

Annual Report 2018-19

Botanic Gardens and Parks Authority Annual Report 2018-19

The Botanic Gardens and Park Authority (BGPA) is a statutory Authority within the Department of Biodiversity, Conservation and Attractions. As a statutory authority, BGPA is required to submit its annual report on its performance and including financial statements and key performance indicators.

This report has been produced in electronic format and is available to download from the Botanic Gardens and Parks Authority website www.bgpa.wa.gov.au.

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much in life that makes life worth living."

"It seems to me that the natural world is the greatest source of excitement; the greatest source of visual beauty; the greatest source of intellectual interest. It is the greatest source of so

Sir David Attenborough

Statement of Compliance

Hon Stephen Dawson MLC Minister for Environment

In accordance with Section 63 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 reporting period ended 30 June 2019.

The Annual Report has been prepared in accordance with the provisions of the *Financial Management Act 2006*, the *Public Sector Management Act 1994* and any other relevant written law.

The financial statements comply with the Australian Accounting Standards – Reduced Disclosure Requirements issued by the Australian Accounting Standards Board.

Richard Simpson

Chair

BGPA Board of Management

22 August 2019

Nyomi Horgan

Member

BGPA Board of Management

22 August 2019



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Chairman's Message

Following changes associated with the creation of the Department of Biodiversity, Conservation and Attractions (DBCA), the 2018-19 year might be described as one of consolidation while continuing to focus on high standards of presentation, quality science and exceptional visitor services.

During the year the Board of Management undertook planning sessions with the Executive to determine how BGPA will respond to trends in our community and the expectations of key stakeholders. The Board and Executive identified a range of opportunities for enhancing our functions and to ensure ongoing horticultural excellence and social relevance.

The Board reaffirmed its commitment to science led biodiversity conservation, to the provision of engaging community programs that promote knowledge, understanding and appreciation of biodiversity and cultural heritage and to applying innovative, efficient and responsible management practices. All these functions are undertaken in ways that are collaborative and sustainable.

Outcomes from these planning processes will be clearer in coming years but were evident in 2018-19 highlights including support for Perth Festival links, the establishment of new Aboriginal cultural tourism experiences, the construction of a new volunteer hub and our partnering with Tourism WA to support the Australian Tourism Exchange Showcase event.

I take this opportunity to thank my colleagues on the Board, the Minister and the Director General of the DBCA for their support and to extend my gratitude to staff and volunteers for their hard work and fantastic contribution over the year.

Richard Simpson Chairman BGPA Board of Management



BGPA Board Chairman, Richard Simpson

Overview





From the Executive Director



BGPA Executive Director, Alan Barrett

Over the 2018-19 period BGPA has contributed to research and biodiversity conservation outcomes for the State, enhanced community knowledge and understanding about our local ecology and cultural heritage and has provided rich and diverse experiences to delight more than five million visitors.

The partnership with Perth Festival to deliver 'Boorna Waanginy: The Trees Speak' to more than 230,000 visitors was a notable highlight as was the establishment of new Aboriginal tourism experiences providing authentic, engaging and insightful tours in Kings Park.

Kings Park and Botanic Garden and Bold Park (combined) attracted 5.4 million visitors during the reporting year. Average visitor satisfaction remains above 90% and online rating sites consistently describe Kings Park and Botanic Garden as a 'must see' destination in Western Australia. More and more people are engaging with BGPA activities online and through social media. This engagement can enrich the visitor experience by providing information about the science and cultural heritage that under-pins our work, activities, places and programs.

The excellent work done by BGPA has been achieved with clear strategic leadership from the Board and the Minister, through strong values driven partnerships, including our partnerships with leading industry partners and sponsors and through the commitment of BGPA staff and the exceptional dedication of our volunteer groups.

Alan Barrett
Executive Director
Botanic Gardens and Parks Authority



Year in Review

Highlights

BGPA is committed to delivering world-class parks, botanic gardens, horticulture, bushland management, scientific research and environmental education. Highlights for the 2018-19 year included:



2018 marked the 10th anniversary of the arrival of the giant boab 'Gija Jumulu' in Kings Park.



BGPA commenced a project with the Yindjibarndi Aboriginal Corporation to support the development of local plant species for commercial use.



62,000 knitted and crochet poppies were installed for the 2018 Armistice centenary.



In April 2019, two new unique Aboriginal cultural experiences commenced in Kings Park.



Rio Tinto Naturescape Kings Park won the Chevron Science Engagement Initiative Award in the 2018 Premier's Science Awards.



The 2018 Kings Park Festival showcased unique Western Australian flora to thousands of visitors.



The spectacular Perth Festival event 'Boorna Waanginy: the trees speak' attracted 230,000 visitors to Kings Park over four nights.



BGPA's dedicated volunteers contributed more than 45,000 hours of service during the year.



Service Snapshot

Visitor services and public programs



5.4 million people visited Bold Park and Kings Park and Botanic Garden.

510,000 - 2018 Kings Park Festival

230,000 - Boorna Waanginy

95,000 - Rio Tinto Naturescape

81,500 - community events

77,000 - summer events

48,000 - weddings and gatherings

35,500 - education programs

8850 - free guided walks



Conserving habitats, species and ecological communities



The Kings Park Nursery produced **43,000 plants** for BGPA displays and programs.

100 seed collections resulted from 57 days collecting in Western Australia's northwest.

In Kings Park bushland, 10,400 new plants, representing 56 species, were planted. Seed was collected from 62 species.

In Bold Park bushland, **10,200 new plants,** representing **38 species,** were planted. Seed was collected from **97 species.**

Research and conservation partnerships



The Kings Park Science program are working on **30 research projects**

Kings Park Scientists published **59 refereed papers**.

47 PhD, Honours and Masters students participated in Science programs

9 students completed the 2018-19 summer scholarship program.





Significant issues and trends

Conserving our parks for the future

Conserving and enhancing the parks while maintaining sustainable operations under increasing visitation will require a strong focus on innovative science-led practices across all areas of horticulture and visitor management.

BGPA will continue work to improve the efficiency of its water management in irrigated parkland areas, its practices in relation to turf management and improving the sustainability of visitor services. Initiatives such as public place recycling and integrated transport planning within Kings Park and with the City of Perth will be progressed in the medium term.

In addition, BGPA will continue to use the Western Australian Botanic Garden as a crucial scientific and horticultural resource, and as a vital resource for inspiring and educating the community about ways to adapt to the impact of climate change.

Balancing recreational and conservation interests will require an ongoing focus on maintaining the integrity of key values and attributes for different zones within the park. The next five-year Kings Park and Botanic Garden Management Plan through 2019-20 will provide a blueprint for short to medium term actions. Those actions will focus on enhancing visitor amenities, recognition and celebration of Western Australian culture and identity and providing authentic experiences for locals and tourists alike.

Economic sustainability

Bold Park and Kings Park and Botanic Garden are open to the community 24 hours a day, every day of the year and BGPA does not charge entry fees. BGPA must seek additional revenue opportunities, review budget allocations and prioritise operational outcomes to achieve conservation objectives and to address visitor expectations about amenity and services while maintaining high visitor satisfaction levels

Partnerships with community and commercial organisations are continually being developed and expanded to generate community benefits and to contribute to the sustainability of operations.

Volunteer engagement strategies will continue to be implemented to strengthen the vital volunteer network which contributes significantly to the delivery of services and functions. The opening of the new volunteer hub in August 2019, will enable the expansion of volunteer activities supporting hands-on activities in Kings Park.



Operational Structure

Responsible Minister

Minister for Environment, Hon Stephen Dawson MLC.

Enabling and Administered Legislation

BGPA was established under Part 2, Section 4 of the *Botanic Gardens and Parks Authority Act 1998*, and is responsible for administering the *Botanic Gardens and Parks Regulations 1999*, created under the provisions of Part 8 of the Act.

Accountable authority

Botanic Gardens and Parks Authority

Governing body

Botanic Gardens and Parks Authority Board

Our Role

The Botanic Gardens and Parks Authority (BGPA) is a statutory authority within the Department of Biodiversity, Conservation and Attractions (DBCA) which also incorporates the former Department of Parks and Wildlife, the Zoological Parks Authority (Perth Zoo) and Rottnest Island Authority.

BGPA is responsible for the care, control and management of Bold Park and Kings Park, including the Western Australian Botanic Garden, and contributes to DBCA's purpose:

'promoting biodiversity and conservation to enrich people's lives through sustainable management of Western Australia's species, ecosystems, lands and the attractions in the department's care'.

BGPA has a stewardship role in managing these highly valued places for the community and the environment, and strives to maximise the conservation of native biological diversity and cultural heritage of Bold Park and Kings Park and Botanic Garden, while building scientific and cultural knowledge, promoting understanding about that knowledge and facilitating a diverse range of tourism and recreation services and activities.

Our Vision

To create and provide worldrecognised botanic gardens and parks to inspire the conservation of biological diversity.

Our Mission

To conserve and enhance Kings Park and Botanic Garden and Bold Park with the community and conserve biological diversity generally.





Organisational Structure

The Director General, Mark Webb PSM, leads DBCA and is also the Chief Executive Officer for the three separate statutory authorities. BGPA is led by the Executive Director, Alan Barrett, who reports to the Chief Executive Officer and the BGPA Board.

The Executive Director has responsibility for the day-to-day operations of Bold Park and Kings Park and Botanic Garden and is supported by the senior leadership team including the Director, Horticulture and Conservation, the Chief Finance Officer and managers of the key business areas delivering the services, programs and activities of BGPA:

- Horticulture and Conservation: responsible for on-ground activities in Kings Park and Botanic Garden and Bold Park including bushland conservation and management, horticultural activities, cultural heritage, asset and infrastructure management and the management of capital works projects and other developments.
- Visitor Services and Community Engagement: responsible for visitor services in Kings Park and Botanic Garden, Kings Park Education, community engagement, signage and interpretation, volunteer development.
- Kings Park Science: delivers ex-situ conservation and restoration science, as applied to Kings Park and Bold Park, and State interests more broadly.
- Partnerships, Communications and Marketing: responsible for corporate and community partnerships, Aspects of Kings Park Gallery Shop and all areas of communications and marketing.
- Business and Finance: responsible for accounting and funds management, compliance, strategic and operational financial and business planning, management and reporting.

Kings Park Science and BGPA's reference Herbarium operate as part of DBCA's Biodiversity and Conservation Science division but continue to deliver outcomes in conservation science generally and to support the core functions of the Western Australian Botanic Garden and Kings Park and Bold Park bushlands.

Centralisation of Human Resources and Information Services functions took effect in 2018 and these functions are supported via Memorandum of Understanding arrangements between the BGPA and DBCA's People Services Branch and the Office of Information Management.

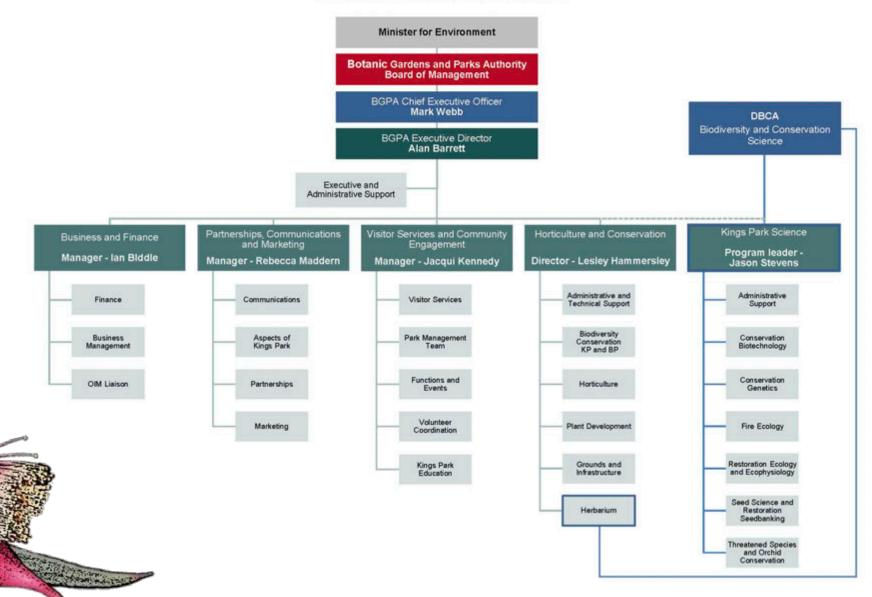


BGPA Leadership Team (L to R): Manager Visitor Services and Community Engagement, Jacqui Kennedy; Senior Curator, Grady Brand; Manager Biodiversity Conservation, Steve Easton; Fire Ecology Program Leader, Ben Miller; Executive Director, Alan Barrett; Kings Park Science Program Leader, Jason Stevens; Director Horticulture and Conservation, Lesley Hammersley; Manager Business and Finance, Ian Biddle (Chief Finance Officer); and Manager Partnerships, Communications and Marketing, Rebecca Maddern.



BGPA functional structure

BGPA Functional Structure March 2019





Board of Management

The Board of Management (the Board) comprises up to eight members appointed by the Minister for Environment. The Board meets formally on a bi-monthly basis with six sitting meetings held during the year. The membership of the Board remained unchanged this year. Detail on terms and remuneration is included in the <u>Disclosures – Government Policy Requirements</u> section of this report.

Board Members

Mr Richard Simpson Chairman

Mr Simpson was appointed to the Board as the Chairman in 2002 and is also Chair of BGPA's Audit Committee. Mr Simpson has significant corporate, commercial and management experience through over 30 years providing investment banking advice to a range of corporate and government clients in Australia and internationally. Mr Simpson is a Director of Hartleys Limited and Director of Corporate Finance. Mr Simpson was reappointed to the Board until December 2021.

Mr Grant Robinson Deputy Chairman

Mr Robinson has been a Board member since 2006. He has experience in corporate governance, risk management, financial accounting and audit across a broad range of industry sectors, both listed and non-listed entities, as well as not-for-profit and Government agencies. Mr Robinson was reappointed to the Board until July 2019 and will not seek reappointment following the cessation of his term.

Dr Ross Field

Dr Field has extensive experience in the public sector and has worked across a range of agencies including the Department of the Premier and Cabinet, the Environmental Protection Authority, and the Western Australian Planning Commission. Dr Field is experienced in corporate governance, legislative and regulatory processes, financial administration and analysis, and formulation of policy. Dr Field was reappointed for a three-year term to December 2021.

Ms Clare Hayman

Ms Hayman's experience includes audit and assurance, financial operational management reviews, corporate and personal insolvency appointments, business and asset sales, as well as investigative accounting. Ms Hayman was reappointed for a one-year term until October 2019.

Ms Sheila McHale

Ms McHale has significant experience in strategic leadership and governance and a practical and deep appreciation of Government having been a Member of the Western Australian Parliament for 12 years and Minister for eight years. Ms McHale is a non-executive Director of several organisations and has a strong business development focus. Ms McHale was reappointed for a three-year term until May 2022.

Ms Nyomi Horgan

Ms Horgan has more than 25 years of strategy development, corporate communication, stakeholder management and investor relations. Ms Horgan's wealth of experience in strategy development, building strong reputations and engaging critical stakeholders. Ms Horgan was reappointed for a three-year term to January 2022.

Ms Sonia Nolan

Ms Nolan has extensive experience in strategy, communications, social investment and partnerships, stakeholder engagement and governance with experience in energy and minerals, education, social services, government, finance and geo-politics. Ms Nolan was reappointed for a one-year term until October 2019.

Ms Helen Rowe

Ms Rowe has worked across a range of fields in strategic fundraising, sponsorship and event coordination as well as running independent business advisory firms. Ms Rowe is experienced in stakeholder relationship management, strategic business advice and management, and in building community engagement. Ms Rowe was reappointed for a one-year term until October 2019.



Audit Committee

The Audit Committee is a sub-committee of the Board chaired by the Board Chairman with two members, in 2018-19 this was Grant Robinson and Nyomi Horgan. The Audit Committee meets twice a year and is comprised of representatives of the Board, BGPA's internal auditors, and Office of the Auditor General. BGPA's internal audit is undertaken by DBCA's Audit, Integrity and Risk Branch (AIRB). AIRB have implemented an internal audit plan which aligns with the department's corporate risk register.



White tail black cockatoo eating a Hakea flower.



Performance Management Framework

Outcome Based Management Framework

While BGPA continues to operate as a separate legal identity it is not separately identifiable within its own Division of the Consolidated Account Expenditure Estimates. Instead, it forms part of the DBCA Division and operates under DBCA's Outcome Based Management Framework.

DBCA's Outcome Based Management Framework aligns to the State Government's goal of 'Better Places: A quality environment with liveable and affordable communities and vibrant regions'. This is achieved through the delivery of key services with desired outcomes for the benefit of DBCA and Western Australians in general.

BGPA's performance is measured through the delivery of three services within the DBCA's performance framework. Performance Indicators under Service 1 are specific to BGPA. Services 2 and 3 are delivered for the department through efficiency indicators shared by all entities. They are included under the department's Outcome Based Management Framework as Service 6: Conserving Habitats, Species and Ecological Communities and Service 7: Research and Conservation Partnerships.

Changes to Outcome Based Management Framework

There were no changes to the Outcome Based Management Framework in relation to BGPA services.

Shared Responsibility with Other Agencies

BGPA did not formally share any responsibilities with other agencies during the year.

Government Goal

Better Places: A quality environment with liveable and affordable communities and vibrant regions.

Outcome 1

Community enjoyment, appreciation and understanding of attractions under the Department's care.

Outcome 2

Plants and animals are conserved and habitat, ecosystem and landscape-scale conservation utilises evidenced-based science.

Service 1

Visitor services and public programs provided at Kings Park and Bold Park

Service 2

Conserving habitats, species and ecological communities

Service 3

Research and conservation partnerships

Performance



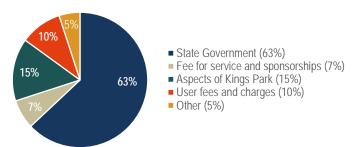


Performance Summary

Summary of Financial Performance

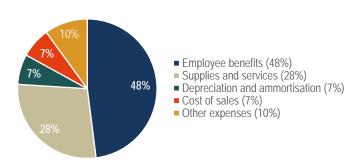
Income

BGPA received 63% of operating income from the State Government and generated the balance of revenue (37%) through own source activities.



Expenditure

BGPA's expenditure is summarised into broad categories:



Actual performance compared to budget targets

The total and net cost of services was lower than forecast primarily due to program reductions to achieve budget repair. Further explanations are contained in note 8.8 'Explanatory Statement' to the financial statements.

	2018-19 Target \$	2018-19 Actual \$	Status
Total cost of services	22,474,000	21,307,545	Р
Net cost of services	14,161,000	13,609,763	Р
Total equity	60,896,000	60,894,455	-
Net increase/(decrease) in cash held	(652,000)	(1,544,297)	0
Approved salary	9,584,000	8,375,000	Р

	2018-19 Agreed Limit \$	2018-19 Actual \$	Status
Agreed working cash limit	1,048,500	1,035,466	Р

Legend: Target met - Target exceeded P Target not met O

For detailed information, refer to the Financial Statements section of this report.



Summary of Key Performance Indicators

Actual performance compared to targets

Outcome 1: Community enjoyment, appreciation and understanding of attractions under the Department's care.

Service 1: Visitor services and public programs provided at Kings Park and Bold Park

	2018-19 Target	2018-19 Actual	Status
Average level of visitor satisfaction at Kings Park and Bold Park	98%	95%	0
Average cost per visitor at Kings Park and Bold Park	\$1.84	\$2.03	0

Outcome 2: Plants and animals are conserved and habitat, ecosystem and landscape-scale conservation utilises evidence-based science.

Service 2: Conserving habitats, species and ecological communities

	2018-19 Target	2018-19 Actual	Status
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%	-
Average cost per hectare of wildlife habitat	\$10,742	\$9,884	Р

Service 3: Research and conservation partnerships

	2018-19 Target	2018-19 Actual	Status
Average cost per hectare of wildlife habitat	\$3,222	\$3,082	Р
Research communications produced per full time equivalent	9.3	6.9	0

Legend: Target met - Target exceeded P Target not met ○

For detailed information, refer to the Key Performance Indicators section of this report.



Report on Operations

This section of the report provides an overview of activities and achievements for the reporting year. It is structured around three areas:

- · Visitors and community
- Parks, horticulture and conservation
- Conservation science

Visitors and Community

Our Visitors

Bold Park

Bold Park visitation is determined from vehicle counts at designated carparks and estimates of pedestrian visitors. The estimated visitation remained the same as the previous year at 280,000.

A total of 57 bookings were made for use of facilities and guided walks by staff, which was less than the previous year. BGPA continued to monitor use of the bridle trail for riding in accordance with the management plan to determine level of use over the five-year period of the plan. The number of horses using the bridle trail was very low, averaging 3.3 per month, with the highest number of 14 in October 2018.

Kings Park and Botanic Garden

Kings Park and Botanic Garden recorded 5.1 million visitors during the year, a decrease of approximately 300,000 (5.8%) from the previous year. This decrease can, in part, be attributed to some changes in the methodology to record and calculate visitor numbers.

New vehicle counters installed during the year delivered improved accuracy in calculating visitor numbers. A vehicle occupancy survey was undertaken to update the vehicle occupancy and pedestrian rates that are used to extrapolate visitor numbers from traffic data.

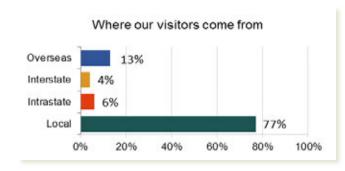
Visitor feedback

Bold Park annual visitor survey

The Bold Park visitor survey was conducted during May and early June 2019. Of the 100 visitors surveyed, 64% rated their overall satisfaction as excellent and the remaining 36% rated it as very good. Bushland experience and park cleanliness were the highest ranked individual elements (as in previous years).

Kings Park and Botanic Garden annual visitor survey

The annual Kings Park visitor survey was undertaken across all precincts, with 99% of survey respondents stating that they were either satisfied or very satisfied with their visit to Kings Park and Botanic Garden.



Bold Park

280,000 visitors

79% of visitors enjoyed bushwalking





35% of visitors walked their dogs

Kings Park and Botanic Garden

5.1 million visitors

61% of visitors said their highlights were the views and presentation of the park and gardens





31% of visitors enjoyed the play spaces

83% of visitors are from WA. 17% of visitors are from interstate or overseas.



Complaints and other feedback

Direct feedback from visitors and stakeholders is recorded and considered in park management and improvement of visitor services. Combining the formal and informal communications and comments received, there were a total of 95 complaints, 41 comments and/or suggestions and 495 compliments.

Visitor liaison

The Visitor Information Centre in Kings Park and Botanic Garden is run by the Kings Park Volunteer Guides. The Kings Park Guides directly assisted 51,534 international, interstate and local visitors through the Visitor Information Centre, and 8850 visitors participated in the guided walks.

Visitor management issues in Kings Park and Botanic Garden related mostly to parking and traffic related offences with 54 percent of all fines issued being for people parking and leaving the park to go into West Perth or the CBD. This behaviour reduces parking availability for bona fide visitors. There were 304 infringements issued for offences through the year.

Recognising Aboriginal Heritage

BGPA is committed to the celebration and respect of Aboriginal culture and Aboriginal connections to its designated lands and continued to make progress against objectives set in its Reconciliation Action Plan 2013-2018.

BGPA continued to promote Nyoongar culture through signage, interpretive walk trails, artwork, use of Nyoongar names on plant labels and the production of information brochures. The new Volunteer Hub will be known as 'Wanju Marr', a Nyoongar term meaning 'welcome hand' and during the year, two new Aboriginal tours were introduced delivered by Nyungar Tours and Go Cultural.

The recognition of Aboriginal connection to country and celebration of culture is increasingly embedded in all facets of operations as are described in this report.



Aboriginal performance during the 2018 Djilba Festival.



Events

Annual Kings Park Festival

The September 2018 festival celebrated Western Australia's incredible wildflowers with 'The Greatest Wildflower Show on Earth' and showcased the thousands of wildflowers from around the State which were in bloom in the Western Australian Botanic Garden.

The month-long program included a range of exhibitions and activities celebrating WA landscapes and biodiversity, free family-friendly events such as guided walks and talks, wellness events, live music and the Friends of Kings Park Plant Sale.

The Kings Park Education team hosted the Djilba Festival over two days, focusing on Aboriginal culture, the environment and sustainability. The event was booked out with 1449 students, teachers and parents in attendance.

Over the month, the festival attracted almost 510,000 visitors to Kings Park and Botanic Garden and Bold Park. A survey of visitors revealed that 95 percent of respondents gave the Festival an overall rating of four or more out of five. The 2018 Kings Park Festival was supported by the Friends of Kings Park with the assistance of a funding grant from Lotterywest.

Summer Events

The popular Summer Events program included concerts, cinema and children's theatre. The series attracted 77,028 visitors to Kings Park and Botanic Garden between December 2018 and April 2019.

- Mellen Events presented eight concerts in the WA Botanic Garden, attracting 38,971 patrons.
- Held in the May Drive Parkland, the cinema season ran from 1 December 2018 to 31 March 2019. Moonlight Cinema screened over 96 nights during the season, attracting 35,459 patrons.
- Prompt Corner presented 'Alice in Wonderland Meets Peter Rabbit' at the Saw Avenue Amphitheatre, on the 5, 6, 12 and 13 January 2019. The show attracted 2,598 patrons.



'The Greatest Show on Earth' photographic exhibition featured Western Australian flora displayed alongside its native landscape through stunning photography by David Bettini.



The Botanic Base was set up on weekends for visitors to lounge in deck chairs and enjoy giant games on the lawns.



Boorna Waanginy: The Trees Speak

The 2019 Perth Festival opening event 'Boorna Waanginy: The Trees Speak' was again held in Kings Park following the massive success of the 2017 event. Held from 8 to 11 February 2019, this spectacular event transformed Kings Park, with 230,000 visitors immersed in a light and sound experience of the Western Australian environment, through the six Nyoongar seasons.

Weddings, parties, anything!

BGPA manages bookings for private, corporate and community functions and events at the many venues in Kings Park. Throughout the year, almost 48,000 people attended 1087 private booked social and corporate functions, weddings, filming and photography, fitness training, community events and wreath laying ceremonies in Kings Park.

Community, cultural and major sporting events continue to attract visitors to Kings Park and Botanic Garden. BGPA works with event organises to ensure appropriate event management and maximise safety and enjoyment for participants and visitors.

- In August 2018, the annual Chevron City to Surf for Activ attracted over 35,000 participants and spectators across the entire route between Perth City and City Beach, including Kings Park and Bold Park. The Marathon and Half Marathon courses pass through areas of Kings Park with about 19,000 event participants.
- Remembrance Day 2018 marked the Centenary of Armistice. Returned and Services League of Australia WA Branch Incorporated (RSLWA) worked with BGPA to mark the occasion with an installation of 62,000 hand knitted poppies representing the Australian service men and women who lost their lives during World War I. An estimated 15,000 visitors attended the Remembrance Day service and many more people visited over the five days this striking installation was in place.

- The 2019 Australia Day Skyworks over the Swan River attracted an estimated 30,000 visitors to Kings Park and Botanic Garden.
 Reabold Hill Lookout at Bold Park was also a popular viewing spot for this event.
- In April 2019, Western Australia hosted the Australian Tourism Exchange, Australia's biggest annual tourism trade event. BGPA worked with Tourism WA to present the showcase event, WAnderlust, which was held in Roe Gardens in Kings Park overlooking Perth city. More than 1500 tourism vendors, local and international guests attended.
- The 2019 Anzac Day Dawn Service attracted an estimated 35,000 people to the State War Memorial and Fraser Avenue. A Sunset Service was held at the Flame of Remembrance the evening before with about 300 people in attendance. BGPA works closely with RSLWA to present this event each year.



62,000 crocheted and knitted poppies were installed for the Centenary of Armistice representing the service men and women lost during WWI.



Education and engagement

Kings Park Education provides high quality nature-based education programs to Western Australian school and tertiary students through curriculum-based programs and special events, booked self-guided school and vacation care visits. The education program also provides for teacher professional development sessions, TAFE and university course support and a new community education program for pre-school children.

Kings Park Education facilitated 1,128 education bookings for a total 35,589 attendees who participated in programs and excursions during the year. This is a significant increase in bookings from previous two reporting years due to the closure of Rio Tinto Naturescape Kings Park (Naturescape) for the stage two development from 1 February to 13 December 2017

Feedback from teachers was extremely positive with 99% reporting that the excursion had met expectations. Program content attracted a 94% excellence rating, and teaching quality received a 99% excellence rating.

Aboriginal cultural education programs

BGPA recognises and values the significance of Kings Park to Nyoongar people and provides a range of educational experiences on Nyoongar history, values and culture. Kings Park Education offered four different Aboriginal cultural heritage programs. These four cultural heritage programs were very popular with schools and accounted for 53% of education program bookings.

Local Nyoongar guest presenters joined the Kings Park Education team for the Djilba Festival in September 2018 and the Nyoongar Boodja seasons program in Kamberang (November 2018) Bunuru (March 2019) and Makuru (June 2019). The Nyoongar Boodja program was delivered to 785 students who learned about a range of traditional and seasonal Nyoongar practices, such as the use of fire, tool making, fishing, art, bush tucker and language.

The Djilba Big Day Out was held in the Western Australian Botanic Garden during the annual Kings Park Festival. The event was delivered over two days and engaged primary school students in hands-on cultural activities that included Nyoongar dancing, art, tool making and bush foods. Event attendance was 1,449 participants from 21 schools. The event was sponsored by Fugro and supported by 72 corporate and education volunteers.

Rio Tinto Naturescape Kings Park

There were 95,170 visitors to Naturescape during the year, 22% of visitors were through booked Kings Park Education programs or excursions. The Naturescape team engaged children and their families in a range of self-guided activities, including the 'Super Summer Sleuth' activity booklet, weekly nature-play activities and interpretative signage.







Kings Park Education delivers Aboriginal cultural education and nature discovery programs and activities.



Community engagement programs

The 'Zippy's Kings Park Adventures' program for children aged three to five years, completed a full year of operation. The eight-week program was delivered four times in 2018-19 for 422 children and their carers. Each week the children participated in a different story and range of activities linked to the Early Years Learning Framework and nature-based play. Sessions focused on environmental education and Aboriginal cultural heritage outcomes. Feedback from parents was overwhelmingly positive, with 100% of respondents believing that the program had improved their child's connection to the natural environment.

Horticultural training

Formal horticultural training programs have been operating in Kings Park and Botanic Garden for over 50 years, initially covering Horticulture only but more recently including specific studies in Arboriculture, Conservation and Land Management and Turf Management. The program incorporates substantial on the job training and one day per week of formal education in a tertiary institution.

Post-graduate research training

BGPA has an ongoing commitment to training and mentoring scientists to address Western Australia's conservation needs. In 2018-19, 46 higher degree research students were directly supported in BGPA's laboratories, of which ten Honours/Masters and five PhD students completed their studies.

The Kings Park Summer scholarship program, supported by the Friends of Kings Park, attracted nine students aiming to transition into post-graduate research programs.

Our Volunteers

BGPA achieves its outstanding results in part through staff and volunteers working closely together. Volunteers contribute their time, expertise and passion.

BGPA has five dedicated volunteer groups who support the core activities of Bold Park and Kings Park and Botanic Garden and contribute to ongoing park management and essential visitor services. With the combined total of 850 members, BGPA volunteers contributed an estimated 45,340 hours of service (including group administration), being the equivalent of 23 full time employees.

Volunteering continues to grow with 25 new volunteers during the year joining the Friends of Kings Park Bushland Carers, Growing Carers, Growing Friends/Special Species groups and the Kings Park Education volunteers. There were 377 corporate volunteers and once-off individual volunteers for special and community.

Construction of the new Volunteer Hub 'Wanju Marr' is almost complete. Wanju Marr will provide for hands-on volunteers assisting BGPA with on-ground works throughout Kings Park. The facility will be opened on 30 August 2019.

Other highlights for the year include:

- For the twelfth consecutive year, the Friends of Kings Park were successful in obtaining a \$100,000 grant from Lotterywest to support the 2019 Kings Park Festival.
- The Friends have contributed almost \$200,000 from the Friends of Kings Park Fund towards Kings Park projects and programs and have committed to ongoing support of the Kings Park Science Summer Scholarship program for the foreseeable future.
- New guided walks have been developed including 'In the Footsteps of Women' which was run twice on International Women's Day in March 2019.



- The Friends of Bold Park Bushland held 10 bird banding sessions in the Mt Claremont section of Bold Park. They banded 381 birds over the year comprising 20 species. The highlight of this activity was banding three Southern Boobooks in one night, with 16 Southern Boobooks now banded in this area since 2012.
- The Kings Park Volunteer Master Gardeners responded to 2104 queries through the Gardening Advisory Service and the Friends of Kings Park plant sales. The group continued to directly support Kings Park Science and Plant Development programs and hosted 80 visitors at regular 'Dig it with Coffee' sessions.
- The Honour Avenues Group presented 45 new plaques at four dedication ceremonies throughout the year. There are now 1810 plaques in Kings Park's Honour Avenues.
- The Honour Avenues Group have also been working with RSLWA and BGPA to prepare for the centenary of the Honour Avenues in Kings Park. The occasion of the first dedication and opening of the May Drive Honour Avenue will be recognised with a significant event on 3 August 2019.

Reports from each of the volunteer groups are provided in Appendix 1.

BGPA volunteers gave
45,340
hours of service

Partnerships

A range of partnerships, sponsorships and other collaborations enable BGPA to support the Western Australian community and enhance the natural environment. During the year, the duty statements for a key role was amended to increase the focus on seeking and delivering partnerships and sponsorships for BGPA.

Strategic planning with the BGPA Board highlighted the need to position Kings Park and Botanic Garden as a partner of choice to attract innovative, environmentally and culturally sensitive projects and partners for the future. Key partnerships outcomes for the period are:

Rio Tinto

Rio Tinto Naturescape Kings Park continues to be a marquee project and partnership. The success of this partnership was recognised with a Premier's Science Award win in November 2018 in the category of Chevron Science Engagement Initiative of the Year.

Two thirds of all Kings Park visitors now identify Rio Tinto as a supporter of the park, demonstrating the impact of Rio Tinto's long-term support. Ninety percent of visitors to Rio Tinto Naturescape Kings Park are aware of Rio Tinto's support.

The Friends of Kings Park and Lotterywest

The Friends of Kings Park maintained their ongoing commitment in applying grant funding from Lotterywest for key community projects and events in Kings Park and Botanic Garden. For 2018-19 these included:

- Construction of the \$2.4 million 'Wanju Marr' volunteer hub commenced, which is set to open in August 2019.
- A \$100,000 grant to support community events and festivities associated with the 2018 Kings Park Festival.



In addition to the initiatives supported by Lotterywest, the Friends of Kings Park have provided additional funding to support other BGPA activities including:

- \$17,000 per annum for the Kings Park Science Summer Scholarship program for aspiring post-graduate science students.
- \$4,000 annually for the Vic Galea Scholarship for BGPA staff and students to participate in a work placement or conference for the benefit of BGPA and the professional development of the applicant.
- \$125,000 over three and half years for a Plant Development project on determining colour compounds in *Anigozanthos* species and hybrids.
- \$35,000 to Kings Park Science for orchid biology and conservation.

Fugro

Kings Park Education has a two-year partnership with global geotechnical and survey company Fugro who are the major supporter of the Djilba Festival in 2018 and 2019.

The partnership enables this popular two-day event for Western Australian primary schools to deliver high quality environmental displays, activities and experiences delivered entirely by local Aboriginal presenters, educators and artists. The Djilba Festival hosts 1500 students and educators per year and enables a level of recognition and celebration of Aboriginal connection to the parks that would not otherwise be possible.

Perth Festival

A significant collaboration between BGPA and the Perth Festival saw 230,000 people attend 'Boorna Waanginy: The Trees Speak' over four nights in February 2019. This event accounted for almost half the Perth Festival's total attendance in 2019, and the overwhelmingly positive response to the event exceeded Festival averages on all counts.

The clear alignment of values between Perth Festival and BGPA to promote the Western Australian environment, conservation and Aboriginal culture provided a strong foundation to deliver this extraordinary free event.

Tourism WA

Kings Park and Botanic Garden is Perth's most visited attraction and is a significant element of tourism marketing for Western Australia in general and for Perth in particular. The Western Australian Botanic Garden, with its strong representation of the State's flora, was therefore a natural fit for a location where the BGPA could support Tourism WA's delivery of the WA showcase event 'WAnderlust' as part of its hosting of the 2019 Australian Tourism Exchange

Research Partnerships

BGPA undertakes project-based collaborations with private sector organisations with a mutual interest in restoration ecology, seed science and biodiversity conservation generally. Research outcomes, programs and partnerships are detailed further in this report. Two partnerships of note are:

Restoration Seedbank Initiative

The five-year, \$5 million partnership with BHP Billiton Western Australia Iron Ore (and The University of Western Australia) to research and develop seed technologies and soil management practices that improve the capability for mine site rehabilitation concluded in October 2018.

Through this partnership seed collection, handling, and germination procedures have been developed for more than 100 native species required for rehabilitation. Alongside the seed-based technologies, research has focused on improving the biological, chemical, and physical properties of the mine-waste substrates to enhance soil functioning and improve plant establishment. In conjunction with BHP, the core findings from this research program are now being documented as a series of research facts sheets and case studies to be completed by December 2019.



Global Innovation Linkages Project

Leading on from the Restoration Seedbank Initiative the Global Innovation Linkages Project commenced in 2017-18 as part of a new federally-funded, four-year \$1.3 million research partnership with BHP, Rio Tinto, Greening Australia, and scientists at The University of Western Australia and in the United States. The project aims to evaluate and modify direct seeding machinery capable of delivering seeds at a large scale across the sloped and rocky landscapes common to mine-site rehabilitation. Over the recent Pilbara summer, a series of large-scale direct seeding trials were set-up on mine sites in the Pilbara provided by both mining partners.

These studies are evaluating the effects of managing seeds for dormancy and the application of various seed enhancement technologies such as flash flaming, hydro-priming, and extruded pellets. In the largest of these trials the research team partnered seed treatments with a newly commissioned direct seeding machine. Monitoring of these trials is ongoing through the summer of 2019-20.

International Partnerships and Projects

BGPA continued to provide consultancy services in the Middle East with the Riyadh Development Authority (RDA - formerly the Arriyadh Development Authority) on a fee for service basis. This work enhances BGPA's international reputation in horticultural and restoration projects and builds experience and expertise in landscape scale ecological restoration.

Commercial Operations

Aspects of Kings Park Gallery Shop

Aspects of Kings Park gallery shop showcases Western Australia's finest collection of local and interstate art and design. A new Corporate Gift Guide was developed during the year to develop this market. Aspects will soon stock a range of high-quality Aboriginal art and crafts.

Owned and operated by BGPA, all profits are directly reinvested into Kings Park and Botanic Garden and Bold Park. In 2018-19 these sales contributed 15 percent of BGPA's total revenue.

Leases and licence agreements

A range of private commercial businesses operate in Kings Park and Botanic Garden under formal agreement with BGPA. These businesses provide highly valued services to enhance visitor experiences and contribute to revenue earned by BGPA and reinvested in conservation work, education activities and community programs.

Aboriginal Art Gallery

The Aboriginal Art Gallery in Kings Park continued to operate through the year but closed on 30 June 2019 after 23 years of service. A selection of Aboriginal art and products from the gallery will be soon available in Aspects of Kings Park to ensure ongoing access for visitors to authentic products.

Aboriginal Tourism Experiences

Nyungar Tours and Go Cultural Aboriginal Tours commenced in April 2019 in time to provide tours for international and national tourism industry representatives attending the Australian Tourism Exchange in Perth. They are both owned and operated by local Aboriginal people and deliver uniquely different products.



Other agreements include:

- Fraser's complex including Fraser's Kiosk, Botanical Cafe, Fraser's Restaurant and Function Rooms and the State Reception Centre
- Stickybeaks Cafe, Lotterywest Family Area
- · Zamia Cafe, May Drive Parkland
- The Royal Kings Park Tennis Club incorporating Next Generation Kings Park
- · Perth Explorer Tours (open top double decker bus)
- Segway WA Tours
- · Spinway Bike Hire
- Mellen Events concerts in the WA Botanic Garden
- · Moonlight Cinema outdoor cinema in May Drive Parkland
- · Prompt Corner children's theatre in Saw Avenue Picnic Area

Communications and Marketing

Strategic communications, marketing activities, social media and public relations activities extend the reach of our work and enable the BGPA to share our values and stories about the projects and people, community activities, cultural heritage, research and biodiversity conservation that shape Kings Park and Bold Park.

A focus for the year has been integrating all communications and marketing functions into one team to coordinate media and corporate communications, and manage BGPA's communications channels including websites, e-newsletters, billboards and social media platforms. Through these channels the team successfully engaged audiences and promoted events and activities across areas including horticulture, science, education and events.

Achievements during the year include:

- Producing exhibitions, publicity and promotions to attract over 500,000 visitors to the 2018 Kings Park Festival.
- Achieving more than 2,200 individual media reports on Kings Park and Bold Park, reaching a total audience of almost 90 million people.
- Generating growth in social media audience and engagement with a 23 percent increase in followers of Kings Park's social media channels.
- Adopting a 'mobile first' approach to website management, as
 70 percent of website views now happen on mobile devices.
- Attracting more visitors to the BGPA website by 17 percent on the previous financial year.



2018 Kings Park Festival billboard promotion.





Kings Park and Botanic Garden

Published by Euc Caesia 🖾 - 27 May at 09:51 - 🔾

Garden pests of a different kind hit Kings Park

Kings Park is calling for help from the people of Perth to catch thieves stealing large quantities of flowers and foliage from the park. The most recent theft on Thursday night saw a number of banksia flowers cut and stolen from the WA Botanic Garden.

It is believed the flowers and foliage are being sold commercially.

Florists are urged to check their suppliers are obtaining stocks from legal sources.

There have been at least 28 significant thefts reported in the last 12 months, with up to hundreds of cut stems per incident. More thefts are likely to have gone unreported.

Kings Park is working with WA Police on the issue, with at least one person arrested and charged with multiple thefts in recent months. The flowers pictured were recovered during a recent arrest. The second image shows a cut stem in Kings Park's banksia garden.

Visitors and the community are urged to report suspicious behaviour to Crime Stoppers or calling a Park Management Officer on 0418 923 973.

The thefts are damaging Kings Park's beautiful displays for visitors, having an impact on the natural environment of the Park.

#perthnews PerthNow 7NEWS Perth 9 News Perth 10 News First Perth The West Australian ABC Perth WAtoday.com.au News Talk 6PR 882



83,907 People reached 23,315 Engagements

Boost Post

In focus: Flora thefts in Kings Park and Botanic Garden

During the year, Kings Park was a target for extensive and repeated theft of flowers and foliage with significant impact to displays and overall visitor experience.

The communications team executed a publicity campaign enlisting the support of the community, encouraging visitors to be vigilant and report suspicious behaviour. Other strategies included:

- Contacting florists and encouraging the use of reputable suppliers.
- Signage, visual messaging boards and temporary CCTV cameras in theft hot spots.
- · Using the website and social media to spread the word.
- Enlisting support from WA Police.

Significant media interest reached more than half a million people and BGPA received dozens of tip offs. The intense media interest, response from florists and extra security measures has resulted in a significant drop in thefts.

Visitors can find out about activities in Kings Park and Botanic Garden, Bold Park and Aspects of Kings Parks through our websites and social media -

www.bgpa.wa.gov.au, www.aspectsofkingspark.com.au











Parks, Horticulture and Conservation

Western Australian Botanic Garden

The Western Australian Botanic Garden is primarily dedicated to the conservation, cultivation, display and interpretation of the state's native flora. Garden displays promote community appreciation and understanding of the flora and the importance of its conservation in the wild.

New planting was undertaken to revitalise the displays and increase the diversity of taxa on display. These included:

- A range of newly collected *Calandrinia* species were successfully introduced to the garden collections. Species included *Calandrinia balonensis*, *C. mirabilis*, *C. polyandra*, *C. reticulata and C. schistorhiza*.
- Displays of some of Western Australia's ornamental small eucalypts were extended through various locations. Species include Eucalyptus altissima, E. brandiana, E. caesia, E. kruseana, E. macrocarpa, E pyriformis, E. websteriana, E. youngiana.
- The conservation garden was enhanced with rare flora germinants supplied by the WA Seed Centre, Kensington, adding to the threatened flora species on display.
- Bushland transition gardens that display ornamental local species along the Mount Eliza Escarpment.
- Beds displaying two of Western Australia's endemic genera, the *Chamelaucium* (wax) and *Anigozanthos* (kangaroo paw).
- Gardens along Forrest Drive that display collections from the State's south coast and the wheatbelt region.
- · The Eastern States gardens at the Place of Reflection.

Almost 20,000 plants were planted in the Botanic Garden and surrounding parkland areas to develop floral displays for the Kings Park Festival.







Photos top to bottom: Calandrinia schistorhiza; Eucalyptus pyriformis; Chamelaucium uncinatum.



Parklands and playgrounds

Over the year garden beds were enhanced at the Lotterywest Family Area and the Saw Avenue Picnic Area with an extended range of plant species on display.

At the Hale Oval precinct, trees and shrubs considered woody weeds have been removed. Gardens surrounding the Zamia café at May Drive Parkland were rationalised to make way for new plantings. This area displays many species suitable for home gardeners as part of the 'Grow me at home' demonstration garden.

At Mounts Bay Gardens, at the base of the escarpment, removal of woody weeds was completed and a range of local escarpment species planted.

Maintenance at all playgrounds continued as a priority to maintain high standards of safety. Ageing timbers at the Windy Walk at May Drive Parkland were replaced. Softfall mulch was replenished at all playgrounds and playground safety audits were conducted.



The Western Australian quenda (*Isoodon fusciventer*) population is increasing in Kings Park and can often be spotted fossicking in garden beds.



Bushland Management

Kings Park bushland

At the beginning of the 2018-19 year, bushland teams from Bold Park and Kings Park were combined into a single team that operated across both parks.

The Bushland Carer groups had an increase in numbers of volunteers attending each session covering duties such as planting, weeding and seed collection.

New operating models were established and activities to promote the conservation of native biodiversity in the Kings Park bushland continued. Highlights included:

- A decadal vegetation survey was conducted in spring 2018 at 303 sample points, collecting cover and recruitment data for all species and phenology data for native species. Plant identifications were completed, data digitised and checked ready for data analysis. This survey provided opportunity for recording quenda activity, an important monitoring task to inform future fauna management strategies. Observations were recorded at each survey point with information incorporated into the biodiversity database for the bushland. Observations indicate the quenda population is healthy and expanding.
- Restoration planting in July 2018 included 10,401 plants from 56 species at 19 restoration sites. The key sites were the Nature Trail, Thomas Street and selected escarpment sites as in previous years in accordance with the five-year Restoration Plan.
- Seed collecting from October to May yielded collections from 62 species, including some vulnerable species.
- All 15 vulnerable species were recorded as present in the bushland and three of these species were incorporated into restoration planting sites to enhance the populations.
- Veld grass control covered 18 hectares, with a focus on the highest risk areas and the six-hectare experimental fire site.



- Priority was placed on control of over 20 highly invasive species at all known sites. These included *Euphorbia terracina*, *Watsonia meriana* and some weeds of national significance such as *Lantana camara* and *Asparagus sp*.
- Fox research supported by the Friends of Kings Park, was initiated to track and record fox movement within Kings Park.

Bold Park bushland

Progress was made on all 28 priority strategies identified in the 2016 – 2021 Bold Park Management Plan, of which 24 are ongoing in nature. During 2018-19 activities included:

- Ecological restoration included planting of 10,190 local native plants from 38 species in key restoration sites during July along with veld grass control over 18 hectares of the bushland.
- There was also a focus on control of highly invasive species such as Black Flag (*Ferraria crispa*) across the site.
- Seed collecting was undertaken during the period from October to May, which resulted in collections from 97 species.
- Populations of the 15 most vulnerable species were closely monitored to determine population stability, with all 15 species recorded as present and populations remaining stable.
- Plants of three of the vulnerable species were propagated and incorporated into conservation gardens at the Ecology Centre and an additional species was propagated and retained in the Kings Park nursery as an ex-situ collection.
- The ground fauna monitoring program continued using static cameras to collect data on the frequency of fauna sightings and help identify possible changes in population size over time. A total of 92,400 hours of camera monitoring was collected during the year with data used to inform bushland programs and for external research projects including fox monitoring.





The red and green kangaroo paw *Anigozanthos manglesii* (top) and *Banksia menzesii* (bottom) are commonly found in Kings Park and Bold Park bushlands.



Horticultural Services

Arboriculture

A small but highly professional team of qualified Arborists manage the trees in Kings Park and Botanic Garden and Bold Park for their ongoing conservation and amenity values. Activities during the year included:

- Tree surgery is almost a daily task with a few notable large projects completed during the year. Remedial works were implemented on 65 significant Tuart trees (*Eucalyptus gomphocephala*) in Bold Park and a further 43 Tuarts in Kings Park. In addition, a large old Peppermint (*Agonis flexuosa*) near the Botanical Café required significant restoration work.
- A concerted effort was made to eliminate remaining Kurrajong trees (*Brachychiton populneus*) from various parkland areas in Kings Park as these trees pose a weed threat to the Kings Park bushland. A total of 33 of these trees were removed.
- Approximately 20 trees were planted along the Honour Avenues as replacements for those that were removed the previous year due to senescence and declining health.
- More than 50 trees were planted throughout the Kings Park parkland as part of the tree replacement program.
- Three new stem fall arrest systems were installed through the year to improve visitor safety, and ongoing monitoring was conducted on a further eight systems.

Nursery

The Kings Park Nursery forms a critical link between the field collection program and the living collections displayed in the Botanic Garden, growing a diverse range of Western Australian plants, many of which have not previously been cultivated or made available for horticultural use, restoration and research purposes.

The Nursery also maintains many plant collections and plays a key role in the ongoing BGPA conservation and research programs. Key activities for the year included:

- The Nursery team produced around 19,000 plants for incorporation into horticultural displays, and a further 1800 summer annuals produced for display purposes.
- Almost 11,000 local trees and shrubs were grown for bushland restoration programs.
- More than 90 advanced trees were produced for tree replacement programs throughout Kings Park, including the honour avenues and Rio Tinto Naturescape Kings Park. Over 43,000 plants were produced in total for the year.
- A total of 2,550 plants of critically endangered species were grown for use in DBCA translocation projects; 97 plants of *Conospermum undulatum* were produced for Main Roads; and 120 *Bossiaea modesta* plants were produced for a DBCA project with Woodlupine Primary School.
- Propagation trials of the critically endangered *Ptilotus pyramidatus* were conducted, resulting in around 300 plants that
 will be used for further research.
- Another propagation trial of note was of vegetative material from the critically endangered *Gyrostemon reticulatus*, producing plants for use in a seed orchard. This species was only known from stored seed until a new population was recently discovered, enabling the supply of cutting material.
- Grafting trials were conducted using a new technique of 'mummy grafting' with selected species of *Verticordia* and *Eremophila*, with some encouraging early results.
- Some new species were introduced into cultivation or reintroduced after many years, including Stylidium fluminense, Grevillea striata, Stenochlaena palustris, Acacia wiseana and Acacia wilsonii.



Horticultural Development

The Horticultural Development branch provides senior technical support for horticultural operations within BGPA, investigating new methods and best practice procedures, assisting with problem solving in technical areas, and interpreting scientific outcomes for practical application in operations.

A key undertaking in the past year was to progress investigations into chlorotic decline syndrome, a problem that has affected a range of trees in Kings Park. Activities included:

- extension of trials to additional affected trees and use of new techniques.
- ongoing surveying and pH data collection.
- preparation of a report to document findings and recommend remedial acidification treatment for landscape scale implementation.
- planning for the introduction of acid injection system to the irrigation water.
- quantification of acid demand.

The Kings Park Volunteer Master Gardeners assisted with this project by undertaking hundreds of soil pH tests throughout Kings Park, collating the results, and providing a valuable resource to inform project development with considerable cost savings for BGPA.

Herbarium

In July 2018, the Kings Park Botanist transferred to become part of the Biodiversity and Conservation Science Directorate within DBCA but continued to base his activities at Kings Park including:

- identifying and processing plant specimens collected in association with seed collections from throughout Western Australia.
- processing species specimens for dispatch to the Millennium Seed Bank in the United Kingdom.

The Herbarium Botanist plays a key role in providing plant identification services for BGPA, particularly assisting the Arboriculture team with their tree survey in Kings Park and Botanic Garden. Notable activities for the year included:

- Botanical information for 740 new plant labels was checked and the integrity of botanical names in the horticultural database was maintained.
- The Friends of Kings Park plant sale lists were reviewed for each of four plant sales to ensure accuracy of the information provided.
- Responding to public enquiry emails and participation in the Kings Park Festival as a tour guide were also key activities.

Western Australian Seed Centre – Kings Park

The seed centre adopted a new name this year, now known as the Western Australian Seed Centre – Kings Park, as part of the amalgamation of BGPA with DBCA, where the Western Australian Seed Centre – Kensington is based.

The seed collection program is fundamental to the operation of the Botanic Garden, collecting seed from the wild throughout the State, documenting its source and other key collection details, and then processing for storage as a seed resource for future displays.

Funding through the Australian Seed Bank Partnership and the Millennium Seed Bank (MSB) in the United Kingdom continued for collections under the Global Trees Project. This was the final year of this five-year project, yielding 27 collections from species new to the MSB.

Fieldwork yielded 100 collections from 57 days spent in the field between August and February, with major trips to the Gascoyne, Shark Bay and three trips to the Pilbara. The overall number of accessions held in storage in June 2019 was 11,833. A highlight of the field season was the Wanggalili Project, which focused on training the local people and collection of Pilbara bush food species in collaboration with the Yindjibarndi traditional owners in the Pilbara.



In focus: Wanggalili Project

A new project named the Wanggalili Project was initiated in 2018 with the Yindjibarndi Aboriginal Corporation based in Roebourne in the Pilbara, and other partners, as part of a study to test the feasibility of growing Yindjibarndi plant species for harvest and manufacture into products for commercial sale.

Kings Park and Botanic Garden committed to the first stage of the project, which involved identification and collection of specimens and seed from potentially suitable species, training of traditional owners in seed collection and processing, and the establishment of propagation trials for selected species in the Kings Park nursery. This component was funded by the City of Karratha, one of the project partners.

Three separate field trips were made to the Pilbara between August 2018 and January 2019 for the seed collection and associated training of community members on country, providing skills for future seed harvesting and processing. It also provided valuable professional development opportunities for the BGPA staff involved, particularly in communication and development of a respectful relationship with the local community. In addition, BGPA hosted two visits from leading traditional owners for meetings in Kings Park and participated in several teleconferences for project updates during the trial period.

Of the 19 species for which specimens were collected, seven were selected as having good potential for commercial use as bush foods or other use and progressed to propagation trials. Species selected included the following:

Species name	Yindjibarndi name	Common name
Capparis lasiantha	Jirrwirliny	Split Jack
Capparis spinosa	Bajila	Caper Bush
Capparis umbonata	Gayawayi	Wild orange/Mango
Cynanchum floribundum	Wajurru	Native Pear
Ficus aculeata	Tharburi	Sandpaper Fig
Ficus brachypoda	Winyarrangu	Rock Fig
Santalum lanceolatum	Burdardu	Northern sandalwood



Kings Park staff conduct a collecting training session in the field with Yindjibarndi traditional owners.



Some of the Yindjibarndi trainees with Kings Park staff at Millstream.



In focus: Wanggalili Project

The most successful species propagated were the Split Jack, Caper Bush, the Northern Sandalwood and the Rock Fig, followed by the Sandpaper Fig. The Wild Orange and the Native Pear were the least successful in terms of propagation and growth success, most likely due to the viability of the seed collected being assessed as much lower than the other species. All aspects of the seed processing and propagation methods were accurately documented for reporting back to the Yindjibarndi Corporation.

Over 500 plants were produced through the propagation trials, most of which were prepared for transport to Roebourne in early July for growing on in the warmer climate. A smaller number of plants were retained in Kings Park for incorporation into plantings in the Western Australian Botanic Garden, and a supply of processed seed collected during the project has been stored in the Western Australian Seedbank Kings Park for use in future trials.

Overall the project to date has been a great success with the traditional owners excited to see the project advancing and their plants being propagated. It is envisaged that collaboration will continue in the following year to trial additional species and provide technical advice on their establishment in the Pilbara. Advice and support on a formal TAFE training course at Karratha for interested Yindjibarndi community members is also occurring.



Yindjibarndi plants being grown on following successful propagation trials.



Plant Development

The Plant Development team released five new elite *Grevillea* hybrids during the year in association with BGPA's commercial partner, Benara Nursery. These new hybrids are 'Coverall', 'Honey Moon', 'Red Coral', 'Tangerine Dream' and 'Scarlet Moon'.

Internationally, two recently released *Chamelaucium* hybrids 'Morning Delight' and 'Dawn Pearl' have been planted for commercial cut flower production in South Africa and the USA, with contracts also signed for production in Israel. These cut flowers will be sold in the European and American markets.

Plantings of these two *Chamelaucium* hybrids have also been expanded in Western Australia and Victoria, with further plantings planned for Queensland to meet the demand for Mothers' Day flowers, due to their early flowering characteristics.

Several other hybrids in the genera *Anigozanthos, Boronia, Chamelaucium, Corymbia, Grevillea,* and *Leptospermum* are being trialled with various commercial partners to determine their suitability for commercial production. Thousands of second-generation hybrid seed has been produced for trialling for Manuka honey production in Western Australia as part of three-year contract arrangements.

Commercial partnerships provide funding support for the breeding programs in addition to royalty returns to the BGPA on sales of plants developed through those programs. The *Grevillea* and *Corymbia* breeding commercialisation partnerships were renewed, and a new three-year contract related to selection and breeding of *Eucalyptus* for essential oil production in Western Australia has been signed with Main Camp Natural Extracts. A new three-year contract for breeding elite varieties of *Leptospermum* for essential oil production in Western Australia was signed with ManukaLife.







New release hybrids (top to bottom): *Grevillea* 'Tangerine Dream', *Chamelaucium* 'Dawn Pearl' and *Grevillea* 'Scarlet Moon'.



Asset Upgrades and Management

Work on the new volunteer hub 'Wanju Marr' at the Eucalyptus Carpark was almost complete with the main building including a new workshop for hands on volunteers, storage for garden and bushland carers equipment, some office space and kitchen and bathroom facilities. This project received \$2.4 million funding from the Friends of Kings Park, supported by Lotterywest.

A new Changing Place was completed at the Kulbardi Toilets at Saw Avenue Picnic Area, providing fully accessible, secure bathroom and change facilities for people with specific needs and their carers. The project was jointly funded by the BGPA and Department of Communities.

The May Circle Centenary project to upgrade the landscape at May Circle was well advanced. Works include a new paved area, sitting walls and an abstract steel artwork that serves as a lectern for plaque dedication services. The project commemorates the Centenary of the inaugural plaque dedication service on 3 August 1919 and the opening of the May Drive Honour Avenue. It was funded by a three-way partnership between RSLWA, the Friends of Kings Park and BGPA.

Other works included:

- A new depot workshop was completed in April 2019 to replace the facilities destroyed by a fire in 2017.
- A jointly funded arrangement with the Zamia Café lessee resulted in refurbishment works to the Café and the adjacent toilets.
- Restoration and maintenance works at the Royal Kings Park Tennis Club were completed in December 2018, funded by Next Generation.

Risk Management

Fire and emergency management

BGPA places a high priority on fire preparedness and management activities with the aim of reducing bushfire related risks impacting on the bushlands and their immediate surrounds at Kings Park and Bold Park. The Emergency Management Plan was expanded to include additional areas and document training procedures. Other policy changes included review of park closure plans.

There were 12 very high and two severe fire danger days, 13 of which resulted in closure of Rio Tinto Naturescape Kings Park to the public. One further closure occurred due to a total fire ban declared very late in the season in June.

There were five small bushfires in Kings Park between August and April that burnt a total of 0.2 hectares. Two of these fires occurred on the same evening in close proximity and were believed to have been deliberately lit. There was one fire in Bold Park that occurred due to a prescribed burn on Department of Defence land spreading across the boundary. There was no infrastructure damage and minimal environmental impact for any fire event during the year.



Tree risk management

Tree management and the treatment of risks associated with tree or limb failure remained a high priority for the BGPA to optimise visitor safety in the parks. Key activities included:

- Use of the Quantified Tree Risk Assessment (QTRA) for ongoing inspections conducted by licensed and qualified BGPA Arborists.
- The BGPA Arborist conducted walk-through inspections prior to major events including Boorna Waanginy, Anzac Day, Australia Day and the Kings Park Festival.
- Risk mitigation action was taken for seven trees in parkland areas and for 25 trees in the Kings Park and Bold Park bushland precincts.

There were 196 stem failures reported to June 2019 (greater than 50mm diameter) in Kings Park and Bold Park combined. This was approximately 50 less than for the previous year. There were two recorded incidents of minor injury resulting from small branchlets dropping over paths with no significant infrastructure damage.



BGPA arborist at work.

Landslide and rock fall management

BGPA has been actively managing the risks associated with geotechnical instability on the Mount Eliza Escarpment for over 25 years to reduce the risk of injury from rockfall and landslide. Two geotechnical inspections were conducted along the escarpment. No major concerns were identified but some minor remediation works were implemented.

Water management

Water conservation is a high priority for BGPA with careful planning and maintenance of turf and the living collections in place under a Groundwater License and Operating Strategy. Total groundwater use during the 2018-19 year was recorded at 536,917kL, which was higher than the previous year but still well within the licensed allocation of 580,700kL.

A review of BGPA preservation infrastructure management was undertaken that focused on water supply infrastructure for both fire management and irrigation. The review informed a new Water Supply Infrastructure Management Plan to document water supply systems and equipment, as well as operations procedures, maintenance checks and asset replacement schedules.

The water bodies in Rio Tinto Naturescape Kings Park continued to be tested and monitored in accordance with the Water Quality Management Plan. In November 2018, an alert in one waterbody required the temporary closure of one of the ponds while changes to the settling agents were implemented.



Conservation Science

The BGPA Annual Report provides an overview of research activities and outcomes that support conservation science priorities of the Authority. Additional information about these, and other conservation science activities, is available in an Annual Research Report published by the Biodiversity and Conservation Science Directorate which is part of DBCA.

Restoration ecology and ecophysiology

The sciences of restoration ecology and ecophysiology provide the fundamental knowledge to rebuild degraded landscapes using an understanding of plant species and their interactions with altered environmental conditions. BGPA has become a research provider and leader in the science of ecosystem restoration, focusing on interactions of Australian native plants with their natural and altered environments, particularly through mining and changing climate.

Research during the year has continued to deliver outcomes for both managed lands and for Western Australia with specific contributions including:

- Completion of the Australian Research Council (ARC) funded program examining the susceptibility of Banksia species to hydraulic failure and mortality compared to other native tree species in Kings Park.
- Completion of the completion criteria and risk based monitoring for mine closure project with partners including WA Biodiversity Science Institute, Curtin University, UWA and Murdoch University.
- Commencement of the Revegetated Cover Systems Program with O'Kane Consultants Pty Ltd, UWA and industry partner BHP examining net percolation through waste rock substrates.
- Commencement of the project 'Developing conservation and rehabilitation options for targeted and iconic Pilbara plants species' with Industry Partners Rio Tinto and collaborator UWA examining greenstock plantings on waste rock profiles.

- Continued treatment of chlorotic decline syndrome across susceptible plant species within Kings Park and Botanic Garden based on research outcomes.
- Continued research partnership with Hanson Construction Materials delivering Banksia Woodland restoration solutions for practitioners.
- Continuation of Restoration Ecophysiology node in the ARC funded Industry Training and Transformation Centre (Centre for Minesite Restoration) with collaborative research organisations, Curtin University and the University of Western Australia. Research areas include understanding soil microbial impacts on plant health, linking remotely sensed imagery to plant function, impacts of rock on plant water relations.
- Continuation of a collaborative research project with Metals X
 Limited to understand the limitations of various mine waste
 substrates to support vegetation restoration at its Nifty copper
 operations in the Great Sandy Desert and to identify suitable
 analogue vegetation community for restoration to the various mine
 closure domains.
- Continuation of a major ARC funded research program 'Ecoengineering soil from mine tailings for native plant rehabilitation'. In collaboration with University of Queensland, University of Western Australia, Curtin University and Karara Mining Ltd to understand soil paedogenesis in tailing materials and rehabilitation implications for native plants.



Conservation biotechnology

The Conservation Biotechnology team undertake research in two main disciplines: in-vitro propagation and cryopreservation. The in-vitro program involves investigations into tissue culture (micropropagation) with threatened or priority plant species, where other propagation options (i.e. macropropagation by cuttings or seed) are not viable. The micropropagation program links with the ex-situ conservation of threatened taxa and the cryopreservation program. Cryopreservation research is focused on developing viable cryobanking technology for threatened species that cannot be stored by other means, as part of the overall ex-situ conservation initiative for DBCA.

Research in this program resulted in the following projects started/outcomes delivered during the year:

- Commencement of a project to develop micropropagation of the critically endangered species Banksia ionthocarpa spp chryosophoenix for ex-situ conservation, cryobanking and future restoration/translocation purposes.
- Commencement of a PhD program on characterisation of metabolic function of plant tissues during cryopreservation.
- Commencement of a PhD program on cryopreservation of threatened rainforest species.
- Commencement of an Honours project on development of cryopreservation protocols for recalcitrant seeded species.

Rare and threatened species and orchid conservation

Research on threatened species conservation aims to improve our understanding of various factors (environmental/ecological) affecting threatened species. Kings Park Science research streams include: seed biology and ecology, plant biotechnology, population genetics, pollination biology, ecophysiology, and restoration ecology. A number of research programs on saving threatened species involve collaborative projects with DBCA and industry partners, particularly those involving translocations of Declared Rare Flora.

Outcomes during the year included:

Rare and threatened species research

- Continuation of a five-year collaborative project with Mineral Resources (nee Cliffs Natural Resources) to provide the Science to underpin the translocation of *Tetratheca erubescens* (Declared Rare Flora) by understanding seed biology and plant propagation for use in future translocation programs.
- Continuation of the Rare Species Research node in the ARC funded Industry Training and Transformation Centre (Centre for Minesite Restoration). The rare species node is understanding environmental and landscape interactions that may decipher species distributions of rare and threatened Banded Iron Formation taxa.



Images of the 2018 translocation of greenstock. A) locations of greenstock (T23); B) close-up of a planted greenstock into a drilled hole on a cliff; and C) locations of greenstock (T24). Photos: C. Elliott



Orchid conservation

- BGPA's living orchid collection contains a number of species of conservation significance. A collection of federally listed, endangered *Caladenia leucochila* now provides a seed orchard and the opportunity for recruitment to occur outside the laboratory, through parental nurture. This collection represents the largest conservation collection of a single species in Australia.
- The Caladenia busselliana program continues with just over 900 laboratory grown seedlings transferred to soil mid-2018. These seedlings are being monitored for re-emergence and survival and will form part of the first cohort for translocation. A Translocation proposal is currently being finalised in conjunction with DBCA, Blackwood District. Further seed collections were made in 2018 from remaining wild individuals, and germination from this seed commenced in early 2019. Approximately 500 of these seedlings have been transferred to soil in the glasshouse, with a further 200 to be transferred by mid-2019. Pending flowering of laboratory grown plants, pollinator baiting trials are planned to determine the identity, distribution and abundance of the pollinator regionally. Storage of orchid seed and associated fungal symbionts is ongoing.
- Commencement of an orchid conservation program on the conservation and translocation of the federally listed, critically endangered Caladenia lodgeana in conjunction with Blackwood District DBCA. Seed and fungi were collected from wild individuals in late 2018. Germination commenced in early 2019, and approximately 400 seedlings have been transferred to soil in the glasshouse. Storage of orchid seed and associated fungal symbionts is ongoing.
- Collections of a further two federally listed orchid species from the Blackwood District have been made; Caladenia procera (critically endangered) and Caladenia viridescens (endangered). Germination has commenced, at a smaller scale, and storage of seed and fungal symbionts is ongoing.
- A PhD project in conjunction with Curtin University, focusing on mimicry in Diuris pollination, has been successfully completed. A publication has arisen from this PhD.
- An Honours program completed in late 2018 researching the effects of cryostorage on sugars in orchid seeds leading to optimising the cryostorage of orchid seed in liquid nitrogen.



Caladenia busselliana (Bussell's spider orchid). Photo B Davis



Conservation genetics

The Conservation Genetics team undertakes innovative genetics research underpinning the conservation and restoration of Western Australia's unique biodiversity. This includes the application of modern molecular techniques and field-based experiments in conservation genetics, restoration genetics, molecular systematics, DNA barcoding, and the assessment of key population genetic processes such as mating and dispersal of pollen and seed.

During the year research programs involved or delivered:

- A quantitative assessment of the potential genetic impact of proposed mining activities on threatened plant species.
- An assessment of seed sourcing strategies for ecological restoration under current and future climates through large-scale field-based provenance trials.
- An understanding of the extent and significance of negative genetic effects following the mixing of seed source provenances for ecological restoration.
- A detailed understanding of the importance of nectar-feeding birds as pollinators for eucalypts, banksias, kangaroo paws and cats paws.
- An ecological genetic assessment confirming connectivity, reproductive functionality and delivery of pollinator services in restored populations of banksias pollinated by vertebrates.
- An assessment of range-wide genetic diversity and its spatial structure, mating systems, long-distance seed dispersal, and movement ecology in seagrass (*Posidonia*).
- The assessment of adaptation and resilience to climate change in seagrass.
- A redefinition of biologically significant units in spinifex (*Triodia spp*) for improved ecological restoration in arid Australia.

- Multiple new species described from the Kimberley and Pilbara.
- An assessment of the conservation and restoration implications of DNA ploidy variation in sedges and grasses.
- The measuring and managing of genetic erosion in the recovery of critically endangered species through translocation.
- The ecological genetic assessment of restoration success of the Gondwana Link project.
- Assessment of soil microbial diversity trajectories following postimpact rehabilitation using high-throughput DNA barcoding methods.
- Reviews of genetic diversity and structure of the Australian flora as well as plants endemic to Banded Ironstone Formations in Western Australia.



Red Wattle bird pollinating a red and green kangaroo paw (*Anigozanthos manglesii*). Photo: B Ayre



Bee pollination is not as successful as they are unable to carry the pollen into the tubular sections where the plant's female reproductive parts are located. Photo: B Ayre

In focus: The birds, the bees and the kangaroo paws

The South West of Western Australia has the highest incidence of bird and mammal pollination in the world, with 15 percent of our flowering plants visited by vertebrate pollinators, including 40 percent of threatened species.

Kings Park Science has been investigating the novel genetic and ecological consequences of pollination by birds and mammals on a range of plant species throughout Western Australia. PhD student Bronwyn Ayre has been exploring the role of both native nectar-feeding birds and the impact of the introduced honeybee on the West Australian Floral Emblem, the Red and Green Kangaroo Paw.

Using a combination of fieldwork, experimental hand-pollination, and genetic analysis, she's been investigating what species visit Kangaroo Paws, how effective they are at pollinating, and the complex interactions that happen after pollen grains are deposited on flowers.

"The plant has weird-shaped tubular flowers that have a curve in them, and some birds are a perfect fit in size and shape to the flower. This means that, when they enter the flower to take nectar, pollen covers their head and back."

Results from Bronwyn's project indicate that bird-pollination is critical for the Kangaroo Paw-with higher fruit set, seed production and offspring genetic diversity when birds are visiting Kangaroo Paws. Her work also highlights the need to improve our understanding of the impact of the introduced honeybee on native plant pollination.

This work was funded by an Australian Research Council Discovery Grant (DP 140103357), and a Holsworth Wildlife Research Endowment grant. More information on Kings Park's research into vertebrate pollination can be found here:

https://www.bgpa.wa.gov.au/about-us/information/research/ecosystem-ecology/vertebrate-pollination



Seed science and restoration seedbanking

The seed science programs encompass fundamental and applied research to support species conservation and ecosystem restoration. Highlights of the program this year included:

- The Restoration Seedbank Initiative has continued into the fifth year. Over the past year research trials in glasshouses, and at field stations and rehabilitation sites in the Pilbara have been completed evaluating how seed enhancement treatments and the addition of organic and inorganic amendments to soils affect seed germination and seedling growth.
- A field trial testing the influence of soil rock content on seedling emergence was completed using the rain-exclusion shelter located at BHP's Mt Whaleback mine. The study created differing soil profiles containing increasing levels of gravel/rock content and placed seeds of *Triodia pungens* at different depths within the soil profile to inform development of improved direct seeding machinery.
- In partnership with UWA under a four-year research project funded by the Global Innovation Linkages Program, a 12 hectare direct seeding trial was installed on a mine waste rehabilitation site in the Pilbara investigating various methods for the mechanised delivery of *Triodia* seeds, along with the application of pre-treatments to seeds to break dormancy. Ongoing monitoring of this trial is planned over the coming year.
- Research under an ARC Linkage Grant in partnership with Curtin University and UWA has continued, focused on quantifying patterns of metabolic rate in seeds to develop new techniques for viability monitoring and assessment during storage. Data has been collected on the metabolic rate of seeds of over 100 species in relation to other seed traits including seed mass, germination temperature, and longevity.
- A new project has commenced with Rio Tinto to develop seed germination protocols for the threatened species Aluta quadrata to support future research into the management of this species and potential impacts by mining activities.

Key outcomes during the year included:

- Glasshouse studies revealed that the addition of the soil amendments gypsum and urea to mine waste substrates has little effect on seed germination and can be detrimental to seedling emergence, but seedling growth is enhanced if high doses of amendments are applied. The amendments decrease soil pH and increase electrical conductivity, total nitrogen and N-mineralisation, but do not improve soil microbial activity. Water availability is the dominant determinant of the effectiveness of these amendments and the timing of application is important to avoid impacts to seedling recruitment and to maximise the benefits to seedling growth.
- Respirometry experiments using artificially-aged seeds of a model species demonstrate that metabolic rate in seeds decreases predictably with age, and the reduction in metabolic activity is detectable prior to the point at which conventional means of viability assessment (germination testing) can identify a decline in the viability of the seed population. Measuring seed metabolic rate provides additional benefits over traditional methods of seed quality testing through the characterisation of seed population viability within a matter of hours, rather than the days or weeks required for traditional germination and viability testing.
- The current practice in the Pilbara of broadcasting seeds on the soil surface is sub-optimal and may prevent germination. Sowing seeds of *Triodia pungens* to 5mm depth yields optimal seedling emergence, and emergence is precluded at 30mm depth. Rock content of the soil does not influence emergence. Mechanical seeders currently in operation are unable to control sowing depth to this level of precision in the rocky and uneven terrain associated with mine waste dumps. Current research is focused on improving sowing depth control in such conditions.



Fire research

Kings Park's Fire Research program focuses on research to understand the interactions between fire management and biodiversity in urban bushlands in south-west Western Australia and in Banksia Woodlands on the Swan Coastal Plain. Monitoring of weeds, fuel (litter and structure) and native species abundance following experimental fires implemented in Kings Park bushland, Bold Park, Jandakot Regional Park and Yangebup Lake reserve in 2015-17 continued in 2018-19. Pre-fire survey of sites adjacent to Murdoch University and in Byne Park, Geraldton, expanded the study, with the latter also burnt in May 2019.

Research assessing the impacts of varying fire frequency on the persistence of Banksia woodland plant species supported by a 2016-2021 ARC grant continues with a total 62 sites surveyed, and 16 sites burnt as planned by Parks and Wildlife partners. A PhD student completed a thesis on seed fate during fire in early 2019, and two new PhD projects commenced. One on fungal community composition and dynamics in relation to fire and management in banksia woodlands, and the second on resilience of restored vegetation to fire.



Small experimental burns were undertaken to assess the impact of fire on regeneration of native plant species in bushland areas.



Disclosures and Compliance





Disclosures and Compliance

Ministerial Directives

BGPA was not subject to any Ministerial Directives during the year.

Other Financial Disclosures

Pricing Policies and Services

BGPA charges for goods and services on a full or partial cost recovery basis. Entry to and parking in Bold Park and Kings Park and Botanic Garden is free of charge. Some services, such as the Kings Park Education programs and special education events, incur a charge to assist in cost recovery. Fees for venue hire and for booked activities are applied according to the type of function or event and the venue requested. This information is available on the BGPA website.

Entry fees or ticket costs for events such as the outdoor cinema and concerts in Kings Park are determined by the event organiser.

Fees are reviewed from time to time and are approved by State government. Fees and charges are reviewed in accordance with Treasurer's Instruction 810 and Treasury's 'Costing and Pricing Government Services: Guidelines for Use by Agencies in the Western Australian Public Sector'. There was no change to fees during the year.

Capital Works

There were no capital projects underway or completed during the year.

Unauthorised Use of Credit Cards

During the year there were six personal transactions were inadvertently charged to Government Purchasing Cards, with the majority being small transactions where a PIN was not required. In each case, Cardholders provided written advice to the Chief Finance Officer, before it was detected, and prompt settlement of the personal use amount. Prominent stickers will be placed on all credit cards to reduce the likelihood of further occurrences.

Personal expenditure under Treasurer's Instruction 321 – Credit Cards – Authorised Use

	2018-19	2017-18
Number of instances the Government Purchasing Card was used for personal		
use	6	6
Aggregate amount of personal use expenditure for the reporting period	\$647.92	\$233.00
Aggregate amount of personal use expenditure settled within 5 working days of notification	\$647.92	\$233.00
Aggregate amount of personal use expenditure settled after 5 working days from notification	-	-
Aggregate amount of personal use expenditure outstanding at balance date	-	-
Number of referrals for disciplinary action instigated during the period	-	-



Employment and Industrial Relations

Employee Profile

As of 30 June 2019, BGPA employed 143 people, equating to 98.46 full time equivalents (FTE). During the year, BGPA completed 19 recruitment processes and engaged 25 new employees; 16 fixed term contract employees were appointed permanently under 'Commissioner's Instruction 23 (detailed below) and two permanent registrable employees separated from BGPA via agency funded voluntary severances.

Employment Type	2018-19	2017-18
Permanent Full-time	59	67
Permanent Part-time	24	12
Fixed Term Full-time	8	22
Fixed Term Part-time	8	15
Casual	34	29
Trainees	10	10
Headcount Total	143	155
FTE Total	98.46	113

Corporate Services

From 2 July 2018, Human Resources and Information Technology services across DBCA are managed by the department's People Services Branch (PSB) and Office for Information Management (OIM) respectively under a Memorandum of Understanding.

An external review of science recommended an integrated departmental science strategy to ensure the alignment of science to DBCA's key priorities. As a result, science functions at the Botanic Gardens and Parks Authority were amalgamated with science functions across the broader department.

The implementation of the unified HR and IT service delivery and DBCA science function resulted in the transition of 22 positions from BGPA, to DBCA employment, consistent with Public Sector Commissioner's Instruction 18.

Industrial Relations

The Employee Relations and Planning section of the People Services Branch now provides advice to managers, supervisors and employees on employment conditions and entitlements; specific industrial issues and cases; and coordinates the negotiation of Awards, Agreements and liaison with the relevant unions.

Under 'Premier's Circular 2018/02' the Government made a commitment to permanent employment as the preferred form of engagement for public sector employees. The use of fixed term contract and casual employment should be limited to the circumstances provided for under legislation and/or the relevant industrial instrument (usually circumstances where there is not an ongoing role and finite funding). In August 2018, the Public Sector Commission released Commissioner's Instruction No. 23 – Conversion and appointment of fixed term contract and casual officers to permanency' (Instruction) which provides for the conversion or appointment of current fixed term contract and casual employees to a permanent appointment, (subject to relevant eligibility criteria). As a result of this Instruction, 16 BGPA employees gained permanent employment status.

Workforce Planning

Strategies in BGPA's 2016-2020 Workforce Plan were superseded by the establishment of the department model in 2017-18.

Workforce planning priorities are being identified and strategies developed that can take advantage of enhanced professional development and training opportunities and capability that has arisen through the establishment of DBCA.



Strategies being developed and implemented have considered the outcomes of the Public Sector Commission's 2018 Employee Perception Survey results. The results indicated that DBCA as a whole, and BGPA in particular, had maintained high levels of employee engagement through the machinery of government change period.

The People Services Branch have developed an action plan with short- and long-term initiatives that aim to deliver change in relation to perceptions of leadership, recruitment processes, performance management and support for staff who report concerns of ethical behaviour.

Employee Diversity Profile

BGPA strives to be an employer of choice and actively supports workplace diversity and equal employment opportunities.

Diversity Group	2018-19 %	2017-18 %
Women in SES	0	0
Women in Management Tier 1	0	0
Women in Management Tier 2	0	50
Women in Management Tier 3	75	42
Indigenous Australians	1.5	2
Employees from Culturally	40.5	40.4
Diverse Background	10.5	13.1
Employees with Disabilities	0.7	1
Youth (under 25 years)	7.7	5.9

Training and Professional Development

BGPA is committed to supporting its employees through the provision of training and development opportunities. Training that is specific to our business areas is still arranged by BGPA, however staff now have access to a wide range of training opportunities through DBCA Corporate Training.

Corporate training is managed by the People Services Branch and includes non-accredited mandatory and non-mandatory training. BGPA staff are making use of this valuable resource to support staff training needs where available. Two scholarship opportunities are offered annually to BGPA staff, DBCA/Kings Park science staff and PhD students. The scholarships support professional development of the successful candidates and build organisational capability. The 2018 scholarship recipients undertook valuable work placements in other Australian Botanic Gardens.

Occupational Safety, Health and Injury Management

BGPA is committed to providing a safe work environment. BGPA's OHS Policy and supporting procedures, assist employees, students and volunteers in understanding their responsibilities and obligations.

The Occupational Health and Safety (OHS) Committee, and the executive team work together to ensure that facilities, equipment and practices do not knowingly present a hazard to safety or health. The Committee reviews all OHS matters, including monthly workplace safety inspections, reporting procedures for accidents, incidents and hazards and implements improvements to workplace practices.

OHS policies and procedures are directly linked to the BGPA Risk Register as reporting and control mechanisms for reducing the risk of injury of employees, students, volunteers and visitors. Employees have access to free, confidential support services available through the Employee Assistance Program.

Occupational health and safety initiatives during the year included:

- Safety awareness campaigns and provision of training for improved awareness of correct operating procedures and workplace safety, including manual handling and vehicle safety.
- · Training of new safety representatives.
- Provision of free onsite flu vaccinations and introduction of a rebate available to staff not able to attend on the day or wishing to obtain in their own time.



Injury Management and Workers' Compensation

BGPA is committed to providing injury management support to all employees who sustain a work-related injury or illness to support the safe return to meaningful work. BGPA has implemented an injury management system to tailor return to work programs, in consultation with treating medical practitioners.

There were nine Workers' Compensation claims during the year. At 30 June 2019, all employees had returned to full duties following a workplace injury. Performance against targets set out in Public Sector Commissioner's Circular 2018-03 and the Code of Practice: Occupational Safety and Health in the Western Australian Public Sector, is shown in the following table.

Indicator	Results 2016-17	Results 2017-18	Results 2018-19	Targets	Comment on Results
Number of fatalities	0	0	0	0	Target achieved
Lost time injury and disease incidence rate	3.2%	1.7%	4.1%	0% or 10% reduction	Target not achieved
Lost time injury and disease severity rate	0%	0%	0%	0% or 10% reduction	Target achieved
Percentage of injured workers returned to work within 13 weeks	100%	100%	100%	Greater than or equal to 80% return to work within 13 weeks	Target achieved
Percentage of injured workers returned to work within 26 weeks	100%	100%	100%	Greater than or equal to 80% return to work within 26 weeks	Target achieved
Percentage of managers trained in occupational safety, health and injury management responsibilities	100%	100%	100%	Greater than or equal to 80%	Target achieved



Governance Disclosures

Contracts with Senior Officers

At the date of reporting, no senior officers, or firms of which senior officers are members, or entities in which senior officers have substantial interests in existing or proposed contracts with BGPA other than normal contracts of employment.

One BGPA Board member sits on the Board for Perth Festival who presented 'Boorna Waanginy: The Trees Speak' in Kings Park and Botanic Garden in February 2019. Appropriate formal disclosures were made during Board meetings.

Indemnity Insurance Premiums

BGPA has Directors and Officers Liability Insurance covering members of the BGPA Board and senior management. The limit of liability is \$20 million. BGPA paid \$8,122.65 in February 2019 for the period 11 February 2019 to 11 February 2020.

Substantive Equity

BGPA does not have any obligations under the substantive equality framework and is not required to report on this issue. However, the BGPA is committed to the principals of Substantive Equality and aims to promote the objectives of the framework through its organisational policies and procedures.

Government Policy Requirements

Board Membership and Remuneration

Members	Initial appointment	Reappointment (current term)	Current term expires	Period of membership (current term)	Type of remuneration	Gross/actual remuneration 2018-19	Meetings attended 2018-19
Mr Richard Simpson (Chairman)	16/12/2002	01/01/2019	31/12/2021	3 years	Yearly	\$12,7589.98	6 of 6
Mr Grant Robinson (Deputy Chairman)	23/01/2006	06/07/2018	05/07/2019	1 year	Yearly	\$5,103.54	5 of 6
Ms Clare Hayman	07/10/2017	07/10/2018	06/10/2019	1 year	Yearly	⁽¹⁾ \$0	4 of 6
Ms Sonia Nolan	07/10/2017	07/10/2018	06/10/2019	1 year	Yearly	\$5,103.54	5 of 6
Ms Helen Rowe	07/10/2017	07/10/2018	06/10/2019	1 year	Yearly	\$5,103.54	6 of 6
Dr Ross Field	01/01/2018	01/01/2019	31/12/2021	3 years	Yearly	\$5,103.54	5 of 6
Ms Nyomi Horgan	02/01/2016	02/01/2019	01/01/2022	3 years	Yearly	\$5,103.54	5 of 6
Ms Sheila McHale	06/05/2018	06/05/2019	05/05/2022	3 years	Yearly	⁽²⁾ \$5,240.88	5 of 6

Notes:

- 1. Clare Hayman chose to forgo remuneration and donate back to BGPA.
- 2. Sheila McHale commenced in May 2018. Employment paperwork was submitted in July 2018, therefore remuneration owed in the 2017-18 year was paid in the 2018-19 period.



Other Legal Requirements

Code of Conduct

Compliance with Public Sector Standards and Ethical Codes, BGPA's Code of Conduct, the WA Public Sector Code of Ethics and the Public Sector Standards are available to all employees and form part of the induction process. Employees are reminded of their responsibilities under the Code of Conduct through quarterly staff meetings and as part of the employee performance review process.

The current BGPA Code of Conduct is based on the values of BGPA and promotes behaviours that reflect a strong commitment to maintaining integrity, accountability and ethical decision making.

DBCA is updating its Code of Conduct to enable application across the department including the statutory authorities. The Code has been drafted in line with the Public Sector's Commissions conduct guide and with consideration to key risk areas.

During 2018-19

- · There were 0 breaches of BGPA's Code of Conduct.
- · There were 0 breaches of the WA Public Sector Code of Ethics.
- There were NIL breach claims submitted under the Public Sector Standards.

Advertising

In accordance with section 175ZE of the *Electoral Act 1907*, BGPA reports advertising expenditure for the financial year ended 30 June 2018 below:

Advertising expenditure 2018-19

Advertising Medium by Category	Expenditure \$	Total \$
Advertising Agencies		12,880.00
RoRo Graphic Design	12,880.00	
Market Research Organisations		15,389.00
Isentia (1)	15,389.00	
Polling Organisations		3,120.00
Pink Lake Analytics (2)	3,120.00	
Direct Mail Organisations		2500.92
The Poster Girls	2500.92	
Media Advertising Organisations		48,066.94
Adcorp	348.37	
Buggy Buddy's	559.62	
Experience Perth	2,022.73	
Initiative Media Perth	411.07	
Marketforce Advertising	2,705.72	
Optimum Media Decisions	42,019.43	
Total Expenditure		81,956.86

Notes:

- 1. This expenditure is for BGPA's media monitoring.
- 2. This expenditure is for annual visitor satisfaction surveys.



Disability Access and Inclusion Plan

BGPA is committed to ensuring that people with disability have access to facilities, services, events and information. BGPA's five-year Disability Access and Inclusion Plan (DAIP) 2017-2022 outlines 30 strategies to support access and inclusion for all people visiting the parks, accessing information and services or participating in activities.

Outcome 1: People with disability have the same opportunities as other people to access the services of, and any events organised by BGPA.

- Areas were set aside at major events for chairs, deck chairs, wheelchairs and space for people to assist those with disabilities.
 Additional ACROD parking bays were provided.
- For the 2018 Kings Park Festival, BGPA worked with the Blind Association of WA to create a special guided walk for vision impaired visitors who wished to experience the wildflowers in the Western Australian Botanic Garden. Several walks were offered in other languages including Hindi, Japanese and Mandarin.
- The route for Perth Festival 'Boorna Waanginy: The trees speak' event was carefully considered to provide appropriate access for all visitors. Visitors with disabilities had priority parking within Kings Park which was closed to all other visitors.
- Kings Park Education provided a range of learning to accommodate special needs students, working with teachers to assist with full integration of students.

Outcome 2: People with disability have the same opportunities as other people to access the buildings and other facilities.

 The purpose-built volunteer hub will be completed in mid 2019 to be officially opened on 30 August 2019. Increased ACROD parking and new pathways to link to pedestrian paths have been created around this new, accessible facility.

- Construction of a Changing Place facility at the Saw Avenue Picnic Area in Kings Park was completed in June 2019. The Changing Place includes an electronically operated ceiling hoist and change table and an automatic door secured with an MLAK key. This provides access only to eligible users and their carers, ensuring the facilities are safe and clean for those who need them.
- May Circle, on May Drive in Kings Park, was upgraded during the year and includes hard surfaces, pedestrian paths, seating, drinking fountains and power. This site is the location for dedication services for new plaques to be placed in the Honour Avenues and will celebrate the centenary of the first Honour Avenue dedication on 3 August 2019.
- A number of toilet facilities were refurbished to improve amenity and accessibility for visitors. The surface of the access ramp to the Acacia Toilets (in the Fraser Avenue Visitor Precinct) was upgraded to increase the grip during wet weather.
- A wheelchair is available to loan from the Visitor Information Centre.

Outcome 3: People with disability receive information in a format that will enable them to access the information, as readily as other people are able to access it.

- BGPA's website meets Web Content Accessibility Guidelines and is responsive to assistive technology. A new accessible online brochure was created for the Western Australian Botanic Garden, which has proved very popular for visitors.
- The Aspects of Kings Park online store has been expanded providing access to more products and a click and collect service has been introduced.
- New 'You are Here' directional signage has been installed to assist visitors getting around Kings Park.



- 'Chattervox' audio equipment was introduced for the Kings Park Guides free guided walks and the new Aboriginal tour operators to provide an improved experience for visitors attending guided tours.
- The Volunteer Kings Park Guides provided free Guided Walks by Request, tailored to suit people with special needs.
- Members of the community can contact BGPA via the website, the enquiries email address, through the Visitor Information Centre or by contacting the main reception. BGPA Information is provided in alternative formats on request.

Outcome 4: People with disability receive the same level and quality of service as other people.

 Kings Park Education provides curriculum-based education programs suitable for students of all abilities. The Education Team liaise with schools directly to accommodate student needs including physical and learning disabilities and English as a Second Language (ESL) students.

Outcome 5: People with disability have the same opportunities as other people to make complaints.

 Members of the public can contact BGPA via the website, the enquiries email address, through the Visitor Information Centre or by contacting the main reception. All complaints, comments and suggestions are recorded on a communications register and addressed appropriately.

Outcome 6: People with disability have the same opportunities as other people to participate in any public consultation.

- Visitor surveys are conducted annually in Bold Park and in the main visitor precincts of Kings Park and Botanic Garden.
- Visitor Surveys are conducted during the annual Kings Park Festival and with visitors in the Rio Tinto Naturescape Kings Park site.
- The Education Team invite feedback from participants attending education programs.

Outcome 7: People with disability have the same opportunities for employment.

- BGPA's Workforce Plan 2016-2020 incorporates equity and diversity planning.
- BGPA has engaged Intework, a WA Disability Enterprise, to clean the offices in Kings Park, as well as the Visitor Information Centre.
- Volunteers with a disability, including hearing and mobility limitations, were welcomed.
- DBCA's recruitment process is based on merit-based selection and jobs are advertised in alternative formats. Interviews are conducted in accessible locations and adjustment to practices and workspaces are accommodated where required.



Recordkeeping Plan 2015-2020

BGPA's Recordkeeping Plan 2015 - 2020 identifies the strategies and process for compliance with the legislative requirements of the *State Records Act 2000*. While forming part of DBCA, as a statutory authority, BGPA is required to maintain its own records and apply a Recordkeeping Plan. The current Recordkeeping Plan will continue to apply to BGPA records and form an appendix of DBCA's Recordkeeping Plan. A full review of the current plan will commence in late 2019.

During the year BGPA addressed its compliance with State Records Commission Standard 2, Principal 6 - Minimum Compliance Requirements as follows:

1. The efficiency and effectiveness of the organisation's recordkeeping systems is evaluated not less than once every 5 years.

The electronic record keeping management system is monitored and managed by the Records Management Coordinator. Statistics are currently being monitored to evaluate the progress towards electronic records keeping.

Other measures of performance included evaluation of the number of records saved to the record-keeping system, the numbers of files created, and the response times to service requests. A review of inactive records is conducted annually to determine appropriate archiving or disposal of records in accordance with the schedule in the Recordkeeping Plan.

2. The organisation conducts a recordkeeping training program.

Evaluation of recordkeeping practices is ongoing. A customer satisfaction survey was conducted in March 2018 to establish the level of satisfaction and possible areas for improvement of record management practices and training. The outcome of the survey in 2019 demonstrated that an increased percentage of respondents were very satisfied or satisfied with recordkeeping practices compared with results from 2018.

Managers are responsible for identifying and implementing the required level of recordkeeping training for staff members upon induction. Managers and staff can request additional or refresher training as requirements change. Staff training sessions are customised to help relevant employees manage BGPA records determined by the employee's position.

3. The efficiency and effectiveness of the recordkeeping training program is reviewed from time to time.

Annual review of the Records Training and Induction Manual took place in May 2019. Areas requiring updating are identified from staff queries and through the annual internal customer service satisfaction survey.

4. The organisation's induction program addresses employee roles and responsibilities in regard to their compliance with the organisation's recordkeeping plan.

Staff responsibilities are included in the induction package provided to all new employees. Quarterly email reminders are sent to employees reminding them of their record keeping responsibilities and regular updates are provided.

Freedom of Information (FOI)

Under the *Freedom of Information Regulations 1993* BGPA is not a 'related agency' of DBCA and must fulfil requirements under the *Freedom of Information Act 1992* (FOI Act).

BGPA's Information Statement was reviewed to capture the revised organisational relationship with DBCA and delegations made under section 100(1)(b) of the FOI Act. This information and procedures for making an application are available on BGPA's website.

Two valid FOI applications were received during the year. One applicant requested internal review which upheld the original decision. It is now pending an external review by the Office of the Information Commissioner.



Financial Estimates 2019-20

In forming part of the newly formed DBCA, BGPA is no longer separately identifiable within a separate Division of the Consolidation Account Expenditure Estimates but continues to operate as a separate legal entity. BGPA's 2019-20 estimates have been prepared and approved in accordance with Section 40 of the *Financial Management Act 2006*.

As required under Treasurer's Instruction 953, BGPA's 2019-20 estimates are provided in the table. Actual results will be reported against these estimates in the 2019-20 annual report.

	2019-20 Budget Estimates
	\$
COST OF SERVICES	
Expenses	
Employee benefits	11,874,000
Grants and subsidies	
Supplies and services	5,188,000
Accommodation	776,000
Depreciation and amortization	1,571,000
Finance costs	17,000
Other expenses	2,302,000
Total cost of services	21,728,000
Income	
Sale of goods and services	2,827,000
Regulatory fees and fines	1,269,000
Grants and subsidies	2,050,000
Other revenue	2,281,000
Total Income	8,427,000
NET COST OF SERVICES	13,301,000
Income from State Government	
Service appropriations	13,146,000
Resources received free of charge	33,000
Total Income from State Government	13,179,000
SURPLUS/(DEFICIENCY) FOR THE PERIOD	(122,000)
CONTEON DELICITION TO THE LENIOD	(122,000)

Independent Audit Opinion



Auditor General

INDEPENDENT AUDITOR'S REPORT

To the Parliament of Western Australia

BOTANIC GARDENS AND PARKS AUTHORITY

Report on the Financial Statements

Opinion

I have audited the financial statements of the Botanic Gardens and Parks Authority, which comprise the Statement of Financial Position as at 30 June 2019, the Statement of Comprehensive Income, Statement of Changes in Equity, Statement of Cash Flows for the year then ended, and Notes comprising a summary of significant accounting policies and other explanatory information.

In my opinion, the financial statements are based on proper accounts and present fairly, in all material respects, the operating results and cash flows of the Botanic Gardens and Parks Authority for the year ended 30 June 2019 and the financial position at the end of that period. They are in accordance with Australian Accounting Standards, the Financial Management Act 2006 and the Treasurer's Instructions.

Basis for Opinion

I conducted my audit in accordance with the Australian Auditing Standards. My responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of my report. I am independent of the Authority in accordance with the Auditor General Act 2005 and the relevant ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (the Code) that are relevant to my audit of the financial statements. I have also fulfilled my other ethical responsibilities in accordance with the Code. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Responsibility of the Board for the Financial Statements

The Board is responsible for keeping proper accounts, and the preparation and fair presentation of the financial statements in accordance with Australian Accounting Standards, the Financial Management Act 2006 and the Treasurer's Instructions, and for such internal control as the Board determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board is responsible for assessing the agency's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Western Australian Government has made policy or funding decisions affecting the continued existence of the Authority.

Auditor's Responsibility for the Audit of the Financial Statements

As required by the Auditor General Act 2006, my responsibility is to express an opinion on the financial statements. The objectives of my audit are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with Australian Auditing Standards, I exercise professional judgment and maintain professional scepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the financial statements, whether
 due to fraud or error, design and perform audit procedures responsive to those risks, and
 obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion.
 The risk of not detecting a material misstatement resulting from fraud is higher than for one
 resulting from error, as fraud may involve collusion, forgery, intentional omissions,
 misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the agency's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board.
- Conclude on the appropriateness of the Board's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the agency's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

I communicate with the Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

Report on Controls

Opinion

I have undertaken a reasonable assurance engagement on the design and implementation of controls exercised by the Botanic Gardens and Parks Authority. The controls exercised by the Authority are those policies and procedures established by the Board to ensure 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 (the overall control objectives).

My opinion has been formed on the basis of the matters outlined in this report

In my opinion, in all material respects, the controls exercised by the Botanic Gardens and Parks Authority are sufficiently adequate to 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 during the year ended 30 June 2019.

The Board's Responsibilities

The Board is responsible for designing, implementing and maintaining controls to ensure that the receipt, expenditure and investment of money, the acquisition and disposal of property, and the incurring of liabilities are in accordance with the Financial Management Act 2006, the Treasurer's Instructions and other relevant written law.

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Independent Audit Opinion continued

Auditor General's Responsibilities

As required by the Auditor General Act 2006, my responsibility as an assurance practitioner is to express an opinion on the suitability of the design of the controls to achieve the overall control objectives and the implementation of the controls as designed. I conducted my engagement in accordance with Standard on Assurance Engagements ASAE 3150 Assurance Engagements on Controls issued by the Australian Auditing and Assurance Standards Board. That standard requires that I comply with relevant ethical requirements and plan and perform my procedures to obtain reasonable assurance about whether, in all material respects, the controls are suitably designed to achieve the overall control objectives and the controls, necessary to achieve the overall control objectives, were implemented as designed.

An assurance engagement to report on the design and implementation of controls involves performing procedures to obtain evidence about the suitability of the design of controls to achieve the overall control objectives and the implementation of those controls. The procedures selected depend on my judgement, including the assessment of the risks that controls are not suitably designed or implemented as designed. My procedures included testing the implementation of those controls that I consider necessary to achieve the overall control objectives.

I believe that the evidence I have obtained is sufficient and appropriate to provide a basis for my

Limitations of Controls

Because of the inherent limitations of any internal control structure it is possible that, even if the controls are suitably designed and implemented as designed, once the controls are no operation, the overall control objectives may not be achieved so that fraud, error, or noncompliance with laws and regulations may occur and not be detected. Any projection of the outcome of the evaluation of the suitability of the design of controls to future periods is subject to the risk that the controls may become unsuitable because of changes in conditions.

Report on the Key Performance Indicators

Oninion

Thave undertaken a reasonable assurance engagement on the key performance indicators of the Botanic Gardens and Parks Authority for the year ended 30 June 2019. The key performance indicators are the key effectiveness indicators and the key efficiency indicators that provide performance information about achieving outcomes and delivering services.

In my opinion, in all material respects, the key performance indicators of the Botanic Gardens and Parks Authority are relevant and appropriate to assist users to assess the Authority's performance and fairly represent indicated performance for the year ended 30 June 2019.

The Board's Responsibility for the Key Performance Indicators

The Board is responsible for the preparation and fair presentation of the key performance indicators in accordance with the Financial Management Act 2006 and the Treasurer's instructions and for such internal control as the Board determines necessary to enable the preparation of key performance indicators that are free from material misstatement, whether due to fraud or error.

In preparing the key performance indicators, the Board is responsible for identifying key performance indicators that are relevant and appropriate having regard to their purpose in accordance with Treasurer's Instruction 904 Key Performance Indicators.

Auditor General's Responsibility

As required by the Auditor General Act 2006, my responsibility as an assurance practitioner is to express an opinion on the key performance indicators. The objectives of my engagement are to obtain reasonable assurance about whether the key performance indicators are relevant and appropriate to assist users to assess the agency's performance and whether the key performance indicators are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion.

Page 3 of 4

I conducted my engagement in accordance with Standard on Assurance Engagements ASAE 3000 Assurance Engagements Other than Audits or Reviews of Historical Financial Information issued by the Australian Auditing and Assurance Standards Board. That standard requires that I comply with relevant ethical requirements relating to assurance engagements.

An assurance engagement involves performing procedures to obtain evidence about the amounts and disclosures in the key performance indicators. It also involves evaluating the relevance and appropriateness of the key performance indicators against the criteria and guidance in Treasurer's Instruction 904 for measuring the extent of outcome achievement and the efficiency of service delivery. The procedures selected depend on my judgement, including the assessment of the risks of material misstatement of the key performance indicators. In making these risk assessments I obtain an understanding of internal control relevant to the engagement in order to design procedures that are appropriate in the circumstances.

I believe that the evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

My Independence and Quality Control Relating to the Reports on Controls and Key Performance Indicators

I have complied with the independence requirements of the Auditor General Act 2006 and the relevant ethical requirements relating to assurance engagements. In accordance with ASQC 1 Quality Control for Firms that Perform Audits and Reviews of Financial Reports and Other Financial Information, and Other Assurance Engagements, the Office of the Auditor General maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Matters Relating to the Electronic Publication of the Audited Financial Statements and Key Performance Indicators

This auditor's report relates to the financial statements and key performance indicators of the Botanic Gardens and Parks Authority for the year ended 30 June 2019 included on the Authority's website. The Authority's management is responsible for the integrity of the Authority's website. This audit does not provide assurance on the integrity of the Authority's website. The auditor's report refers only to the financial statements and key performance indicators described above. It does not provide an opinion on any other information which may have been hyperlinked toffron these financial statements of key performance indicators. If users of the financial statements and key performance indicators are concerned with the inherent risks arising from publication on a website, they are advised to refer to the hard copy of the audited financial statements and key performance indicators to confirm the information contained in this website version of the financial statements and key performance indicators.

DON CUNNINGHAME

ASSISTANT AUDITOR GENERAL FINANCIAL AUDIT Delegate of the Auditor General for Western Australia

Perth, Western Australia 27 August 2019



Financial Statements

Certification of the Financial Statements for the reporting period ended 30 June 2019

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 reporting period ended 30 June 2019 and the financial position as at 30 June 2019.

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.

lan Biddle Chief Financial Officer

22 August 2019

Richard Simpson

Chair

BGPA Board of Management

22 August 2019

Nyomi Horgan

Member

BGPA Board of Management

22 August 2019



Statement of Comprehensive Income

for the year ended 30 June 2019	Notes	2019	2018 ¢
COST OF SERVICES		Ψ	Ψ
Expenses			
Employee benefits expense	2.1	10,132,946	11,514,828
Supplies and services	2.2	5,974,303	6,600,790
Depreciation and amortisation expense	4.1, 4.2	1,455,674	1,556,372
Loss on disposal of non-current assets	3.7	-	30,221
Cost of Sales	3.3	1,587,045	1,548,183
Other expenses	2.2	2,157,578	2,533,751
Total cost of services		21,307,546	23,784,145
Income			
Revenue			
User charges and fees	3.2	2,009,424	2,209,465
Sales	3.3	3,057,275	2,881,456
Commonwealth grants and contributions	3.4	211,205	-
Interest revenue	3.5	167,686	120,650
Fee for service, subsidies and sponsorships	3.6	1,412,615	2,843,385
Other revenue	3.6	812,209	519,385
Total revenue		7,670,414	8,574,341
Gains			
Gain on disposal of non-current assets	3.7	27,369	-
Total gains		27,369	-
Total income other than income from State Government		7,697,783	8,574,341
NET COST OF SERVICES		13,609,763	15,209,804
Income from State Government			
Service appropriation	3.1	13,111,000	14,105,000
Services received free of charge	3.1	1,822	11,505
Total income from State Government		13,112,822	14,116,505
SURPLUS/(DEFICIT) FOR THE PERIOD		(496,941)	(1,093,299)
OTHER COMPREHENSIVE INCOME			
Items not reclassified subsequently to profit or loss			
Changes in asset revaluation surplus		(273,436)	(268,271)
Total other comprehensive income		(273,436)	(268,271)
TOTAL COMPREHENSIVE INCOME FOR THE PERIOD		(770,377)	(1,361,570)

The Statement of Comprehensive Income should be read in conjunction with the accompanying notes.



Statement of Financial Position

Notes	2019 \$	2018 \$
	¥	Ψ
6.1	5,924,932	7,181,325
6.1	1,517,483	1,805,387
3.3	586,556	615,151
5.1	1,513,542	936,897
5.2	1,000,000	1,000,000
	10,542,513	11,538,760
5.2	7,407,000	6,937,000
4.1	48,125,830	48,666,366
4.2	28,240	42,360
	55,561,070	55,645,726
	66,103,583	67,184,486
5.3	1,063,083	1,128,987
2.1	1,601,968	1,529,497
5.4	2,117,128	2,366,214
	4,782,179	5,024,698
2.1	426,949	494,956
	426,949	494,956
	5,209,128	5,519,654
	60,894,455	61,664,832
8.6	30,365,000	30,365,000
		19,445,269
		11,854,563
		61,664,832
	6.1 6.1 3.3 5.1 5.2 4.1 4.2 5.3 2.1 5.4	\$ 6.1

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 2019

•		Contributed		Accumulated	
	Notes	equity	Reserves	surplus/(deficit)	Total equity
		\$	\$	\$	\$
Balance at 1 July 2017		30,365,000	19,713,540	12,947,862	63,026,402
Surplus/(deficit)		-	-	(1,093,299)	(1,093,299)
Other comprehensive income	8.6	-	(268,271)	-	(268,271)
Total comprehensive income for the period		-	(268,271)	(1,093,299)	(1,361,570)
Transactions with owners in their capacity as owners:	8.6				
Capital appropriations		-	-	-	-
Other contributions by owners		-	-	-	-
Distributions to owners		-	-	-	
Total		-	-	-	-
Balance at 30 June 2018		30,365,000	19,445,269	11,854,563	61,664,832
Balance at 1 July 2018		30,365,000	19,445,269	11,854,563	61,664,832
Surplus/(deficit)		30,303,000	19,443,209	(496,941)	(496,941)
Other comprehensive income	8.6	-	(273,436)	(430,541)	(273,436)
Total comprehensive income for the period		-	(273,436)	(496,941)	(770,377)
Transactions with owners in their capacity as owners:	8.6				
Capital appropriations		-	-	-	-
Other contributions by owners		-	-	-	-
Distributions to owners		-	-	-	-
Total		-	-	-	-
Balance at 30 June 2019		30,365,000	19,171,833	11,357,622	60,894,455

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



Statement of Cash Flows

Statement of Cash Flows		
for the year ended 30 June 2019	2019 \$	2018 \$
CASH FLOWS FROM STATE GOVERNMENT	<u> </u>	Ψ.
Service appropriation	11,641,000	12,635,000
Capital appropriations	, ,	-
Holding account drawdown	1,000,000	1,000,000
Net cash provided by State Government	12,641,000	13,635,000
Utilised as follows:		
CASH FLOWS FROM OPERATING ACTIVITIES		
Payments		
Employee benefits	(10,134,014)	(11,858,820)
Supplies and services	(6,527,819)	(7,644,524)
Cost of sales	(1,558,450)	(1,521,035)
GST payments on purchases	(1,260,689)	(1,059,523)
GST payments to taxation authority	(52,367)	(16,215)
Other payments	(2,489,036)	586,436
Receipts		
Sale of goods and services	3,057,275	2,881,456
User charges and fees	2,010,885	2,205,012
Commonwealth grants and contributions	211,205	-
Fee for service, subsidies and sponsorships	1,412,614	2,843,385
Interest received	167,686	120,650
GST receipts on sales	891,873	1,763,804
GST receipts from taxation authority	420,416	400,985
Other receipts	839,578	519,385
Net cash provided by/(used in) operating activities 6.1	(13,010,843)	(10,779,004)
CASH FLOWS FROM INVESTING ACTIVITIES		
Payments		
Purchase of non-current assets	(1,226,024)	(3,371,212)
Receipts		
Proceeds from sale of non-current assets	51,570	43,000
Net cash provided by/(used in) investing activities	(1,174,454)	(3,328,212)
Net increase/(decrease) in cash and cash equivalents	(1,544,297)	(472,216)
Cash and cash equivalents at the beginning of the period	8,986,712	9,458,928
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD 6.1	7,442,415	8,986,712

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



Notes to the Financial Statements

1. Basis of preparation

The Botanic Gardens and Parks Authority (BGPA) is a WA Government entity and is controlled by the State of Western Australia, which is the ultimate parent. BGPA is a not-for-profit entity (as profit is not its principal objective).

A description of the nature of its operations and its principal activities have been included in the **Overview** section which does not form part of these financial statements.

These annual financial statements were authorised for issue by the Accountable Authority of BGPA on 22 August 2019.

Statement of Compliance

These general purpose financial statements are prepared in accordance with:

- 1) The Financial Management Act 2006 (FMA)
- 2) The Treasurer's Instructions (TIs)
- Australian Accounting Standards (AASs) Reduced Disclosure Requirements
- 4) Where appropriate, those AAS paragraphs applicable for not for profit entities have been applied.

The FMA and the TIs take precedence over AASs. Several AASs are modified by TIs to vary application, disclosure format and wording. 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.

Basis of preparation

These financial statements are presented in Australian dollars applying the accrual basis of accounting and using the historical cost convention. Certain balances will apply a different measurement basis (such as the fair value basis). Where this is the case the different measurement basis is disclosed in the associated note. All values are rounded to the nearest dollar.

Judgement and estimates

Judgements, estimates and assumptions are required to be made about financial information being presented. The significant judgements and estimates made in the preparation of these financial statements are disclosed in the notes where amounts affected by those judgements and/or estimates are disclosed. Estimates and associated assumptions are based on professional judgements derived from historical experience and various other factors that are believed to be reasonable under the circumstances.

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 as 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 transfers 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.



Use of our funding

Expenses incurred in the delivery of services

This section provides additional information about how BGPA's funding is applied and the accounting policies that are relevant for an understanding of the items recognised in the financial statements. The primary expenses incurred by BGPA in achieving its objectives and the relevant notes are:

	Notes	2019 \$	2018 \$
Employee benefits expenses	2.1(a)	10,132,946	11,514,828
Employee related provisions	2.1(b)	2,028,917	2,024,453
Other expenditure	2.2	8,131,881	9,134,541

2.1(a) Employee benefits expenses

	2019 \$	2018 \$
Wages and salaries	9,296,421	9,949,329
Termination benefits	-	610,668
Superannuation - defined contribution plans ^(a)	836,525	954,831
Total employee benefits expenses	10,132,946	11,514,828

(a) Defined contribution plans include West State Superannuation Scheme (WSS), Gold State Superannuation Scheme (GSS), Government Employees Superannuation Board Schemes (GESBs) and other eligible funds.

Wages and salaries: Employee expenses include all costs related to employment including wages and salaries, fringe benefits tax, and leave entitlements.

Termination benefits: Payable when employment is terminated before normal retirement date, or when an employee accepts an offer of benefits in exchange for the termination of employment. Termination benefits are recognised when the agency is demonstrably committed to terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal or providing termination benefits as a result of an offer made to encourage voluntary redundancy. Benefits falling due more than 12 months after the end of the reporting period are discounted to present value.

Superannuation: The amount recognised in profit or loss of the Statement of Comprehensive Income comprises employer contributions paid to the GSS (concurrent contributions), the WSS, the GESBs, or other superannuation funds. The employer contribution paid to the Government Employees Superannuation Board (GESB) in respect of the GSS is paid back into the Consolidated Account by the GESB.

GSS (concurrent contributions) is a defined benefit scheme for the purposes of employees and whole-of-government reporting. It is however 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.

BGPA does not recognise any defined benefit liabilities because it has no legal or constructive obligation to pay future benefits relating to its employees. The Liabilities for the unfunded Pension Scheme and the unfunded GSS transfer benefits attributable 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 agency to the GESB.

The GESB and other fund providers administer public sector superannuation arrangements in Western Australia in accordance with legislative requirements. Eligibility criteria for membership in particular schemes for public sector employees vary according to commencement and implementation dates.



2.1(b) Employee related provisions

Provision is made for benefits accruing to employees in respect of wages and salaries, annual leave and long service leave for services rendered up to the reporting date and recorded as an expense during the period the services are delivered.

	2019 \$	2018 \$
Current		
Employee benefits provisions		
Annual leave ^(a)	809,610	714,734
Long service leave ^(b)	773,343	788,540
	1,582,953	1,503,274
Other provisions		
Employment on-costs ^(c)	19,015	26,223
Total current employee related provisions	1,601,968	1,529,497
Non-current Employee benefits provisions Long service leave ^(b)	421,979	486,554
Other provisions		
Employment on-costs ^(c)	4,970	8,402
Total non-current employee related provisions	426,949	494,956
Total employee related provisions	2,028,917	2,024,453

(a) Annual Lease liabilities: Classified as current as there is no unconditional right to defer settlement for at least 12 months after the end of the reporting period.

The provision for annual leave is calculated at the present value of expected payments to be made in relation to services provided by employees up to the reporting date. (b) Long service leave liabilities: Unconditional long service leave provisions are classified as **current** liabilities as BGPA does not have an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period.

Pre-conditional and conditional long service leave provisions are classified as non-current liabilities because BGPA has an unconditional right to defer the settlement of the liability until the employee has completed the requisite years of service.

The provision for long service leave are calculated at present value as BGPA does not expect to wholly settle the amounts within 12 months. The present value is measured taking into account the present value of expected future payments to be made in relation to services provided by employees up to the reporting date. These payments are estimated using the remuneration rate expected to apply at the time of settlement and discounted using market yields at the end of the reporting period on national government bonds with terms to maturity that match, as closely as possible, the estimated future cash outflows.

(c) **Employment on-costs:** 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.



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, Note 2.2 (apart from the unwinding of the discount (finance cost))' and are not included as part of BGPA's 'employee benefits expense'. The related liability is included in 'Employment on-costs provision'.

	2019 \$	2018 \$
Employment on-costs provision		
Carrying amount at start of period	34,625	40,494
Additional/(reversals of) provisions		
recognised	(10,640)	(5,869)
Payments/other sacrifices of economic		
benefits	-	_
Carrying amount at end of period	23,985	34,625

Key sources of estimation uncertainty – long service leave

Key estimates and assumptions concerning the future 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.

Several estimates and assumptions are used in calculating BGPA's long service leave provision. These include:

- · Expected future salary rates
- Discount rates
- Employee retention rates; and
- Expected future payments

Changes in these estimations and assumptions may impact on the carrying amount of the long service leave provision.

Any gain or loss following revaluation of the present value of long service leave liabilities is recognised as employee benefits expense.

2.2 Other expenditure

·	2019 \$	2018 \$
Supplies and services		
Communications	304,730	262,670
Consultants and contractors	3,831,398	4,662,699
Consumables	999,009	1,057,286
Travel	41,005	64,703
Other	798,161	553,432
Total supplies and services expenses	5,974,303	6,600,790
Other		
Purchase of property, plant and equipment	177,391	153,751
Building and infrastructure maintenance	1,196,402	1,453,100
Equipment repairs and maintenance	618,275	503,673
Employment on-costs	331,401	365,144
Fee for service	(271,087)	11,914
Write-offs and inventory adjustments	33,467	9,203
Other expenses	71,729	36,966
Total other expenses	2,157,578	2,533,751
Total other expenditure	8,131,881	9,134,541

Supplies and services:

Supplies and services are recognised as an expense in the reporting period in which they are incurred. The carrying amounts of any materials held for distribution are expensed when the materials are distributed.

Consultants and contractors includes expenses in the current year associated with the completion of a major project.

Other:

Other operating expenses generally represent the day-to-day running costs incurred in normal operations.

Purchase of property, plant and equipment refers to items costing less than \$5,000 recognised as expenses as incurred.



Building and infrastructure maintenance and equipment repairs and maintenance: Repairs and maintenance costs are recognised as expenses as incurred, except where they relate to the replacement of a significant component of an asset. In that case, the costs are capitalised and depreciated.

Employee on-cost includes workers' compensation insurance and other employment on-costs. The on-costs liability associated with the recognition of annual and long service leave liabilities is included at Note 2.1(b) Employee related provisions. Superannuation contributions accrued as part of the provision for leave are employee benefits and are not included in employment on-costs.

Fee for service relates to activities carried out by BGPA in areas that include research, conservation and restoration. A liability exists to represent obligations not yet completed, with the net surplus/deficit for the period recognised as income or expense.

Write-offs and inventory adjustments is for damaged stock see also Note 8.7 Supplementary financial information.

Other expenses includes audit fees. See also Note 8.5 Remuneration of auditor.

3. Our funding sources

How we obtain our funding

This section provides additional information about how BGPA obtains its funding and the relevant accounting policy notes that govern the recognition and measurement of this funding. The primary income received by the agency and the relevant notes are:

	Notes	2019 \$	2018 \$
Income from State Government	3.1	13,112,822	14,116,505
User charges and fees	3.2	2,009,424	2,209,465
Sales	3.3	3,057,275	2,881,456
Commonwealth grants and			
contributions	3.4	211,205	-
Interest revenue	3.5	167,686	120,650
Fee for service, subsidies,			
sponsorships and other revenue	3.6	2,224,824	3,362,770
Gains/(losses)	3.7	27,369	(30,221)

3.1 Income from State Government

	2019 \$	2018 \$
Appropriation received during the period:		
Service appropriation ^(a)	13,111,000	14,105,000
	13,111,000	14,105,000
Services received free of charge from other		
State government agencies during the period:(b)		
State Solicitor's Office	1,822	11,505
Total services received	1,822	11,505
Total income from State Government	13,112,822	14,116,505



(a) Service Appropriations are recognised as revenues at fair value in the period in which BGPA gains control of the appropriated funds. BGPA gains control of appropriated funds at the time those funds are deposited in the bank account or credited to the 'Amounts receivable for services' (holding account) held at Treasury.

Service appropriations fund the net cost of services delivered. Appropriation revenue comprises the following:

- · Cash component; and
- · A receivable (asset).

The receivable (holding account – Note 5.2) comprises the following:

- · The budgeted depreciation expense for the year; and
- · Any agreed increase in leave liabilities during the year.
- (b) Services received free of charge: Where assets or services have been received free of charge or for nominal cost, BGPA recognises revenue (and assets or expenses) equivalent to the fair value of the assets and/or the fair value of those services that can be reliably determined and which would have been purchased if not donated

3.2 User fees and charges

	2019 \$	2018 \$
Rent and licence fees Functions and events	913,900 1,036,145	1,009,742 1,122,767
Fines and infringements	59,379	76,956
	2,009,424	2,209,465

Revenue is recognised and measured at the fair value of consideration received or receivable.

3.3 Trading profit

	2019 \$	2018 \$
Sales	3,057,275	2,881,456
Cost of Sales:		
Opening Inventory	(615,151)	(642,299)
Purchases	(1,558,450)	(1,521,035)
	(2,173,601)	(2,163,334)
Closing Inventory	586,556	615,151
Cost of Goods Sold	(1,587,045)	(1,548,183)
Trading Profit	1,470,230	1,333,273
Closing Inventory comprises: Current Inventories		
Inventories held for resale	586,556	615,151
Total current inventories	586,556	615,151
Total Inventories	586,556	615,151

Sales

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.

Inventories

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

Inventories not held for resale are measured at cost unless they are no longer required, in which case they are measured at net realisable value.

Write-offs and inventory adjustments was made for damaged stock. See Note 2.2 Other expenditure and Note 8.7 Supplementary financial information.



3.4 Commonwealth grants and contributions

	2019 \$	2018 \$
Recurrent	211,205	

For **non-reciprocal grants**, the agency recognises revenue when the grant is receivable at its fair value as and when its fair value can be reliably measured.

Contributions of services are only recognised when a fair value can be reliably determined and the services would have been purchased if not donated.

3.5 Interest Revenue

	2019	2018
	\$	\$
Interest Revenue ^(a)	167,686	120,650

(a) Interest is recognised by reference to the stage of completion of the transaction. Interest is earnt on cash held at the Commonwealth Bank of Australia.

3.6 Fee for service, subsidies, sponsorships and other revenue

	2019 \$	2018 \$
Fee for service, subsidies and sponsorships		
Fee for service and subsidies	828,906	1,372,396
Sponsorships	583,709	1,470,989
	1,412,615	2,843,385
Other revenue		
Recoups	717,483	333,594
Other ^(a)	94,726	185,791
	812,209	519,385

(a) Includes donations, FBT received, royalties and sundry revenue.

Fee for service, subsidies, sponsorships and other revenue

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

Fee for service relates to activities carried out by BGPA in areas that include research, conservation and restoration. Revenue is recognised by reference to the stage of completion of the related activities. Any undischarged obligation is disclosed in the notes. See also Note 5.4 Other liabilities.

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.

3.7 Gains

	2019 \$	2018 \$
Net proceeds from disposal of non-current assets Land	_	-
Plant, equipment and vehicles	74,137	43,000
Carrying amount of non-current assets disposed Land		
Plant, equipment and vehicles	(46,768)	(73,221)
Net gain/(loss)	27,369	(30,221)

Realised and unrealised gains 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.

Gains and losses on the disposal of non-current assets are presented by deducting from the proceeds on disposal the carrying amount of the asset and related selling expenses. Gains and losses are recognised in profit or loss in the statement of comprehensive income (from the proceeds of sale).



4. Key Assets

Assets BGPA utilises for economic benefit or service potential

This section includes information regarding the key assets BGPA utilises to gain economic benefits or provide service potential. The section sets out both the key accounting policies and financial information about the performance of these assets:

	Notes	2019 \$	2018 \$
Infrastructure, property, plant and	_		
equipment	4.1	48,125,830	48,666,366
Intangibles	4.2	28,240	42,360
Total key assets		48,154,070	48,708,726



4.1 Infrastructure, property, plant and equipment

	Land	Buildings	Buildings under construction	Plant, equipment and vehicles	Special items		Infrastructure	Total
Year ended 30 June 2018	\$	\$	\$	\$	\$	\$	<u> </u>	\$
1 July 2017 Gross Carrying amount Accumulated depreciation Carrying amount at start of period	15,410,000 - 15,410,000	22,900,591 (4,016,558) 18,884,033	1,514,508 - 1,514,508	9,999,285 (8,118,285) 1,881,000	3,945,698 (1,330,995) 2,614,703	17,938,060 (8,582,269) 9,355,791	937,000 (163,975) 773,025	72,645,142 (22,212,082) 50,433,060
Additions/transfers Other disposals Revaluation increments/(decrements) Depreciation Depreciation written back on disposal Carrying amount at 30 June 2018	- - - - - 15,410,000	(268,271) (518,899) - 18,096,863	(1,009,301) - - - - - - 505,207	417,509 (175,776) - (595,341) 102,555 1,629,947	708,842 - (110,003) - 3,213,542	(294,584) - 9,061,207	(23,425) - 749,600	117,050 (175,776) (268,271) (1,542,252) 102,555 48,666,366
Year ended 30 June 2019	, ,	, ,	,	, ,	, ,	, ,	,	, ,
1 July 2018 Gross Carrying amount Accumulated depreciation Carrying amount at start of period	15,410,000 - 15,410,000	22,615,561 (4,518,698) 18,096,863	505,207 - 505,207	10,241,017 (8,611,070) 1,629,947	4,654,540 (1,440,998) 3,213,542	17,938,060 (8,876,853) 9,061,207	937,000 (187,400) 749,600	72,301,385 (23,635,019) 48,666,366
Additions/transfers Other disposals Revaluation increments/(decrements) Depreciation Depreciation written back on disposal	- - - -	147,020 - (273,436) (532,724)	395,880 - - - -	683,124 (328,969) - (473,433) 277,399	- - (117,387) -	- - (294,585) -	(23,425)	1,226,024 (328,969) (273,436) (1,441,554) 277,399
Carrying amount at 30 June 2019 Gross carrying amount Accumulated depreciation	15,410,000 15,410,000	17,437,723 22,526,237 (5,088,514)	901,087 901,087	1,788,068 10,595,172 (8,807,104)	3,096,155 4,654,540 (1,558,385)	8,766,622 17,938,060 (9,171,438)	726,175 937,000 (210,825)	48,125,830 72,962,096 (24,836,266)



Initial recognition

Items of property, plant and equipment and infrastructure, costing \$5,000 or more are measured initially at cost. Where an asset is acquired for no or nominal cost, the cost is valued at its fair value at the date of acquisition. Items of property, plant and equipment and infrastructure costing less than \$5,000 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).

Assets transferred as part of a machinery of government change are transferred at their fair value.

The cost of a leasehold improvement is capitalised and depreciated over the shorter of the remaining term of the lease or the estimated useful life of the leasehold improvement.

The initial cost for a non-financial physical asset under a finance lease is measured at amounts equal to the fair value of the leased asset or, if lower, the present value of the minimum lease payments, each determined at the inception of the lease.

Subsequent measurement

Subsequent to initial recognition of an asset, the revaluation model is used for the measurement of:

- · land;
- buildings; and
- · monuments and specified items.

Land is carried at fair value.

Buildings are carried at fair value less accumulated depreciation and accumulated impairment losses.

All other property, plant, equipment and infrastructure are stated at historical cost less accumulated depreciation and accumulated impairment losses.

Land and buildings are independently valued annually by the Western Australian Land Information Authority (Valuations and Property Analytics) 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.

Land and buildings were revalued as at 1 July 2018 by the Western Australian Land Information Authority (Valuations and Property Analytics). The valuations were performed during the year ended 30 June 2019 and recognised at 30 June 2019. In undertaking the revaluation, fair value is determined by reference to market values for land: \$15,410,000 (2018: \$15,410,000), buildings: \$17,437,723 (2018: \$18,096,863) and monuments and specified items: \$8,766,622 (2018: \$9,061,207). For the remaining balance, fair value of buildings was determined on the basis of current replacement cost and fair value of land was determined on the basis of comparison with market evidence for land with low level utility (high restricted use land).

4.1.1 Depreciation and impairment

Charge for the period

	2019 \$	2018 \$
Depreciation		
Plant, equipment and vehicles	885,405	999,928
Buildings	532,724	518,899
Infrastructure	23,425	23,425
Total depreciation for the period	1,441,554	1,542,252

As at 30 June 2019 there were no indications of impairment to property, plant and equipment or infrastructure.

Refer to Note 4.2 for guidance in relation to the impairment assessment that has been performed for intangible assets.



Finite useful lives

All infrastructure, property, plant and equipment 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. The exceptions to this rule include land.

Depreciation is generally calculated on a straight line basis, at rates that allocate the asset's value, less any estimated residual value, over its estimated useful life. Typical estimated useful lives for the different asset classes for current and prior years are included in the table below:

Asset	Useful life: years
Building	13 to 59 years
Plant and equipment	5 to 10 years
Software (a)	5 years
Motor vehicles	7 years
Special items	40 years
Monuments and specified items	15 to 125 years
Infrastructure	40 years

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

The estimated useful lives, residual values and depreciation method are reviewed at the end of each annual reporting period, and adjustments should be made where appropriate.

Leasehold improvements are depreciated over the shorter of the lease term and their useful lives.

Land is not depreciated.

Impairment

Non-financial assets, including items of plant and equipment, are tested for impairment whenever there is an indication that the asset may be impaired. 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.

Where an asset measured at cost is written down to its recoverable amount, an impairment loss is recognised through profit or loss.

Where a previously revalued asset is written down to its recoverable amount, the loss is recognised as a revaluation decrement through other comprehensive income.

As BGPA is a not-for-profit agency, the recoverable amount of regularly revalued specialised assets is anticipated to be materially the same as fair value.

If there is an indication that there has been a reversal in impairment, the carrying amount shall be increased to its recoverable amount. However this reversal should not increase the asset's carrying amount above what would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised in prior years.

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 the asset's future economic benefits and to evaluate any impairment risk from declining replacement costs.



4.2 Intangible assets

	Computer Software \$
Year ended 30 June 2018	¥
1 July 2017	445 707
Gross carrying amount Accumulated amortisation	115,767
, 1000	(59,287)
Carrying amount at start of period	56,480
Additions	_
Amortisation expense	(14,120)
Carrying amount at 30 June 2018	42,360
Year ended 30 June 2019	
1 July 2018	
Gross carrying amount	115,767
Accumulated amortisation	(73,407)
Carrying amount at start of period	42,360
Additions	-
Amortisation expense	(14,120)
Carrying amount at 30 June 2019	28,240

Initial recognition

Acquisitions of intangible assets costing \$5,000 or more and internally generated intangible assets costing \$50,000 or more that comply with the recognition criteria as per AASB 138.57 (as noted below), are capitalised.

Costs incurred below these thresholds are immediately expensed directly to the Statement of Comprehensive Income.

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.

An internally generated intangible asset arising from development (or from the development phase of an internal project) is recognised if, and only if, all of the following are demonstrated:

- (a) the technical feasibility of completing the intangible asset so that it will be available for use or sale:
- (b) an intention to complete the intangible asset, and use or sell it;
- (c) the ability to use or sell the intangible asset;
- (d) the intangible asset will generate probable future economic benefit;
- (e) the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- (f) the ability to measure reliably the expenditure attributable to the intangible asset during its development.

Costs incurred in the research phase of a project are immediately expensed.

Subsequent measurement

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

4.2.1 Amortisation and impairment

Charge for the period

	2019 \$	2018 \$
Computer software	14,120	14,120
Total amortisation for the period	14,120	14,120

As at 30 June 2019 there were no indications of impairment to intangible assets.



BGPA 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.

Amortisation of finite life intangible assets is calculated on a straight line basis at rates that allocate the asset's value over its estimated useful life. All intangible assets controlled by the agency have a finite useful life and zero residual value. Estimated useful lives are reviewed annually.

The estimated useful lives for each class of intangible asset are:

Licences	Up to 10 years
Development costs	3 to 5 years
Software ^(a)	3 to 5 years
Website costs	3 to 5 years

(a) Software that is not integral to the operation of related hardware.

Impairment of intangible assets

Intangible assets with finite useful lives are tested for impairment annually or when an indication of impairment is identified.

The policy in connection with testing for impairment is outlined in Note 4.1.1.

5. Other assets and liabilities

This section sets out those assets and liabilities that arose from BGPA's controlled operations and includes other assets utilised for economic benefits and liabilities incurred during normal operations:

	Notes	2019 \$	2018 \$
Receivables	5.1	1,513,542	936,897
Amounts receivable for services	5.2	8,407,000	7,937,000
Payables	5.3	1,063,083	1,128,987
Other liabilities	5.4	2,117,128	2,366,214

5.1 Receivables and other assets

	2019 \$	2018 \$
Current		
Trade receivables	1,332,971	686,330
Infringements	59,926	61,387
Accrued revenue	106,936	161,648
Prepayments	-	14,589
GST receivable	13,709	12,943
Total current receivables	1,513,542	936,897

Trade receivables are recognised at original invoice amount less any allowances for uncollectible amounts (i.e. impairment). The carrying amount of net trade receivables is equivalent to fair value as it is due for settlement within 30 days.

5.2 Receivables and other assets

	2019	2018
	\$	\$
Current	1,000,000	1,000,000
Non-current	7,407,000	6,937,000
Balance at end of period	8,407,000	7,937,000

Amounts receivable for services represent the non-cash component of service appropriations. It is restricted in that it can only be used for asset replacement or payment of leave liability.

Amounts receivable for services are not considered to be impaired (i.e. there is no expected credit loss of the holding accounts).



5.3 Payables

	2019 \$	2018 \$
Current		
Accounts payable	763,393	602,762
Accrued expenses	265,297	486,299
Accrued salaries	34,393	39,926
Total current	1,063,083	1,128,987
Balance at end of period	1,063,083	1,128,987

Payables are recognised at the amounts payable when BGPA 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 settlement is generally within 30 days.

Accrued salaries represent the amount due to staff but unpaid at the end of the reporting period. Accrued salaries are settled within a fortnight after the reporting period. BGPA considers the carrying amount of accrued salaries to be equivalent to its fair value.

5.4 Other liabilities

	2019 \$	2018 \$
Current		
Unearned revenue	431,608	394,343
Fee for service	1,586,682	1,857,770
Other (bonds/retentions/suspense)	98,838	114,101
Total current	2,117,128	2,366,214
Balance at end of period	2,117,128	2,366,214

Fee for service relates to activities carried out by BGPA in areas that include research, conservation and restoration. A liability exists to represent obligations not yet completed, with the net surplus/deficit for the period recognised as income or expense.

6. Financing

This section sets out the material balances and disclosures associated with the financing and cashflows of the agency.

	Notes
Cash and cash equivalents	6.1
Commitments	6.2
Capital commitments	6.2.1
Non-cancellable operating lease commitments	6.2.2

6.1 Cash and cash equivalents

	2019 \$	2018 \$
Cash and cash equivalents	5,924,932	7,181,325
Restricted cash and cash equivalents		
Fee for service ^(a)	1,515,117	1,784,381
Sponsorship	-	19,428
Paid Parental	2,366	1,578
Balance at end of period	7,442,415	8,986,712

(a) Unspent funds are committed to scientific research projects.

For the purpose of the statement of cash flows, cash and cash equivalent (and restricted cash and cash equivalent) assets comprise cash on hand and short-term deposits with original maturities of three months or less that are readily convertible to a known amount of cash and which are subject to insignificant risk of changes in value.



6.2 Commitments

6.2.1 Capital commitments

	2019 \$	2018 \$
Capital expenditure commitments, being contracted capital expenditure additional to the amounts reported in the financial statements, are payable as follows:		
Within 1 year	1,000,000	1,000,000
Later than 1 year and not later than 5 years	4,000,000	3,000,000
Later than 5 years	-	
	4,000,000	4,000,000
The capital commitments include amounts for:		
Asset replacement	4,000,000	4,000,000
	4,000,000	4,000,000

The totals presented for capital commitments are GST inclusive

6.2.2 Non-cancellable operating lease commitments

	2019 \$	2018 \$
Commitments for minimum lease payments		
are payable as follows:		
Within 1 year	80,893	92,160
Later than 1 year and not later than 5 years	173,004	153,163
Later than 5 years	4,106	5,679
	258,003	251,002

BGPA's non-cancellable operating lease commitments are fleet leases with the Department of Finance. The lease term varies depending on the vehicle. The lease payments are fixed for the term of the lease and are payable monthly

7. Financial instruments and contingencies

This note sets out the key risk management policies and measurement techniques of the agency.

	Notes
Financial risk management	7.1
Contingent assets and liabilities	7.2

7.1 Financial instruments

The carrying amounts of each of the following categories of financial assets and financial liabilities at the end of the reporting period are:

	2019 \$	2018 \$
Financial assets		
Cash and cash equivalents	5,924,932	7,181,325
Restricted cash and cash equivalents	1,517,483	1,805,387
Loans and receivables	-	8,684,717
Financial assets at amortised cost ^(a)	9,799,897	-
Total financial assets	17,242,312	17,671,429
Financial liabilities Financial liabilities measured at amortised cost	1,063,083	1,128,987
Total financial liability	1,063,083	1,128,987

(a) The amount of receivables/Financial assets at amortised cost excludes GST recoverable from the ATO (statutory receivable).

7.2 Contingent assets and liabilities

BGPA has no contingent assets or contingent liabilities.



8. Other disclosures

This section includes additional material disclosures required by accounting standards or other pronouncement, for the understanding of this financial report.

	Notes
Events occurring after the end of the reporting period	8.1
Initial application of Australian Accounting Standards	8.2
Key management personnel	8.3
Related party transactions	8.4
Remuneration of auditors	8.5
Equity	8.6
Supplementary financial information	8.7
Explanatory statement	8.8

8.1 Events occurring after the end of the reporting period

BGPA has had no events occurring after the end of the reporting period.

8.2 Initial application of Australian Accounting Standards

AASB 9 Financial instruments

AASB 9 Financial instruments replaces AASB 139 Financial instruments: Recognition and Measurements for annual reporting periods beginning on or after 1 January 2018, bringing together all three aspects of the accounting for financial instruments: classification and measurement; impairment; and hedge accounting.

BGPA applied AASB 9 prospectively, with an initial application date of 1 July 2018. The adoption of AASB 9 has resulted in changes in accounting policies and adjustments to the amounts recognised in the financial statements. In accordance with AASB 9.7.2.15, BGPA has not restated the comparative information which continues to be reported under AASB 139. Differences arising from adoption have been recognised directly in Accumulated surplus/(deficit).

The effect of adopting AASB 9 was assessed as not material, and therefore no remeasurement was made at the start of the financial period.

(a) Classification and measurement

Under AASB 9, financial assets are subsequently measured at amortised cost, fair value through other comprehensive income (fair value through OCI) or fair value through profit or loss (fair value through P/L). The classification is based on two criteria: BGPA's business model for managing the assets; and whether the assets' contractual cash flow represent 'solely payments of principal and interest' on the principal amount outstanding.

The assessment of BGPA's business model was made as of the date of the initial application, 1 July 2018. The assessment of whether contractual cash flows on financial assets are solely comprised of principal and interest was made based on the facts and circumstances as at the initial recognition of the assets.

The classification and measurement requirements of AASB 9 did not have a significant impact to BGPA. The following are the changes in the classification of BGPA's financial assets:

- Receivables as at 30 June 2018 are held to collect contractual cash flows and give rise to cash flows representing solely payment of principal and interest. These are classified and measured as Financial assets at amortised cost beginning 1 July 2018.
- BGPA did not designate any financial assets as at fair value through P/L.



In summary, upon adoption of AASB 9, BGPA had the following required (or elected) reclassifications as at 1 July 2018.

AASB 9 Category

			. ,
	Amortised cost	Fair value through OCI ¢	Fair value through P/L \$
AASB 139 Category	Ψ	Ψ	Ψ
Loans and receivables		_	_
Trade receivables	686,330	_	_
Infringements	61,387	_	_
Amount receivable for services	7,937,000	_	_
	8,684,717	-	-

(b) Impairment

The adoption of AASB 9 has fundamentally changed BGPA's accounting for impairment losses for financial assets by replacing AASB 139's incurred loss approach with a forward-looking expected credit loss (ECL) approach. AASB 9 requires BGPA to recognise an allowance for ECLs for all financial assets not held at fair value through P/L.

Upon adoption of AASB 9, the effect was assessed as not material, and therefore no remeasurement was made at 1 July 2018.

8.3 Key management personnel

BGPA has determined key management personnel to include cabinet ministers, board members and senior officers of the authority. BGPA does not incur expenditures to compensate Ministers and those disclosures may be found in the Annual Report on State Finances.

The total fees, salaries, superannuation, non-monetary benefits and other benefits for senior officers of the agency for the reporting period are presented within the following bands:

	2019	2018
Senior Officers		
Compensation band (\$)		
350,001 - 380,000 ^(a)	-	1
320,001 - 350,000	-	-
290,001 – 320,000	-	-
260,001 – 290,000	-	-
230,001 – 260,000	1	2
200,001 – 230,000	1	-
	0010	2010
	2019	2018
	\$	\$
Short-term employee benefits	356,769	503,914
Post-employment benefits	38,745	59,150
Other long-term benefits	61,064	63,042
Termination benefits	-	205,422
Total compensation of senior officers	456,578	813,528

Total compensation includes the superannuation expense incurred by BGPA in respect of senior officers

(a) Includes termination benefits relating to a position that was abolished.

	2019	2018
Board members Compensation band (\$)		
10,001 – 20,000	1	1
0 - 10,000	6	8
	2019	2018
	\$	\$
Short-term employee benefits	43,518	41,387
Post-employment benefits	4,135	3,932
Other long-term benefits	_	-
Termination benefits	_	-
Total compensation of board members	47,653	45,319



8.4 Related party transactions

BGPA is a wholly owned public sector entity that is controlled by of the State of Western Australia.

Related parties of the agency include:

- all cabinet ministers and their close family members, and their controlled or jointly controlled entities;
- all senior officers and their close family members, and their controlled or jointly controlled entities;
- other departments and statutory authorities, including related bodies, that are included in the whole of government consolidated financial statements (i.e. wholly-owned public sector entities);
- associates and joint ventures of a wholly-owned public sector entity; and
- · the Government Employees Superannuation Board (GESB).

BGPA had no material related party transactions with Ministers/members of the accountable authority/senior officers or their close family members or their controlled (or jointly controlled) entities for disclosure.

Material transactions with other related parties

Outside of normal citizen type transactions with the agency, there were no other related party transactions that involved key management personnel and/or their close family members and/or their controlled (or jointly controlled) entities.

8.5 Remuneration of auditors

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

	2019 \$	2018 \$
Auditing the accounts, financial statements, controls and key performance indicators	33,901	33,400

8.6 Equity

	2019 \$	2018 \$
Contributed equity Balance at start of period	30,365,000	30,365,000
Contributions by owners Capital appropriation	-	-
Total contributions by owners	30,365,000	30,365,000
Total distributions to owners	-	-
Balance at end of period		

	2019 \$	2018 \$
Asset revaluation surplus Balance at start of period	19,445,269	19,713,540
Net revaluation increments/(decrements) Land	(070,400)	- (000,074)
Buildings and residences Plant and equipment Infrastructure	(273,436)	(268,271) - -
Balance at end of period	19,171,833	19,445,269

8.7 Supplementary financial information

(a) Write-offs

	2019 \$	2018 \$
Write-offs and inventory adjustment Recovery from insurance claims and	33,467	8,600
inventory damages	(2,675)	(1,825)
	30,792	6,775



8.8 Explanatory statement (Controlled Operations)

All variances between estimates (original budget) and actual results for 2019, and between the actual results for 2019 and 2018 are shown below. Narratives are provided for key major variances, which are generally greater than:

- 5% and \$450,000 for the Statement of Comprehensive Income and Cash Flows, and
- 5% and \$1,340,000 for the Statement of Financial Position

It should be noted that the categories of revenue and expenditure presented in the Budget Statements differ from the categories used in these financial statements.



8.8.1 Statement of Comprehensive Income Variances	Variance note	Estimate 2019 \$	Actual 2019 \$	Actual 2018 \$	Variance between estimate and actual \$	Variance between actual results for 2019 and 2018 \$
Expenses					()	(, , , , , , , , , , , , , , , , , , ,
Employee benefits expense	1,a	10,893,498	10,132,946	11,514,828	(760,552)	(1,381,882)
Supplies and services	2,b	6,616,502	5,974,303	6,600,790	(642,199)	(626,487)
Depreciation and amortisation expenses		1,470,000	1,455,674	1,556,372	(14,326)	(100,698)
Loss on disposal of non-current assets		4 074 000	4 507 045	30,221	040.045	(30,221)
Cost of sales		1,374,000	1,587,045	1,548,183	213,045	38,862
Other expenses		2,120,000	2,157,578	2,533,751	37,578	(376,173)
Total cost of services		22,474,000	21,307,546	23,784,145	(1,166,454)	(2,476,599)
<u>Income</u>						
Revenue						
User charges and fees		2,211,000	2,009,424	2,209,465	(201,576)	(200,041)
Sales		2,758,000	3,057,275	2,881,456	299,275	175,819
Commonwealth grants and contributions		51,000	211,205	-	160,205	211,205
Interest revenue		103,000	167,686	120,650	64,686	47,036
Fee for service, subsidies and sponsorships	3,c	2,009,000	1,412,615	2,843,385	(596,385)	(1,430,770)
Other revenue	,	1,181,000	812,209	519,385	(368,791)	292,824
Total Revenue		8,313,000	7,670,414	8,574,341	(642,586)	(903,927)
Gains						
Gain on disposal of non-current assets		_	27,369	_	27,369	27,369
Total Gains		_	27,369		27,369	27,369
Total income other than income from State Government		_	-	_	-	
NET COST OF SERVICES		14,161,000	13,609,763	15,209,804	(551,237)	(1,600,041)
Income from State Government					•	•
Service appropriation	d	13,477,000	13,111,000	14,105,000	(366,000)	(994,000)
Service appropriation Services received free of charge	J	32,000	1,822	11,505	(30,178)	(9,683)
Total income from State Government		13,509,000	13,112,822	14,116,505	(396,178)	(1,003,683)
SURPLUS/(DEFICIT) FOR THE PERIOD		(652,000)	(496,941)	(1,093,299)	155,059	596,358
		(032,000)	(430,341)	(1,093,299)	155,059	390,330
OTHER COMPREHENSIVE INCOME						
Items not reclassified subsequently to profit or loss		-	-	-	-	-
Changes in asset revaluation surplus		-	(273,436)	(268,271)	-	-
Total other comprehensive income		-	(273,436)	(268,271)	-	
TOTAL COMPREHENSIVE INCOME FOR THE PERIOD		(652,000)	(770,377)	(1,361,570)	155,059	596,358



Major Estimate and Actual (2019) Variance Narratives

- 1) Employee benefits expense was \$760,552 (7%) lower than estimate due to structural workforce changes.
- 2) Supplies and services was \$642,199 (10%) lower than estimate due primarily to a reduced program of works in response to budget repair measures.
- 3) Fee for service, subsidies and sponsorships was \$596,385 (30%) lower than estimate due to general downturn on mining and resource activity, a key source of fee for service revenue.

Major Actual (2019) and Comparative (2018) Variance Narratives

- a) Employee benefits expenditure decreased by \$1,381,882 (12%) from the previous period due to structural workforce changes, together with the transfer of some employees to the Department of Biodiversity, Conservation and Attractions.
- b) Supplies and services expenditure decreased by \$626,488 (10%) from the previous period. This was primarily due to a reduced program of works in response to budget repair measures.
- c) Fee for service, subsidies and sponsorships expenditure decreased by \$1,430,770 (50%) from the previous period. This was due primarily to the completion of a sponsorship funded project in the previous period, in which the final funding tranche was received.
- d) Service appropriation decreased by \$994,000 (7%) from the previous period as the cumulative result of Treasury driven budget repair measures over previous budget cycles.



8.8.2 Statement of Financial Position Variances	Variance note	Estimate 2019 \$	Actual 2019 \$	Actual 2018 \$	Variance between estimate and actual \$	Variance between actual results for 2019 and 2018 \$
<u>ASSETS</u>						
<u>Current Assets</u>						//
Cash and cash equivalents		4,259,000	5,924,932	7,181,325	1,665,932	(1,256,393)
Restricted cash and cash equivalents		3,070,000	1,517,483	1,805,387	(1,552,517)	(287,904)
Inventories		642,000	586,556	615,151	(55,444)	(28,595)
Receivables and other assets Amounts receivable for service		2,030,000 1,000,000	1,513,542 1,000,000	936,897 1,000,000	(516,458)	576,645
Total Current Assets		11,000,000	10,542,513	11,538,760	(458,487)	(996,247)
		11,001,000	10,542,513	11,556,760	(430,407)	(990,247)
Non-Current Assets						
Amounts receivable for services		7,407,000	7,407,000	6,937,000	-	470,000
Property, plant and equipment		48,765,000	47,399,655	47,916,766	(1,365,345)	(517,111)
Infrastructure		727,000	726,175	749,600	(825)	(23,425)
Intangible assets		57,000	28,240	42,360	(28,760)	(14,120)
Total Non-Current Assets		56,956,000	55,561,070	55,645,726	(1,394,930)	(84,656)
TOTAL ASSETS		67,957,000	66,103,583	67,184,486	(1,853,417)	(1,080,903)
LIABILITIES						
Current Liabilities						
Payables		857,000	1,063,083	1,128,987	206,083	(65,904)
Provisions		1,829,000	1,601,968	1,529,497	(227,032)	72,471
Other current liabilities	4	3,870,000	2,117,128	2,366,214	(1,752,872)	(249,086)
Total Current Liabilities		6,556,000	4,782,179	5,024,698	(1,773,821)	(242,519)
Non-Current Liabilities						
Provisions		505,000	426,949	494,956	(78,051)	(68,007)
Total Non-Current Liabilities		505,000	426,949	494,956	(78,051)	(68,007)
TOTAL LIABILITIES		7,061,000	5,209,128	5,519,654	(1,851,872)	(310,526)
NET ASSETS		60,896,000	60,894,455	61,664,832	(1,545)	(770,377)
EQUITY				· ·	, , ,	, , ,
Contributed equity		30,365,000	30,365,000	30,365,000	_	_
Reserves		19,714,000	19,171,833	19,445,269	(542,167)	(273,436)
Accumulated surplus/(deficit)		10,817,000	11,357,622	11,854,563	540,622	(496,941)
TOTAL EQUITY		60,896,000	60,894,455	61,664,832	(1,545)	(770,377)
IOIAL EXOIII		00,030,000	00,034,433	01,004,032	(1,545)	(110,311)

Major Estimate and Actual (2018) Variance Narratives

4) Other current liabilities was \$1,752,872 (45%) lower than estimate. The estimate is based on longer term averages that assume a continuing level of fee for service and sponsorship revenue streams, these have instead declined in recent years.



8.8.3 Statement of Cash Flows Variances	Variance note	Estimate 2019 \$	Actual 2019 \$	Actual 2018 \$	Variance between estimate and actual \$	Variance between actual results for 2019 and 2018 \$
CASH FLOWS FROM STATE GOVERNMENT Service Appropriation		12,007,000	11,641,000	12,635,000	(366,000)	(994,000)
Capital appropriation		-	4 000 000	-	-	-
Holding account drawdowns		1,000,000	1,000,000	1,000,000	(366,000)	(004 000)
Net cash provided by State Government		13,007,000	12,641,000	13,635,000	(366,000)	(994,000)
CASH FLOWS FROM OPERATING ACTIVITIES Payments						
Employee benefits	5,e	(10,894,498)	(10,134,014)	(11,858,820)	760,484	1,724,806
Supplies and services	f	(6,358,502)	(6,527,819)	(7,644,524)	(169,317)	1,116,705
Accommodation		-	-	-	-	-
Cost of sales		(1,374,000)	(1,558,450)	(1,521,035)	(184,450)	(37,415)
GST payments on purchases	6	(520,000)	(1,260,689)	(1,059,523)	(740,689)	(201,166)
GST payments to taxation authority		- (0.040.000)	(52,367)	(16,215)	(52,367)	(36,152)
Other payments	g	(2,343,000)	(2,489,036)	586,436	(146,036)	(3,075,472)
Receipts Sale of goods and services		2.750.000	2.057.275	0.004.456	299,275	175 010
User charges and fees		2,758,000 2,211,000	3,057,275 2,010,885	2,881,456 2,205,012	(200,115)	175,819 (194,127)
Commonwealth grants and contributions		51,000	211,205	2,203,012	160,205	211,205
Fee for service, subsidies and sponsorships	7,h	2,009,000	1,412,614	2,843,385	(596,386)	(1,430,771)
Interest received	7,11	103,000	167,686	120,650	64,686	47,036
Gain on disposal of non-current assets		-	-	-		-
GST receipts on sales	8,i	169,000	891,873	1,763,804	722,873	(871,931)
GST receipts from taxation authority	,	349,000	420,416	400,985	71,416	19,431
Other receipts		1,181,000	839,578	519,385	(341,422)	320,193
Net cash provided by/(used in) operating activities		(12,659,000)	(13,010,843)	(10,779,004)	(351,843)	(2,231,839)
CASH FLOWS FROM INVESTING ACTIVITIES						
Payments						
Purchase of non-current assets	i	(1,000,000)	(1,226,024)	(3,371,212)	(226,024)	2,145,188
Receipts	•	(, , , ,	(, , , ,	(, , , ,	(, , ,	, ,
Proceeds from sale of non-current assets CASH FLOWS FROM INVESTING ACTIVITIES		-	51,570	43,000	51,570	8,570
Net cash provided by/(used in) investing activities		(1,000,000)	(1,174,454)	(3,328,212)	(174,454)	2,153,758
Net increase/(decrease in cash and cash equivalents		(652,000)	(1,544,297)	(472,216)	(892,297)	(1,072,081)
Cash and cash equivalents at the beginning of the period		7,981,000	8,986,712	9,458,928	1,005,712	(472,216)
CASH AND CASH EQUIVALENTS AT THE END OF THE P	ERIOD	7,329,000	7,442,415	8,986,712	113,415	(1,544,297)



Major Estimate and Actual (2019) Variance Narratives

- 5) Employee benefits payments was \$760,484 (7%) lower than estimate due to structural workforce changes.
- 6) GST payments on purchases was \$740,689 (142%) greater than estimate. This reflects an underestimate in the forecast for this category, with some GST payment forecasts included in other payments. There was no significant variance in the actual result.
- 7) Fee for service, subsidies and sponsorships payments were \$596,386 (30%) lower than estimate due to general downturn on mining and resource activity, a key source of fee for service revenue.
- 8) GST receipts on sales was \$722,873 (428%) greater than estimate. An underestimate in the forecast was made for this category due to non-inclusion of GST receipt forecasts that were included elsewhere. There was no significant variance in the actual result.

Major Actual (2019) and Comparative (2018) Variance Narratives

- e) Employee benefits payments decreased by \$1,724,806 (15%) from the previous period due to structural workforce changes, together with the transfer of some employees to the Department of Biodiversity, Conservation and Attractions.
- f) Supplies and services payments decreased by \$1,116,705 (15%) from the previous period due to a reduced program of works, and the final payments being made for a major project in the previous period.
- g) Other payments increased by \$3,075,472 (524%) from the previous period due to recognition of additional payments in this category.
- h) Fee for service, subsidies and sponsorships payments decreased by \$1,430,771 (50%) from the previous period. This was due primarily to the completion of a sponsorship funded project in the previous period, in which the final funding tranche was received.
- i) GST receipts on sales decreased by \$871,931 (49%) due to a return to long term average levels, the previous period returned a significantly higher result.
- j) Purchase of non-current assets decreased by \$2,145,188 (64%) due to the completion of a major project in the previous period.



Key Performance Indicators

Certification of the Key Performance Indicators for the year ended 30 June 2019

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 2019.

Richard Simpson

Chair

BGPA Board of Management

22 August 2019

Nyomi Horgan

Member

BGPA Board of Management

22 August 2019



Key Performance Indicators

for the year ended 30 June 2019

BGPA operates as an independent legal identity but is not separately identifiable within its own Division of the Consolidated Account Expenditure Estimates. Rather, it forms part of the DBCA Division and conforms to DBCA's Outcome Based Management Framework.

The change in the Outcome Based Management Framework is a consequence of Machinery of Government changes implemented on 1 July 2017. This resulted in previously used Key Performance Indicators being discontinued, and new or revised effectiveness and efficiency indicators being introduced for reporting as at 30 June 2018. These indicators have continued without change for reporting as at 30 June 2019.

Previous year comparatives are provided using the same methodology applied in the calculation of the current year results unless stated otherwise. See note 1 at KPI 1.1.

Relationship to Government Goals

Broad, high level Government goals are supported at agency level by more specific desired outcomes. The following table illustrates the relationship between BGPA level desired outcomes and the most appropriate Government goal.

Government Goal

Better Places: A quality environment with liveable and affordable communities and vibrant regions.

Outcome 1

Community enjoyment, appreciation and understanding of attractions under the Department's care.

Outcome 2

Plants and animals are conserved and habitat, ecosystem and landscape-scale conservation utilises evidenced-based science.

Service 1

Visitor services and public programs provided at Kings Park and Bold Park

Service 2

Conserving habitats, species and ecological communities

Service 3

Research and conservation partnerships

Services 2 and 3 are delivered in conjunction with DBCA. They are included in DBCA's Outcome Based Management Structure under Service 6: Conserving Habitats, Species and Ecological Communities and Service 7: Research and Conservation Partnerships.



Outcome 1

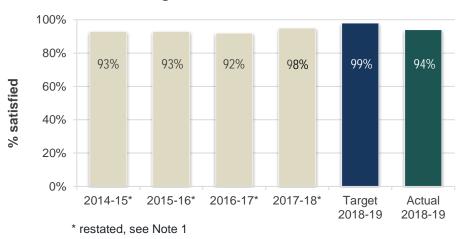
This outcome of community enjoyment, appreciation and understanding of attractions under DBCA's care is achieved through providing and improving visitor services and facilities; providing safe, accessible, and well maintained environments and landscape features within the designated lands; and, providing and promoting cultural experiences and events.

Key Effectiveness Indicators

Average level of visitor satisfaction at Kings Park and Botanic Garden and Bold Park

This key indicator measures the overall level of visitor satisfaction with the provision and presentation of visitor facilities and services, the natural environments and the horticultural displays and parklands in Kings Park and Bold Park.

Average level of visitor satisfaction



Total annual visitation to Kings Park and Botanic Garden is based primarily on vehicle counts at all vehicle entrances, with an added estimation of pedestrian access via these and other entrances. Visitation to Kings Park and Botanic Garden is estimated to be 5.145 million visitors for 2018-19. Total annual visitation to Bold Park is based on vehicle counts at the most used vehicle entries of Reabold Hill, Tuart and Camel Lakes carparks where vehicle counters are in place, with an added estimation of pedestrian access via multiple entrances. Visitation to Bold Park is estimated at 280,000 for 2018-19.

Visitor surveys were conducted in both Kings Park and Botanic Garden, together with Bold Park. A total of 597 visitors were randomly surveyed to obtain a representative cross section of park visitors, providing a margin of error of 4% at a 95% level of confidence. In each case, respondents were asked to rate their overall satisfaction as one of five categories; very dissatisfied/very poor; dissatisfied/poor; neither satisfied or dissatisfied/adequate; satisfied/very good or; very satisfied/excellent.

Notes:

1. A change of methodology took place in 2018-19 to provide consistency with DBCA reporting of survey outcomes and reflect the change in the measure from overall satisfaction to average satisfaction that occurred in the revised Outcome Based Management Framework. The reported results represent the average level based on the five categories rated from one to five. The previous period actual results have been restated to reflect this change however, this occurred after publication of 2018-19 targets, hence the original higher figure of 98% is stated. Under the revised methodology, the target would have been 95%, which is consistent with current (2019-20) published estimates.



Service 1 – Visitor services and public programs provided at Kings Park and Bold Park

To measure the success of Service 1, BGPA uses the data collected from annual visitor surveys as described in Indicator 1.1 above and the overall number of people visiting the Western Australian Botanic Garden and developed areas, people experiencing the conservation outcomes in bushland areas, participants in education and community engagement programs involving conservation, the promotion of Aboriginal heritage, colonial and contemporary heritage, and visitors attending staged events and displays on BGPA managed lands.

Key Efficiency Indicator

	Actual 2014-15	Actual 2015-16	Actual 2016-17	Actual 2017-18	Target 2018-19	Actual 2018-19	Notes
Average cost per visitor at Kings Park and Bold Park	\$1.92	\$1.72	\$1.54	\$2.13	\$1.84	\$2.03	1

Notes:

1. The average cost per visitor fluctuates from year to year, but none of the variances in the five periods reported are considered significant, the average across the five periods being \$1.87. The higher than expected average cost for 2018-19, compared with forecast, primarily reflects a level of visitation to Kings Park lower than forecast, at 5.145 million compared with the 5.400 million estimated, a reduction of 5%. This decrease can be attributed to some changes in the methodology to record and calculate visitor numbers for Kings Park however, the result is considered to now represent improved accuracy. With visitation to Bold Park remaining the same as the previous period at 280,000, total visitation is therefore lower overall. The impact on the indicator from the decrease in the total visitation is partially mitigated by the total cost for Service 1 also being lower than forecast, by 3%.



Outcome 2

This outcome of plants and animals are conserved and habitat, ecosystem and landscape-scale conservation utilises evidenced-based science is achieved through the development and management of the scientific plant 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, horticulture and ecological 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.

Service 2 – Conserving habitats, species and ecological communities

BGPA provides this service to the community by demonstrating leadership in urban bushland management, especially for Perth and regional communities; and by providing horticultural services for the ex situ conservation and interpretation of native plants. BGPA measures the success of Service 2 by using data gathered about the presence of vulnerable flora in designated land.

Key Effectiveness Indicator

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 BGPA's effectiveness in conserving the native plant biodiversity in Kings Park and Bold Park bushland, through annual surveys of the taxa that have been documented as the most vulnerable taxa in each Park.

Reporting Year	Target %	Actual %
2018-19	100	100
2017-18	100	100
2016-17	100	100
2015-16	100	100
2014-15	100	100

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.

As it is not feasible to survey the entire flora in each park annually, the presence of the 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, is monitored within identified 'grids'. This offers time series data about vulnerable flora and provides an appropriate sample measure of the effectiveness of the conservation of all native species in each park. Results of the survey in Bold Park during 2018-19 recorded 100% presence of the nominated 15 species. A similar survey conducted in Kings Park bushland also recorded 100% presence of the nominated 15 species.



Key Efficiency Indicator

	Actual 2014-15	Actual 2015-16	Actual 2016-17	Actual 2017-18	Target 2018-19	Actual 2018-19	Notes
Average cost per hectare of Wildlife Habitat	\$10,870	\$10,446	\$10,554	\$9,465	\$10,472	\$9,884	1

Notes:

1. The indicator is based on two variables, the total cost of delivering service 2, and the total area of Wildlife Habitat. As the total area of Wildlife Habitat has remained constant for the past five periods, the variances are all due to the level of expenditure occurring in the respective periods. 2018-19 expenditure was lower than average due to a number of program and operational reductions.

Service 3 – Research and conservation partnerships

BGPA measures the success of Service 3 by using data gathered, and through undertaking and promoting leading-edge science and interpretation pertinent to integrated conservation of flora for present and future generations.

Key Efficiency Indicators

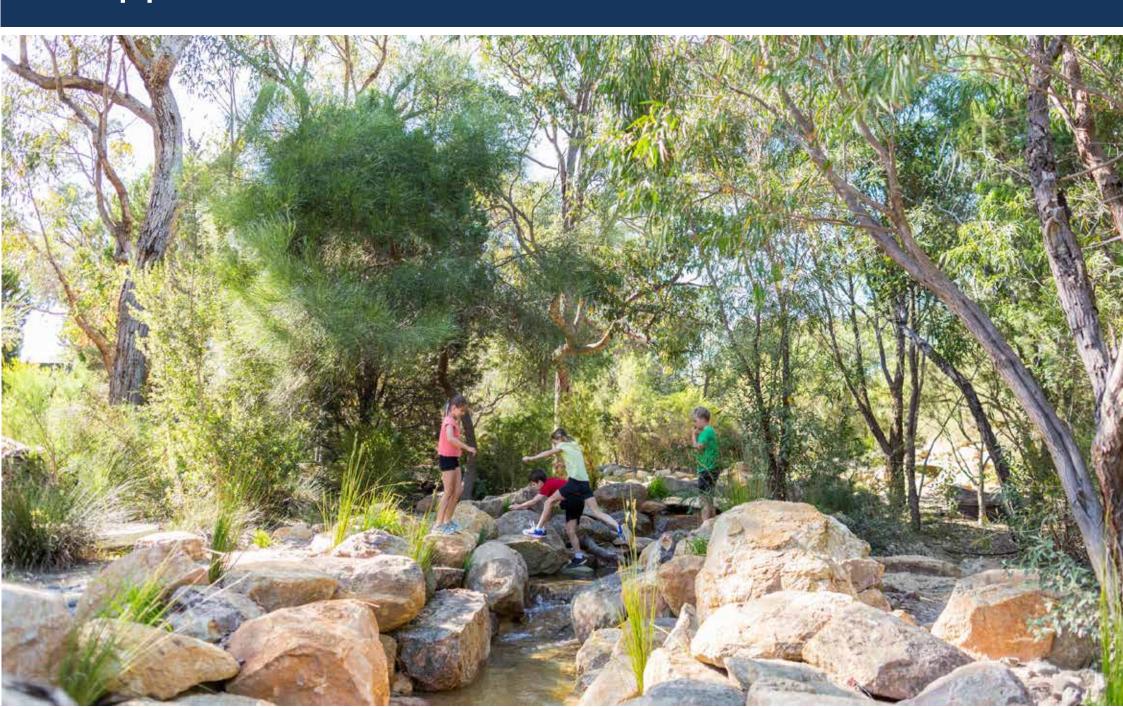
	Actual 2014-15	Actual 2015-16	Actual 2016-17	Actual 2017-18	Target 2018-19	Actual 2018-19	Notes
Average cost per hectare of Wildlife Habitat	\$3,345	\$3,215	\$3,247	\$2,878	\$3,222	\$3,082	1
Research communications produced per Full Time Equivalent*	4.6	8.4	5.8	8.8	9.3	6.9	2

^{*} For the purpose of this indicator, the BGPA continues to only report on refereed scientific publications. 'Full Time Equivalent' is defined as full time equivalent recurrent funded science staff.

Notes:

- 1. The indicator is based on two variables, the total cost of delivering service 3, and the total area of Wildlife Habitat. As the total area of Wildlife Habitat has remained constant for all the reported periods, any variance is due to the level of expenditure incurred in the respective periods. 2018-19 expenditure was slightly lower than forecast average due to program and operational reductions.
- 2. The number of research communications produced per Full Time Equivalent in any given year can vary considerably due to timing, a reflection of the stage and complexity of the various research projects. However, the number of positions from one period to the next does not vary significantly, and does not directly correlate with output in the same period. Therefore, a level of fluctuation in this indicator over time is expected, and none of the variances in the reported outcomes are considered significant. The 2018-19 result aligns with an average across the five periods of 6.9. While the number of publications can be reasonably estimated, the timing is difficult to forecast, as the resultant publication of original research findings can take up to 18 months to be 'in print' from the date of manuscript submission. The actual number of refereed scientific publications for 2018-19 was 59.

Appendices





Appendix 1 – Volunteer Group Reports

BGPA is very fortunate to retain a large number of highly skilled and dedicated volunteers. The high quality of efficient services offered to the community in these special places are enhanced greatly by the commitment and skills of these extraordinary volunteers.

Read more about the activities of each of the five volunteer groups in this section –

- · Friends of Bold Park Bushland
- Friends of Kings Park
- · Kings Park Volunteer Guides
- · Kings Park Volunteer Master Gardeners
- · Honour Avenues Group



Friends of Kings Park Botanic Garden Carers



Kings Park Volunteer Guide

Friends of Bold Park Bushland

In the past year we have continued to distribute free copies of our 2017 30th anniversary publication on Bold Park, giving them away at our guided walks, and at the Town of Cambridge administration office and library. Very few of the original 1,500 copies remain, and we are still getting requests for them. The booklet continues to be very well-received and we have had nothing but praise for it. Recently the Town of Cambridge let us know that our booklets are 'ever-popular' and that it is enjoyed by all ages of visitors to the Town.

The rationalisation of BGPA staffing across Bold Park and Kings Park bushland teams through 2018 required adjustment for the Friends of Bold Park. The personal approach and contribution of dedicated Bold Park officers to our organisation was significant and will be missed. We appreciate the efforts being made by the new team to engage with the Friends and to ensure that Bold Park still receives the attention it deserves and are pleased that we continue to be supported by agency staff.

We have successfully revised our constitution to bring it into line with State regulations. We are very grateful for the free assistance provided to us in this compulsory task by Paul Riethmuller of Jones Day. The primary change to our original 1980s constitution was the updating of our objectives to reflect the establishment of Bold Park under the management of BGPA in 1998.

Norma Calcutt, our inspirational leader throughout our eleven campaigning years and beyond, was awarded Life Membership at our AGM in May 2019.

We have produced three newsletters for members and maintain a Facebook page which has 94 followers. With on-going help from the Friends of Kings Park, we are improving our membership organisation.

We work closely with Bold Park staff on our bushcare activities, which focus on the Eastern Gateway site where we have been active for well over 20 years. Last winter 19 members participated in two planting sessions, planting 2,200 seedlings.

Our eleven weeders undertook ten weeding sessions last winter and spring, twice monthly on Sundays. Last summer, six members collected seed for use in future restoration and as part of BGPA's conservation collection.

Funds for growing the plants were obtained through a Community Restoration Grant, administered by the Department of Biodiversity, Conservation and Attractions as part of the Perth Banksia Woodland program. This continuing grant was obtained by BirdLife, with volunteers coming from both BirdLife and ourselves. It has another few years to run.



Friends of Bold Park President Stephanie Clegg (right) and Norma Calcutt (left) who was presented with Life Membership in May 2019. Photo: J Crandell.

Our guided walks have run for over eight years. During the past year we stopped providing weekday walks due to a lack of available guides and low attendances, and we now hold just two walks each month other than November and December. Walks included summer sunset walks to Reabold Hill, school holiday night stalk walks sponsored by the Town of Cambridge, fungi walks in winter along Camel Lake Trail and early spring walks in the southern section of the park where there were extensive fires in 2012. Walks are advertised in the "POST" newspaper, the BGPA's website and our Facebook page. Most of our walkers are locals, with occasional overseas or interstate visitors.

We have had seven active guides in the last year, having lost two but gained one. Several Executive Committee members are happy to be rostered for walks as required, such as when walks have large numbers.



Friends of Bold Park Guides

In the year from May 2018 our guides led 24 walks, with a total of 300 walkers; 70 more than the previous year. The largest numbers were the two January sunset walks, with a total of 71 people, and the April 2019 school holiday evening walk held in conjunction with the Town of Cambridge, which attracted 52 walkers, about half of them children.

Between May 2018 and May 2019 four roadside rubbish collections were held, with 53 bags of rubbish collected - 20 bags less than last year, hopefully due to a reduced amount of rubbish.

In 2014 we welcomed a small team of voluntary bird-banders as members. The group has been banding birds in Bold Park since 2012, continuing the earlier work of Dr Boyd Wykes in the Mt Claremont part of the park. July 2019 marks the 30th year this project has been running and as such it is one of the longest running banding projects in Australia.

Ten banding sessions were held in the past year, with 381 birds processed, comprising 20 species, including 185 Silvereyes, 70 White cheeked honeyeaters, 38 Brown Honeyeaters, 21 Striated Pardalotes, 17 Western Gergones and 4 New Holland Honeyeaters. The highlight of the year was catching 3 Southern Boobooks in one night. This brings the total number of Southern Boobooks banded at the Mount Claremont site since 2012 to 16.

With the assistance of Steve Easton and others, the Bold Park Bird Banding Group recently published a method for people to easily devitalise bird seed in their microwave or oven. It is hoped that people who want to feed bird seed to wild birds will devitalise their seed before doing so, to help prevent weed spread into remnant bushland such as Bold Park. The article can be found here http://www.birdlife.org.au/afo/index.php/afo/article/view/2140.

Many thanks to all our active members for their hard work over the past year to support the continued protection of Bold Park as a very important conservation and recreation resource within the Perth region.

Stephanie Clegg President, Friends of Bold Park Bushland Inc.



Friends of Kings Park

The Friends of Kings Park was established in 1993 to involve the community in its vision for Kings Park and Botanic Garden as a special place for people and plants; to be an advocate for Kings Park to ensure it continues to be an inspiration for biodiversity, conservation and an exceptional place to visit.

How do we support Kings Park?

Through volunteering

There are various volunteer groups for members to join. Volunteers can participate in conservation, bushland management and horticulture though the Botanic Garden Carers, the Bushland Carers, Special Species Group or the Growing Friends. For members who work during the week there is an opportunity to join the weekend Bushland Carers or undertake one-off volunteering events such as the annual Sky Show and the quarterly Plant Sales. There is also the opportunity to join the Office Group or enjoy a walk in Kings Park undertaking Climate Watch awareness activities. Whatever volunteers decide to do they will find the experience enjoyable and rewarding.

One of our major volunteering fundraising opportunities is the Australia Day collection. During recent years donations had started dwindling due to visitors no longer carrying coins. To counteract the problem a credit card Tap N Go device was purchased which proved to be a great success with the 2019 Australia Day Sky Show.

During the year, our volunteers contributed 12,619 hours to supporting this wonderful park.

Congratulations to our newest Life Members, Marcelle Broderick, BGPA's former Director of Business and Visitor Services and Liz Millward, our former Treasurer of ten years.

Through the Friends of Kings Park Fund

In 2008 the Friends of Kings Park Fund was created to support the environmental objectives and purposes of the Friends. In 2011 the Fund received a generous donation of shares from the Minderoo Foundation. Over the years, dividends from the shares together with donations from members, have funded various research and projects within the park.

This year the Fund contributed \$20,500 towards the Kings Park Summer Scholarship program sponsoring nine students who undertook a diverse range of research.

Thank you to Darren Harrop (Chair), Vern McKay and Anne Barden, members of the Fund Committee, for the time they have given in considering projects to be supported by the Fund. I am proud to advise the following projects have been approved:

- \$17,000 per annum towards the Kings Park Summer Scholarship program. A formal agreement between the Friends and Kings Park Science will allow the program to continue into the foreseeable future providing opportunities for students to undertake applied research activities, build networks. communicate their findings and advance their careers.
- \$125,000 to Digby Growns, Senior Plant Breeder at Kings Park, over a period of three and a half years to determine the colour compounds in Anigozanthos species and hybrids, in particular, novel coloured varieties.
- \$35,000 to Kings Park Science to fund orchid biology and conservation through supporting the salary of their current parttime orchid research scientist. This will enable Kings Park to maintain and increase the significant living orchid research and conservation collection and increase its capacity to undertake ex-situ conservation of some of Western Australia's most threatened plant species.

Even with these commitments, the Fund Committee will still have the capacity to consider other grant applications which may arise during the year.



Through the Friends Operating Account

The annual Vic Galea Scholarship of \$4,000 to enhance career development opportunities for BGPA employees and PhD students undertaking research in Kings Park, was granted to a PhD student, Laura Skates. This has enabled Laura to further her career in science communications, to improve her knowledge of how people respond to, and interact with, the natural environment.

In addition, funding was provided for two projects:

- \$10,000 was provided for a project studying fox movement in Kings Park and Bold Park. GPS collars were attached to trapped foxes which were then released back into the parks.
- \$10,000 to support a Kings Park vegetation survey to improve understanding of the fire regime requirements of banksia woodlands and the impacts of fire and weed management on woodland structure, composition and fuels.

Through Lotterywest Grants

For the twelfth consecutive year, the Friends were successful with a Lotterywest grant of \$100,000 for the 2019 Kings Park Festival. The grant will mean people from all walks of life will be able to enjoy a fantastic free program of activities and exhibitions throughout September.

I am delighted to advise that the building of the new volunteer hub. 'Wanju Marr', is ready for fit out. A joint opening of 'Wanju Marr' and the 2019 Kings Park Festival will be celebrated on 30 August 2019.

'Wanju Marr' will enable expansion of the range of volunteer roles on offer, including the introduction of the 'Fixing Friends', a new group to assist with infrastructure maintenance tasks around the Park. A beautiful outside entertainment area has also been built to enable members and volunteers to relax, catch up with friends and enjoy.



Richard Walley conducted the smoking ceremony held prior to works commencing for Wanju Marr, the new hub for Kings Park's hands-on volunteers.

A Memorandum of Understanding (MoU) was agreed between the Friends, Kings Park Volunteer Guides, Kings Park Volunteer Master Gardeners, the Honour Avenues Group and BGPA. As a condition of the MoU, a Volunteer Hub Administrative Committee was established to oversee the management, operations, use and maintenance of the facilities. Each group has a representative on this committee.

Strategic Plan

In 2018 a new Strategic Plan was accepted by members to set our direction for the next three years to ensure we continue as a vibrant, dynamic and sustainable membership and volunteer organization. Outcomes specified in this Plan are being met in a timely manner.



Special thanks to ...

The Friends Management Committee consisting of Kim Smith, Vice President, Vern McKay, Treasurer, Guy Chandler, and Ruth Robertson. At the Annual General Meeting in October 2018 new committee members, Pia Beukes, Ian Kerr and Craig Gumley were welcomed. Thank you to our outgoing members, Liz Millward, Alex Hew and Nicole Parks.

The Communications sub-committee consisting of Guy Chandler, Sue Elliott, Alex Hew, Celeste Sweeney, Kate Biondo and Nicole Parks for organizing a range of interesting speakers such as Angus Stewart who presented the Festival Address on the extraordinary and spectacular biodiversity of our plants; Max Crowhurst who recounted his adventures whilst plant collecting in the Recherche Archipelago off the Esperance Coast, Ryan Glowacki on Fauna of Kings Park Bushland, and a fascinating talk on carnivorous plants by James Fielder. It is pleasing to see the efforts of this hard-working sub-committee being supported by our members and their friends.

The Nursery sub-committee members, Lester Zani, Lynda Woodhams, Tony Scalzo, Ruth Robertson, Mariana Campos and Moira Bandt who is filling in whilst Mariana is on maternity leave. A special thanks to Grady Brand, Amanda Shade and Shelley Witham from the Kings Park nursery, for their guidance and support.

Our main source of income is through our quarterly plant sales. This year sales of \$160,000 exceeded all expectations. Congratulations not only to the volunteers working in the nursery to propagate our unique native plants but also to all those volunteers who support each sale. You make a dynamic team!

Tony Scalzo, Editor and Chris Olney, Editorial Assistant for the work they do in producing our outstanding magazine, For People & Plants. There is so much to learn about the park, its personalities, science and research projects from this unique and internationally renowned quarterly publication.

The Friends would not operate as smoothly as they do without our Administrator, Helena Waldmann, who looks after our members and our Events and Communications officer, Alex Castle, our media expert. They are the one constant force in the organisation.

A special thank you to BGPA staff for the unstinting support they offer to volunteers, and a thank you to our members and volunteers who contribute in so many ways and without whom we would not be able to support Kings Park to the extent we do.

Pippa Moody President, Friends of Kings Park

Overview



Kings Park Volunteer Guides

One of the many positives from the Kings Park Volunteer Guides hosting the 16th Australasian Botanic Guides Conference at Kings Park in September 2019 is the development of many new and creative guided walks. Although designed especially for the conference from September 16-20, many of the more than 70 Guides involved in planning these walks are keen to offer them to the public.

As a result, 'In the Footsteps of Women' was run twice on International Women's Day in March, 'Memorials Among the Trees', focusing on WA military history, was popular in the week before Anzac Day and 'A Gondwana Adventure' was featured on Botanic Gardens Day in May.

Another spin-off is a new category of guide, the Kings Park Ambassador (KPA). More than 20 KPAs wearing red vests will assist visiting conference delegates. As a trial, their role has been extended to assist visitors to the park on weekends during the 2019 Kings Park Festival.

The Guides have developed a conference website and when registrations opened for Eastern States and overseas delegates in May more than 100 people registered in the first two days. Registrations stand at 180 so it is promising to be a very successful conference.

In the last year, 13 Guides were presented with BGPA long service certificates, notching up an incredible 175 years' service between them. Special congratulations to Nolene Rowell, who has been leading guided walks for 30 years, and continues to do so.

In May, Volunteering WA honoured three of our Guides with long service awards. Rachel Craven, Magdelena Roeper and Beverley Pegrum have each been Kings Park Guides for more than 26 years.

Three Guides were awarded Life Membership this year. Kim Fletcher, Alison Young and Brenda Mowe were recognised for their valued contributions to the Guides over many years. Alison was in charge of banking the donations from the Visitor Information Centre each month for 16 years.



Minister for Volunteering, Mick Murray MLA, with Kings Park Volunteer Guide Rachel Craven. Photo: Department of Communities

In a break with tradition, the Guides abandoned printed newsletters and rosters in February 2019 and opted for digital versions. While there was resistance to this in some quarters it is now running smoothly. We estimate it saves BGPA more \$5000 a year in printing, paper and postage costs. Not to mention the many hours Guides spent producing these items.

We finish the year with 145 Guides hosting three free guided walks every day except Christmas Day. In addition, on Tuesdays and Fridays in September and October there are four walks a day offering visitors a chance to discover the Law Walk with 'Waterviews and Wilderness' and to get off the beaten track on a three-hour 'Heart of Kings Park' bush walk.

Overview



In the last 12 months Guides escorted 8850 visitors through the Western Australian Botanic Garden, along Fraser Avenue and into the Kings Park bushland. Among the visitors was Environment Minister Stephen Dawson and several of his staff who were shown the wildflower wonders of the Nature Trail by Guides Ann Newman and Jon Dodd in August.

In total, the Guides assisted 60,384 visitors, a slight increase on the previous 12 months. Of these 51,534 people sought assistance in the Visitor Information Centre comprising 22,117 overseas visitors, 16,836 interstate visitors and 12.581 Western Australians.

In the process the Guides notched up an impressive 26,700 volunteer hours, equivalent to 14 full time staff employed for a year. This comprised 4938 hours in the Visitor Information Centre, 5500 leading guided walks and 16,262 hours on further education and preparing for the Guides conference.

Chris Olney President, Kings Park Volunteer Guides



Kings Park Guide Jon Dodd, BGPA Executive Director Alan Barrett, Guide Ann Newman, Environment Minister Stephen Dawson and Kings Park Guides President Chris Olney. Photo: Department of Premier and Cabinet



Kings Park Volunteer Master Gardeners

Every year brings its changes and for all at Kings Park there have certainly been many in 2018. We are now working with our new Constitution and have upgraded our Bylaws to reflect the changes.

Advice to home gardeners about growing native plants continues to be the main business of the Volunteer Master Gardeners (VMGs). Our team of 34 active VMGs and 22 associates contribute to home gardening advice, Dig it with Coffee sessions and partner with the Friends of Kings Park at their quarterly plant sales. Three talks were presented to social and gardening groups. We are encouraging these groups to come to Kings Park. The Friends of Kings Park include a regular VMG article in their quarterly magazine 'For People & Plants'.

Home Gardening Advice

Opportunities for home gardeners to have their questions answered through the Gardening Advisory Service (GAS) are offered on Tuesday and alternate Thursdays and Fridays. This year 2104 questions were dealt with at the GAS desk and at the Friends of Kings Park plant sales. We continue working to make our home gardening advice more effective and Procedure Manuals for all our activities have been updated and made more user friendly.

Dig it with Coffee is another avenue that gives us the opportunity to provide information to the public. Delivered by BGPA horticulturists and VMGs, the most popular sessions are those on growing native plants. Attendance at sessions is sometimes as large as 20. Attendees come from parks, large properties as well as home gardeners. This year 80 people have attended.

Thank you to Friends of Kings Park who have now included advertising for Dig it with Coffee on social media.

Bookings for Dig it with Coffee from July will now be done via the website. This brings us into line with other areas in Kings Park moving towards more use of technology and will allow us to have a more reliable record of attendees.

Bush Garden

Our Bush Garden, an example of gardening without water, continues to flourish. A planning lunch was held in March to plan for the rest of the year. This was an excellent year for the Bush Garden, as the rainfall meant a lot of flowers and some new flowerings. Over 100 new plants were planted. Planting has now started under the watchful eye of Ryan Glowacki to replace plants that suffered from our summer heat.

Projects

This year we contributed 3289 hours to various duties and many and varied projects. In laboratories members assisted with washing jars and other tasks to assist the science staff, maintaining the science collection, the ongoing project measuring pH values and soil samples and assisting a PhD student in the Banksia project.

The VMGs continued to be involved with Kings Park plant development, helping plant breeders to work on several species cleaning seeds, propagating, potting up, collecting pollen, cleaning labels and maintaining the area.

Further Education

Monthly talks at General Meetings were held during the year for all members. Dig it with Coffee sessions with the horticulturists keep us up to date with what is going on in the parks and increases our knowledge. Monthly articles in the Volunteer Master Gardeners Newsletter also inform us of what can be done in the home garden.

Acknowledgements

We sincerely thank the BGPA directors and staff for their ongoing support.

Bernice Sparks
President, Kings Park Volunteer Master Gardeners



Honour Avenues Group

The Honour Avenues Group have preserved and maintained a tradition of memorial plaques along the Honour Avenues of Kings Park and Botanic Garden for 99 years and much of the year has been spent preparing for centenary commemorations through a significant upgrade to the May Circle plaque dedication area.

The May Circle upgrade is scheduled for completion by the end of July and will be recognised by a ceremony to be held on the 3 August, the date on which the first Honour Avenue in Kings Park was dedicated and opened 100 years ago.

A significant anniversary during the year was the centenary of the 1914-18 War Armistice. The 15-member Group contributed 2084 hours of work in continuing to meet the duty of care for the Avenues and as part of preparations for this significant commemoration.

Other activities included the beginning of an ongoing schedule of replacement and refurbishment of existing plaques as part of our duty of care for all the plaques in the Honour Avenues.

During the year there were four dedication services with 45 new plagues dedicated. The total number of plaques is now 1810.

Our thanks to BGPA staff for their enthusiastic support and help, for without them we would not be able to continue to meet our obligations towards the Honour Avenues.

Finally, and with great sadness, the year was marked by the passing of our former Chairman, Mr Norman Manners OAM. Norm was a long-standing, highly respected and much-loved Chairman and a good friend to all members. He was a driving force in the planning for the May Circle upgrade and contributed much to the excellent camaraderie and esprit de corps within the Honour Avenues Group.

Lest we forget.

Robin Slater Chairman, Honour Avenues Group



Knitted and crocheted poppies at the Flame of Remembrance on Armistice Day 2018



The Honour Avenues Group now look after 1810 plaques in the Kings Park Honour Avenues.

Appendix 2 – Publications

BGPA creates and contributes to, many publications throughout the year. All BGPA annual reports, management plans, strategic publications, legal statements, and brochures are available to download from the website or in hard copy from the front reception offices in Kings Park and Botanic Garden and Bold Park. Information brochures are also available from the Kings Park Visitor Information Centre. In addition, a range of botanical, gardening, historical, cultural and children's books are available for sale at Aspects of Kings Park.

For People & Plants – Friends of Kings Park Magazine

BGPA staff and students regularly contributed articles to the quarterly Friends of Kings Park member magazine 'For People & Plants'.

For People & Plants, Issue 103 Spring 2018

Growns D (2018) A right royal Kangaroo Paw, p12.

Hammersley L. A welcome hand is a step closer, pp 20-21.

Huss J, Eder M, Miller B and Merritt D (2018) Ingenious banksias: How they master seed protection and release, pp 22-23.

Maddern R (2018) Into the fold, Kings Park and Botanic Garden welcomes new Executive Director, Alan Barrett, pp 8-9.

Simpson D (2018) Kings Park's greatest gift celebrates 10 years, pp 3-5.

Simpson D (2018) Protecting rare plants for future generations, pp 6-7.

Whiteley S (2018) Conserving the rare and threatened *Androcalva perlaria*. pp 24-27.

For People & Plants, Issue 104 Summer 2018-19

Davis B (2018) Bussell's last stand – saving *Caladenia busselliana* from the brink of extinction, pp 30-32.

Davis B (2018) The Queens of Kings Park, p 33.

Elliot C, Lewandrowski W and Stevens J (2018) Three-tonne rock breaker and teaspoon expose charismatic *Blushing Tetratheca*, pp 26-29.

Glowacki R and Easton S (2018) Nature tales, pp 18-21.

Maddern R (2018) Imaginations run wild, Childhood memories of Kings Park, pp 12-14.

Maddern R (2018) Naturescape wins Premier's Science Award, p 24.

Simpson D (2018) Behind the lens: Western Australia – the Greatest Show on Earth, pp 8-9

Sweedman L (2018) Collecting and Growing bush foods with the Yindjibarndi people, pp 3-7.

For People & Plants, Issue 105 Autumn 2019

Brand G (2019) A Kings Park banksia woodland treasure, p 9.

Golos P (2019) Fires, floods, flies research in the Great Sandy Desert, pp 22-26.

Lewandrowski W. and Elliott C (2019) Out of rock they emerge. Recruitment of rare *Tetratheca erubescens* from banded ironstone ranges, pp 27-29.

Simpson D (2019) The future looks bright for Aspects designers, pp 15-18.

For People & Plants, Issue 106 Winter 2019

Bateman A (2019) For the love of science, pp24-26

Courtney P (2019) Kings Park combats tree decline, pp8-13.

Hammersley L (2019) New workshops for Kings Park Infrastructure team, p22-23

Whelan L (2019) Magnificent mitochondria may hold conservation key, pp 27-28.

Appendix 3 – Kings Park Science Research Highlights

Publications - Scientific Journals and Papers

Book Chapters

Miller BP (2019) Background, principles and context for risk-based completion criteria and monitoring. In Young RE, Manero A, Miller BP, Kragt ME, Standish RJ, Jasper DA and Boggs GS (2019). A framework for developing mine-site completion criteria in Western Australian Biodiversity Science Institute, Perth, Western Australia pp 174.

Refereed Articles

- Ahrens CW, Mazanec R, Paap T, Ruthrof KX, Challis A, Hardy G, Byrne M, Tissue DT and Rymer PD (2019) Adaptive variation for growth and resistance to a novel pathogen along climatic gradients in a foundation tree. *Evolutionary Applications* 12(6): 1178-1190 https://doi.org/10.1111/eva.12796.
- Anderson BM, Grierson PF, Krauss SL, Nevill P, Small I, Duvall M, Thiele K and Barrett MD (2019) Diversification timing for Australian arid zone grasses (*Triodia*) based on full chloroplast genomes, and evidence from genomic SNPs for the origin of a recent population expansion across sandy deserts. *AoB Plants* 11(2) https://doi.org/10.1093/aobpla/plz017.
- Ayre BM, Roberts DG, Phillips RD, Hopper SD and Krauss SL (2019) Near-neighbour optimal outcrossing in the bird-pollinated *Anigozanthos manglesii*. *Annals of Botany*, https://doi.org/10.1093/aob/mcz091.
- Barrett MD, Trudgen ME (2018) Triodia pisoliticola (Poaceae), a new species from the Pilbara region, Western Australia, and a description for T. sp. Mt Ella (M.E. Trudgen 12739). Nuytsia 29: 271-281 https://florabase.dpaw.wa.gov.au/nuytsia/article/872.

- Bateman AM, Erickson TE, Merritt DJ and Muñoz-Rojas M (2019) Inorganic soil amendments alter seedling performance of native plant species in post-mining arid zone rehabilitation. *Journal of Environmental Management* 241: 179-186 https://doi.org/10.1016/j.jenvman.2019.04.022.
- Bateman AM, Erickson, TE, Merritt DJ, Veneklaas EJ, Muñoz-Rojas M (2019). The role of inorganic soil amendments in dryland rehabilitation under climate scenarios: effects on soil quality and plant establishment. *Catena* Volume 182 https://doi.org/10.1016/j.catena.2019.104116.
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- Brown V, Ritchie A, Stevens J, Harris R, Madsen M and Erickson T (2018) Protecting direct seeded grasses from herbicide application: can new extruded pellet formulations be used in restoring natural plant communities? *Restoration Ecology* 27(3):488-494 https://doi.org/10.1111/rec.12903.
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- Carey N, Cross A, Barrett MD, Robson BJ (2018) Do active-dispersing insects dominate the invertebrate fauna of rock pools in the wet-dry tropics, Kimberley, Australia? *Aquatic Conservation* 29(8): 1175-1189 https://doi.org/10.1002/aqc.3112.
- Commander LE, Merino-Martín L, Elliott CP, Miller BM, Dixon KW, Stevens JC (2019) Demographic, seed and microsite limitations to seedling recruitment in semi-arid mine site restoration. *Plant and Soil* http://dx.doi.org/10.1007/s11104-019-04081-2
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Research Projects

Externally Funded Research

- Hanson Construction Materials (project formerly with Rocla Quarry Products): Developing sustainable restoration of Banksia woodland communities disturbed through sand quarrying activities (2000-ongoing).
- Department of Parks and Wildlife, Yilgarn District, Wheatbelt Region Rare Plant Translocations program for Symonanthus bancroftii.
- Hanson Construction Materials (project formerly with Rocla Quarry Products): Understanding the ecophysiological reasons that underpin Banksia species establishment (2006-ongoing).
- Birla Nifty Copper Pty Ltd: Vegetation restoration project in the Great Sandy Desert (2012-ongoing).
- BHP Billiton Iron Ore Pty Ltd: Restoration Seedbank Initiative (with The University of Western Australia). (2013-2019).
- Cliffs Asia Pacific Iron Ore Pty Ltd: Ricinocarpos brevis restoration research program (2013-2018).
- Cliffs Asia Pacific Iron Ore Pty Ltd: Tetratheca erubescens translocation project (2017-2022).
- Australian Flora Foundation: Germination of *Persoonia* species (2016-2019).
- WA Biodiversity Science Institute: Completion criteria and risk based monitoring for mine closure (2017-2019).
- Australian Flora Foundation: Is mitochondrial function the key to improving the cryopreservation of threatened Australian flora? (2019-2020)
- Department of Parks and Wildlife, Avon Wheatbelt Region rare plant propagation program for Banksia ionthocarpa ssp. chrysophoenix (2018 - 2019).

- Iluka Resources: Conservation genetics of the DRF Styphelia longissima (2017-2018).
- Iluka Resources: Post-mining rehabilitation of bird-pollinator services in Lambertia multiflora (2018-2019).
- Wettenhall Foundation: The critical role of vertebrates for pollination in SW WA (2018-2019).
- Rio Tinto Iron Ore: Targeted Research Project (2019). Titled "Seed dormancy-break and germination requirements of the rare perennial shrub Aluta quadrata". Investigators: Cls Todd Erickson. David Merritt, Jason Stevens.
- BHP Western Australia Iron Ore: Targeted Research Project (2019). Titled "Revegetated Cover Systems Program". Investigators: Cls Sebastian Lamoureux, Pls Jason Stevens. Todd Erickson, Erik Veneklaas, Matthias Leopold, Paul Drake, Robert Shurniak.
- Rio Tinto Iron Ore: Targeted Research Project (2018-2019). Titled "Developing conservation and rehabilitation options for targeted and iconic Pilbara plants species". Investigators: Cls Todd Erickson, David Merritt, Shane Turner, Jason Stevens.

Nationally Competitive Projects

- Ecological and genetic connectivity in seagrasses: the role of sexual reproduction, dispersal and recruitment on meadow restoration. ARC Linkage grant LP130100918 (2013-2018: total ARC funds \$375,331). Administering organisation: The University of Western Australia. Partner Organisation: Botanic Gardens and Parks Authority.
- · The evolution and conservation consequences of promiscuity in plants pollinated by vertebrates. ARC Discovery Project DP140103357 (2014-2019: ARC funds \$935,000). Administering organisation: The University of Western Australia. Collaborative Partner: Botanic Gardens and Parks Authority.



- ARC Training Centre for Mining Restoration. ARC Industrial Transformation Training Centres IC150100041 (2015-2019/20)
 ARC funds \$5M). Administering organisation: Curtin University of Technology. Collaborative Partners: Botanic Gardens and Parks Authority, Society for Ecological Restoration (Australasia) Inc, Hanson Construction Materials, Cliffs Asia Pacific Iron Ore Management Pty Ltd., Sinosteel Midwest Corporation Limited, BHP Iron Ore Pty Ltd., Karara Mining Limited, Polaris Metals Pty Ltd.
- Is restoration working? An ecological genetic assessment. ARC Linkage Project LP150100450 (2016-2019: ARC funds \$400,000). Administering organisation: The University of Western Australia. Collaborative Partners: Botanic Gardens and Parks Authority, Department of Parks and Wildlife, Gondwana Link Ltd.
- Mine site rehabilitation through novel plant and microbe interactions. ARC Linkage Project LP150101111 (2016-2018: ARC funds \$355,000). Administering organisation: The University of Western Australia. Collaborative Partners: Botanic Gardens and Parks Authority, Curtin University.
- The Energetic Basis to Seed Longevity and Storage. ARC Linkage Project LP160100381 (2016-2018: ARC funds \$336,000). Administering organisation: Curtin University. Collaborative Partner: Botanic Gardens and Parks Authority,
- Eco-Engineering Soil from Mine Tailings for Native Plant Rehabilitation. ARC Linkage Project LP160100598 (2016-2018: ARC funds \$590,000). Administering organisation: University of Queensland. Collaborative Partners: Botanic Gardens and Parks Authority and Karara Mining Limited.
- Smoke-derived karrikins reveal a new pathway for plant development ARC Discovery Project DP160102888 (2016-2019: ARC funds \$516,300). Administering organisation: The University of Western Australia. Collaborative Partners: Botanic Gardens and Parks Authority, University Pablo de Olavide.

- Wicked Problems: Optimising Fire Management for a Resilient Future. ARC Linkage Project LP160100996 (2016-2020: ARC funds \$455,000). Administering organisation: Murdoch University. Collaborative Partners: Botanic Gardens and Parks Authority and Department of Parks and Wildlife.
- Eco-engineering solutions to improve mine-site rehabilitation outcomes. Australian Department of Industry, Innovation and Science's Global Innovation Linkages Program (2017-2021, GIL funds \$974,652). Administering organisation: Botanic Gardens and Parks Authority. Collaborative partners: University of Western Australia, BHP Billiton Iron Ore, Rio Tinto Iron Ore, Greening Australia, Brigham Young University, University of Nevada, Natural Resource Conservation.
- Advanced cryobanking for recalcitrant-seeded Australian rainforest plants. ARC Linkage Project LP160101496 (2017-2021: ARC funds \$592,514). Administering organisation: Curtin University of Technology. Collaborative Partners: Botanic Gardens and Parks Authority and The Royal Botanic Gardens and Domain Trust. Participating Organisations: RMIT University, University of Western Australia, Australian Nuclear Science and Technology Organisation, United States Department of Agriculture, University of South Dakota.
- Seagrass adaptation and acclimation responses to extreme climatic events. ARC Discovery Project DP180100668 (2018-2020: ARC funds \$525,413). Administering organisation: University of Western Australia. Collaborative Partners: Botanic Gardens and Parks Authority, Australian Genome Research Facility. Participating organisations: University of Adelaide.
- Innovative seed technologies for restoration in a biodiversity hotspot. ARC Linkage Project LP170100075 (2019 -2022: ARC funds \$675,400). Administering organisation: University of Western Australia. Collaborative Partners: Botanic Gardens and Parks Authority, Hanson Construction Materials, Bentonite Products WA. Participating organisations: Brigham Young University (USA).

Research Scientists and Students

Externally Funded Research Scientists

Dr Janet Anthony is the genetics laboratory manager. She also undertakes short-term projects and assists with projects such as the genetic guidelines for the effective ecological restoration of seagrass meadows project.

Dr Matthew Barrett completed research on a four-year ARC funded project defining biologically significant units in spinifex (*Triodia* spp.) for improved ecological restoration in arid Australia (collaborative project with UWA). He also undertook short-term projects in the Kimberley, Pilbara and across tropical Northern Australia and completed a BushBlitz strategic taxonomy grant on a taxonomic revision of the Scarlet Bracket Fungus, Pycnoporus spp.

Dr Russell Barrett (ANGB Research Associate) has continued his association with Kings Park Science through publishing papers from research previously based from Kings Park.

Christine Best (UWA) completed her work with the Restoration Seed Bank project as a research associate working on seed technologies for restoration.

Dr Kerryn Chia completed her Australian Flora Foundation project investigating dormancy and germination of *Persoonia* species.

Dr Belinda Davis returned to Kings Park to commence a project in the ex-situ conservation and translocation of threatened orchid species.

Dr Carole Elliott undertook research funded by Mineral Resources Ltd on the ecology and translocation requirements of the threatened species, *Tetratheca erubescens* and *Ricinocarpos brevis*.

Dr Emma Dalziell (Curtin) continued research on an ARC funded project quantifying patterns of metabolic rate in Australian native seeds to improve understanding of seeds in natural and artificial seed banks.

Dr Todd Erickson (UWA) continued as a Project Manager with the Restoration Seed Bank Project, funded by BHP Billiton Iron Ore, and continued management of the four-year GIL eco-engineering project based at BGPA.

Arielle Fontaine continued research support into restoration of mine sites across Western Australia.

Dr Bryn Funnekotter (Curtin) continued a post-doctoral Research Fellow position on a four-year ARC funded project aimed at developing cryobanking for Australian Rainforest plant species.

Dr Peter Golos (UWA) continued research into restoration of mine sites in the Great Sandy Desert, and threatened communities on banded iron formations at Sinosteel Mid-West's mine sites, in particular relating to the plant-soil interaction.

Dr Wolfgang Lewandrowski undertook research funded by Mineral Resources Ltd on the seed biology, physiology and translocation requirements of the threatened species, *Tetratheca erubescens*. He also conducted ecophysiological trials addressing pasture establishment on reconstructed profiles on South32's Boddington bauxite mine.

Dr Miriam Muñoz Rojas (UWA) continued as a Research Assistant Professor with the Restoration Seed Bank Project undertaking research in the area of soil science.

Dr Ryan Phillips (Latrobe University) continued his association with BGPA on a range of orchid conservation, pollination and evolution projects.

Dr Alison Ritchie (UWA) continued ARC-funded project on innovative seed technologies for restoration in a biodiversity hotspot.

Dr Elizabeth Sinclair (UWA) continued on the ARC-funded project on ecological restoration and climate change resilience of seagrass meadows.

David Symons continued as a research assistant with *Aluta quadrada* funded by Rio Tinto.



Dr Sean Tomlinson (Curtin) continued his association with Kings Park science researching rare and threatened species impacted by mining, as part of an Australian Research Council Centre for Mine Site Restoration.

Dr Shane Turner completed his work with the Restoration Seed Bank program investigating the seed biology of native species for mine site rehabilitation. He has now started a new project working on the development of in-vitro propagation techniques for the threatened species *Banksia ionthocarpa ssp. chrysophoenix*.

Students

Sadichhya Adhikari (UWA) commenced her PhD on 'Seed sourcing for ecological restoration for current and future climates'.

Nate Anderson (MU) commenced his student placement investigating hydrothermal germination responses in Banksia arborea seeds from banded ironstone ranges in the Coolgardie bioregion.

Kim Ang (Curtin) completed an Honours degree investigating cryostorage of native orchid seeds.

Erica Arora (UWA) continues her PhD researching implications for wind management in restoration ecology, linking ecosystem aerodynamics to physiological drivers in arid and semi-arid systems.

Bronwyn Ayre (UWA) continues her PhD project 'The consequences of pollination by birds for mating in kangaroo paws (*Anigozanthos*)'.

Amber Bateman (UWA) continues her PhD investigating arid zone soil health and functionality in mine site restoration.

Bianca Berto (UWA) has completed her Honours research project titled 'Seed enhancement technologies applied in combination improves germination and handling in two Australian native grasses'.

Nicole Bezemer (UWA) continues her PhD project on the ecological and evolutionary consequences for plants pollinated by vertebrates.

Mitchell Booth (UWA) commenced a PhD investigating gene expression response to environmental stressors in seagrass.

Aaron Brace (ECU) commenced a PhD examining interactions between Banksia woodlands fungal communities and fire and weed management history.

Vanessa Brown (UWA) commenced a PhD investigating the role of seed pellets in improving plant establishment.

Melissa Chua (UWA) completed her Honours research project titled 'The role of biocrust cyanobacteria on seedling emergence in soil substrates used in ecosystem restoration'.

Hamish Clark (Curtin) completed his Honours studying biochemical and biophysical study of the effects of seed maturity on cell membrane composition, cryotolerance and cryosensitivity.

Ebony Cowan (Murdoch) commenced a PhD studying the development of resilience to fire of vegetation restored after mining.

Jane Edgeloe (UWA) commenced a Masters in population genomics of *Posidonia* seagrass in Shark Bay.

Ankje Frouws (ECU) continues a PhD on spatial and temporal patterns in genetic diversity in seagrass meadows and the implications of these patterns for resilience.

Lyndle Hardstaff (Curtin) continues a PhD on the conservation of Australian rainforest plant species utilising cryopreservation. Lyndle has nearly completed her training in cryostorage techniques at Kings Park Science and will soon commence studies on rainforest species at Mt Annan Botanic Gardens.

Michael Just (Curtin) commenced his PhD studying the seed biology of species of Rutaceae to inform restoration practice.

Joshua Kestel (UWA) completed his Honours degree on the genetic consequences of bird pollination of catspaws.

Olga Kildisheva (UWA) completed her PhD 'Improving the outcomes of seed-based restoration in cold and warm deserts: an investigation into seed dormancy, germination and seed enhancement.'

Milana Lukic (UWA) commenced her PhD candidature in June 2019 on developing molecular methods in cryopreservation.

Elvan Ling (UWA) commenced his Masters research project titled 'Advancing the flash flaming technique to improve large-scale restoration seeding efforts'.

Christine Lison (Curtin) continues her MSc research entitled 'Maximisation of Topsoil in Restoration of Semi-arid Lands'

Monte Masarei (UWA) continues his PhD, studying the design and engineering of mechanised seeding equipment to facilitate large-scale restoration.

Russell Miller (Murdoch) continues his PhD project 'The impact of a changing climate, fire management, herbivory and weed abundance on the tolerable fire intervals of native *Banksia* woodland species'.

Thomas Munro (CSU) commenced an Honours degree on effects of seed enhancement technologies on early life-stages of seedlings post-mining.

Bahram Mirfakhraei (UWA) continues his PhD project 'A genecological assessment of seed sourcing for ecological restoration under current and future climates'.

Alaa Shallal Nayyef (Curtin) completed her PhD project 'Conservation of arid plants through improved understanding of seed biology as a means of enhancing the functionality of botanic gardens'.

Harrison Palmer (Curtin) continues his PhD investigating the application of respirometry to seeds to predict seed longevity and quantify seed viability during storage.

Simone Pedrini (Curtin) completed his PhD project researching optimum coatings for native seed to enhance germination at restoration sites.

Sophie Querido (Curtin) continues her PhD studying the mechanisms and requirements governing the establishment and persistence of *Tetratheca* species.

Travis Rasmussen (Murdoch) commenced and completed his work-placement with Kings Park Science under the Fire Science project and *Tetratheca erubescens* translocation project.

Subhashi Rajapakshe (Curtin) continues her MSc thesis "Understanding the seed ecology of short-range endemics for improved restoration outcomes".

Jaume Ruscalleda (UWA) continues his PhD research into nearsurface remote sensing of plant condition in mine site restoration environments.

Daniela Scaccabarozzi (Curtin and the University of Naples Federico II, Italy) continues her PhD investigating pollination diversification in Australian donkey orchids, and potential mimicry with native peas.

Laura Skates (UWA) continues her PhD project investigating 'The ecological dependency of WA's carnivorous plants on insect prey through the use of isotopic discrimination'.

Anthony Smit (Curtin) completed his Honours entitled 'Movement ecology and habitat preferences of a reintroduced population of bandicoots in a large urban reserve'.

Emma Stock (Murdoch) has completed her Masters research project titled 'Experimenting with modified extruded seed pellets for large-scale mine rehabilitation'.

Robyn Streczynski (Curtin) completed an Honours degree on oxidative damage to cell membranes during cryopreservation.

Siobhan Sullivan (UWA) continues her PhD investigating plant physiological responses to substrate treatments in post-mining environments.

Lauren Svejcar (Murdoch) continues her PhD study on the role of positive plant interactions in *Banksia* woodland restoration.

Ryan Tangney (Curtin) completed his PhD research project 'Variation of season and fire intensity leads to different seed fates in *Banksia* woodlands'.



Will Thomas (UWA) completed an Honours degree on genetic diversity and mating system of the DRF *Styphelia longissima*.

Emily Tudor (Curtin) commenced her Honours entitled 'Landscape ecology and ecological energetics of insect pollination in the restoration of forest ecosystems' in partnership with Alcoa of Australia.

Lily Whelehan (Curtin) completed an Honours degree on the importance of mitochondrial function in cryopreservation and recovery and commenced a PhD studying mitochondrial function prior to and after cryopreservation.

Susan Whiteley (UWA) completed her PhD investigating the ex-situ conservation of the declared rare flora *Androcalva perlaria*.

Wei San Wong (UWA) continues her PhD understanding how soil-microbial-plant signals effects plant performance in mine site restoration.

Summer Scholarships

These competitive scholarships, supported by the Friends of Kings Park, provide a bridge between undergraduate and postgraduate study at Kings Park. The following nine students were given a 12-week placement in summer 2018-19: Kim Ang, Ebony Cowan, Luisa Ducki, Jane Edgeloe, Lei Hou, Suzanne Lapensee, Thomas Munro, Jason Paterson, Lily Whelehan.



Department of Biodiversity, Conservation and Attractions

