<b>55</b>	<b>55</b>

2010	2009
\$,000	\$,000

## Note 26. Other current liabilities

<u>Current</u>		
Unearned revenue	54	54
Fee-for-service	2,215	2,250
Other (bonds/retentions/suspense)	72	75
<b>Total current</b>	<b>2,341</b>	<b>2,379</b>

## Note 27. Equity

Equity represents the residual interest in the net assets of the Authority. The Government holds the equity interest in the Authority on behalf of the community. The asset revaluation reserve represents that portion of equity resulting from the revaluation of non-current assets.

### Contributed equity

Balance at start of year	15,669	11,790
<u>Contributions by owners</u>		
Capital contribution <sup>(a)</sup>	585	3,879
<b>Total contributions by owners</b>	<b>585</b>	<b>3,879</b>
<b>Balance at end of period</b>	<b>16,254</b>	<b>15,669</b>

- (a) Under the Treasurer's instruction TI 955 *Contributions by Owners made to Wholly Owned Public Sector Entities* capital appropriations have been designated as contributions by owners in accordance with AASB Interpretation 1038 *Contributions by Owners Made to Wholly-Owned Public Sector Entities*.

### Reserves

<u>Asset revaluation surplus</u>		
Balance at start of year	17,333	11,365
Net revaluation increments/(decrements):		
Land	-	4,440
Buildings	(1,542)	1,528
<b>Balance at end of year</b>	<b>15,791</b>	<b>17,333</b>

2010	2009
\$,000	\$,000

### Note 27. Equity continued

#### Accumulated surplus/(deficit)

##### Accumulated surplus

Balance at start of year	21,485	20,697
Result for the period	(2,568)	788
Income and expense recognised directly in equity	-	-
<b>Balance at end of year</b>	<b>18,917</b>	<b>21,485</b>

### Note 28. Notes to the Statement of Cash Flows

#### Reconciliation of cash

Cash at the end of the financial year as shown in the Statement of Cash flows is reconciled to the related items in the Balance Sheet as follows:

Cash and cash equivalents	2,521	8,842
Restricted cash and cash equivalents (see note 16 'Restricted cash and cash equivalents')	4,770	2,636
	<b>7,291</b>	<b>11,478</b>

#### Reconciliation of net cost of services to net cash flows provided by/(used in) operating activities

Net cost of services	(15,492)	(11,781)
Non-cash items:		
Depreciation and amortisation expense (note 7 'Depreciation and amortisation expense')	1,215	1,049
Resources received free of charge (note 15 'Income from State Government')	21	25
Net (gain)/loss on sale of property, plant and equipment (note 14 'Net gain/(loss) on sale of non-current assets')	3	72
Bad Debts written off	(24)	(7)
(Increase)/decrease in assets:		
Current receivables <sup>(c)</sup>	(20)	705
Current inventories	(324)	(92)

2010	2009
\$,000	\$,000

### Note 28. Notes to the Statement of Cash Flows continued

#### Increase/(decrease) in liabilities:

Current payables <sup>(c)</sup>	(35)	127
Current provisions	(15)	132
Other current liabilities	(36)	253
Non-current provisions	12	202
Net GST receipts/(payments) <sup>(a)</sup>	(213)	(4)
Change in GST in receivables/payables <sup>(b)</sup>	24	(2)
<b>Net cash provided by/(used in) operating activities</b>	<b>(14,932)</b>	<b>(9,321)</b>

(a) This is the net GST paid/received, i.e. cash transactions.

(b) This reverses out the GST in receivables and payables.

(c) Note that the Australian Taxation Office (ATO) receivable/payable in respect of GST and the receivable/payable in respect of the sale/purchase of non-current assets are not included in these items as they do not form part of the reconciling items.

### Note 29. Resources provided free of charge

During the year no resources were provided to other agencies free of charge for functions outside the normal operations of the Authority.

2010	2009
\$,000	\$,000

### Note 30. Commitments

#### Capital expenditure commitments

Capital expenditure commitments, being contracted capital expenditure additional to the amounts reported in the financial statements, are payable as follows:

Within 1 year	4,102	3,285
Later than 1 year and not later than 5 years	3,635	6,152
Later than 5 years	-	-
	<b>7,737</b>	<b>9,437</b>

The capital commitments include amounts for:

Plant and equipment	-	99
Scientific Equipment	-	247
Buildings	4,202	4,202
Works in Progress	-	1,679
Asset replacement	3,535	3,210
	<b>7,737</b>	<b>9,437</b>

#### Lease Commitments

Commitments in relation to leases contracted for at the end of the reporting period but not recognised in the financial statements are payable as follows:

Within 1 year	130	115
Later than 1 year and not later than 5 years	106	60
Later than 5 years	-	-
	<b>236</b>	<b>175</b>

Representing:

Cancellable operating leases	236	175
	<b>236</b>	<b>175</b>

### Note 31. Contingent liabilities and contingent assets

The Authority has no contingent liabilities or contingent assets.

### Note 32. Events occurring after the end of the reporting period

The Authority has had no events occurring after the balance sheet.

### Note 33. Explanatory statement

Significant variations between estimates and actual results for income and expense are shown below. Significant variations are considered to be those of a material nature greater than 10% or \$250,000.

#### Significant variances between estimated and actual result for 2010.

	2010 Actual \$,000	2010 Estimate \$,000	Variation \$,000
Supplies and services	9,678	4,676	5,002
Other expenses	3,129	1,862	1,267
User charges and fees	1,554	1,261	293
Trading profit	1,094	560	534
Fee-for-service and sponsorships, other revenue	4,738	1,595	3,143

#### Supplies and services

The variance is due to the Fraser Avenue Ceremonial Walk project, which was not originally forecast to be completed in this period

#### Other expenses

The variance is due to greater expenditure on maintenance for trees, buildings, equipment and electrical works.

#### User charges and fees

The variance is due to a greater number of concerts being held in Kings Park and Botanic Garden over the Summer/Autumn season.

#### Trading profit

The variance is due to a negative impact on sales forecast to occur as a result of major works being carried out during the year. The works occurred but no significant decrease in sales was experienced.

#### Fee-for-service and sponsorships, other revenue

The variance is due to receiving sponsorship funds in addition to those forecast, as well as greater than expected revenue from fee-for-service projects.

### Note 33. Explanatory statement (continued)

#### Significant variances between actual results for 2009 and 2010:

	2010	2009	Variance
	\$,000	\$,000	\$,000
<u>Income</u>			
Sales	2,277	1,909	368
Fee-for-service and sponsorships, other revenue	4,738	3,378	1,360
<u>Expenses</u>			
Supplies and services	9,678	4,936	4,742
Other expenses	3,129	2,615	514

#### Sales

The variance is due to an increase in sales at *Aspects of Kings Park*.

#### Fee-for-service and sponsorships, other revenue

The variance is due to additional sponsorship being received.

#### Supplies and services

The variance is due to the Fraser Avenue Ceremonial Walk project being undertaken and completed during the period.

#### Other expenses

The variance is due to greater expenditure on maintenance for trees, buildings, equipment and electrical works.

### Note 34. Financial instruments

#### (a) Financial Risk Management Objectives and Policies

Financial instruments held by the Authority are cash and cash equivalents, restricted cash and cash equivalents, receivables, and payables. The Authority has limited exposure to financial risks. The Authority's overall risk management program focuses on managing the risks identified below.

#### Credit risk

Credit risk arises when there is the possibility of the Authority's receivables defaulting on their contractual obligations resulting in financial loss to the Authority. The Authority measures credit risk on a fair value basis and monitors risk on a regular basis.

The maximum exposure to credit risk at the end of the reporting period in relation to each class of recognised financial assets is the gross carrying amount of those assets inclusive of any provisions for impairment as shown in the table at note 34(c) 'Financial Instrument Disclosures' and note 18 'Receivables and other assets'.

Credit risk associated with the Authority's financial assets is not material to AASB101, because the main receivable is the amounts receivable for services (holding account). For receivables other than government, the Authority trades only with recognised, creditworthy third parties. The Authority has policies in place to ensure that sales of products and services are made to customers with an appropriate credit history. In addition, receivable balances are monitored on an ongoing basis with the result that the Authority's exposure to bad debts is minimal. At the end of the reporting period there were no significant concentrations of credit risk.

Allowance for impairment of financial assets is calculated based on objective evidence such as observable data indicating changes in client credit ratings. For financial assets that are either past due or impaired, refer to note 34(c) 'Financial Instrument Disclosures'.

#### Liquidity risk

Liquidity risk arises when the Authority is unable to meet its financial obligations as they fall due. The Authority is exposed to liquidity risk through its trading in the normal course of business.

The Authority has appropriate procedures to manage cash flows including drawdowns of appropriations by monitoring forecast cash flows to ensure that sufficient funds are available to meet its commitments.

#### Market Risk

Market risk is the risk that changes in market prices such as foreign exchange rates and interest rates will affect the Authority's income or the value of its holdings of financial instruments. The Authority does not trade in foreign currency and is not materially exposed to other price risks. Other than as detailed in the interest rate sensitivity analysis table at note 34(c), the Authority has limited exposure to interest rate risk because it has no borrowings.

#### (b) Categories of Financial Instruments

In addition to cash, the carrying amounts of each of the following categories of financial assets and financial liabilities at the end of the reporting period are as follows:

### Note 34. Financial instruments (continued)

	2010	2009
	\$,000	\$,000
<u>Financial Assets</u>		
Cash and cash equivalents	2,521	8,842
Restricted cash and cash equivalents	4,770	2,636
Receivables <sup>(a)</sup>	1,296	1,231
Amounts receivable for services	4,454	4,079
<u>Financial Liabilities</u>		
Financial liabilities measured at amortised cost		
Payables	820	880

(a) The amount of receivables excludes GST recoverable from the ATO (statutory receivable).

#### (c) Financial Instrument disclosures

##### Credit Risk and Interest Rate Risk Exposures

The following table discloses the Authority's maximum exposure to credit risk, interest rate exposures and the ageing analysis of financial assets. The Authority's maximum exposure to credit risk at the end of the reporting period is the carrying amount of financial assets as shown below. The table discloses the ageing of financial assets that are past due but not impaired financial assets. The table is based on information provided to senior management of the Authority.

The Authority does not hold any collateral as security or other credit enhancements relating to the financial assets it holds.

The Authority does not hold any financial assets that had to have their terms renegotiated that would have otherwise resulted in them being past due or impaired.

## Note 34. Financial instruments (continued)

### Interest rate exposure and ageing analysis of financial assets<sup>(a)</sup>

	Weighted Average Effective Interest Rate	Interest rate exposure			Past due but not impaired				Impaired Financial Assets
		Carrying amount	Variable Interest Rate	Non- Interest Bearing	Up to 3 months	3-6 months	6 months- 1 year	More than 1 year	
<b>Financial Assets</b>	<b>%</b>	<b>\$,000</b>	<b>\$,000</b>	<b>\$,000</b>	<b>\$,000</b>	<b>\$,000</b>	<b>\$,000</b>	<b>\$,000</b>	<b>\$,000</b>
<b>2010</b>									
Cash and cash equivalents	3.58	2,521	2,521	-	-	-	-	-	-
Restricted Cash and cash equivalents	3.58	4,770	4,770	-	-	-	-	-	-
Receivables <sup>(a)</sup>	-	1,296	-	1,296	26	5	10	15	25 <sup>(b)</sup>
Amounts receivable for services	-	4,454	-	4,454	-	-	-	-	-
		<b>13,041</b>	<b>7,291</b>	<b>5,750</b>	<b>26</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>25<sup>(b)</sup></b>
<b>2009</b>									
Cash and cash equivalents	4.38	8,842	8,842	-	-	-	-	-	-
Restricted Cash and cash equivalents	4.38	2,636	2,636	-	-	-	-	-	-
Receivables <sup>(a)</sup>	-	1,257	-	1,257	65	6	5	9	-
Amounts receivable for services	-	4,079	-	4,079	-	-	-	-	-
		<b>16,814</b>	<b>11,478</b>	<b>5,336</b>	<b>65</b>	<b>6</b>	<b>5</b>	<b>9</b>	<b>-</b>

a. The amount of receivables excludes GST recoverable from the ATO (statutory receivable)

b. The allowance for impairment of receivables represents two debtors that have been assessed as being unrecoverable at the end of the period.

## Note 34. Financial instruments (continued)

### Liquidity Risk

The following table details the contractual maturity analysis for financial liabilities. The contractual maturity amounts are representative of the undiscounted amounts at the end of the reporting period. The table includes interest and principal cash flows. An adjustment has been made where material.

### Interest rate exposure and maturity analysis of financial liabilities

	Weighted Average Effective Interest Rate	Carrying amount	Variable Interest Rate	Non- Interest Bearing	Adjust- ment for Discount- ing	Total Nominal Amount	Up to 3 months	3-12 months	1-2 years	2-3 years	3-4 years	3-4 years	4-5 years	More than 5 years
Financial Liabilities	%	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000
<b>2010</b>														
Payables	-	820	-	820	-	-	820	-	-	-	-	-	-	-
		<b>820</b>	-	<b>820</b>	-	-	<b>820</b>	-	-	-	-	-	-	-
<b>2009</b>														
Payables	-	880	-	880	-	-	880	-	-	-	-	-	-	-
		<b>880</b>	-	<b>880</b>	-	-	<b>880</b>	-	-	-	-	-	-	-

## Note 34. Financial instruments (continued)

### Interest rate sensitivity analysis

The following table represents a summary of the interest rate sensitivity of the Authority's financial assets and liabilities at the end of the reporting period on the surplus for the period and equity for a 0.5% change in interest rates. It is assumed that the change in interest rates is held constant throughout the reporting period.

#### Interest rate sensitivity analysis

	Carrying amount	-50 basis points		+50 basis points	
		Profit	Equity	Profit	Equity
<b>2010</b>	\$,000	\$,000	\$,000	\$,000	\$,000
<b>Financial Assets</b>					
Cash and cash equivalents	2,521	(13)	(13)	13	13
Restricted Cash and cash equivalents	4,770	(24)	(24)	24	24
<b>Financial Liabilities</b>					
<b>Total Increase/Decrease</b>		<b>(37)</b>	<b>(37)</b>	<b>37</b>	<b>37</b>

	Carrying amount	-50 basis points		+50 basis points	
		Profit	Equity	Profit	Equity
<b>2009</b>	\$,000	\$,000	\$,000	\$,000	\$,000
<b>Financial Assets</b>					
Cash and cash equivalents	8,842	(44)	(44)	44	44
Restricted Cash and cash equivalents	2,636	(13)	(13)	13	13
<b>Financial Liabilities</b>					
<b>Total Increase/Decrease</b>		<b>(57)</b>	<b>(57)</b>	<b>57</b>	<b>57</b>

### Fair Values

All financial assets and liabilities recognised in the statement of financial position, whether they are carried at cost or fair value, are recognised at amounts that represent a reasonable approximation of fair value unless otherwise stated in the applicable notes.

	2010	2009
	\$,000	\$,000

**Note 35. Remuneration of members of the accountable authority and senior officers**

Remuneration on members of the accountable authority

The number of members of the accountable authority, whose total of fees, salaries, superannuation, non-monetary benefits and other benefits for the financial year, fall within the following bands are:

\$		
0-10,000	7	7
10,000-20,000	1	1

The total remuneration of members of the accountable authority is: 49      44

The total remuneration includes the superannuation expense incurred by the Authority in respect of members of the Accountable Authority. No members of the Accountable Authority are members of the Pension Scheme.

Where a member's remuneration is zero, the member has been included in a band labelled '\$0 - \$10,000'.

Remuneration of senior officers

The number of senior officers, other than senior officers reported as members of the Accountable Authority, whose total fees, salaries, superannuation, non-monetary benefits and other benefits for the financial year, fall within the following bands are:

\$		
160,001 – 170,000	1	2
170,001 – 180,000	-	1
180,001 - 190,001	2	-
220,000 - 230,000	1	-
240,000 - 250,000	-	1

The total remuneration of senior officers is: 757      743

The total remuneration includes the superannuation expense incurred by the Authority in respect of senior officers other than senior officers reported as members of the Accountable Authority.

	2010	2009
	\$,000	\$,000

**Note 36. Remuneration of auditor**

Remuneration payable to the Auditor General in respect to the audit for the current financial year is as follows:

Auditing the accounts, financial statements and performance indicators	<u>27</u>	<u>27</u>
--	-----------	-----------

*The expense is included in 8 'Other expenses'.*

**Note 37. Supplementary financial information**

Write-offs		
Bad debts written off	1	-
Public property written-off during the financial year	40	-
Inventory adjustments – retail operations	<u>1</u>	<u>8</u>
	<u>42</u>	<u>8</u>

Public property written off; \$3,061 (building); \$37,400 (scientific equipment)

**Note 38. Schedule of income and expenses by service**

	Service 1 Customer Service and Cultural Heritage		Service 2 Biodiversity Conservation and Scientific Research		Total	
	2010 \$,000	2009 \$,000	2010 \$,000	2009 \$,000	2010 \$,000	2009 \$,000
<b>COST OF SERVICES</b>						
<b>Expenses</b>						
Employee benefits expense	4,310	4,224	4,951	4,880	9,261	9,104
Supplies and services	6,369	2,724	3,309	2,212	9,678	4,936
Depreciation and amortisation expense	1,069	556	146	493	1,215	1,049
Cost of goods sold	1,183	1,037	-	14	1,183	1,051
Loss on disposal of non-current assets	-	71	-	60	-	131
Other Expenses	1,591	1,165	1,538	1,450	3,129	2,615
<b>Total cost of services</b>	<b>14,522</b>	<b>9,777</b>	<b>9,944</b>	<b>9,109</b>	<b>24,466</b>	<b>18,886</b>
<b>Income</b>						
User Charges and Fees	1,241	1,203	313	270	1,554	1,473
Sales	2,095	1,867	182	42	2,277	1,909
Commonwealth grants and contributions	-	-	11	15	11	15
Interest Revenue	214	185	169	145	383	330
Fee for service and sponsorships	2,208	780	1,584	1,928	3,792	2,708
Other Revenue	300	222	646	448	946	670
Gain on disposal of non-current assets	5	-	6	-	11	-
<b>Total income other than income from State Government</b>	<b>6,063</b>	<b>4,257</b>	<b>2,911</b>	<b>2,848</b>	<b>8,974</b>	<b>7,105</b>
<b>NET COST OF SERVICES</b>	<b>8,459</b>	<b>5,520</b>	<b>7,033</b>	<b>6,261</b>	<b>15,492</b>	<b>11,781</b>
<b>INCOME FROM STATE GOVERNMENT</b>						
Service Appropriation	5,948	5,878	6,955	6,666	12,903	12,544
Resources received free of charge	12	14	9	11	21	25
<b>Total income from State Government</b>	<b>5,960</b>	<b>5,892</b>	<b>6,964</b>	<b>6,677</b>	<b>12,924</b>	<b>12,569</b>
<b>Surplus/(deficit) for the period</b>	<b>(2,499)</b>	<b>372</b>	<b>(69)</b>	<b>416</b>	<b>(2,568)</b>	<b>788</b>

Refer to the Key Performance Indicators for a more detailed analysis.

# Key Performance Indicators

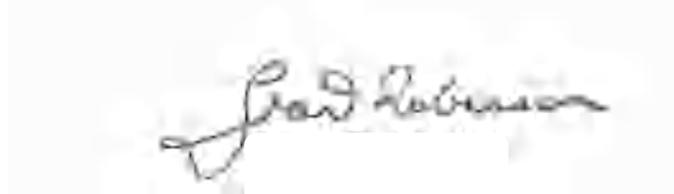
## Certification of the Key Performance Indicators

For the year ended 30 June 2010

We hereby certify that the key performance indicators are based on proper records, are relevant and appropriate for assisting users to assess the Botanic Gardens and Parks Authority's performance, and fairly represent the performance of the Botanic Gardens and Parks Authority for the financial year ended 30 June 2010.



Professor John Considine  
Member  
Botanic Gardens and Parks Authority Board of Management  
14 September 2010

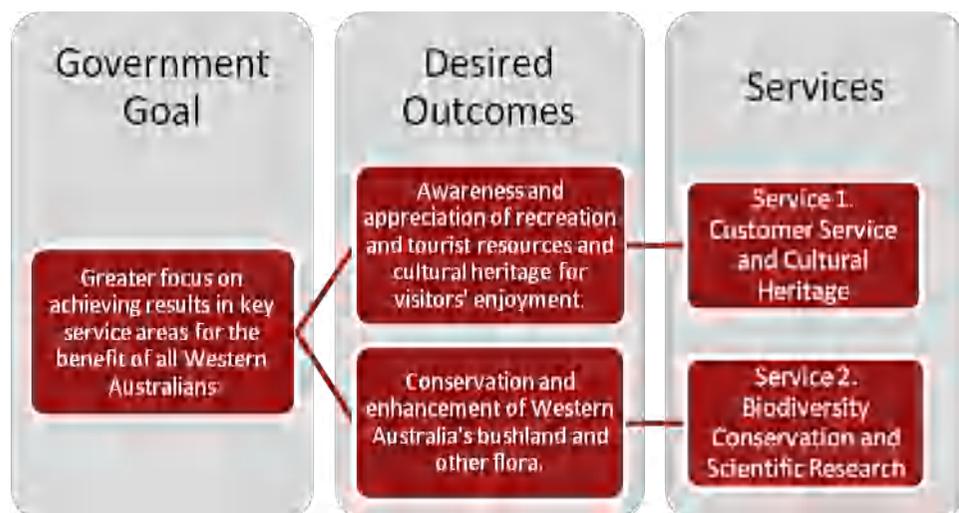


Grant Robinson  
Member  
Botanic Gardens and Parks Authority Board of Management  
14 September 2010

# Key Performance Indicators

## Relationship to Government Goals

Broad, high level Government goals are supported at agency level by more specific desired outcomes. The Authority delivers services to achieve these desired outcomes, which ultimately contribute to meeting the higher level government goals. The following table illustrates the relationship between Authority level desired outcomes and the most appropriate Government goal.



### Outcome 1

This outcome is achieved through improving and promoting education and recreation in the designated lands; providing safe and accessible facilities; providing and promoting cultural experiences and events and by actively seeking to improve and provide additional visitor services and facilities.

### Key Effectiveness Indicators

#### 1.1 The level of visitor satisfaction with Kings Park and Botanic Garden and Bold Park.

This key indicator measures the level of satisfaction visitors have with the extent to which recreational, tourist and bushland resources have been

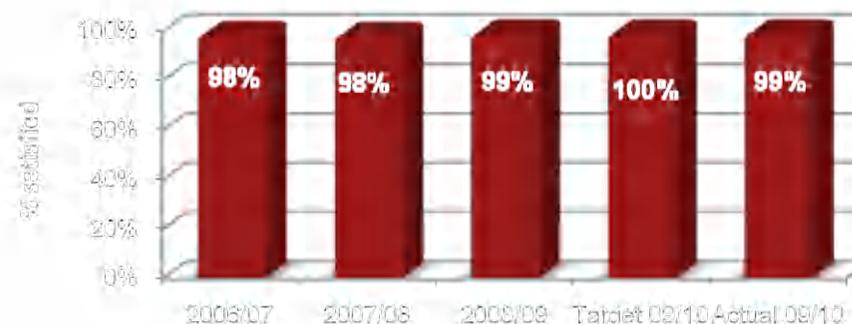
conserved, enhanced and promoted and the impact of these activities on visitor enjoyment.

Total annual visitation for 2009/10 to Kings Park and Botanic Garden is based on vehicle counts at various entrances and is estimated to be 5,850,000 visitors. Total annual visitation to Bold Park is based on vehicle counts at Reabold Hill, and is estimated at 150,000 visitors in 2009/10.

Visitor surveys were conducted during April, May and June 2010 in both Kings Park and Botanic Garden and in Bold Park. A total of 615 responses were received, providing a margin of error of 4% at a 95% level of confidence.

The percentage of overall visitor satisfaction in Kings Park and Botanic Garden was 99%. The percentage of overall visitor satisfaction in Bold Park was 99%.

Overall satisfaction with Kings Park and Botanic Garden



Overall satisfaction with Bold Park



## 1.2 The percentage change in the number of cultural events held at Kings Park and Botanic Garden compared to previous years.

Cultural events are defined as memorial, military commemorative ceremonies and other community organised events. These include the Anzac Day ceremony; Summer events such as classical and contemporary music concerts; Shakespeare theatre; and community events, such as the Kings Park Festival.

Reporting Year	No. of Cultural Events	Target Percentage (%) Change	Actual Percentage (%) Change
2009/10	246	+1	+6.5
2008/09	231	+1	-3.8
2007/08	240	+1	+12.1
2006/07	214	+1	-3.6
2005/06	222	-6.2	-6.7

## 1.3 The percentage change in the number of people attending cultural events, customer awareness and education forums held at Kings Park and Botanic Garden compared to previous years.

This indicator is derived from total numbers attending cultural events, education programs and free guided walks.

Reporting Year	No. Attending Cultural Events, Customer Awareness and Education Forums	Target Percentage (%) Change	Actual Percentage (%) Change
2009/10	927,026	+1	+16.0
2008/09	799,130	+1	+4.4
2007/08	765,186	+1	+174.9
2006/07	278,331	+1	+10.2
2005/06	252,545	-13.1	-13.2

## Service 1 – Customer Service and Cultural Heritage

To measure the success of Service 1, the Authority uses the data collected from annual visitor surveys as demonstrated in Indicator 1.1 above; the overall number of visitors promoting and enhancing customer awareness by providing education forums; by conserving, promoting and developing cultural heritage including Indigenous, colonial and contemporary heritage; and by staging events and displays on designated lands.

### Key Efficiency Indicators

	Actual 2008/09	Target 2009/10	Actual 2009/10	Notes
Average cost per visitor to Kings Park and Botanic Garden	\$1.43	\$2.05	\$2.38	1
Average cost per attendee at cultural events held in Kings Park and Botanic Garden	\$0.15	\$0.37	\$0.14	
Average cost per attendee at education forums held in Kings Park and Botanic Garden	\$1.51	\$1.27	\$1.31	
Response times for public information requests	98% within 28 days	95% within 28 days	98% Within 28 days	
Percentage change in number of visitors to Reabold Hill compared to previous year	13%	5%	25%	2

#### Notes:

- The number of people visiting Kings Park and Botanic Garden was 5.6% less than target and expenses were 55.6% greater than target. The Kings Park Ceremonial Walk project had an impact on visitation during the period of construction due to traffic and pedestrian access restrictions. In addition, this project was primarily responsible for the increased expenses for the period.
- The increase in the number of visitors exceeded the estimated target due to an improvement in the methodology resulting in greater accuracy.

## Outcome 2

This outcome is achieved through the development and management of the scientific collections, the display of Western Australian and other flora; promoting the use of Western Australian flora for horticulture, conservation and education; and continually undertaking and promoting scientific research into Western Australian flora for biodiversity conservation and restoration.

The effectiveness of *ex situ* species conservation and botanic research is assessed through the success in collecting and maintaining living collections of indigenous plants for research, display, public education and restoration.

### Key Effectiveness Indicators

#### 2.1 Percentage of Declared Rare Flora (DRF) species in living collections in Kings Park and Botanic Garden, compared to the known number of DRF species in Western Australia.

This key indicator measures the effectiveness over time of the DRF collecting and collections maintenance program, bearing in mind that the number and range of plants gazetted as DRF varies from year to year, and species vary significantly in their ease of collection.

Total DRF species gazetted is a number derived from the list of species of Declared Rare Flora in the Government Gazette 23 February 2010 by the Minister for Environment under section 23F(2) of the *Wildlife Conservation Act 1950*.

The total number of DRF held in the Authority's conservation collection increased by six species to 249. This demonstrates the Authority's commitment to continue to increase the number of DRF held in living collections and represents 63% of the total DRF listed for the State. The Authority exceeded its target percentage this financial year by 1%, despite an increase of four species of DRF recorded for the State.

Collection of DRF species from the wild is the primary responsibility of the Department of Environment and Conservation (DEC), with whom the Authority liaises closely to assist with collections from remote areas as

opportunities arise. The Authority therefore has a limited capacity to increase its DRF collections unless plants from germination testing are provided by DEC to be maintained in the Kings Park nursery or planted in the Western Australian Botanic Garden.

Further planting of DRF species in the Conservation Garden in the Western Australian Botanic Garden resulted in more of these species on public display. This promotes community understanding and appreciation of the importance of conserving DRF and their natural habitats.

#### Percentage of DRF species in Living Collections

Reporting Year	No. of DRF Species in Living Collections	Total DRF Species Gazetted	Target %	Actual %
2009/10	249	393	62	63
2008/09	243	389	62	62
2007/08	238	388	65	61
2006/07	232	392	65	59
2005/06	220	360	62	61

#### 2.2 Percentage of accessions in botanical displays in Kings Park and Botanic Garden.

This indicator is a measure of horticultural and management skills in maintaining the living collection of plants and increasing the diversity of plants on public display.

An accession is a collection of material that can be propagated from an individual plant - be it flowers, foliage, seeds, shoots, roots or the whole plant. The number of accessions on botanical display is the number growing in the Western Australian Botanic Garden, Synergy Parkland, Lotterywest Family Area and Fraser Avenue precinct garden beds.

This measure is calculated by the number of accessions in botanical displays in Kings Park and Botanic Garden over the total number of accessions alive in living collections. There was an increase of 341 in the

actual number of accessions on display compared with the previous year, which was primarily a result of the development and planting of new garden areas associated with the Kings Park Ceremonial Walk project. Although there was a substantial increase in the number of accessions on display, there was also an increase of 789 in the total number of accessions alive. This resulted in the percentage of accessions on botanical display remaining at 37%, the same as the previous year, which was 1% below the target set.

The increase in total accessions alive demonstrates the success of the field collection program in obtaining additional seed and other plant material from across Western Australia that are placed in storage for future propagation and display. The increase in total accessions was also a result of ongoing collections for the Millennium Seedbank Project that are collected primarily for seed conservation purposes and are not all intended for display.

#### Percentage of Accessions in Botanical Displays

Reporting Year	No. of Accessions in Botanical Display	Total No. of Accessions Alive	Target %	Actual %
2009/10	7,124	19,161	38	37
2008/09	6,783	18,372	40	37
2007/08	6,669	17,396	45	38
2006/07	6,649	16,602	45	40
2005/06	6,518	16,178	43	40

#### 2.3 Percentage of accessions lost in Kings Park and Botanic Garden.

This is a measure of horticultural and management skills in maintaining the living collections of plants, where a lower percentage represents an improvement. The loss of accessions was on target at 5%. The number of new living accessions this year was 1,817, but the loss of 1,028 accessions in the same year has resulted in a net gain of 789 accessions.

It should be noted that there will always be losses of accessions caused by natural attrition; the replacement of ageing plants with new plantings to maintain optimum display; and loss of seed viability over time. The Authority has procedures in place to ensure that, while specific accessions may be lost, the taxa are still retained in the living collections.

#### Percentage of Accessions Lost

Reporting Year	No. of Accessions Lost	Total No. of Accessions Alive	Target %	Actual %
2009/10	1,028	19,161	5	5
2008/09	666	18,372	5	4
2007/08	787	17,396	5	5
2006/07	1,282	16,602	3	8
2005/06	845	16,178	4	5

#### 2.4 The presence of 15 nominated perennially evident native plant species, which are the most vulnerable taxa within each of Kings Park and Bold Park bushland.

This indicator measures the Authority's effectiveness in conserving a range of native plants in Kings Park and Bold Park bushland that have been selected and documented as the most vulnerable taxa in each Park. The top 15 most vulnerable species are determined in each park through primary and secondary selection criteria. Primary criteria include species listed in the State Priority Flora list; or taxa that are rare, have limited distribution in the park or are known to be declining in the park. Secondary criteria include the species' reproductive method; occurrence in vulnerable habitats or sites at risk; or publicly important iconic species.

The indicator is measured by an annual survey of the presence or absence of 15 nominated perennially evident native plant species in each park, which are the most vulnerable taxa within each of Kings Park bushland and Bold Park. Results of the survey in Bold Park during the 2009/10 financial year recorded 100% presence of the nominated 15 species, with additional locations found for one of the species.

The survey in Kings Park bushland recorded 14 species present of the 15 most vulnerable. This is due to one of the species, *Cheilanthes sieberi* being impacted by a fire in January 2009. It is expected that the species will regenerate from the rhizomatous underground rootstock, but to date it has not appeared, probably due to the effects of the fire, unseasonal drought during the Winter and insufficient time since the fire. The site will be monitored for regeneration of this species.

**2.5 Number of common native plant species in Bold Park in areas with high levels of management compared to areas with low levels of management.**

This indicator measures the Authority's effectiveness in restoring areas of degraded bushland in Bold Park. It is derived by annually surveying 15 nominated common native plant species within representative quadrats for two dominant community types to compare their presence in both low management zones and high management zones.

High management zones are degraded areas that are prioritised for ecological restoration activities, some of which are in progress. Low management zones are areas in which there are no active restoration activities at this time.

The dominant community types in Bold Park are Banksia woodland and heath over sand. Ten quadrats for each community type in both high and low management zones have been established (total of 40), and the number of common species present in each quadrat averaged to give a single figure for each management regime.

The indicator is calculated by dividing the average number of common species present in high management zones by the average number of common species present in low management zones, as determined through annual monitoring of representative quadrats within each zone. Where the indicator is a figure greater than one, this indicates a higher number of common species in the high management areas.

This indicator is expected to increase over time and then stabilise once the broad restoration objectives of ecological stability and resilience are attained. New plantings are not scored as present until they have been established for a minimum of 30 months, due to high mortality rates during the establishment period.

The indicator shows an improvement compared with the previous year. This is due to the decline and death of some species in the low management plots, yet no change in the number of common native species in the high management plots. This suggests that the restoration and management activities are having a positive effect.

**Average Numbers of Common Species Present**

	Actual 2007/08	Actual 2008/09	Target 2009/10	Actual 2009/10
Average number of common species present in high management zones	5.6	5.6	5.7	5.7
Average number of common species present in low management zones	5.4	3.7	4.0	3.9
<b>Indicator value</b>	<b>1.4</b>	<b>1.4</b>	<b>1.4</b>	<b>1.5</b>

**2.6 Weed cover in high intensity management areas compared to low intensity management areas in Bold Park.**

This indicator measures the Authority's effectiveness in bushland restoration. It is derived by annually recording percentage weed cover within two dominant community types and comparing results for both low management zones and high management zones. High management zones are degraded areas prioritised for ecological restoration activities, some of which are in progress. Low management zones are those areas not being actively restored at this time.

The dominant community types in Bold Park are Banksia woodland and heath over sand. Forty quadrats for each community type in both high and low management zones have been established (total of 160) and percentage weed cover recorded in each.

The indicator is calculated by dividing the average percentage weed cover in high management zones by the average percentage weed cover in low management zones. A figure less than 1 indicates a lower average

percentage weed cover in the high management areas. The indicator is expected to decrease over time and then stabilise once the broad restoration objectives of ecological stability and resilience are attained.

This year the indicator value has increased compared with last year. Weed cover was generally higher across all areas this year, with a higher increase in cover in the high management zones than the low management zones, particularly in the heath communities. Only half of the high management quadrats had active weed control activities within them which may have resulted in the increased weed cover within the others. Nevertheless, weed cover within the high management zones remains lower than in the low management zones.

#### Average Percentage of Weed Cover

	Actual 2007/08	Actual 2008/09	Target 2009/10	Actual 2009/10
Average percentage weed cover in high management zones	16.3%	14.6%	16.3%	28.7%
Average percentage weed cover in low management zones	35.8%	38%	35.8%	48.1%
<b>Indicator value</b>	<b>0.45</b>	<b>0.38</b>	<b>0.45</b>	<b>0.59</b>

#### 2.7 Number of representative native plant taxa in Kings Park bushland.

This indicator is measured by an annual survey of the presence or absence of 15 nominated perennially evident native plant species, which are the most vulnerable taxa within Kings Park bushland. The continued presence of these species in Kings Park bushland provides an appropriate scientific measure of overall taxa present. It is not practical or feasible to annually survey all native plant taxa in all lands managed.

In surveying the 15 nominated most vulnerable flora in Kings Park bushland this year, one species, *Cheilanthes sieberi* was not found. This species normally occurs within the footprint of the January 2009 bushfire.

It is expected that the species will regenerate from the rhizomatous underground rootstock, but to date it has not appeared, probably due to the effects of the fire, unseasonal drought during the Winter to June 2010 and insufficient time since the fire. The site will be monitored for regeneration of this species. As it is considered to be likely still present, the total number of native plant taxa is 324.

#### Number of Representative Native Plant Taxa in Kings Park Bushland

Reporting Year	Target	No. of Native Plant Taxa Recorded
2009/10	324	324
2008/09	324	324
2007/08	324	324
2006/07	324	324
2005/06	324	324

#### 2.8 Number of representative native plant taxa in Bold Park bushland.

This indicator is measured by an annual survey of the presence or absence of 15 nominated perennially evident native plant species, which are the most vulnerable taxa within Bold Park. The continued presence of these species in Bold Park provides an appropriate scientific measure of overall taxa present.

The number of native plant taxa recorded has remained the same as last year with a total of 310, as there were no new recorded plant species and all 15 of the nominated most vulnerable species were surveyed and recorded as present. The total number may vary from time to time as a result of the discovery of new species, verification of plant records or as a result of genetic analysis of provenance, which may show that some species considered native were in fact early introductions to the park from nearby areas.

## Number of Representative Native Plant Taxa in Bold Park Bushland

Reporting Year	Target	No. of Native Plant Taxa Recorded
2009/10	310	310
2008/09	310	310
2007/08	310	310
2006/07	310	310
2005/06	298	310

## Service 2 – Biodiversity Conservation and Scientific Research

To measure the success of Service 2, the Authority uses the data in indicators 2.1 to 2.8 above and through demonstrating leadership in urban bushland management, especially for Perth and regional communities; horticultural services including developing new plants; and undertaking and promoting leading-edge science and interpretation pertinent to integrated conservation of flora for present and future generations.

## Key Efficiency Indicators

	Actual 2008/09	Target 2009/10	Actual 2009/10	Notes
Average cost of representative native plant taxa in Kings Park bushland.	\$2,770	\$5,382	\$4,181	1
Average cost of representative native plant taxa in Bold Park bushland.	\$4,020	\$2,378	\$4,205	2
Average cost per research fee for service project administered.	\$9,736	\$9,988	\$13,758	3
Percentage change in number of refereed scientific publications published per Consolidated Fund position compared to previous years.	67%	-19%	31%	4

### Notes:

1. There was no change in the number of native plant taxa in Kings Park Bushland, the variance compared with previous period is due to expenses increasing by 40%. This was a result of trail and path works carried out in 2009/10.
2. The 2009/10 target was set at an unrealistically low level and the result for 2009/10 is very similar to that achieved in 2008/09.
3. The variance is due to an increase in expenses without a corresponding increase in the number of fee-for-service projects administered.
4. Significant carryover of publications due to prolonged journal review processes. Coincident completion of a number of PhD programs resulting in a flush of publications.

## Other Financial Disclosures

### Pricing Policy and Services

The Authority charges for goods and services on a full or partial cost recovery basis and in accordance with penalties applied under the *Botanic Gardens and Parks Authority Regulations 1999*.

Entry to and parking within the Authority's designated lands is free of charge. Some services, such as the schools-oriented Discover Kings Park program and the Connect with Kings Park workshops held during the annual Kings Park Festival, incur a cover charge to assist in cost recovery. Costs of events in the Summer events program, such as the outdoor cinema, concerts and theatre productions, are applied by the event organiser.

Fees and charges for venue hire and for booked activities and are approved by State Government and are applied according to the type of function and the location or venue requested. Fees and charges, application forms and conditions of use are available on the Authority's website.

In accordance with Treasurer's Instruction 810, the Authority reviews its fees and charges annually. Fee increases for functions and booked activities approved in December 2008 will be applied from 1 July 2010.

The Authority is mindful when considering an increase to any fee to ensure that additional costs do not impose an unreasonable burden on household expenditure and are fair and equitable to all concerned. The revised fees to be implemented from July 2010 do not fully recover costs and are highly competitive in comparison to other services.

### Capital Works

#### Capital Projects Completed

##### Fraser Avenue Ceremonial Walk

This project was completed and officially opened in April 2010, delivering improved traffic management, improved pedestrian access and safety, and enhanced dignity of the State War Memorial precinct. The project was funded by State Government appropriation and total project expenditure was \$5.213 million.

#### Capital Works in progress

##### Rio Tinto Naturescape in Kings Park

Capital funding of \$8.5 million for this new, interactive environmental facility has been provided through an innovative multi-sector partnership to achieve the vision of providing an environment that inspires appreciation and conservation of the natural environment through discovery learning and connection with nature. Staged opening is scheduled for 2011/12. Expenditure to 30 June 2010 is \$0.275 million. The project was launched in April 2009 by the Hon. Donna Faragher, Minister for Environment; Youth.

##### Biodiversity and Conservation Centre Stage Two

The Biodiversity Conservation Centre Stage Two will provide new laboratories, related infrastructure and facilities associated with increased research. This increased capacity for research will support the germination of native plant seed for restoration activities in Kings Park, Bold Park and throughout Western Australia generally. Total project funding is \$1.582 million by way of State Government appropriation. Tomorrow Pty Ltd were engaged to commence a feasibility study in 2010 but no expenditure has yet been incurred.

Biodiversity Conservation Centre in Kings Park.



## Nursery Depot Redevelopment

The Nursery Depot Redevelopment will replace ageing infrastructure and facilities in the depot and plant nursery by redesigning the layout and growing areas. It will replace key buildings, glasshouses and the potting media facilities to meet current and future technical, environmental and hygiene requirements. Total project funding is \$2.62 million by way of State Government appropriation. Master planning proposals have been sought and a feature survey has been undertaken but no expenditure has yet been incurred.

## Employment and Industrial Relations

As at 30 June 2010, the Authority had 161 employees in total. Six permanent vacancies were advertised throughout the year. Capital works programs and fee-for-service projects continued to require a number of fixed-term employment contracts.

The majority of the Authority's employees are covered by the Government Officers' Salaries, Allowances and Conditions General Agreement 2008 (referred to as GOSAC), or the Botanic Gardens and Parks Authority Certified Agreement 2007 for the Western Australian Shire Councils; Municipal Road Boards; Health Boards; Parks, Cemeteries and Racecourses; Public Authorities; and Water Boards Union (referred to as LGU). The Shop and Warehouse Award covers a number of employees in *Aspects of Kings Park*.

The Authority's staff profile is shown in the table below:

Employment Type	2008/09	2009/10
Permanent Full-time	87	87
Permanent Part-time	10	11
Fixed Term Full-time	32	31
Fixed Term Part-time	6	7
Casual paid on 30 June 2009	22	25
<b>Total</b>	<b>157</b>	<b>161</b>

## Staff Development

The Authority is committed to the development and support of its employees. Training and assessments undertaken during the financial year were designed to improve skills and reduce risks for the Authority. These included increasing overall computer literacy skills, accountability and ethical behaviour, chemical handling, Indigenous awareness training, traffic management for works, manual handling, first aid, vehicle and equipment safety training was available for relevant employees. The changes to the Occupational Safety and Health legislation required the additional training of the Authority's safety representatives.

# Other Governance and Legal Requirements

## Ministerial Directives

There were no Ministerial Directives received in 2009/10.

## Substantive Equality

The Authority is not required to report on this issue as it is represented at portfolio level only in the Strategic Management Council.

## Contracts with Senior Officers

At the date of reporting, other than normal contracts of employment of service, no Senior Officers, or firms of which Senior Officers are members, or entities in which Senior Officers have substantial interests, had any interests in existing or proposed contracts with the Authority.

## Changes in Written Law

There have been no changes to the Act or Regulations administered by the Authority. Where changes have occurred to Acts that impact on the Authority's operations, the Authority has taken appropriate actions to ensure compliance with this legislation.

## Compliance with Public Sector Standards and Ethical Codes

In September 2009, the Authority formalised its Code of Conduct (Administrative Instruction 2009/07). This Code of Conduct supports the WA Public Sector Code of Ethics and provides employees with guidance on how to behave as an Authority employee in preserving and demonstrating a high degree of integrity and accountability to the community.

This Code of Conduct embodies the values of BGPA and embraces those behaviours that will build a better organisation, committed to providing the highest levels of service. The principles underpinning this Code of Conduct also apply to contractors and consultants working on behalf of the Authority.

The Authority's Code of Conduct, the WA Public Sector Code of Ethics and the Public Sector Standards (Human Resource Management) are available to all employees from the Employee Services Coordinator and on the Authority's intranet. The Code of Conduct forms part of the induction program for all new employees and all staff are reminded of their responsibilities through quarterly staff meetings with the Chief Executive Officer.

In addition, accountable and ethical decision making sessions were held for the Board of Management and senior executives and the majority of Authority staff. This presentation is also available on the Authority's intranet.

In 2009/10 there were no breach claims lodged or issues of non-compliance with the Authority's Code of Conduct, the WA Public Sector Code of Ethics or the Public Sector Standards.

## Occupational Safety, Health and Injury Management

The Authority recognises and strives to fulfil its legal obligations under the *Occupational Safety and Health Act 1984*. The Chief Executive Officer ensures, so far as is reasonably practicable, that operations do not knowingly constitute a hazard to safety or health.

Supervisors are responsible for:

- Ensuring that the workplace meets the required safety standards.
- Ensuring that safety equipment is used correctly.

- Investigating all incidents that are, or have the potential to be, health hazards.

The Authority recognises that all employees have responsibilities for safety and health and are therefore expected to:

- Take reasonable care for their own safety and that of other persons who may be affected by their acts.
- Comply with instructions and procedures for their own safety and health and those of others.
- Use safety devices and protective equipment correctly.
- Report to their immediate supervisor any situation, which they have reason to believe could present a hazard, which they cannot correct themselves.
- Report any accident or injury to health that arises in the course of their work.

The Authority's Occupational Safety and Health Committee is comprised of staff from across all Directorates. Each committee member is fully trained in Occupational Safety and Health in the workplace. Members are responsible for conducting regular workplace checks and, through the committee, ensuring that any issues are responded to. Reports on all accidents or injuries to health are recorded and retained on relevant files.

The Authority is committed to providing injury management support to all workers who sustain a work related injury or illness with a focus on safe and early return to meaningful work and in accordance with the Workers' Compensation and Injury Management Act 1981.

The Authority has implemented an Injury Management System to provide an early return to work program for injured employees.

The Workers Compensation claims against the Authority were of a minor nature as reflected by the table below as supplied by the State Government's insurance provider, Riskcover.

Indicator	Target 2009/10	Actual 2009/10
Number of fatalities	0	0
Lost time injury/diseases (LTI/D) incidence rate	0	7
Lost time injury severity rate	0	0
Percentage of injured workers returned to work within 28 weeks	100%	100%
Percentage of managers trained in occupational safety, health and injury management responsibilities.	N/A <sup>(1)</sup>	N/A <sup>(2)</sup>

Notes: 1. The Authority did not set targets for the 2009/10 year however will do so for 2010/11.

2. Whilst the Authority's managers are aware of their responsibilities in regard to occupational safety health and injury management, no formal training has yet been undertaken. The Authority will schedule managers to undertake relevant training in 2010/11.

## Advertising

The Authority reports that it incurred the following expenditures for the financial year ended 30 June 2010:

Advertising Medium	Expenditure	Total
<b>Advertising Agencies</b>		<b>\$89,358.29</b>
Marketforce Productions	48,574.66	
Adcorp	6,638.63	
Jigsaw Media	8,800.00	
V Strack	11,220.00	
Rosalie Okely Graphic Design	14,125.00	
<b>Market Research Organisations</b>		<b>\$11,398.38</b>
A Stuckey	10,570.00	
Media Monitors	828.38	
<b>Polling Organisations</b>		<b>-</b>
<b>Direct Mail Organisations</b>		<b>\$154.00</b>
Poster Girls	154.00	
<b>Media Advertising Organisations</b>		<b>\$115,340.58</b>
Association of Perth Attractions	1,000.00	
Australian Open Garden Scheme	31.82	
Community Newspapers	660.00	
Countrywide Publications	13,287.00	
Government Gazette	67.91	
Guardian Express	7,998.05	
Media Decisions	31,771.20	
Mix 94.5 Radio	9,276.58	
Next Magazine	2,000.00	
Subiaco Post	885.03	
School Matters Newsletter	5,500.00	
Scoop Magazine	2,306.25	
Uniclub	4,400.00	
West Australian Newspaper	31,511.29	
WA Accommodation and Tours	4,645.45	
<b>Total Expenditure</b>		<b>\$216,251.25</b>



**ASPECTS OF KINGS PARK**  
*Gifts by Kings Park*

Exquisite gift items from the range of Western Australian designed and/or handmade glassware, jewellery, wood craft, leather, and tinewares. Aspects of Kings Park gifts are gift items named and operated by Kings Park, and its gift collection generates proceeds back towards supporting Kings Park's conservation efforts.

1. Kings Park's pure, water and found by Narda Owen from \$30
2. Jewellery by Rebecca Wade from \$20
3. Hand woven basket made by Margaret Anderson from \$10
4. Water glass vase by Katherine Gill from \$15 each

Open 7 days from 9am - 5pm  
 Ph 61 8 9400 3900  
[www.aspectsofkingpark.com.au](http://www.aspectsofkingpark.com.au)  
 From the Art in Kings Park, West Perth

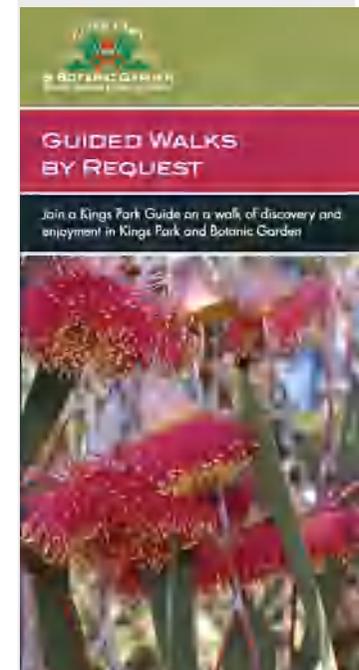
## Disability Access and Inclusion Plan Outcomes

The Authority's Disability Access and Inclusion Plan 2007–2012 (DAIP) outlines the ways in which the Authority aims to ensure that people with disabilities have access to Authority facilities, services, events and information.

In 2009/10 the Authority achieved the following initiatives in relation to disability access and inclusion:

DAIP Outcomes	Authority Achievements 2009/10
<p><b>1. People with disabilities have the same opportunities as other people to access the services of, and any events organised by the Authority.</b></p>	<ul style="list-style-type: none"> <li>• New set-down areas and additional ACROD parking have been provided as part of the new Kings Park Ceremonial Walk project road and carpark works.</li> <li>• On ANZAC Day the Authority, in collaboration with the Returned and Serviceman's League (RSL), actively informed participants of set-down and parking for people with disabilities.</li> <li>• Areas were set aside at major events for chairs, deck chairs, wheelchairs and space for people to assist those with disabilities, as well as additional ACROD parking bays on concert nights.</li> <li>• Volunteers are kept up to date with the Authority's DAIP through their newsletters. Guides who deal with visitors face to face and via phone enquiries are given appropriate training opportunities.</li> <li>• A new brochure, Guided Walks by Request, promotes one-to-one walks with a volunteer Guide, which are particularly suited people with special needs.</li> <li>• Education Support schools participated in Kings Park's environmental education programs, the annual schools' poster competition during the Festival and attended special tours of the Plant Nursery as part of their curriculum unit on the Life of Plants.</li> </ul>
<p><b>2. People with disabilities have the same opportunities as other people to access the buildings and other facilities of the Authority.</b></p>	<ul style="list-style-type: none"> <li>• New universal access pathways through parts of the Botanic Garden were completed.</li> <li>• Works to improve the Fraser Avenue precinct with a new roadway into the Wadjuk Carpark, a drop off point in front of Fraser's Restaurant and the Visitor Information Centre, new toilets and paths have been completed. This has resulted in better and safer access to the State War Memorial and visitor facilities for elderly and infirm visitors and those with disabilities.</li> <li>• The new Acacia toilet block in the main visitor precinct has good disabled access and includes an adult change table – developed in consultation with the Independent Living Centre and Disability Services Commission.</li> <li>• New picnic tables that allow for wheelchair access have been installed at Synergy Parkland and Saw Avenue to allow better facilities for people picnicking.</li> <li>• Zamia Café at Synergy Parkland has undergone significant renovations to increase the size and improve the amenities of the café and provide better access for all.</li> </ul>

DAIP Outcomes	Authority Achievements 2009/10
<p><b>3. People with disabilities receive information from the Authority in a format that will enable them to access the information, as readily as other people are able to access it.</b></p>	<ul style="list-style-type: none"> <li>• Further improvements to the Authority's website improved accessibility to information and services.</li> <li>• Authority documents, such as Annual Reports and the Disability Access and Inclusion Plan, are available electronically and in hard copy as well as alternative formats (such as large font) on request.</li> <li>• Recorded event information is available on the Authority's main telephone line. This is updated regularly in line with new events happening in the park.</li> <li>• A monthly e-newsletter is produced and sent to all subscribers, advertising events and activities in Kings Park and Botanic Garden and Bold Park.</li> <li>• The Kings Park Education Service provides a range of learning opportunities to meet the needs of all students. It accommodates special needs students with suitable programs and works with teachers to assist with full integration of students.</li> </ul>
<p><b>4. People with disabilities receive the same level and quality of service from the staff of the Authority as other people receive from the staff of the Authority.</b></p>	<ul style="list-style-type: none"> <li>• The Authority's Park Management Officers are provided with training to enable them to recognise and assist people with disabilities.</li> <li>• The Authority provides employment and some work experience placements for people with disabilities, which increases staff awareness and understanding of people with disabilities.</li> <li>• Volunteer groups' newsletters regularly remind members of existing and new paths and facilities that have been built for people with limited mobility.</li> <li>• A new Guide Training Course was conducted in 2010. The course included training for communicating effectively with all groups of people, including people with disabilities.</li> </ul>
<p><b>5. People with disabilities have the same opportunities as other people to make complaints to the Authority.</b></p>	<ul style="list-style-type: none"> <li>• The Authority's communications process is available to all members of the community and can be accessed via the website, the enquiries email address, through the Visitor Information Centre or by contacting the main reception of Kings Park and Botanic Garden or Bold Park.</li> <li>• Visitor surveys were conducted in both Kings Park and Botanic Garden and Bold Park. The results of these surveys will be used to determine the Authority's performance and assist with decision-making processes.</li> </ul>
<p><b>6. People with disabilities have the same opportunities as other people to participate in any public consultation by the Authority.</b></p>	<ul style="list-style-type: none"> <li>• People with disabilities were invited to contribute feedback on the concept design for the <i>Rio Tinto Naturescape in Kings Park</i>. This consultative process was carried out by Jackie Softly Consulting, as recommended by the Disability Services Commission. Forty-five different groups were approached for their input. A report on <i>Naturescape's</i> Access and Inclusion was prepared, with 17 findings and recommendations to be considered by Authority.</li> </ul>



## Recordkeeping Plans

The Authority has an ongoing commitment to good records management practices and continues to work towards complying with its Recordkeeping Plan 2010 to 2015 in accordance with the *State Records Act 2000*. The Authority addresses its compliance with the State Records Commission Standard 2 Recordkeeping Plans: Principal 6 – Compliance as follows:

Requirements	Authority Achievements 2009/10
<p><b>1. The efficiency and effectiveness of the organisation's recordkeeping systems has been evaluated or alternatively when such an evaluation is proposed.</b></p>	<ul style="list-style-type: none"> <li>• Evaluation of the Authority's recordkeeping practices as documented in the Recordkeeping Plan is ongoing through an annual review of the Records Management Policy and Procedures Manual. The latest review was carried out in December 2009.</li> <li>• Review and update of the Authority's Thesaurus was implemented early June 2009. Any changes to the Thesaurus have been reflected in the amended Retention and Disposal Schedule that was submitted to the State Records Commission for endorsement in August 2009. The Schedule was considered by the State Records Advisory Committee on 16 February 2010 and approved by the State Records Commission at its meeting on 7 April 2010.</li> <li>• The fully revised Recordkeeping Plan 2004-2009 was submitted to the State Records Commission in December 2009. The State Records Commission approved the amended Botanic Gardens and Parks Authority Recordkeeping Plan 2010-2015 at its meeting on 7 April 2010.</li> </ul>
<p><b>2. The nature and extent of the recordkeeping training program conducted by or for the organisation.</b></p>	<ul style="list-style-type: none"> <li>• Training of the Authority's Records Management Coordinator (RMC) is ongoing. The Authority currently contributes towards funding of tertiary study by the RMC on a Bachelor of Information Technology with a major in Information Services.</li> <li>• Regular reminders on recordkeeping responsibilities, in particular the handling of electronic mail, are delivered by CEO at quarterly general staff meetings. The last reminder occurred March 2010.</li> <li>• In July 2009, the amended Botanic Gardens and Parks Authority Thesaurus 2009 was added to Authority's intranet. TRIM training and Frequently Asked Questions in relations to staff members' record keeping responsibilities are also available on intranet.</li> </ul>

Requirements	Authority Achievements 2009/10
<p><b>3. Whether the efficiency and effectiveness of the recordkeeping training program has been reviewed or alternatively when this is planned to be done.</b></p>	<ul style="list-style-type: none"> <li>• An annual internal Customer Satisfaction Survey was conducted in April 2010 to establish the level of satisfaction and areas for improvement of the Authority's record management practices. The overall outcome of the survey and the Authority's recordkeeping training program, demonstrated that the majority of respondents were "very satisfied" or "satisfied".</li> </ul>
<p><b>4. Assurance that the organisation's induction program addresses employees' roles and responsibilities in regard to their compliance with the organisation's recordkeeping plan.</b></p>	<ul style="list-style-type: none"> <li>• Employees' roles and responsibilities in relation to recordkeeping practices are included in the induction package provided to all new staff members. Managers are responsible for identifying and implementing the level of recordkeeping training required.</li> <li>• An in-house records management induction brochure created in May 2008 has been placed on the Authority's intranet. The aim of this brochure is to assist new staff members and remind existing staff of their recordkeeping responsibilities. In addition, one-on-one records management training is provided for new employees as required. A reminder regarding this brochure is periodically delivered by the CEO in the regular general staff meetings.</li> </ul>



# Appendices



<b>In this Section</b>	<b>Page</b>
Appendix 1: Volunteer Groups' Reports.....	106
Appendix 2: Publications.....	122
Appendix 3: Scientific Research Projects.....	129
Appendix 4: Research Scientists and Students .....	132
Back to Contents Page .....	ii



# Appendix 1: Volunteer Group Reports

## Friends of Kings Park

This year has seen a continuation of last year's success with more than 1,000 members including 100 staff members from the Authority.

Work commenced on the renovation of Glasshouse 7 to provide our Growing Friends with a new home and the capacity to propagate a wider and larger range of plants. This work is almost complete and has been extended to include a new transportable building to provide an administrative area within the Depot area for all our groups that use the area.

While corporate membership packages have been available throughout the year, our only corporate members remain Rio Tinto, Water Corporation and Lotterywest. With the global financial crisis underway during most of the year, action to identify and approach further corporate members was temporarily put on hold. An objective for this financial year will be to recruit at least a dozen corporate members to alleviate our reliance on our individual memberships.

At the 2010 Annual General Meeting, alterations were made to our Constitution to change our financial year from a calendar year to the more traditional 1 July - 30 June. This also has the effect of changing our Annual General Meeting from April to October. As a consequence, the management committee elected at the 2010 Annual General Meeting will serve until the next meeting in October 2011.

The response to our plant sales has been very positive with sales exceeding \$103,000 this year. I would like to take this opportunity to acknowledge the hard work of the volunteers who prepare, erect and dismantle the sales area and the volunteers who serve on the day. The work is hard, but enjoyable and very satisfying. Of course, there would be nothing to sell if it was not

for the dedication of the Growing Group who toil tirelessly throughout the year ensuring we have stock to sell.

Donations of over \$10,400 were collected from attendees to the Skyshow and over \$19,000 from visitors to the Lotterywest Federation Walkway. These donations and the receipts from plant sales provide the bulk of the Friends' income.

Donations to the [Friends of Kings Park](#) Trust have been slow, however, it is in its first year of operation and further promotion of the Trust has yet to occur.

At the Volunteers Christmas Party last December, 15 Year Volunteer Badges and Certificates were presented to Margaret Dawbarn, Edna Payne, Martin Revell and Ann Revell. Fifteen Year Supporter Badges and Certificates were awarded to Pamela Cooper, Stephen Forbes, Enid Jones, Roma Lewi, Carol Pocock, David Purser, Lynette Purser, Tim Yates and Anne Yates.

Ten Year Volunteers Badges and Certificates were awarded to Barbara Baxendale, Brenton Buchanan, Christine Buchanan, Elizabeth Forbes, Elizabeth Frankish, Ken Frankish, Valerie Gough, Win Lucas, Ethel Lucas and Robin Rudwick. Ten Year Supporter Badges and Certificates were awarded to Elizabeth Beck, Sally Edmonds, Kent Egherton-Warburton, Mary Egerton-Warburton, Valerie Goff, Patti Haak, Jenny Hart, Phillipa O'Brien, Barbara Shardlow, Glyn Thomas, Margaret Thomas and Christine Tichborne.

### Annual Festival Address

In line with our commitment to providing environmental education the Friends hosted the annual Festival Address on 21 August 2009. The address at the Alexander Library was attended by 130 people, who had the pleasure of hearing Professor Jim Harris, Chair in Environmental Technology at Cranfield University, UK provide an informative, thought-

The Friends' plants sales continue to be well attended.



provoking and entertaining presentation on a model of ecosystem function which includes biological, physical and chemical elements. Jim spoke of the ecosystem services which arise from 'Natural Capital': the biotic and abiotic components and the interactions between them. All who attended went away with a different perspective on how we should be trying to maintain our ecosystems as a means of saving species from extinction, rather than just concentrating on trying to save a particular species in isolation from its environment.

### General Meetings

As part of its educational program, the Friends present guest speakers each month at our scheduled general meetings. On behalf of the members who attended the various evenings, I would like to take this opportunity to once again thank our guest speakers from throughout the year:

Meeting	Guest Speaker	Topic
July 2009	Paul Bowers – Dept of Environment	Aboriginal Caring for our Country
Aug 2009	Norm Manners – Honour Avenues Group	History of the Honour Avenues
Sept 2009	Michalie Foley – Research Student, BGPA	Conservation Genetics and Ecophysiology
Oct 2009	Dr. Shane Turner – Research Scientist, BGPA	Uncovering the germination secrets of Western Australian Native Plants
Nov 2009	Dr. Kerry Smith – Wildflower Society of WA	History and Aims of the Society
Feb 2010	Kings Park Volunteer Guides (Three Speakers)	Connecting at 42 degrees South
Mar 2010	Jeremy Thomas – Arborist, BGPA	Managing Trees in Public Areas and Quantifying Risk
Apr 2010	Mark Webb – CEO, BGPA	Kings Park in the Middle East
May 2010	Dr. Lyn Beasley – Chief Scientist, WA	Climate Change and how it affects us all: a Western Australian perspective
June 2010	Dr. Kerry Smith – Wildflower Society of WA	Plant observations and images from a recent interstate trip

### Sponsorship and Support

The Friends' aim, as part of its objectives, to provide public education and support for environmental study and research. Some of this is achieved annually by hosting the Festival Address and bi-annually is achieved by our sponsorship of international conferences such as the Society for Ecological Restoration International Conference held in August 2009. This year, we also supported a number of members of the Kings Park Guides to attend a national conference in Hobart.

In addition to our own activities, the Friends are also providing support for two major projects within the park: *Rio Tinto Naturescape in Kings Park* and the Place of Reflection project.

#### Rio Tinto Naturescape in Kings Park

*Rio Tinto Naturescape in Kings Park* is a new environmental education concept being developed in Kings Park with the financial assistance of the Rio Tinto Future Fund, Water Corporation and Lotterywest. There are two elements to the project: the educational precinct which includes an education building incorporating environmentally sustainable design; and areas within the bush where students can immerse themselves in the bush and gain a bush experience. The other element is an area open to the public, which amongst other things, will provide a large amphitheatre within a bush setting for community gatherings. The project will also include a forest creek and wetland areas, combining water with the bush. The Friends is proud to be contributing to the project along with the Authority and the other partners and hopes to have a long term engagement by assisting in the management of the *Rio Tinto Naturescape in Kings Park*.

## The Place of Reflection

The Place of Reflection Consortium members include the Friends of Kings Park, the Association for Services to Torture and Trauma Survivors (ASeTTS), Healing Hearts Foundation, SIDS and Kids Western Australia, Soroptimist International South Perth, and The Compassionate Friends. Together they have a vision to create a location where people seeking to come to terms with loss can reflect on that loss and experience a renewed degree of peace and healing.

The Friends of Kings Park are assisting the group by managing a Lotterywest grant, participating in the management of a Trust for monies collected, and by assisting in the Project Control Group to develop the Place of Reflection.

On 29 July 2009, I had the honour to represent the Friends at a celebratory cheque presentation at the Town Hall where the Premier presented the Friends with a cheque for \$1 million for the Place of Reflection project.

The Place of Reflection is expected to be completed by mid 2011.

## Activities

The Growing Friends has had another excellent and productive year in support of the four quarterly plant sales. Over 50,000 plants were propagated during the past year which, as mentioned before, provided for gross sales of \$103,000.

Thanks go to Val Gough, Tony Scalzo, Jill Rule, Betty Forbes and Pippa Moodie who coordinate these activities through their work on the Horticulture subcommittee and all of the regular Growing Friends team who work tirelessly to make this group a success. The group currently has 33 active members.

The Orchid Growing Group assisted the Authority's Science staff with the repotting of the orchid collection and the plants are multiplying and growing strongly in the glasshouse. There is an expectation of abundant flowers for the floral displays for the 2010 Festival.

The Group have also been busy digging and transplanting orchid tubers within the Arboretum site for *Rio Tinto Naturescape in Kings Park*. The orchids moved have included *Diuris*, *Caladenia*, *Thelymitra* and *Pterostylis* which had been tagged as they became dormant before Summer. The tubers were planted where disturbance will not take place.

Deflasking of tissue cultured plants to soil has been completed and the small plants will be transferred to growing pots when their tubers are more developed. The Group's tissue culture work is ongoing. Several members of the Group have been working on the Western Orchid Research project funded by Lotterywest. They are germinating orchid seeds to optimise methods of propagation of rare flora including the Granite, Ballerina and William's Spider Orchids. The Group would like to thank Dr David Merritt, Dr Kingsley Dixon and Mr Grady Brand for their dedication and guidance throughout the year.

The Bushland Carers Groups have built on the success and hard work of previous years. The Sunday group (35 different participants contributing 470 volunteers hours) and midweek group (22 different participants contributing 380 volunteer hours) have been busy working in a range of activities. These have included woody weeding projects to remove non-local plants that shade out and compete with local understory species, hand weeding of herbaceous weeds, removal of *Watsonia* infestations, seed collecting, and planting sessions to supplement and enhance local flora in degraded areas. The Committee thanks Glenn Cook and Tony Scalzo for their leadership roles and Authority staff for their support of this group.

The Herbarium Carers continue to engage in the very important task of assisting in the classification and preparation of plants to provide an invaluable reference for the future.

The Botanic Garden provides a major show of plants to visitors within the Park and the Botanic Garden Carers continue to assist the park in replanting and weeding the gardens.

The Growing Friends have had another productive year.



The Office Carers meet on the last Thursday of each month at the Lodge to prepare the Friends' newsletter and magazine for mailing to members. Eight to ten Office Carers meet regularly to carry out this valuable task, which involves collating, labelling and enveloping the papers to be sent out. Many friendships have been formed amongst the group and new members are always welcome. Office Carers volunteered over 280 hours service throughout the year. Several long term Office Carers are no longer able to assist with the mail-out. Two new volunteers have been welcomed to the group in the last twelve months.

In addition to the mail-outs, three volunteers provided short term assistance in the Friends office. One volunteer recruited in September provides two to three hours of assistance in the office each week. The Friends office could not operate as efficiently without the valuable contribution of the Office Carer's Group.

### Magazine/Calendar

Our magazine editor, Tony Scalzo, in partnership with graphic designer, Rosalie Okely continues to produce For People and Plants our own quarterly, world class magazine. Once again, this year with Graphic Designer Ji Min, they also created a brilliant calendar which displayed only the best Western Australian flora.

### Management Committee

Once again, throughout the year we have been most ably served by our staff, Sher Davin, our Office Administrator and Kim Collier, our Marketing and Events Officer.

The success of the Friends is achieved through a combination of the contribution of our part time paid staff and the hard work of all our volunteers. The success of this work relies on the direction provided by the members of the Management Committee. The composition of the Management Committee changes at our AGM in April.

Accordingly, the membership of the two Committees that operated during this year was:

Position	July to March 2010	April to June 2010
President	Bob Bunney	Bob Bunney
Vice President	Martin Revell	Martin Revell
Treasurer	Liz Millward	Liz Millward
Committee	Tony Scalzo	Tony Scalzo
Committee	Valerie Gough	Valerie Gough
Committee	Joanne Menegazzo	
Committee	Ross Rudeforth	Ross Rudeforth
Committee	Pippa Moodie	Pippa Moodie
Committee	Alex Hew	Alex Hew
Immediate Past President	Tom Alford	Tom Alford
BGPA Liaison	Zoe Fulwood	Zoe Fulwood

### Friends on the Staff

I would like to take this opportunity to acknowledge the staff of the Authority. The relationship we have with them is exceptional. On behalf of the Friends, I would like to thank Mark Webb, Marcelle Broderick and their team for their valuable assistance, encouragement and support to the Friends throughout the year.

I would like to publicly acknowledge the hard work and support we receive from our Auditor, Bruce Donald and the accounting assistance and advice we receive from Darren Harrop.

In conclusion, thank you to all of you, our members, who contribute in so many ways. It is our honour to represent you and your assistance is sincerely appreciated. In addition, once again, thanks to all the Authority staff who assist us in so many ways.

**Bob Bunney**  
President, Friends of Kings Park

“The success of the Friends is achieved through...the contribution of our part-time staff and the hard work of our volunteers.”

## Kings Park Volunteer Guides

The [Kings Park Volunteer Guides](#) celebrated a quarter of a century of service to Kings Park and Botanic Garden and the community in 2009. At the end of this financial year there were 136 Guides available for duty (26 probationary Guides). The number of Guides decreased during the year to 110. Following our established two year cycle, a training course for new Guides started in February to bring our numbers back to the desired level.

During the last twelve months the Guides have carried out almost 7,000 hours of regular duties in the Visitor Information Centre and on guided walks. In addition to this, some forty Guides have given over 2,100 hours to extra duties. These included:

- Committee meetings and the accompanying work involved.
- Organising and implementing Guide assessment (TEG – Team for Evaluating Guides).
- Compiling rosters for general duties and those during the Wildflower Festival.
- Conducting the training course for new Guides.
- Publishing the Newsletter.
- Conducting refresher walks for Guides.

It is a most dedicated effort. Both the public and the Authority benefit greatly.

### Visitor Information Centre

The Visitor Information Centre has opened daily (except Christmas Day) from 9.30am to 4.00pm. Two Guides are on duty on each of the two shifts covering the opening hours.

The Guides and the Authority have continued to carry out improvements to the Information Centre to make it more attractive to visitors. The display areas are fully utilised to allow

visitors to view large posters of features of the park, to browse a range of pamphlets and brochures about the park and selected tourist attractions in the city and to watch a video showing park scenes. Improved lighting has made the Visitor Information Centre a truly inviting building with new seating, rejuvenating the centre. Many of the park brochures have been developed in conjunction with or at the request of Guides.

A daily record has been kept of the number of visitor contacts. The statistics for the year show a total of 50,498 contacts in the Information Centre by visitors from every continent (56,423 in 2008/09). There were also many phone enquiries. The decrease in number of visitor contacts may be due to less international and interstate tourist numbers owing to continuing global economic difficulties in addition to the disruptions from the works associated with the Kings Park Ceremonial Walk project.

### Free Guided Walks

Our program of two free guided walks every day at 10.00am and 2.00pm has continued this year with the same calendar as before, depending on the season. Numbers of walkers vary according to the weather – fewer walkers if it is wet or windy or very hot and a significant increase during the wildflower season. The regular walks take visitors into the bushland in the appropriate seasons and into the Botanic Garden and the formal part of the park all the year round. Again this year the suspension of the usual walk pattern during the annual Kings Park Festival allows the provision of three free walks each day, two in the Nature Trail in the bush and one at midday into the Botanic Garden. This once again has proved very popular.

When requested, we also undertook special walks for larger groups or people with special interests. There was a significant increase in the demand for these walks during the Kings Park Festival. One-on-one walks for people with special needs are being introduced into the Guided Walk program. The Authority has a small per capita charge for these walks.

The Guides in the Visitor Information Centre help park visitors with what to do, where to go and about the native plants they see.



Number of Walkers	2008/09	2009/10
Free Guided Walks	5,868	5,153
Special Walks	1,049	756
<b>Total Walkers</b>	<b>6,917</b>	<b>5,909</b>

The decrease in the numbers of walkers was largely due to the weather: a very hot Summer and wet September. Also the current economic difficulties have affected international and interstate tourist numbers. The changed walks program will continue during the 2010 Kings Park Festival as the walks have been very successful.

### **The Effect of the January 2009 Bushfire**

Guides do not take visitors into the bushland during the hot, dry Summer but as Winter approaches, bush walks begin. Two of the walks take visitors into several areas badly burnt in the bushfire in January 2009. Now Guides can show visitors living examples of the remarkable regenerative capacity of our bushland. Of course the ill-effects of too frequent fires are also pointed out. The bushland following the hail storm in March also provides the Guides with an opportunity to discuss the regeneration of our flora with the visitors.

### **Health and Safety**

We cooperate very closely with the Authority staff who have the statutory duty of ensuring that health and safety requirements are met. Guides are mindful of visitors' safety when in walking groups and advise them of possible risks during the introduction before the start of the walk.

### **Uniforms**

As much of our time is spent out of doors, our uniform shirts have long sleeves, we have wide brimmed hats and are encouraged to wear sunscreen, all of which offer protection against ultra-violet radiation in the course of our duties. This provides an important example to the public. The Authority has

also made sunscreen freely available to visitors at the Information Centre. Guides have each been provided free of charge with a uniform shirt that has the Authority logo plainly visible and also that of sponsor Synergy. Each Guide is also provided with a hat for guided walks. This uniform gives conformity to the professional appearance of the Guides and allows them to be easily recognisable when on duty,

The new shirts have arrived with a matching sleeveless vest to provide a warm Winter uniform. A set of new lightweight rain jackets have been provided for the use of Guides while taking walks and have proved popular. We have also provided walking Guides with a shoulder bag in which to carry the samples and other items used while taking a walk.

### **Training Course for New Guides**

Over the years, a two-year cycle of training new Guides to keep up our numbers has proved most effective. Following successful past practice, a group of trainees were selected by panel interview from the applicants for the course beginning last February. With most valuable and welcome assistance from Authority staff, the course spread over 14 weeks was organised and run by a Guide committee. Trainees were expected to learn the required botanical and heritage information and of equal importance, training was given in guiding techniques.

The wealth of knowledge and expertise available from the staff and experienced Guides enabled trainee Guides to reach a high standard of performance, ready to join in duties with established Guides.

Of the original thirty accepted into the course, twenty six successfully completed the training and are now in their probationary period to become Guides, taking their places on the Duty Roster. This has been the usual success rate for a demanding program.

## Evaluation

The compulsory program for evaluating the quality of the services Guides provide to visitors has continued and now seems to be accepted as necessary to ensure that the standards of our performance match the expectations of visitors. As part of the preparations under way to begin the next two year cycle of evaluations, Guides are being surveyed to assess attitudes and to seek opinions on possible improvements.

Elections to form the next Team Evaluating Guides (TEG) have been conducted. TEG is a body of eleven experienced Guides elected by the whole group who give extra voluntary time to observe and assess the quality of service given by each individual Guide. The TEG member quietly evaluates a Guide on duty and then provides confidential feedback, usually over a cup of coffee, and may also offer guidance and support and listen to any problems that the Guide may want to put forward.

The TEG process aims to ensure all Guides meet the highest standards in keeping with our quality assurance. On the whole, Guides find being assessed a positive though stressful experience and the standard of guiding remains very high. The Comments Book entries written by visitors reflect their reactions to the beauty of Kings Park and Botanic Garden, but also compliment the Guides who lead the walks and offer assistance in the Information Centre.

## Further Education

All Guides are expected to update their knowledge and skills and to know the latest relevant information about the park and the flora. To this end we have a group email notification process so that important news can be circulated rapidly to Guides who are online. We also have ten meetings a year which all Guides are strongly encouraged to attend. A change of format is being trialed for these evenings, with an Authority representative and Rosters Officer speaking first, then a guest speaker on a relevant topic, followed by coffee and socialisation, concluding with the General meeting. Talks by guest speakers are of high

quality and are much appreciated by Guides. We are grateful to the speakers both from park staff and from outside who freely give of their time and expertise.

During the week following each meeting there is usually a walk in the park that follows up and enlarges upon the talk at the General Meeting. A summary of the talk and the follow-up activity is published in the monthly newsletter which is posted to all Guides and relevant Authority staff. Other articles with further educational content are also included.

## Social

Guides enjoyed many social activities this year. Often Kings Park Guides have the chance on these occasions to observe and learn from Guides in other places

## The Lodge

The Lodge, at the Fraser Avenue entry to the park, continued to be used by the volunteer groups who work in Kings Park and Botanic Garden. Each group has its own room. There is a board room for meetings and a large central area. The Authority has generously provided the volunteers with a photocopier in this area and it is very well used. This central area also contains the printer and currently a large number of books selected from those that have been transferred from the library at the Biodiversity Conservation Centre. Work is proceeding on the make-over of the garden at the rear. The Kings Park Volunteer Master Gardeners have made a plan for the garden, the Friends of Kings Park have promised to grow suitable plants, and the Authority is attending to the lawn area.

Having all the volunteer groups with offices in the same building encourages friendly interaction which engenders a co-operative working spirit.

## Important Events

August 2009 was the actual 25<sup>th</sup> anniversary of the formation of the Kings Park Volunteer Guides, though a special morning tea had been held in June.

“August 2009 was the 25<sup>th</sup> Anniversary of the formation of the Kings Park Volunteer Guides.”

At the annual Christmas function three of the original Guides received 25 year badges and we also conferred Life Membership on one of the original Guides who had contributed greatly in the early years.

Our fourth Life Membership had been presented to one of our current Guides at the June day meeting, in appreciation for the outstanding contribution she has made to the Guides.

### **Hobart Conference**

Nineteen Guides attended the Australasian Conference of Voluntary Guides in Botanic Gardens in November in Hobart. These conferences are held every two years and, in spite of the long distances many delegates have to travel, are well attended. The networking and understanding of the workings of other Botanic Gardens makes us so aware of the great support and the mutual respect held between the Authority and the Guides. This is one of the most positive aspects of being a Guide in Kings Park. The next Conference of Voluntary Guides in Botanic Gardens will be held in Brisbane in 2011 and already a number of Guides have said they are going.

**Jennifer Weston**  
**President, Kings Park Volunteer Guides**

The Guides take visitors on daily guided walks.



## Kings Park Volunteer Master Gardeners

At 30 June 2010, there are 31 [Volunteer Master Gardeners](#), 9 Associate Members and 11 Interns. In this financial year, we contributed some 3,959 hours of voluntary service to Kings Park and the public. To support this effort some 572 hours have been devoted to administrative work including processing by-laws, rostering of members, producing newsletters and articles, representing VMGs at meetings, preparing for public presentations and coordinating further education activities.

### Life Membership

In 2009 the first Life Membership of the Kings Park Volunteer Master Gardeners (Inc) was granted to Ethel Lucas. Ethel was recognised for her outstanding contribution to the group. Her leadership has enabled the organisation to grow from its foundation in June 1997 to a strong, well-organised and responsive member of the Kings Park volunteer groups. She has held office including that of President in 2008/09. Ethel successfully led the work of developing a constitution and by-laws for the incorporated organisation; guided and contributed to the training of new recruits; established procedures for the Gardening Advisory Service; represented the VMGs on Kings Park committees; established and edited the newsletter, *MAGazine*; and also found time to participate in the many projects that support the Science Directorate of the Authority.

### Gardening Advisory Service

Provision of advice to home gardeners on the growing of native plants is still the core business of our group. Members have continued to operate the free telephone service on three half-days per week, dealing with both recorded and direct calls. This year we are developing procedures for responding to questions sent by email. Members attend the Friends of Kings Park plant sales to assist buyers with their selections and to give planting and growing tips for the many species on offer. Revision and

upgrading of the *Native Plant Notes*, an integral part of the service, is ongoing.

### Practical Activities

Since the establishment of the Bushland Garden in 2005, we have planted approximately 4,000 plants of about 140 species that grow naturally in Kings Park. There was interesting recruitment in the Winter of 2009. For example, a number of seedlings of *Anigozanthos manglesii* sprung up, for the first time. Unfortunately, the severe hot Summer of 2010 killed most of them. This year preparations for a monitoring project were undertaken and plants have been tagged. The first recording took place in June 2010.

Other regular practical activities include plant development, seed-screening and orchid development. There are now three VMG 'teams' that contribute weekly to the park's plant-breeding program; some members are regularly committed to assisting with the orchid project and those volunteers with experience in working with seeds are helping to check the viability of *Eremophila resinosa* seeds using the new seed-scanning technology.

Involvement in translocation programs for establishing rare and endangered species in their natural habitat remains a major aspect of our work. Members have worked on cleaning seeds, preparing labels, germinating seedlings, planting out, harvesting seeds, monitoring and processing collected data. This work can entail long days working on country sites, sometimes with an overnight stay.

As usual, we have done some planting with the Authority's Bushland Management team and we have also taken part in the planting activity for the *Rio Tinto Naturescape in Kings Park* project. The VMGs value the opportunity to be involved in the work of the Bushland Management team and appreciate having a good relationship with them.

The Gardening Advice Service provide valuable advice to home gardeners who wish to grow native, water-wise gardens.



Members also assist on a 'needs basis', responding to requests for assistance by staff and post-graduate students working in the Science Directorate. Simple tasks, such as seed cleaning, are often carried out in conjunction with rostered phone-duty sessions.

### **Promotional Activities**

Volunteer Master Gardeners have continually sought opportunities to promote the beauty and diversity of our native flora, the work of the, our own Gardening Advisory Service and the work carried out by the other volunteer groups. A number of talks have been given to service, social and gardening groups in return for a donation to the Park.

This year we are pleased to be involved with the planning of the new demonstration garden that is being developed in Synergy Parkland and will be named Backyard Botanicals. We have provided detailed information regarding the plants that are being used in this area. We intend to expand the information in the *Native Plant Notes* series that provides members of the community with specific information about growing native plants.

For a few years, the Friends of Kings Park have kindly included a regular Volunteer Master Gardeners' article featuring attractive garden plants, together with details of their propagation and cultivation, in their quarterly magazine, *For People and Plants*. We also contribute regularly to e-News issued by the Authority, and an abbreviated version of our *Native Plant Notes* is being added to the Authority's website.

Our more visible promotion is the Bush Garden, where we have planted species of plants local to Kings Park. They are growing without any irrigation. We have continued with development and maintenance and were rewarded last Spring with a magnificent, colourful display.

### **Training and Further Education**

For us to be able to work more effectively in our core business, of garden advice, we always need to broaden our knowledge.

Guest speakers are invited to address our AGM and our monthly General Meetings. At our AGM, Authority CEO, Mark Webb, spoke to us regarding what Kings Park is doing in 2010, which helped us to understand the current developments in Kings Park. This year at our monthly General Meetings we have had presentations from Professor Lyn Beazley, Chief Scientist of WA, speaking of about her role as chief scientist; Dr Matthew Barrett speaking on his work with *Chamelaucium*; Dr Neale Bougher on fungi at Kings Park; Robert Powell on trees and their associations, among others. In June we also took a walk with Steve Easton to see the damage/regrowth that is happening after the January 2009 fire and also after the March 2010 hail storm.

Our monthly newsletter, *MAGazine*, continues to keep members informed of our activities, developments within the park, and botanical and horticultural issues, as well as challenging members with a regular quiz.

This year we were asked to reinstate the Roaming Volunteer Master Gardeners at the weekends during the Kings Park Festival. Our duty is to be there to inform the public on plants and to provide other information on request. We also helped, as usual, with workshops run during the Festival and with the Quiz-on-Legs program for children who attended activities on the day for schools. Our greatest involvement was, of course, during the final event of the Festival, the Wildflower Market Place, where we worked the Help Desk and assisted at the Friends of Kings Park plant sale.

### **Improved Facilities**

We have welcomed support from the Authority this year to enable the purchase of a Winter vest, with logo, for our uniform so that the image of the VMGs during public events such as the Festival is enhanced. Equipment purchases including books, a camera, a netbook and some quality secateurs will improve our capacity to respond to requests and to carry out the tasks that we do.

The Master Gardeners are involved in many of the Authority's activities, such as seed collecting.



The upgrading of the Gardening Advisory Service desk and the provision of email access in the Biodiversity and Conservation Centre have greatly improved our ability to respond to the public's enquiries.

### **Volunteer Master Gardeners and Staff Interaction**

We once again sincerely thank Chief Executive Officer, Mr Mark Webb, for his continued interest and encouragement. His support for volunteers is reflected throughout the Authority. We also thank the Directors, Marcelle Broderick, Dr Kingsley Dixon, and Lesley Hamersley for their ongoing support and the opportunities they have given us to participate in their work and activities of the Authority.

We are grateful to all members of the Visitor Services team and especially to Zoe Fulwood and Chantelle Blight who have not only given outstanding assistance to our group but also have facilitated closer co-operation between all volunteer groups. We express our gratitude to the Administrative Assistants who facilitated our work and interface with the Authority and to all staff and students who happily share their knowledge, skills and facilities with us.

Above all we must thank our mentor, Biodiversity and Extensions Manager, Bob Dixon. Without his untiring assistance and confidence in our ability we could not have continued to contribute, and to enjoy the many rewards of voluntary service in Kings Park and Botanic Garden over the years.

**Ratna Sulastin**  
**President, Kings Park Volunteer Master Gardeners (Inc)**

## Honour Avenues Group

Each morning, during the working week, a succession of cars repeat their run along May Drive, taking the short cut through the park, to save those precious minutes lost during their preparation for the day's work. Some adhere to the 40 kph speed limit whereas others don't. Later, the delivery vans and trucks will follow hoping to save time on a very busy schedule. By now the traffic is going both north and south as parents take their children to school while others attend to hospital appointments or perhaps morning tea with friends. At lunchtime the park becomes either a shady, or sunny, peaceful place in which drivers may eat one's crib and relax while watching the students from the university use the circular road as a cycle speed way or the footpath as a jogging track.

At five o'clock the exodus from the city begins. Some drive leisurely through the Park enjoying the bushland as they go while others just want to get home fast.

One wonders if these users of the roads and pathways of Kings Park actually see the hundreds of white posts, with black plaques, placed at the base of every tree they pass, or are they just an everyday blur, a background as their minds concentrate on more important and immediate things?

If only they knew that within the Honour Avenues of Lovekin Drive, May Drive and Marri Walk there are over 1,400 remembrance plaques: each dedicated to a young Western Australian killed in war and buried somewhere overseas, or worse still, whose body has never been found, giving no comfort to the next-of-kin down through the years.

Do they realise that amongst these plaques there are many heroes and heroines? Men and women who have been honoured by their country for the selfless deeds they carried out?

They must have heard about the man with a donkey on Gallipoli from their school days surely?

Private John Simpson, of WA's 3 Field Ambulance, was once known to every Australian student as "The man with the donkey."

Day and night he carried the wounded down from the battlefield of Gallipoli to the beach at ANZAC until the 19th of May 1915 when this brave young man was shot through the heart. His mates buried him at Hell's Spit and he became an Australian icon to all who learnt of the sacrifice he made for his fellow man.

Do they know that his remembrance plaque stands to this day in May Drive, just back from the Saw Avenue entrance to the park and behind the new children's playground?

Then there are the Western Australians who have been awarded the Victoria Cross, or other high military distinctions for their bravery. There are the heroes of the Royal Australian Air Force whose aircraft went down over Europe, in the desert or in to the jungles of the Pacific. The Royal Australian Navy lads lost in the tumultuous seas of a world at war and then there are our men and Army Nurses who died at sea, or in Japanese prison camps.

Their citations can be seen on their individual plaques as you stroll through the Honour Avenues of Lovekin Drive, May Drive and Marri Walk.

Few people know the story behind the plaques of Kings Park. How did they get there? Who makes them? Where do the new additions come from and more importantly, who looks after them?

It has been agreed both by the Botanic Gardens and Parks Authority and the custodians, that the 1,400 existing plaques in Kings Park must be presented, at all times, in above average condition. Each bears witness, now and in the future of the place where the serviceman or woman died and the manner of their death, "killed in action," "died of wounds", "missing" or "died as a Prisoner-of-War".

Pte Simpson and his donkey carried the wounded at Gallipoli.



It records their age and the service they were in and finally who dedicated the plaque.

These plaques and white posts are their crosses, where ever they may rest and in Kings Park they share a comradeship in a place of peace. It is our honourable duty to preserve them for the future citizens of Western Australia as a reminder of what a terrible price these young men and women paid for the lives that our people enjoy today.

The task of caring for the initial 404 plaques, planted on the 3<sup>rd</sup> August 1919, was passed to the State RSL in 1922 by the Kings Park Board. The State RSL then appointed West Perth RSL Sub-Branch as the custodians to be followed by Subiaco, then the Public Service and Press and finally, in the early seventies, the task was given to the Highgate RSL Sub-Branch and it is they who hold the responsibility to this day. It is a responsibility that is not taken lightly for all of the active members involved are Highgate RSL volunteers and former members of the Australian Defence Force, some having seen service in WW11 or Vietnam.

### Active Members of the Honour Avenue Group

There are 12 males and one female split as follow:

- Group One Administration The Lodge - 4 members
- Group Two Workshed - 3 members
- Group Three A Party Outside - 2 members  
B Party Outside - 2 members  
C Party Outside - 2 members

The average age is 75 years.

### Honour Avenue Group Achievements in 2009/10

Over the period 1 July 2009 to 30 June 2010, the [Honour Avenues Group](#) worked 1,975 hours over 102 days undertaking various duties to maintain the plaques of the Honour Avenues as follows:

1. Plaques – three plaques were replaced due to vandalism. Twenty plaques were fully refurbished and a total of 43 new plaques were dedicated and placed in the Honour Avenues.
2. Distinguishing Colour Patches – 55 new patches were attached to posts for new plaques and to replace missing patches.
3. Posts – 54 posts were recycled, prepared and painted.
4. Dedication Services – New plaque dedication ceremonies were held in August and November 2009 and February and May 2010. In total there were 21 WW1 and WW11 22 including 35 Army, 2 Navy and 6 Air Force.
5. ANZAC DAY and Remembrance Day – Each year the Highgate RSL Honour Avenues Group, with the assistance of students from the Carine Senior High School, place the Australian National flag on every plaque within the park. Not only does this pay tribute to those from our state who died in wars, it draws the public's attention to the plaques.
6. Through out the year community groups, schools, scouts and guides are addressed by the Chairman who tells the story of the remembrance plaques of Kings Park.
7. Five Year Expenditure Plan – Work continues on the objectives of the five-year plan including:
  - a. Each plaque within the Park will be numbered on the front of the post for easier identification.
  - b. Each plaque will be fitted with an aluminum tube to facilitate the placement of Australian National flags on the 25/04 and the 11/11.
  - c. All cracked and welded plaques been replaced with new plaques.
  - d. An audit, currently being conducted, will highlight plaques to be replaced because of worn typefaces, corrections etc

Media is utilised throughout the year as the opportunity arises, through both community radio and ABC television.

The Honour Avenues Group work tirelessly to repair and restore teh plaques.



Some people ask the question: "What will happen when there are no more wars to draw volunteers from to service the plaques."

The answer is simple.

"There will always be an Australian Defence Force and within it a Citizens' Force. The RSL will draw from these members and the Honour Avenues Group, in turn, will obtain its volunteers from the RSL Sub-Branch."

The Honour Avenue plaques will never want for maintenance as long as there are service men and women for both they and our war dead are part of a large and exclusive family.

*LEST WE FORGET*

**Norman Manners**  
**Chairman, Highgate RSL Sub-Committee Honour Avenues Group**

"Lest  
we  
forget."



## Friends of Bold Park Bushland

### Lotterywest Grant

The [Friends of Bold Park Bushland](#) had an incredibly busy year after receiving a significant grant from Lotterywest. The grant has three components. In each of these components we have worked in close partnership with officers from the Authority.

The first grant component was the development of our first Strategic Plan. This was undertaken with the help of a consultant, who engaged in an exhaustive process, meeting separately with the Authority, other conservation groups that we have a relationship with such as the Wildflower Society, our members at large, and the committee. Several workshops were held. The Strategic Plan is almost completed. The purpose of the plan is to help us set targets for the short, mid and long term, to ensure that we achieve our ultimate goals. The Strategic Plan component of the grant was seen by Lotterywest as of being of vital importance to the long-term sustainability of our group.

The second component has been our office fit-out. We have not previously had a dedicated office space, so there is much material to be stored. The office will have a workstation with computer and phone, and will enable us to be more self-sufficient, for example, by printing off newsletters ourselves.

The third, and probably the most exciting and publicly visible component of the grant is the establishment of a program by which volunteers will be trained to lead walks in Bold Park. We have employed Dr Nancy Longnecker, from UWA, to coordinate the inaugural training course, which will run for seven sessions, starting in late July 2010, finishing in time for new graduates to help lead Spring wildflower walks in the park. A range of experienced and inspiring presenters have agreed to participate, leading the trainees through the various topics, including landform, vegetation communities, wildflowers, fauna, and park history, management and use. Presenters will include

people who are active in organisations that have supported the program: the Wildflower Society, the Naturalists Club and Birds Australia (WA). Applicants heard about the course mainly through advertisements and a story run in local newspapers. Training sessions will be held on Saturday mornings so that people who work during the week can participate. The Authority is providing support for equipment such as t-shirts and hats for guides.

### The Committee

Our committee has functioned much better this year, after welcoming Diane Gilbert onto the committee as our secretary: a position that had not been filled for several years. We are currently developing our skills in the use of email to communicate with members more efficiently.

### Bushland Regeneration Activities

The Bushland Regeneration Group began weeding last year in May and finished in November. The group worked two mornings per month, concentrating on removing *Euphorbia*, gladioli and bridal creeper from the Eastern Gateway site, uphill from the Tuart Car Park off Perry Lakes Drive. Weeding is currently underway again.

The Monitoring Group has continued to record the survival rates of the previous year's plantings. They meet at the end of each season to scrutinise individual sites in the Eastern Gateway area.

### Adopt-a-Highway program

We have continued our involvement in the Adopt-a-Highway program. Four times a year a small group meets to collect rubbish from the West Coast Highway frontage of the park. About 20 – 30 large bags of rubbish are collected each time and are later picked up by the Town of Cambridge. This valuable activity helps to keep this very visible edge of the park looking cared for and respectable.

*Templetonia retusa*, also known as cockies tongue, is popular in Bold Park.



## Links with other conservation groups

As well as maintaining our formal links with peak conservation bodies, the Conservation Council of WA and the Urban Bushland Council, we have become increasingly involved with other 'Friends of' groups in the western suburbs, through participation in WESROC activities. (WESROC is the group of local authorities in the western suburbs). An interpretive walk trail known as the 'Bush-to-Beach Trail' is being established from Kings Park to Cottesloe via Bold Park. It is being project-managed by the City of Nedland's environmental officer. We are also part of WESROC's community environmental groups network, a new initiative which encourages networking between local Friends groups.

## Stephenson Highway

Our main campaign in the recent years has been in relation to Stephenson Highway in Innaloo as the highway reservation remains through the northern part of Bold Park.

We are hopeful that State and Local Government plans to create a 'mainstreet' environment that incorporates the northern portion of Stephenson Highway, in Innaloo, will result in the down-grading of the remainder of the highway.

## Liaison with Botanic Parks and Gardens Authority and Other Volunteer Groups

We are building closer ties with the Friends of Kings Park and Kings Park Volunteer Guides, who have willingly provided advice in the new guiding program and input into our Strategic Plan.

We are working with new Authority employee, Melissa Mykytiuk, who is Community Liaison Officer at Bold Park. She attends our meetings and provides a report, as well as liaising with other staff on our behalf. She has become very involved in our activities and in community networking. We're very grateful for her support! Likewise, Sue Briggs at Bold Park's front counter has continued to help us, especially with our newsletters. Our

Bushcare members have appreciated working with Veronica Newbury, Bold Park's environmental manager.

Thanks to all who have worked so hard over the past year to support the continued protection of Bold Park as a fantastic conservation and recreation resource.

**Stephanie Clegg**  
**President, Friends of Bold Park Bushland (Inc)**

Western Wattle Bird on a  
Banksia in Bold Park  
bushland



## Appendix 2: Publications

The Botanic Gardens and Parks Authority creates and contributes to, many publications throughout the year.

### Refereed publications

- Ayre, D.J., Ottewell, K.M., Krauss, S.L. and Whelan, R.J. (2009). Genetic structure of seedling cohorts following repeated wildfires in the fire-sensitive shrub *Persoonia mollis* ssp. *nectans*. *Journal of Ecology* 97:752-760.
- Barrett, R.L. and Briggs, B.G. (2009). Lectotypification of ten Restionaceae species names from south-west Western Australia. *Nuytsia* 19 (2) : 203–209.
- Commander, L.E., Merritt, D.J., Rokich, D.P. and Dixon, K.W. (2009). The role of after-ripening in promoting germination of arid zone seeds: a study on six Australian species. *Botanical Journal of the Linnean Society* 161, 411-421.
- Cusimano, N., Barrett, M.D., Hetterschied, W.L.A. and Renner, S.S. (2010) Aphylogeny of the Areae (Araceae) implies that *Typhonium*, *Sauromatum*, and the Australian species of *Typhonium* are distinct clades *Taxon* 59 (2): 439–447.
- Dixon, K. W. and Hopper, S.D. (2009). An introduction to *Caladenia* R.Br. - Australasia's jewel among terrestrial orchids. *Australian Journal of Botany* 57(4): i-vii.
- Dixon, K.W. (2009). Pollination and restoration. *Science* 325: 571-573.
- Esther, A., Groeneveld, J., Enright, N.J., Miller, B.P., Lamont, B.B., Perry, G.L.W., Blanki, F.B. and Jeltsch, F. (2010). Sensitivity of plant functional types to climate change: Classification tree analysis of a simulation model *Journal of Vegetation Science* 21, 447-461.
- Flematti, G. R., Ghisalberti, E.L., Dixon, K.W., and Trengove, R.D. (2009). Identification of alkyl substituted 2H-Furo[2,3-c]pyran-2-ones as germination stimulants present in smoke. *Journal of Agriculture and Food Chemistry* 57(20): 9475-9480.
- Grigg, A., Close, D.C., Lambers, H., Ruthroff, K.X. and Dixon K.W. (2009). Ecophysiology of *Eucalyptus marginata* and *Corymbia calophylla* in decline in an urban parkland. *Austral Ecology* 34(5): 499-507.
- Hamilton, K. N., Turner, S, R. and Ashmore, S. E. (2009). *Cryopreservation*. In: Offord, C.A. and Meagher, P.F. (eds) *Plant Germplasm Conservation in Australia: strategies and guidelines for developing, managing and utilising ex situ collections*. Fully Revised Edition. Australian Network for Plant Conservation Inc., Canberra. pp 129-162.
- He T. and Lamont BB. (2010) High microsatellite genetic diversity failed to predict greater population resistance capacity in response to extreme climate change. *Conservation Genetics* DOI: 10.1007/s10592-009-9971-4.
- He, T, and Lamont, B.B. (2010) Species versus genotypic diversity of a nitrogen-fixing plant functional group in a metacommunity. *Population Ecology* 52: 337-345.
- Heliyanto, B., He, T.H., Lambers, H., Veneklaas, E.J. and Krauss, S.L. (2009). Population size effects on progeny performance in *Banksia ilicifolia* R. Br. (Proteaceae). *Hayati Journal of Biosciences* 16:43-48.
- Herath, D., Lamont, B.B., Enright, N.J. and Miller, B.P. (2009). Comparison of postmine rehabilitated and natural shrubland communities in southwestern Australia. *Restoration Ecology* 17: 577–585.

- Herath, D., Lamont, B.B., Enright, N.J. and Miller, B.P. (2009). Impact of fire on plant-species persistence in post-mine restored and natural shrubland communities in southwestern Australia. *Biological Conservation* 142, 2175–2180.
- Jae-hyeun, K., Walck, J.L., Hidayati, S.N., Merritt, D.J. and Dixon, K.W. (2009). Germinability of seeds stored in capsules on plants of two myrtaceous shrubs: differences among age cohorts and between species. *Australian Journal of Botany* 57: 495-501.
- Long, R.L., Williams, K., Griffiths, E.M., Flematti, G.R., Merritt, D.J., Stevens, J.C., Turner, S.R. Powles, S.B and Dixon, K.W. (2010). Prior hydration of *Brassica tournefortii* seeds reduces the stimulatory effect of karrikinolide on germination and increases seed sensitivity to abscisic acid. *Annals of Botany* 105: 1063-1070.
- Ma, G.H., He, C.X., Ren, H., Zhang, Q.M., Li, S.J., Zhang, Z.H. and Bunn, E. (2010). Direct somatic embryogenesis and shoot organogenesis from leaf explants of *Primulina tabacum*. *Biologia Plantarum* 54:361-365.
- Ma, G.H., Xuelin, H., Xu, Q. and Bunn, E. (2009). Multiporate pollen and apomixis in Panicoideae. *Pakistan Journal of Botany* 41:2073-2082.
- Martyn, A.J., Merritt, D.J. and Turner, S.R. (2009). Seed banking. In: Offord, C.A. and Meagher, P.F. (eds) Plant Germplasm Conservation in Australia: strategies and guidelines for developing, managing and utilising *ex situ* collections. Fully Revised Edition. Australian Network for Plant Conservation Inc., Canberra.
- Menz, M.H.M., Brotons, L. and Arlettaz, R. (2009). Habitat selection by Ortolan Buntings *Emberiza hortulana* in post-fire succession in Catalonia: implications for the conservation of farmland populations. *Ibis* 151(4), 752-761. doi 10.1111/j.1474-919X.2009.00961.x
- Menz, M.H.M., Mosimann-Kampe, P. and Arlettaz, R. (2009). Foraging habitat selection in the last Ortolan Bunting *Emberiza hortulana* population in Switzerland: final lessons before extinction. *Ardea* 97(3), 323-333.
- Merwin, L., He, T.H., Krauss, S.L. (2010). Isolation and characterisation of polymorphic microsatellite DNA markers for *Banksia candolleana* (Proteaceae). *Conservation Genetics Resources*. DOI 10.1007/s12686-010-9242-1.
- Miller, B.P., Enright, N.J., Perry, G.L.W. and Lamont, B.B. (2010). Contrasting spatial pattern and pattern-forming processes in natural versus restored shrublands. *Journal of Applied Ecology* 47: 701-709.
- Nelson, D.C., Flematti, G., Riseborough, J.A., Ghisalberti, E.L., Dixon, K.W. and Smith, S.M. (2010). Karrikins enhance light responses during germination and seedling development in *Arabidopsis thaliana*. *Proceedings of the National Academy of Science* 107 (15): 7095-7100.
- Nevill, P.G., Bossinger, G., and Ades, P.K. (2010). Phylogeography of the world's tallest angiosperm, *Eucalyptus regnans*: evidence for multiple isolated Quaternary reugia. *Journal of Biogeography* 37: 179-192.
- Nevill, P.G., Anthony, J. and Krauss, S. (2010). Isolation and characterisation of microsatellite markers for the banded ironstone endemic *Acacia karina* (Leguminosae: Mimosaceae) and cross-species amplification with *A. stanleyi* and *A. jibberdingensis*. *Conservation Genetic Resources*. DOI 10.1007/s12686-010-9219-0.
- Offord, C.A., Bunn, E., Turner, S.R., Somerville, K.D., Siemon, J. and Ashmore, S.E. 2009. Tissue Culture (Chapter 6) In: Offord, C.A. and Meagher, P.F. (eds) Plant Germplasm Conservation in Australia: strategies and guidelines for developing, managing and utilising *ex situ* collections. Fully Revised Edition. Australian Network for Plant Conservation Inc., Canberra.
- Phillips, R.D., Backhouse, G., Brown, A.P. and Hopper, S.D. (2009). Biogeography of *Caladenia* (Orchidaceae), with special reference to the South-west Australian Floristic Region. *Australian Journal of Botany* 57(4) 259–275.

- Phillips, R.D., Faast, R., Bower, C.C., Brown, G.R. and Peakall, R. (2009). Implications of pollination by food and sexual deception for pollinator specificity, fruit set, population genetics and conservation of *Caladenia* (Orchidaceae). *Australian Journal of Botany* 57(4) 287–306.
- Phillips, R.D., Hopper, S.D. and Dixon, K.W. (2010). Pollination ecology and the potential impacts of the environmental change in the Southwest Australian Biodiversity Hotspot. *Philosophical Transactions of the Royal Society of London*, 365, 517-528.
- Rudall, P.J., Eldridge, T., Tratt, J., Ramsay, M.M., Tuckett, R.E., Smith, S.Y., Collinson, M.E., Remizowa, M.V. and Sokoloff, D.D. (2009). Seed fertilization, development and germination in Hydatellaceae (Nymphaeales): implications for endosperm evolution in early angiosperms. *American Journal of Botany* 96, 1581-1593.
- Sinclair, E.A., Anthony, J.M., Coupland, G.T., Waycott, M., Barrett, M.D., Barrett, R.L., Cambridge, M.L., Wallace, M.J., Dixon, K.D., Krauss, S.L. and Kendrick, G.A. (2009). Characterisation of polymorphic microsatellite markers in the widespread Australian seagrass, *Posidonia australis* Hook. f. (Posidoniaceae), with cross-amplification in the sympatric *P. sinuosa*. *Conservation Genetics Resources* 1: 273-276.
- Sinclair, E.A. and Hobbs, R.J. (2009) Sample size effects on estimates of population genetic structure: implications for ecological restoration. *Restoration Ecology* 17: 837-844.
- Sinclair, E.A., Krauss, S.L., Cheetham, B., and Hobbs, R.J. (2010). High genetic diversity in a clonal, relict *Alexgeorgea nitens* (Restionaceae): implications for ecological restoration. *Australian Journal of Botany* 58(3) 206-213.
- Sinclair, E.A., Pramuk, J.B., Bezy, R.L., Crandall, K.A. and Sites, J.W. Jr. (2010). DNA evidence for non-hybrid origins of parthenogenesis in natural populations of vertebrates. *Evolution*, DOI: 10.1111/j.1558-5646.2009.00893.x.
- Swarts, N. D. and Dixon, K.W. (2009). Perspectives on orchid conservation in botanic gardens. *Trends in Plant Science* 14 (2009), pp. 590-598.
- Tuckett, R.E., Merritt, D.J., Hay, F.R., Hopper, S.D., and Dixon, K.W. (2010). Comparative longevity and low-temperature storage of seeds of Hydatellaceae and temporary pool species of southwest Australia. *Australian Journal of Botany* 58:327-334.
- Tuckett, R.E., Merritt, D.J., Hay, F.R., Hopper, S.D. and Dixon, K.W. (2010). Dormancy, germination and seed-bank storage: a study in support of ex situ conservation of macrophytes of Southwest Australian temporary pools. *Freshwater Biology* 55: 1118-1129.
- Tuckett, R.E., Merritt, D.J., Rudall, P.J., Hay, F., Hopper, S.D., Baskin, C.C., Baskin, J.M., Tratt, J. and Dixon, K.W. (2010). A new type of specialized morphophysiological dormancy and seed storage behaviour in Hydatellaceae, an early-divergent angiosperm family. *Annals of Botany* 105: 1053-1061.
- Turner, S.R., Commander L.E., Baskin J.M., Baskin, C.C. and Dixon K.W. (2009). Germination behaviour of *Astroloma xerophyllum* (Ericaceae), a species with woody indehiscent endocarps. *Botanical Journal of the Linnean Society* 160, 299-311.
- Turner, S.R., Cook, A., Baskin, J.M., Baskin, C.C., Tuckett, R.E. and Dixon, K. W. (2009). Identification and characterization of the water gap in the physically-dormant seeds of *Dodonaea petiolaris*: a first report for Sapindaceae. *Annals of Botany* 104: 833 - 844.
- Turner, S.R. and Dixon, K.W. (2009) Seed dormancy and germination in the Australian Baobab, *Adansonia gregorii* F.Muell. *Seed Science Research* 19: 261 - 266.
- Turner, S.R. and Merritt, D.J. (2009). Seed germination and dormancy. In: Offord, C.A. and Meagher, P.F. (eds) *Plant Germplasm Conservation in Australia: strategies and guidelines for developing, managing and utilising ex situ collections*. Fully Revised Edition. Australian Network for Plant Conservation Inc., Canberra.
- Walck, J. and Dixon K.W. (2009). Time to future-proof plants in storage. *Nature* 462: 721.

Wright, M., Cross, R., Dixon, K.W., Huynh, T., Lawrie, A., Nesbitt, N., Pritchard, A., Swarts, N. and Thomson, R. (2009). Propagation and reintroduction of *Caladenia*. *Australian Journal of Botany* 57(4): 373-387.

## Non-Refereed publications

- Bunn, E. and Dixon, I.R. (2008). Re-introduction on the endangered Bancroft's *Symonanthus* in Western Australia. *In: Pritpal S. Soorae (Ed) Global Re-introduction Perspectives: Re-introduction case-studies from around the globe*. IUCN/SSC Re-introduction Specialist Group, Environment Agency-Abu Dhabi, UAE and Denver Zoological Foundation, USA.
- Bunn, E. and Dixon, K.W. 2009. Botanic Gardens: meeting the restoration challenge with critically endangered plants - a case history, *Symonanthus bancroftii* (Solanaceae). *Botanic Gardens Journal* pp 11-13.
- Bunn, E., Turner, S.R. (2009). Biotechnology and Plant Conservation in Australia: tissue culture and cryogenic research for *ex situ* conservation and restoration of endangered plants. *Australasian Plant Conservation* 17:12-14.
- Bunn, E., Turner, S., Dixon, K.W. (2010). Conservation Biotechnology research for saving endangered flora in a region of high biodiversity (south-west Western Australia). Keynote Address, 12th World Congress of the IAPB 2010 In Vitro Biology Meeting. St Louis Missouri June 6-11, 2010.
- Commander, L. (2010) Restoring the desert: using seed ecological information to restore arid-zone mines. *Seed Ecology III Conference*, Salt Lake City, Utah, USA.
- Commander, L., Merritt, D.J., Rokich, D.R. and Dixon, K.W. (2010). Seed biology and rehabilitation in the arid zone: a study in the Shark Bay World Heritage Area. *Abstracts of the SERI 2009 Conference*, 23-27 August, Perth, Australia.

- Dixon, B. (2009). Key successes to weed control in Kings Park in the past decades. *Proceedings Western Australian weeds conference in Bold Park* 23 -24 Sept 2009.
- Dixon, I. (2009). Translocating rare flora can produce excellent results in the short term. However, is biodiversity the key to successful restoration and sustainable ecosystems. *SERI World Conference Proceedings August 2009*, p.162 Perth, Western Australia.
- Dixon, I. (2009). *Verticordia lindleyi* ssp. *lindleyi*: a rare feather flower that likes wet feet but not aquatic conditions. *SERI Conference Proceedings August 2009*, p.236 Perth, Western Australia.
- Dixon, K.W. (2010) Climate change impacts on pollination ecology and consequences for restoration in the southwest Australian biodiversity hotspot. *Abstracts of the SERI 2009 Conference*, 23-27 August, Perth, Australia.
- Dixon, K.W. (2010) The role of botanic gardens in global restoration. *4th Global Botanic Gardens Congress*. Dublin, Ireland.
- Dixon, K.W. (2009) Plenary introduction. *Society for Ecological Restoration International Conference Proceedings August 2009*.
- Erickson, T.E., Dixon, K.W., Merritt, D.J., Turner, S.R. and Ainsley, P. (2010). Seed viability, dormancy status, and site-specific abiotic variation are factors affecting seed broadcasting potential in the Pilbara semi-arid zone. *Abstracts of the SERI 2009 Conference*, 23-27 August, Perth, Australia.
- Erickson, T.E. (2010). Seed dormancy, persistence, and germination response inform restoration capability in a biodiverse semi-arid zone ecoregion. *Seed Ecology III Conference*, Salt Lake City, Utah, USA.
- Fisher, J., Loneragan, W., Dixon, K.W. and Veneklaas, E. (2010). Ecological knowledge enhances restoration potential in invaded fire adapted systems. *Abstracts of the SERI 2009 Conference*, 23-27 August, Perth, Australia.

Golos, P., Dixon, K.W., and Rokich, D.R. (2010) Restoration of biodiverse vegetation cover to waste rock dumps at Telfer Gold Mine: topsoil management and plant establishment. Abstracts of the SERI 2009 Conference, 23-27 August, Perth, Australia.

Hufford, K., Lambers, H., Krauss, S.L. and Veneklaas, E. (2010). Outbreeding depression in the Stylidiaceae: testing the genetic consequences of mixing seed Provenances. Abstracts of the SERI 2009 Conference, 23-27 August, Perth, Australia.

Merritt, D. (2010) Seed science at a size that matters—managing seed resources to deliver large-scale, biodiverse restoration. Seed Ecology III Conference, Salt Lake City, Utah, USA.

Miller, B.P., Perry, G.L.W., Enright, N.J. and Lamont, B.B. (2010) Contrasting spatial pattern and pattern forming processes in southwest Western Australia natural and restored shrubland communities. Abstracts of the SERI 2009 Conference, 23-27 August, Perth, Australia.

Ord, R., Rokich, D.R., Turner, S.R., Stevens, J. and Dixon, K.W. (2010) Post removal of *Pinus pinaster* plantations in Western Australia: implications for reinstatement of Banksia woodland, a historical ecosystem assemblage. Abstracts of the SERI 2009 Conference, 23-27 August, Perth, Australia.

Rokich, D.R. and Dixon, K.W. (2010). A natural living collection within a botanic garden helps advance ecological restoration research. 4th Global Botanic Gardens Congress. Dublin, Ireland.

Ruoss, S., Miller, B.P., Stevens, J., Barrett, M.D. and Kingsley Dixon, K.W. (2010). Restoration ecology and conservation of rare banded ironstone endemic plants in an arid biodiversity hotspot. Abstracts of the SERI 2009 Conference, 23-27 August, Perth, Australia.

Watkin, E., O'Hara, G., Dixon, K.W. and Hill, Y. (2009). Development of inoculants for native legumes to improve restoration of disturbed lands. Abstracts of the SERI 2009 Conference, 23-27 August, Perth, Australia.

## For People and Plants - Friends of Kings Park Magazine

Benigno, S. (2009). Building Nothing Out of Something. *For People and Plants, Friends of Kings Park Magazine*, Issue 67, p 14-15.

Broderick, M. (2010). Indigenous Naming in Kings Park and Botanic Garden. *For People and Plants, Friends of Kings Park Magazine*, Issue 69, p 6-7.

Commander, L. (2010). Restoration ecology in the arid zone: a study within the Shark Bay World Heritage Area. *For People and Plants, Friends of Kings Park Magazine*, Issue 69, p 18-19.

Cross, A. (2009). The Western Australian Rainbow Plant. *For People and Plants, Friends of Kings Park Magazine*, Issue 66, p 18-19.

Dixon, B. and Merritt, D. (2009). Survival of the Fittest: the 'Critically Endangered Corrigin Grevillea' Fights on. *For People and Plants, Friends of Kings Park Magazine*, Issue 66, p 6-7.

Dixon, B. (2009). Orchids or Out Kids – We Treat Them all the Same With Tender Loving Care? *For People and Plants, Friends of Kings Park Magazine*, Issue 67, p 18-19.

Easton, S. (2010). Scarp Regeneration. *For People and Plants, Friends of Kings Park Magazine*, Issue 68, p 5-7.

Hammersley, L. (2010). Fraser Avenue – the End Draws Near. *For People and Plants, Friends of Kings Park Magazine*, Issue 68, p 18-19.

Hammersley, L. (2010). Ceremonial Walk Opening in Time for ANZAC Day. *For People and Plants, Friends of Kings Park Magazine*, Issue 69, p 3-5.

Hammersley, L. (2010). Mega Fauna and More – Some Creative New Additions at Synergy Parkland. *For People and Plants, Friends of Kings Park Magazine*, Issue 69, p 10-11.

- Long, R. (2009). *Ready, Aim, Fire!* Triggering Weed Seeds to Germinate Synchronously with the Smoke-derived Chemical Karrikinolide. *For People and Plants, Friends of Kings Park Magazine*, Issue 67, p 12-13.
- Maddern, R. (2010). How do you improve a group who are already the best in their field? *For People and Plants, Friends of Kings Park Magazine*, Issue 69, p 25-26.
- Mansell-Fletcher, J. (2009). Introduced, Invasive and Nuisance Birds. *For People and Plants, Friends of Kings Park Magazine*, Issue 66, p 8-10.
- Marchant, N. (Honorary Research Fellow) (2009). Contributors to Knowledge of Western Australian Plants – John Lindley. *For People and Plants, Friends of Kings Park Magazine*, Issue 66, p 14-15.
- Mykytiuk, C. and Brand, G. (2009). Spring 2009 Wildflower Displays. *For People and Plants, Friends of Kings Park Magazine*, Issue 67, p 6-7.
- Mykytiuk, C. and Brand, G. (2009). The Rotary Wishing Well Goes Native. *For People and Plants, Friends of Kings Park Magazine*, Issue 67, p 8-9.
- Nevill, P and Krauss, S. (2010). Barcode of Life. *For People and Plants, Friends of Kings Park Magazine*, Issue 69, p 20-21.
- Rokich, D. (2010). Veldgrass Control: An Analysis of a Herbicide. *For People and Plants, Friends of Kings Park Magazine*, Issue 69, p 22-23.
- Scalzo, T. and Brand G. (2009). Growing Friends Move to Refurbished Glasshouse Facilities. *For People and Plants, Friends of Kings Park Magazine*, Issue 66, p 16.
- Sweedman, L. (2009). New Plant Species Honour Staff from Botanic Gardens and Parks Authority. *For People and Plants, Friends of Kings Park Magazine*, Issue 66, p 3-5.
- Thomas, J. (2010). Arboriculture Tour 2009 – A Winston Churchill Fellowship Project. *For People and Plants, Friends of Kings Park Magazine*, Issue 68, p 11-13.

- Turner, S. (2010). Scanning Electron Microscope Gives Kings Park Scientists a New View on Life. *For People and Plants, Friends of Kings Park Magazine*, Issue 68, p 14-15.
- Webb, M. (2009). Kings Park in the Middle East. *For People and Plants, Friends of Kings Park Magazine*, Issue 66, p 22.
- Webb, M. (2009). Australian Botanic Gardens and Plant Conservation in the 21<sup>st</sup> Century. *For People and Plants, Friends of Kings Park Magazine*, Issue 67, p 4-5.
- Webb, M. (2010). What's Happening at Kings Park and Botanic Garden in 2010. *For People and Plants, Friends of Kings Park Magazine*, Issue 68, p 3-4.
- Webb, M. (2010). Storm in Kings Park and Botanic Garden. *For People and Plants, Friends of Kings Park Magazine*, Issue 69, p 12-13.

## Information Publications and Brochures

All Information brochures are available from the Visitor Information Centre, the front reception at Kings Park and Botanic Garden and Bold Park and many are available on the Authority's website. In addition, a range of botanical, gardening, historical, Indigenous, and children's books are available for sale at *Aspects of Kings Park*.

### Brochures

- Aboriginal Life
- Aspects of Kings Park
- Birds of Bold Park
- Birds of Kings Park and Botanic Garden
- Bold Park Visitor Guide (includes map of Bold Park) (link to Bold Park section of website)
- Botanic Garden Art Trail
- Camel Lake Heritage Trail
- Connecting Children with Nature – *Rio Tinto Naturescape in Kings Park*

The Authority has a suite of brochures available about Kings Park and Bold Park.



**BOTANIC GARDEN  
ART TRAIL**

Self Guided Art in the Park Walk



- Discover Kings Park Education Service
- From Firesticks to Fireworks
- Guided Walks
- Kings Park and Botanic Garden Visitor Map and Information Brochure
- Kings Park Bushland Nature Trail
- Kings Park for Kids (Kings Park Volunteer Guides)
- Know Kings Park Series (Kings Park Volunteer Guides)
- Maps of Kings Park and Botanic Garden
- Place of Reflection
- Science @ Kings Park and Botanic Garden
- Self-Guided Memorials Walk
- Special Walks
- Sport and Fitness in Kings Park
- The Bali Memorial
- Western Australian Botanic Garden
- Wildflowers for Gardens (Master Gardeners)

#### **Authority Publications Available on the Website**

- Annual Reports 2004/2005 – onwards
- Bold Park Management Plan 2006-2011
- Science Directorate Strategic Plan 2006-2011
- Disability Access and Inclusion Plan 2007-2012
- Botanic Gardens and Parks Authority Strategic Plan 2009-2014
- Kings Park and Botanic Garden Management Plan 2009-2014
- Reconciliation Action Plan 2009

#### **Authority Publications Available to Purchase from *Aspects of Kings Park***

- Friends of Kings Park Calendar
- A Joy Forever – The Story of Kings Park and Botanic Garden
- Australian Seeds
- Avenues of Honour
- For People and Plants (Friends of Kings Park Magazine)
- Kings Park and Botanic Garden: Western Australia
- Memorials and Memories
- Perth Plants: a field guide to the bushland and coastal flora of Kings Park and Bold Park, Perth, Western Australia.

# Appendix 3: Scientific Research Projects

## Externally Funded Research

- 1 Rocla Quarry Products: Developing sustainable restoration of Banksia woodland communities disturbed through sand quarrying activities (2000-ongoing).
- 2 Shark Bay Resources: A program to research and develop integrated restoration of borrow pits for Shark Bay Resources Pty Ltd (2004-2009).
- 3 Westralia Airports Corporation: Deriving Research Benchmarks for Nationally Threatened Plant Species occurring on Westralia Airports Corporation Land (2004-2010).
- 4 Fire and Emergency Services Authority: Impact of fire suppressing agents on native vegetation in Western Australia (2005-2009).
- 5 Millennium Seedbank Project: Western Australian Seeds Program (2005-2009).
- 6 Millennium Seedbank Project: Seed conservation science for Western Australian orchids (2005-2009).
- 7 Roe 7 Alliance: Conservation biology of the grand spider orchid (*Caladenia huegelii*) (2005-2009).
- 8 Department of Environment and Conservation, Great Southern District: Rare Plant Translocations program for *Grevillea scapigera*
- 9 Department of Environment and Conservation, Yilgarn District, Wheatbelt Region Rare Plant Translocations program for *Symonanthus bancroftii*
- 10 Catalpa Resources (was Westonia Mines Ltd) funding for two new translocation sites for *Eremophila resinosa* at Westonia.
- 11 Public Transport Authority: funding for conservation of *Verticordia lindleyi* subsp. *lindleyi* continues.
- 12 Newcrest Operations: Weed Ecology and Management for Newcrest Operations, Telfer (2006-2009).
- 13 Australian Orchid Foundation: Role of pollinators and mycorrhiza in speciation of hammer orchids (*Drakaea*) – implications for conservation (2006-2009).
- 14 Rocla Quarry Products: Understanding the ecophysiological reasons that underpin Banksia species establishment (2006 – 2011).
- 15 Department of Environment and Conservation: Clonal propagation through tissue culture of the critically endangered *Dryandra montana* (Proteaceae) (2007-ongoing).
- 16 Worsley Alumina: *In vitro* culture lines of selected recalcitrant rush and sedge species to assist in production of plants for restoration (2007-ongoing).
- 17 Holdsworth Wildlife Endowment: Conservation biology of Australian hammer orchids (2007-2009).
- 18 Extension Hill Pty Ltd (Asia Iron Holdings) and Mt Gibson Iron Ore Pty Ltd: An integrated research program focused on the on- and off-site conservation of the declared rare flora *Darwinia masonii* and *Lepidosperma gibsonii* (2007-2010).
- 19 Newcrest Operations: Ecosystem Restoration Principles for Newcrest Operations, Telfer (2007-2010).
- 20 Main Roads Department: Glossy Leaved Hammer Orchid conservation (2008-2010).
- 21 BHP Billiton. A major five year project with BHP Billiton Iron Ore continues. This seed science and seed management project will develop a “Seed Atlas for the Pilbara” that provides practical guidelines for the collection, processing, storage, germination and use of seeds in restoration for dominant and priority species in the Pilbara region. (2008-2013)

Research programs are vital conservation of WA flora and restoration of urban bushland and minesite restoration.



- 22 Cockburn Cement Limited, Department of Industry and Resources, and UWA: Population genetic provenance research in the seagrass *Posidonia australis* (2008-2010).
- 23 Iluka Resources: Conservation of the rare species *Leucopogon 'ciliate'* (2008-2010).
- 24 Mt Gibson Mining Limited, Talling Peak Hematite Operation: Propagation biology of *Eremophila* sp. Talling Peak – a one year research and development program (2009-2010).
- 25 Anglo-Gold Ashanti: Molecular conservation forensic assessment of the Declared Rare Flora *Eucalyptus articulate* (2008-2010).
- 26 Gindalbie Metals Ltd: Conservation genetics of *Acacia karina* (2009-2012).
- 27 Grange Resources Limited: An integrated research program focused on practical outcomes for the *ex situ* and *in situ* conservation, restoration and translocation of the DRF *Commersonia* sp. Mt. Groper. (Sterculiaceae) – a five year research and development program (2010-2015).
- 28 Griffin Coal Mining Co: Integrated conservation and translocation of *Caladenia lodgeana* project (2009-2010).
- 29 BHP Billiton: Investigation into the effect of topsoil stockpile age and depth on topsoil seed-bank and seedling recruitment (2010).
- 30 Pilbara Iron Company (Services) Pty Ltd: Investigating seed biology and optimising seed management to improve rehabilitation outcomes in the Pilbara (2010-2014).
- 31 Polaris Metals NL: Scoping study - Ecophysiological study of *Tetratheca aphylla* for restoration (2010).
- 32 Sinosteel Midwest Corporation Ltd: Scoping study for biodiversity rehabilitation (2010)
- 33 Rio Tinto: Genetic composition of key tree species at Weeli Wolli Creek (2010-2012).

## Nationally Competitive Projects

1. Quantifying long-distance seed dispersal and its role in the metapopulation dynamics of plants with contrasting life histories. ARC Discovery grant DP0556767 (2005-2009: total funds \$670,000). Administering organisation: Curtin University of Technology. Collaborative partner: Botanic Gardens and Parks Authority.
2. A molecular ecophysiological assessment of the importance of using local provenance seed in native plant community restoration. ARC Linkage grant LP0669757 (2006-2011: total funds \$780,000). Administering organisation: University of Queensland. Collaborative partners: Botanic Gardens and Parks Authority, Alcoa World Alumina Australia.
3. Reliable establishment of non-traditional perennial pasture species. CRC for Plant-Based Management of Dryland Salinity, Sustainable Grazing of Saline Lands, Meat and Livestock Australia and Australian Wool Initiative (2006-2009: total funds \$850,000).
4. Discovery of the physiological and molecular modes of action of butenolide in promoting seed germination and vigour in plants. ARC Discovery grant DP0667197 (2006-2009: total funds \$470,000). Administering organisation: UWA. Collaborative partner: Botanic Gardens and Parks Authority.
5. Enhancing native seed performance for minesite restoration and biodiversity conservation. ARC-Linkage grant LP0669589 (2007-2009: total funds \$261,000). Administering organisation: University of Queensland. Collaborative partners: Botanic Gardens and Parks Authority, Alcoa World Alumina Australia.
6. A novel method of broad-acre weed seedbank management using a naturally occurring germination stimulant. ARC - Linkage grant LP0776951 (2007-2010: total funds \$282,848). Administering organisation: UWA. Collaborative partner: Botanic Gardens and Parks Authority.

7. Investigation of the metabolism, molecular targets and environmental fate of the seed germination stimulant, butenolide. ARC Linkage grant LP0882775 (2008-2012: \$575,000). Administering organisation: UWA. Collaborative partners: Botanic Gardens and Parks Authority, Worsley Alumina Pty Ltd, Iluka Resources, Extension Hill/Mt Gibson Iron, Alcoa World Alumina.
8. Assessing plant virus threats to indigenous Western Australian flora: implications for biodiversity, conservation, ecosystem reclamation and the wildflower industry. ARC Linkage grant LP0882671 (2008-2010: \$255,000). Administering organisation: Murdoch University. Collaborative partners: Department of Agriculture and Food WA, Botanic Gardens and Parks Authority, Alcoa World Alumina Australia, Worsley Alumina Pty Ltd, Saturn Biotech Pty Ltd
9. Development of cryopreservation for high value provenance collections of recalcitrant species used in post mining restoration. ARC Linkage grant LP0884027 (2009-2012: total funds \$3,041,181). Administering organisation: Curtin University of Technology. Collaborative partners: Royal Melbourne Institute of Technology, The University of Queensland, The University of Western Australia and Botanic Gardens and Parks Authority.
10. A multidisciplinary research program to assess limiting factors and predict impacts of climate change for endangered Australian orchids. ARC Linkage grant LP0989338 (2009-2011: total funds \$980,000). Administering organisation: Australian National University. Collaborative partners: Botanic Gardens and Parks Authority and The University of Western Australia.
11. Mechanisms and manipulation of seed dormancy maintenance in annual ryegrass and other weed species. ARC Linkage grant LP0990923 (2009-2011: total funds \$296,476). Administering organisation: The University of Western Australia. Collaborative partner: Botanic Gardens and Parks Authority.
12. Broad scale implementation of native grass germination enhancement technologies. RIRDC research grant PRJ-003853 (2008-2012: total funds \$447,009).
13. Discovery of the molecular mode of action of karrikins in plants. ARC Discovery Project DP1096717 (2010-2012: ARC funds \$300,000). Administering Organisation: The University of Western Australia. Collaborative partner: Botanic Gardens and Parks Authority.
14. Managing evolutionary-ecological process in restoring *Banksia* woodland resilient to global environmental changes. ARC Linkage Project LP100100620 (2010-2013: total funds \$622,860). Administering organisation: The University of Western Australia. Collaborative Partners: Botanic Gardens and Parks Authority and Rocla Quarry Products.
15. Establishing genetic guidelines for the effective ecological restoration of seagrass meadows. ARC Linkage Project LP100200429 (2010-2013 \$392,000). Administering organisation: The University of Western Australia. Collaborative partners: Cockburn Cement Ltd, Botanic Gardens and Parks Authority and Department of Environment and Conservation.

## Appendix 4: Research Scientists and Students

### Research Scientists

Information regarding the Authority's Research Scientists can be found by going to the Science section of the Authority's website.

### Externally Funded Research Scientists

**Dr Janet Anthony**, the genetics laboratory manager, completed a weed ecology research project this year.

**Dr Matt Barrett** continued his research on an integrated conservation research program for the declared rare flora *Darwinia masonii* and *Lepidosperma gibsonii*.

**Dr Lucy Commander** is researching seed-based restoration methods for minesite restoration of the Pilbara flora.

**Todd Erickson** continued research on a seed program to develop a 'Seed Atlas' for the Pilbara to establish seed conservation and restoration methods following iron ore mining.

**Dr Kristina Hufford's** research project entailed assessing the molecular ecophysiological consequences of the importance of using local provenance seed in bushland restoration.

**Dr Anja Kaczmarczyk** is undertaking research to develop preservation for high value provenance collections of recalcitrant plant species used in post-mining restoration. This project is a collaboration of the Authority, Curtin University of Technology, and Alcoa-Australia and Wosley Alumina.

**Dr Rowena Long** is a research associate investigating the use of karrikinolide as a broad acre weed control agent.

**Dr Christopher Loo** managed the seed enhancement subprogram for a nationally collaborative project for the reliable establishment of non-traditional pasture species, with funding from Land Water and Wool, MLA, AWI, and the CRC Plant Based Management of Dryland Salinity.

**Dr David Merritt** manages the seed science programs of the Authority which are broadly focused on improving the effectiveness and efficiency of the use of native seeds in conservation and restoration.

**Dr Ben Miller** continued conducting population ecological research on the declared rare flora *Darwinia masonii* and *Lepidosperma gibsonii*.

**Dr Paul Nevill** is assessing the conservation genetics and phylogenetics of *Acacia karina*, a rare species impacted by mining.

**Dr Belinda Newman** is undertaking research into the conservation and translocation of *Caladenia lodgeana*.

**Dr Ryan Phillips**, in collaboration with The Australian National University, is undertaking research to assess limiting factors and predict impacts of climate change for endangered Australian orchids.

**Dr Liz Sinclair** is involved in establishing genetic guidelines for the effective ecological restoration of seagrass meadows.

**Dr Ann Smithson** is assessing the molecular ecophysiological consequences of the importance of using local provenance seed in bushland restoration.

**Dr Jason Stevens** is the Authority/Rocla Quarry Products restoration ecophysiological, and manages the restoration ecophysiology programs of the Authority.

Research Scientists and students undertake a variety of projects for restoration and conservation of WA flora.



**Dr TianHua** He has been working on an ARC funded project assessing genetic variation and population dynamics of *Banksia hookeriana* and genetic provenance issues for Bold Park restoration. He has now commenced another project investigating the evolutionary-ecological process in restoring *Banksia* woodland resilient to global environmental changes.

**Dr Shane Turner** completed an ARC funded project investigating seed enhancement technologies for minesite restoration and biodiversity conservation.. He is currently undertaking research into the conservation, restoration and translocation of the declared rare flora *Commersonia* sp. *Mt. Groper*.

## Students

**Russell Barrett** continues his PhD revising the taxonomy of *Lepidosperma* in association with molecular phylogenetic studies.

**Stephen Benigno** continues his PhD investigating the effects of soil compaction and water stress on *Banksia* woodland restoration.

**Helen Bowers** continues her PhD project investigating seed dormancy and germination in Australian Rutaceae.

**Donna Bradbury** continues her PhD on a population genomics assessment of population genetic structure in tuart.

**Mark Bundock** continues a PhD to investigate the effects of commonly used herbicides and adjuvants on native vegetation in Western Australia.

**Louisa Cockram** is undertaking her Honours project testing home site advantage and outbreeding depression using *Stylidium hispidum*: seed sourcing implications for ecological restoration.

**Simon Colwill**, completed his third year Curtin University conservation biology project investigating the effects on *in vitro* propagation and rooting of endangered and recalcitrant native

species including *Hemigenia exilis*, *Philothea wonganensis* and *Hibbertia hypericoides*.

**Adam Cross** is undertaking his Honours project researching dispersal and disjunction in the rare aquatic carnivorous plant *Aldrovanda vesiculosa*.

**Emma Dalziell** completed an honours research project using molecular techniques to identify mycorrhizal fungal specificity in the *Caladenia* genus.

**Todd Erickson** continues his PhD research investigating seed restoration science for the Pilbara flora.

**Jessica Evans** is undertaking a one-year honours project researching the non target effects of phosphite (phytophthora control agent) on native plant seedling establishment.

**Alea Faber-Castell** is undertaking her PhD into the conservation and biology of Australian duck orchids (*Paracaleana*).

**Michalie Foley** continues her PhD project on the molecular ecology assessment of habitat fragmentation of *Banksia ilicifolia*.

**Bryn Funnekotter** is undertaking an Honours program through Curtin University investigating 'Correlation of the phospholipid, sterol and sugar composition with tolerance to cryopreservation survival of plant shoot-tips'.

**Peter Golos** continues a PhD investigating 'Ecosystem Restoration Principles for Newcrest Operations, Telfer'.

**Marta Gorecki** has commenced her 4th year project to determine the role of maternal environment on karrikinolide (active molecule in smoke) response in weed species. Identifying genetic and environmental influences on seed karrikinolide response will assist in refining the use of the molecule for use in broad acre weed control.

**Lydia Guja** has commenced her PhD project investigating the relationship between seed dispersal mechanisms, seed germination traits and plant distribution in the coastal zone.

**Beorn Harris** continues his PhD researching biotechnology solutions for enhanced propagation of Western Australian *Ericaceae* for minesite restoration, while also developing an *ex situ* conservation program for an endangered species *Leucopogon* sp. '*ciliate*'.

**Tanya Hevroy** has commenced her PhD researching a conservation genetics and molecular phylogenetic study of the *Grevillea thelmaniana* complex.

**Matt Hyde** has completed an honours research project investigating low temperature seed storage physiology for the orchid genus *Pterostylis*.

**Joe Krawiec**, an Honours student enrolled at Edith Cowan University, commenced a population genetics study on reptiles of Kings Park and Bold Park.

**Simin Lai** is undertaking an Honours program with the Conservation Biotechnology group entitled '*In vitro* propagation of the dryland sedge species - *Mesomalaena pseudostygia* and *Mesomalaena tetragona* (Cyperaceae) for land restoration'.

**David Leach** continues a PhD research program that will assess the impacts of fire-suppressing agents on native vegetation in Western Australia.

**Myles Menz** is undertaking his PhD research project investigating habitat and pollination traits in the genus *Drakaea*. He is also managing programs in pollination systems in restoration.

**Giuseppe Messina** completed a PhD research program that focuses on investigating the conservation biology of two declared rare flora species occurring on Westralia Airports Corporation lands.

**Cameron Mounsey** completed an Honours research project 'Root growth and plasticity in shallow-soil endemic species, identifying limitations to promote restoration'.

**Cameron Mounsey** has commenced his PhD research (UWA School of Plant Biology) into mechanisms of early seedling establishment failures in restoration. The major focus of the

project will be on understanding seedling – soil water relations in restoration sites.

**Andrew Naskos** has completed a one-year research project "Germination requirements and seed enhancements to improve the broadacre establishment of native plant species for use in agroforestry production systems.

**Belinda Newman** has passed her PhD into the use of orchids as indicators of ecosystem health in urban bushland remnants.

**Siti Nurfadilah (Fadilah)**, a recipient of an Australian Development Scholarship (ADS), joined the Authority in July 2008 from Indonesia and is undertaking a Master's Degree by Research through UWA Faculty of Agricultural and Natural Sciences - Plant Science on biotechnology solutions for orchid conservation. Fadilah is jointly supervised by Prof K. Dixon and Dr E. Bunn with assistance from Mr Ryan Phillips (PhD candidate, UWA).

**Rachel Ord** continues a PhD that will research the potential to rehabilitate the Gngangara Mound pine plantation to native *Banksia* woodlands

**Sarah Paul** completed her honours research project at UWA on the Role of soil stored spores and rhizomes in reproduction and regeneration of Cheilanthes ferns in arid Western Australia.

**Ryan Phillips** passed his PhD thesis into the biology and ecology of Western Australian hammer orchids (*Drakaea*) focusing on the relationships between pollinator and mycorrhizal specificity as drivers of speciation.

**Christina Putz**, a student from the University of Regensburg, Germany, undertook six months seed biology research for restoration purposes.

**Alison Ritchie** completed her honours research on the realised mating dynamics of natural and restored populations of *Banksia attenuate*.

**Alison Ritchie** has commenced her PhD project investigating the pollination biology and gene flow in an ecological restoration context.

**Sacha Ruoss** continues his PhD investigating ecological adaptations of banded ironstone endemics to develop rehabilitation methods.

**Liann Smithson** completed a one-year research project 'Physiological strategies for surviving drought in endemic ganded iron formation habitats'.

**John Statton** continues a PhD investigating 'Effective ecological restoration of seagrass in Cockburn Sound'.

**Jessica Stingemore** continues her PhD project investigating the landscape genetics and movement ecology of co-occurring persoonias.

**Renee Tuckett** passed her PhD thesis entitled 'Vernal pools in the southwest Australian floristic region - biogeography, seed dormancy, germination and storage'.

**Mark Wallace** continues his PhD researching the role of chromosomal and genetic factors in the evolution of the genus *Lepidosperma* (Cyperaceae).

**Clare Whyte** commenced her Honours project on the effect of temperature, water stress and salinity on germination, seedling emergence and growth: a case study on seven species from the Shark Bay World Heritage Area.

**Tim Wiegele** completed a one-year project furthering the research into the restoration of seagrass, investigating how sediment characteristics influence the growth and root morphology of *Posidonia* seedlings.

**Constanze Kuhlisch** and **Martin Sperfeld**, from the University of Rostock, Germany, visited the Kings Park science laboratories and the south-west of Western Australia studying the pollination of the carnivorous species, *Utricularia menziesii*.

## Visiting Scientists

**Prof Peter Bernhardt** and **Dr Retha Meier** are both noted pollination biology experts from USA who visited from 1 September to 25 October/14 November 2009 to undertake research with the Science Orchid research team.

**Dr Björn Bohman** of Germany visited the UWA and Kings Park Science Laboratories for 8 weeks from 3 September as part of a 3-year ARC funded collaborative research project with The Australian National University, UWA and the Authority, researching the limiting factors and impacts of climate change for endangered Australian orchids.

**Dr Avner Cohen**, a senior researcher at The Volcani Center in Israel, joined Kings Park and Botanic Garden on Oct 2008 and completed his sabbatical research in Apr 2010. Dr Cohen is an acknowledged international expert in plant breeding and focused his skills on the generation of novel types interspecific hybrids of selected native Australian plant species for use by the flower and ornamental plant industry, through interspecific hybridization and overcoming self- and incompatibility barriers. Dr Cohen's appointment was arranged by Dr Eric Bunn and Prof Kingsley Dixon.

**Prof Susan Galatowitsch**, Co-Director of Graduate Studies, Conservation Biology, University of Minnesota, USA, was based at the Kings Park Science Laboratories mid-August 2009 to June 2010. Susan undertook collaborative research with many of our conservation scientists, visiting restoration and rehabilitation sites, and gathering information and data for writing a restoration textbook.

**Dr Mark Galatowitsch**, visiting from the University of Minnesota, USA, joined the Conservation Biotechnology research group in August 2009. Mark was involved in setting up experiments for enhancing *in vitro* rooting responses with some highly recalcitrant rare and horticulturally desirable native species and reducing leaf callusing *in vitro* with some rare eucalypt spp. Mark's work has provided some interesting and extremely useful information on remedial protocols for leaf callus reduction in eucalypt cultures *in vitro* root induction. Mark completed his work with the Authority in June, 2010 to return to University of Minnesota.

**Dr Michael Kuhlmann** of the National History Museum, UK visited in December 2009. Michael is an expert in pollination ecology. His visit was of particular value in current research in the role of insects in pollination.

**Prof Felipe Dominguez** Lozano of the University of Madrid, Spain, visited from October 2009 to February 2010 to undertake a comparison of data on Red List species to determine variances with the aim to better understand those species.

**Professor Dr Peter Poschlod**, a distinguished scientist with the Institute of Botany, University of Regensburg, Germany, visited our science laboratories in September and October 2009. This visit was valuable in forging collaborative research knowledge and projects on soil seedbanks, seed dispersal and ecology.

**Associate Professor Dr Sureeya Tantiwivat** (with student **Namonrak**) of Kasetsart University, Bangkok, Thailand, reviewed tissue culture techniques for conservation.



**Botanic Gardens and Parks Authority  
Annual Report 2009/2010**



**Head Office  
Kings Park and Botanic Garden**

Fraser Avenue  
WEST PERTH WA 6005  
Ph: +61 8 9480 3600  
Fax: +61 8 9322 5064  
Email: [enquiries@bgpa.wa.gov.au](mailto:enquiries@bgpa.wa.gov.au)  
Internet: [www.bgpa.wa.gov.au](http://www.bgpa.wa.gov.au)

**Aspects of Kings Park**

Fraser Avenue  
WEST PERTH WA 6005  
Ph: +61 8 9480 3900  
Fax: +61 8 9480 3911  
Email: [aspects@bgpa.wa.gov.au](mailto:aspects@bgpa.wa.gov.au)  
Internet: [www.aspectsofkingspark.com.au](http://www.aspectsofkingspark.com.au)

**Bold Park**

165 Perry Lakes Drive  
FLOREAT WA 6014  
Ph: +61 8 9480 3990  
Fax: +61 8 9284 9802  
Email: [boldpark@bgpa.wa.gov.au](mailto:boldpark@bgpa.wa.gov.au)